UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

	FORM 20-F
(Ma □	rk One) REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) or (g) OF THE SECURITIES EXCHANGE ACT OF 1934
	OR
\boxtimes	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the fiscal year ended December 31, 2022
	OR
	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	OR
	SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	Date of event requiring this shell company report
	For the transition period from to
	Commission file number 001-36891
	CELLECTIS S.A.
	(Exact name of Registrant as specified in its charter)
	(Translation of Registrant's name into English)
	France (Jurisdiction of incorporation or organization)

Cellectis S.A.
8, rue de la Croix Jarry
75013 Paris, France
(Address of principal executive office)

Marie-Bleuenn Terrier General Counsel

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Tel: +33 (0)1 81 69 16 00, Fax: +33 (0)1 81 69 16 06 (Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered pursuant to Section 12(b) of the Act.

Title of each class

American Depositary Shares, each representing one
American Depository Shares, each representing one
Ordinary shares, nominal value €0.05 per share*

Trading Symbol "CLLS"

Name of each exchange on which registered
Nasdaq Global Market

Nasdaq Global Market*

* Not for trading, but only in connection with the registration of the American Depositary Shares.

Securities registered pursuant to Section 12(g) of the Act.

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

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Indicate the number of outstanding shares of common stock as of the close of the period covered by the annual report.

Ordinary shares, nominal value 0.05 per share: 45,675,968 as of December 31, 2022

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Indicate by check mark if the registrant is a well-known seaso	oned issuer, as defined in Rule 405 of the Securities Act. Yes] No ⊠			
If this report is an annual or transition report, indicate by check mark, if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes \square No \boxtimes					
Note – Checking the box above will not relieve any registrant 1934 from their obligations under those Sections.	t required to file reports pursuant to Section 13 or 15(d) of the Sec	curities Exchange Act of			
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes \boxtimes No \square					
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes 🗵 No 🗆					
	erated filer, accelerated filer, a non-accelerated filer, or an emergi "emerging growth company" in Rule 12b-2 of the Exchange Act.				
Large accelerated filer □	Accelerate	ed filer ⊠			
Non-accelerated file \Box	Emerging	Growth Company			
If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. \Box					
† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.					
	ort on and attestation to its management's assessment of the effect Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public a				
If securities are registered pursuant to Section 12(b) of the Ad filing reflect the correction of an error to previously issued fit	ct, indicate by check mark whether the financial statements of the nancial statements $\ \square$	registrant included on the			
Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to $\$240.10D-1(b)$. \square					
Indicate by check mark which basis of accounting the registra	ant has used to prepare the financial statements included in this fil	ling:			
U.S. GAAP □	International Financial Reporting Standards as issued by the International Accounting Standards Board $\ oxdot$	Other			
If "Other" has been checked in response to the previous quest follow: Item 17 $\ \Box$ Item 18 $\ \Box$	tion, indicate by check mark which financial statement item the re	egistrant has elected to			
If this is an annual report, indicate by check mark whether the Act). Yes \square No \boxtimes	e registrant is a shell company (as defined in Rule 12b-2 of the Ex	xchange			
(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANK	KRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS	S)			
Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes No					

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INTRODUCTION

Unless otherwise indicated or the context otherwise requires, references in this Annual Report on Form 20-F for the year ended December 31, 2022 (the "Annual Report") to, "Cellectis," the "Company," "we," "us" and "our" refer to Cellectis S.A. and its consolidated subsidiaries. References to "Calyxt" refer to Calyxt, Inc. in which we hold 49.1% (as of December 31, 2022) of all outstanding common stock. The Plants segment, which is carried out through Calyxt, is presented in this Annual Report as a discontinued operation in accordance with IFRS 5 (see Note 4 to the audited consolidated financial statements included herein).

We own various trademark registrations and applications, and unregistered trademarks and service marks, including Cellectis®, TALEN® and our corporate logos, and all such trademarks and service marks appearing in this Annual Report are the property of Cellectis. Calyxt owns the names PlantSpring and BioFactory as well as trademarks Calyxt® and Calyno® and owns or licenses other trademarks, trade names and service marks appearing in this Annual Report. All other trade names, trademarks and service marks of other companies appearing in this Annual Report are the property of their respective holders. Solely for convenience, the trademarks and trade names in this Annual Report may be referred to without the ® and ™ symbols, but such references, or the failure of such symbols to appear, should not be construed as any indication that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend to use or display other companies' trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Our audited consolidated financial statements have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB. Our consolidated financial statements are presented in U.S. dollars.

All references in this Annual Report to "\$," "U.S. dollars" and "dollars" mean U.S. dollars and all references to "€" and "euros" mean euros. Throughout this Annual Report, references to ADSs mean American Depository Shares or ordinary shares represented by ADSs, as the case may be.

Note Regarding Use of Non-IFRS Financial Measures

Cellectis presents Adjusted Net Income (Loss) attributable to shareholders of Cellectis in this Annual Report. Adjusted Net Income (Loss) attributable to shareholders of Cellectis is not a measure calculated in accordance with IFRS. We have included in this Annual Report a reconciliation of this figure to Net Income (Loss) attributable to shareholders of Cellectis, the most directly comparable financial measure calculated in accordance with IFRS. Because Adjusted Net Income (Loss) attributable to shareholders of Cellectis excludes Non-cash stock-based compensation expense—a non-cash expense, we believe that this financial measure, when considered together with our IFRS financial statements, can enhance an overall understanding of Cellectis' financial performance. Moreover, our management views the Company's operations, and manages its business, based, in part, on this financial measure. In particular, we believe that the elimination of Non-cash stock-based expenses from Net Income (Loss) attributable to shareholders of Cellectis can provide a useful measure for period-to-period comparisons of our core businesses. Our use of Adjusted Net Income (Loss) attributable to shareholders of Cellectis has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under IFRS. Some of these limitations are: (a) other companies, including companies in our industries which have similar stock-based compensations, may address the impact of Non-cash stock-based compensation expense differently; and (b) other companies may report Adjusted Net Income (Loss) attributable to shareholders of Cellectis alongside our other IFRS financial results, including Net Income (Loss) attributable to shareholders of Cellectis alongside our other IFRS financial results, including Net Income (Loss) attributable to shareholders of Cellectis.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report contains "forward-looking statements" within the meaning of applicable federal securities laws, including the Private Securities Litigation Reform Act of 1995. All statements other than present and historical facts and conditions contained in this Annual Report, including statements regarding our future results of operations and financial position, business strategy, plans and our objectives for future operations, are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties and are made in light of information currently available to us. Many important factors, in addition to the factors described in this Annual Report, may adversely affect such forward-looking statements. When used in this Annual Report, the words "anticipate," "believe," "can," "could," "estimate," "expect," "intend," "is designed to," "may," "might," "plan," "potential," "predict," "objective," "should," or the negative of these and similar expressions identify forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the implementation of our strategic plans for our business, product candidates and technology;
- the initiation, timing, progress and results of our research and development programs and our pre-clinical and clinical studies;
- · our ability to advance product candidates into, and successfully complete, clinical studies;
- our manufacturing capabilities and operations at our in-house manufacturing facilities;
- the commercialization of our product candidates, if approved;
- the timing of regulatory filings and the likelihood of favorable regulatory outcomes and approvals;
- regulatory developments in the United States and foreign countries;
- the pricing and reimbursement of our product candidates, if approved;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;
- our ability to contract on commercially reasonable terms with contract research organizations, or CROs, third-party suppliers of biological raw or starting materials and manufacturers;
- the ability of third parties with whom we contract to successfully conduct, supervise and monitor clinical studies for our therapeutic product candidates;
- estimates of our expenses, future revenues, capital requirements and our needs for additional financing;
- our ability to obtain additional funding for operations;
- the potential benefits of our strategic licensing agreements and our ability to enter into future strategic arrangements;
- the ability and willingness of strategic licensees to actively pursue development activities under our strategic licensing agreements;
- our receipt of milestone or royalty payments pursuant to our strategic licensing agreements with Allogene Therapeutics, Inc. ("Allogene") and Les Laboratoires Servier ("Servier");
- our ability to maintain and establish collaborations or obtain additional grant funding;
- the rate and degree of market acceptance of, and demand for, our product candidates;
- our status as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes;
- the financial performance and cash runway for our Therapeutics business;
- our ability to attract and retain key scientific and management personnel;
- our expectations regarding the period during which we qualify as a foreign private issuer, or FPI;
- developments relating to our competitors and our industry, including competing therapies and technologies;
- statements about Calyxt's proposed merger transaction with Cibus Global LLC, or Cibus, the consummation of such transaction, and the impact of such transaction on Cellectis;
- statements about Calyxt's capital resources and liquidity, including its cash runway, and its ability to continue as a going concern;

- Calyxt's product pipeline and development; Calyxt's business model and strategies for the development, commercialization and sales of its
 commercial products; commercial demand for Calyxt's synthetic biology solutions; the development and deployment of Calyxt's
 PlantSpring technology platform; the ability to scale production capability for Calyxt's BioFactory production system; potential
 development agreements, partnerships, customer relationships, and licensing arrangements and their contribution to Calyxt's financial
 results, cash usage, and growth strategies;
- developments relating to our competitors and our industry, including competing therapies and technologies; and
- · the potential impact of the COVID-19 pandemic on our business and operating results; and anticipated trends in our business.

You should refer to the section of this Annual Report titled "Risk Factors" for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Annual Report will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. We qualify all of our forward-looking statements by these cautionary statements.

Market Data

This Annual Report contains market data and industry forecasts that were obtained from various industry publications. In presenting this information, we have also made assumptions based on such data and other similar sources, and on our knowledge of, and our experience to date in, the biotechnology industry. Market data and industry forecasts involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe the market position, market opportunity and market size information included in this Annual Report is generally reliable, such information is inherently imprecise. Various risks, including those described in the section of this Annual Report entitled "Risk Factors," could cause results to differ materially from those expressed in the estimates made by us and independent parties.

Website Disclosure

We use our website (www.cellectis.com) and our corporate Twitter account (@cellectis) and our corporate LinkedIn account (https://www.linkedin.com/company/cellectis) as routine channels of distribution of company information, including press releases, analyst presentations, and supplemental financial information, as a means of disclosing otherwise material non-public information and for complying with our disclosure obligations. Accordingly, investors should monitor these corporate websites and corporate Twitter and LinkedIn accounts in addition to following press releases, filings with the SEC, and public conference calls and webcasts. Additionally, we provide notifications of announcements as part of our website. Investors and others can receive notifications of new press releases posted on our website by signing up for email alerts.

None of the information provided on these websites, in our press releases or public conference calls and webcasts or through social media is incorporated into, or deemed to be a part of, this Annual Report or in any other report or document we file with the SEC, and any references to such websites or corporate Twitter accounts are intended to be inactive textual references only.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. [Reserved]

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Our business and our industry are subject to significant risks. You should carefully consider all of the information set forth in this Annual Report, including the following risk factors. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. Additional risks not currently known to us or that we currently deem immaterial may also affect our business operations. Additional risks not currently known to us or that we currently deem immaterial may also affect our business operations.

Summary of Risk Factors Associated with Our Business

Our business and our industry are subject to numerous risks described in "Risk Factors" and elsewhere in this Annual Report. You should carefully consider these risks before making a decision to invest in our securities. Key risks include, but are not limited to, the following:

Risks Related to Our Therapeutics Business:

- Our operating history, which has focused primarily on research and development and advancing immunotherapy gene-editing clinical trials, makes it difficult to assess our future prospects.
- We have not generated significant revenues and have incurred significant operating losses since our inception. While the amount of our future net losses will depend, in part, on the amount of our future operating expenses and our ability to obtain funding, realize payments under our strategic licensing arrangements, and obtain reimbursements of research tax credit claims, we anticipate that we will continue to incur significant losses for the foreseeable future.
- We face substantial competition in our discovery, development and commercialization activities from competitors who may have significantly greater resources than we do.

Because our product candidates all apply novel gene-editing technology, we are heavily dependent on the successful development of this technology.

• We may need to raise additional funding, which may not be available on acceptable terms or at all, and our ability to raise additional share capital is limited by French corporate law.

Risks Related to the Discovery, Development and Commercialization of Our Therapeutic Product Candidates:

- Our product candidates must undergo clinical trials that are time-consuming and expensive, the outcomes of which are unpredictable, and
 for which there is a high risk of failure, and which are susceptible under a variety of circumstances to additional costs, delays, suspensions
 and terminations
- Initial, interim and preliminary data from our clinical trials may change as more data becomes available, and subsequent data may not bear out promising early results.
- Because we anticipate that our product candidates may initially receive regulatory approval as treatments for advanced disease or rare diseases, the size of the initial market for our product candidates may be limited.
- Our manufacturing process, which is highly complex and heavily regulated, may be difficult to efficiently and effectively operate and scale to the level required for advanced clinical trials or commercialization.
- Our manufacturing facilities may not obtain or maintain the required regulatory authorizations to supply commercial products.
- Acceptance and adoption of gene-editing and enrollment in our trials may be adversely affected by undesirable side effects, negative
 perceptions among the public or the medical community, or the inadequacy of payor coverage.
- Our future profitability depends, in part, on our ability to penetrate global markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Risks Related to Our Reliance on Third Parties:

- We rely on third parties for certain aspects of our discovery, development, manufacturing and commercialization, if any, of our product candidates and issues relating to such third parties, or their activities, which could result in additional costs and delays and hinder our research, development and commercialization prospects.
- Strategic license relationships may not be successful, including as a result of failures by our strategic licensees to perform satisfactorily or to devote resources to advance product candidates under our arrangements with them.
- Servier's discontinuation of its involvement in the development of CD19 Products and related disagreements may adversely affect our financial results.
- We rely on a third party for the supply of alemtuzumab that is used in certain of our clinical trials as part of the lymphodepletion regimen, and issues relating to such third party may impact the clinical development and commercialization of our products.

Risks Related to Operational Compliance and Risk Management:

 We may encounter difficulties in managing our development and expansion, including challenges associated with recruiting additional employees, managing our internal development efforts and improving our operational, financial and management controls.

- The risk of product liability claims is inherent in the development and commercialization of therapeutic products, and product liability or
 other lawsuits could divert management and financial resources, result in substantial liabilities and reduce the commercial potential of our
 product candidates.
- The buy-out mechanism in our collaboration agreement with Servier may prevent or delay a takeover attempt.

Risks Related to Regulatory Approvals for Our Product Candidates:

- Our business is governed by a rigorous, complex and evolving regulatory framework, including premarketing regulatory requirements, pricing, reimbursement and cost-containment regulations, and rigorous ongoing regulation of approved products. This regulatory framework results in significant compliance costs, makes the development and approval of our product candidates time intensive and unpredictable, and may reduce the ultimate economic value and prospects for our product candidates.
- A Fast Track, Breakthrough Therapy or Regenerative Medicine Advanced Therapy designation by the U.S. Food and Drug Administration, or FDA, or a Priority Medicines designation by the European Medicines Agency, or EMA, may not lead to a faster development or regulatory review or approval process, and does not increase the likelihood that our product candidates will receive regulatory approval.
- Any regulatory compliance failures could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Risks Related to Intellectual Property.

- Because our commercial success depends, in part, on obtaining and maintaining proprietary rights to our and our licensors' intellectual
 property, our ability to compete may decline if we fail to obtain protection for our products, product candidates, processes and technologies
 or do not adequately protect our intellectual property.
- Our competitive position may be adversely impacted as a result of a variety of factors, including potentially adverse determinations of
 complex legal and factual questions involved in patents and patent applications or insufficiently long patent lifespans in one or more
 jurisdictions where we obtain intellectual property protection.
- Because it is cost prohibitive to seek intellectual property protection on a global basis, our intellectual property protection in certain jurisdictions many not be as robust as in the United States, which may adversely impact our competitive position.
- · Third parties may assert rights to inventions we develop or otherwise regard as our own.
- A dispute concerning the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be time consuming and costly, and an unfavorable outcome could harm our business.

Risks Related to Human Capital.

• Our business could be harmed if we lose key management personnel or cannot attract and retain other qualified personnel.

Risks Relating to Our Status as a Foreign Private Issuer and a French Company:

- The rights of shareholders in companies subject to French corporate law differ in material respects from the rights of shareholders of corporations incorporated in the United States.
- Our By-laws and French corporate law contain provisions that may delay or discourage a takeover attempt.
- Our international operations may be exposed to foreign exchange risks, U.S. federal income tax risks, and additional risks, which may
 adversely affect our financial condition, results of operations and cash flows.
- If we are classified as a PFIC for 2022 or any future taxable year, there may be adverse U.S. federal income tax consequences to U.S. holders.
- As a foreign private issuer, we are exempt from a number of rules under the U.S. securities laws and the Nasdaq's corporate governance standards. We expect to follow certain home country practices in relation to certain corporate governance matters, which may afford less protection than would be provided if we complied fully with the Nasdaq requirements.

Risks Related to Ownership of Our ADSs:

- Holders of our ADSs do not directly hold our ordinary shares and may be subject to limitations on the transfer of their ADSs and certain
 voting and withdrawal rights of the underlying ordinary shares as well as limitations on their ability to exercise preferential subscription
 rights or receive share dividends.
- Share ownership is concentrated in the hands of our principal shareholders and management, who will continue to be able to exercise substantial influence.

Risks Related to Our Therapeutics Business

As a clinical-stage biopharmaceutical company, we have incurred net losses in every period since our inception and anticipate that we will incur substantial net losses in the future.

We are a clinical-stage biopharmaceutical company and devote most of our financial resources to research and development relating to our CAR T-cell immunotherapy product candidates and the advancement of our clinical trials. Investment in biopharmaceutical product development is highly speculative because it entails both substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, to gain required regulatory approvals or to become commercially viable. Our most advanced product candidates remain in clinical development. We have no products approved for commercial sale and have not generated any revenue from product sales to date. We will continue to incur significant research and development and other expenses related to our ongoing clinical trials and operations. As a result, we are not profitable and have incurred net losses in each period since our inception. For the year ended December 31, 2022, we reported a net loss of \$98.7 million for the therapeutic segment, received \$15.8 million in cash payments pursuant to our strategic licensing agreements, and our research and development expenses were \$97.5 million. As of December 31, 2022, we had an accumulated deficit (excluding Calyxt) attributable to the shareholders of Cellectis of \$396.7 million.

Notwithstanding our ongoing clinical trials, it will be several years, if ever, before we obtain regulatory approval for, and are ready for commercialization of, a biopharmaceutical product. Even if we or our strategic licensees successfully commence and complete clinical trials and obtain regulatory approval to market a product, any future revenues will depend upon the size of any markets in which the products are approved for sale as well as the market share captured by such products, market acceptance of such products and levels of reimbursement from third-party payors.

We expect to continue to incur significant expenses and operating losses for the foreseeable future. The net losses we incur may fluctuate significantly from year to year and quarter to quarter. We expect our expenditures to increase as we conduct our clinical studies, file IND and/or foreign equivalent filings for additional product candidates, conduct research and development for product candidates, invest in deploying and scaling our manufacturing capabilities, seek regulatory and marketing approvals, and establish necessary infrastructure for the commercialization of any products for which we obtain marketing approval.

In addition, we have encountered, and may encounter in the future, unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. For example, we and our licensees have had clinical trials placed on hold by the FDA, which have had the effect of temporarily suspending these clinical programs until the resolution of the hold with the FDA. You should consider our business and prospects in light of the risks and difficulties we face as a clinical-stage biopharmaceutical company.

We face substantial competition from other biotechnology and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

The biopharmaceutical industry, and the immuno-oncology industry in particular, is characterized by intense competition and rapid innovation. Our competitors may be able to develop other compounds or drugs that are more effective, safer, more easily commercialized, or less costly than our product candidates. Further, competitors may develop proprietary technologies or secure patent protection that we may need for the development of our technologies and products.

We face competition from major multinational pharmaceutical companies, new and established biotechnology and specialty pharmaceutical companies, academic research institutions, government agencies and public and private research institutions. Many of our competitors have substantially greater financial, technical and other resources, such as larger research and development staff, greater expertise in large scale pharmaceutical manufacturing, and/or well-established marketing and sales teams. Smaller or early-stage companies may compete with us through collaborative arrangements with large, established companies. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors.

The success of other therapies developed by our competitors could impact our regulatory strategy and delay or prevent regulatory approval of our product candidates. Even if we obtain regulatory approval of our product candidates, the availability and price of our competitors' products may limit demand for, or the price that we are able to charge for, our product candidates. We may not be able to implement our business plan if the acceptance of our product candidates is inhibited by price competition or the reluctance of physicians to switch from existing methods of treatment to our product candidates, or if physicians switch to other new drug or biologic products or choose to reserve our product candidates for use in limited circumstances.

We are subject to various risks related to public health crises, including the COVID-19 pandemic, that could have material and adverse impacts on our business, financial condition, liquidity, and results of operations.

Any outbreaks of contagious diseases and other adverse public health developments could have a material and adverse impact on our business, financial condition, liquidity, and results of operations. As has occurred with the COVID-19 global pandemic, a regional epidemic or a global pandemic could cause disruptions to national and global economies and financial markets as well as raw materials supply chains, and could have a negative impact on our clinical trials, including with respect to patient recruitment. In the case of the COVID-19 pandemic, the most significant impact on our business were clinical trial delays resulting from patient enrollment disruptions, increased patient withdrawals from clinical trials, and tighter restrictions imposed on patients participating in clinical trials.

While we believe that global health systems and patients have largely adapted to the impacts of COVID-19, the advancement of our clinical trials relies on physician-administered product candidates and in-person patient follow-up, which could be adversely affected by the pandemic if it continues or worsens. The continued duration and severity of the COVID-19 pandemic is uncertain and difficult to predict. The degree to which COVID-19-related disruptions impact our business in 2023 will depend on future developments, beyond our knowledge or control. In addition, any future pandemic, epidemic or similar public health threat could present similar risks to our business, results of operations, financial condition and prospects.

We may need to raise additional funding, which may not be available on acceptable terms or at all. Failure to obtain necessary capital when needed may force us to delay, limit or terminate our product development efforts or other operations.

The process of developing and manufacturing CAR T-cell product candidates and conducting clinical studies is expensive, lengthy and risky. We are currently sponsoring four clinical studies, preparing regulatory filings to commence new clinical studies and/or to add additional investigational sites for ongoing studies, advancing pre-clinical testing for additional product candidates, and conducting manufacturing at our in-house manufacturing facilities. Accordingly, we expect our operational expenses to increase in connection with our ongoing activities. In addition, subject to obtaining regulatory approval of any biopharmaceutical product candidates, we expect to incur significant commercialization expenses. Further, our operating plans, including product development and commercialization plans, may change in light of changed circumstances or as a result of factors currently unknown to us, which may require us to seek additional funds sooner than planned.

As of December 31, 2022, Cellectis, excluding Calyxt, had cash and cash equivalents of \$89.8 million. Based on the current operating plan and financial projections, we believe our cash and cash equivalents, together with current financial assets, cash flow from operations (including payments we expect to receive pursuant to our strategic licensing agreements), government funding of research programs, and our borrowing of &35.0 million under Tranche A and B of the &40.0 million finance contract (the "Finance Contract") that we entered into with the European Investment Bank, or EIB, on December 28, 2022, will be sufficient to fund Cellectis' Therapeutics' operations into the third quarter of 2024.

Our ability to raise additional capital may be limited. If we raise additional capital through the sale of additional equity or convertible securities, current ownership interests may be diluted and the terms of these securities may include liquidation or other preferences that adversely affect stockholders' rights. For example, in connection with the Finance Contract, the Company has also agreed to enter into a warrant agreement with EIB with respect to the issuance of warrants to EIB in connection with, and as a condition to, the funding of each tranche under the Finance Contract. In addition, on January 4, 2023, Cellectis initiated an at-the-market equity offering program, under which the Company may offer and sell to eligible investors a maximum gross amount of up to \$60.0 million of ADSs, each ADS representing one ordinary share, from time to time following that date. Due to any future issuances of shares of our common stock, including pursuant to the warrants issuable to EIB, if any, or our ATM facility, our shareholders may experience immediate dilution and, as a result, our stock price may decline.

Debt financing, if available, would result in increased fixed payment obligations and a portion of our operating cash flows, if any, being dedicated to the payment of principal and interest on such indebtedness. In addition, debt financing may involve agreements that include restrictive covenants that impose operating restrictions, such as restrictions on the incurrence of additional debt, the making of certain capital expenditures or the declaration of dividends. For example, in connection with the Finance Contract, we agreed to certain negative undertakings, which include: restrictions on dispositions of assets by us and our subsidiaries, restrictions on changes to the general nature of our business, restrictions on us and our subsidiaries engaging in mergers and other restructuring transactions, restrictions on certain ownership changes with respect to subsidiaries, restrictions on us and our subsidiaries engaging in acquisitions or making investments, restrictions on us and our subsidiaries incurring

additional indebtedness or guarantees, restrictions on the making of intercompany loans, restrictions on us and our subsidiaries engaging in certain hedging or derivative transactions, restrictions on us and our subsidiaries making specified restricted payments including dividends and share repurchases, restrictions on us and our subsidiaries becoming creditors in respect of certain indebtedness, and restrictions on the incurrence of security over any of our or our subsidiaries' assets. To the extent we raise additional funds through arrangements with research and development partners or otherwise, we may be required to relinquish some of our technologies, product candidates or revenue streams, license our technologies or product candidates on unfavorable terms, or otherwise agree to terms unfavorable to us. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail, delay or discontinue one or more of our research and development programs or product candidate development programs, or the commercialization of any product candidate that may receive regulatory approval, which could materially affect our business, operating results and prospects.

Risks Related to the Discovery, Development and Commercialization of Our Therapeutic Product Candidates

Gene-editing remains relatively new technology, and if we are unable to use this technology in our intended applications, our revenue opportunities will be limited.

Our TALEN technology involves a relatively new approach to gene editing, using sequence-specific deoxyribonucleic acid (DNA)-cutting enzymes, or nucleases, to perform precise and stable modifications in the DNA of living-cells and organisms. Although we have generated nucleases for many specific gene sequences, we have not created nucleases for all gene sequences that we may seek to target, and we may have difficulty creating nucleases for certain gene sequences that we may seek to target, which could limit the usefulness of our technology. Our technology may also not be shown to be effective in clinical studies that we or licensees of our technology may conduct, or may be associated with safety issues that may negatively affect our development programs. For instance, gene-editing may create unintended changes to the DNA such as a non-target site gene-editing, a large deletion, or a DNA translocation, any of which could lead to oncogenesis. In the ALPHA2 trial being conducted by our strategic licensee, Allogene, Allogene observed a chromosomal abnormality, and the FDA placed Allogene's clinical trials on hold following this observation. While Allogene reported that its investigation concluded that gene editing was not responsible for the chromosomal abnormality and the hold was resolved, we or our licensees may discover future abnormalities caused by gene editing or other factors that would impact our development plans.

In addition, the field of gene-editing is rapidly developing. Our competitors may introduce new technologies that render our technology obsolete, uneconomical or less attractive. Similarly, our licensees may improve upon our technology in ways that makes our underlying technology, without such improvements, less attractive. New technology could emerge at any point in the development cycle of our product candidates. As competitors use or develop new technologies, any failures of such technology could adversely impact our programs. We also may be placed at a competitive disadvantage, and competitive pressures may force us to implement new technologies at a substantial cost. In addition, our competitors may have greater financial, technical and personnel resources that allow them to enjoy technological advantages and may in the future allow them to implement new technologies before we can. We cannot be certain that we will be able to implement technologies on a timely basis or at a cost that is acceptable to us. If we are unable to maintain technological advancements consistent with industry standards, our operations and financial condition may be adversely affected.

Our therapeutic product candidate development programs are in various phases of development and may be unsuccessful.

Our therapeutic product candidates are in various phases of development. At each stage of development, there is typically an extremely high rate of attrition from the failure of product candidates advancing to subsequent stages of development.

Because some of our product candidates are in the early stages of discovery or pre-clinical development, there can be no assurance that our research and development activities will result in these product candidates advancing into clinical development. Product candidates in these development phases undergo testing in animal studies, and the results from these animal studies may not be sufficiently compelling to warrant further advancement. Moreover, even if results from animal studies are positive, such results are not necessarily predictive of positive results in clinical studies. Even where product candidates do progress into and through clinical studies, these product candidates may fail to show the desired safety and efficacy in clinical development despite demonstrating positive preliminary clinical data and/or results in animal studies. Because of the early stages of our currently ongoing clinical studies, the safety, specificity and clinical benefits of our clinical-stage product candidates have not yet been demonstrated, and we cannot assure you that the results of any clinical trials will demonstrate the value and efficacy of our platform. The results of clinical studies are subject to a variety of factors, and there can be no assurance that any product candidate will advance to regulatory approval, be approved by applicable regulatory agencies, or be successfully commercialized.

Although there are a large number of drugs and biologics in development globally, only a very small percentage obtain regulatory approval, even fewer are approved for commercialization, and only a small number of these achieve widespread physician and consumer acceptance. Accordingly, despite expending significant resources in pursuit of their development, our product candidates may never achieve commercial success, and any time, effort and financial resources we expend on the product candidate development programs that we pursue may adversely affect our ability to develop and commercialize other product candidates.

Initial, interim and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we or our strategic licensee partners may publish initial, interim or preliminary data from clinical studies. Interim and preliminary data from clinical trials are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. For instance, while we and our strategic licensees have published preliminary data from on-going clinical studies, such data is preliminary in nature, does not bear statistical significance, and should not be viewed as predictive of the ultimate success of the respective clinical trials. Particular caution should be exercised when interpreting preliminary results and results relating to a small number of patients or individually presented case studies—such results should not be viewed as predictive of future results. It is possible that such results will not continue or may not be repeated in ongoing or future clinical trials for the same product candidates or in clinical trials for other allogeneic Chimeric Antigen Receptor T-cells ("UCART") product candidates.

Preliminary data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, initial, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between initial, preliminary or interim data and final data could significantly harm our business prospects.

We may encounter substantial delays in our clinical trials, or we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities.

Clinical trials are long, expensive and unpredictable processes that can be subject to extensive delays. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. It will take several years to complete the clinical development necessary to obtain adequate data to file for a marketing authorization or to commercialize a product candidate, and failure can occur at any stage.

Positive interim or preliminary results of clinical trials do not necessarily predict positive final results, and success in early clinical trials does not ensure that later clinical trials will be successful. Product candidates in later stages of clinical trials may still fail to show the desired safety and efficacy profile despite having successfully progressed through initial clinical trials. A number of pharmaceutical and biopharmaceutical companies have suffered significant setbacks—lack of efficacy, insufficient durability of efficacy or unacceptable safety issues (including a number of patient deaths in CAR-T trials conducted in the United States)—in advanced clinical trials, even after promising results in earlier trials. We cannot be certain that our product candidates will not face similar setbacks .

An unfavorable outcome in one or more of our or our strategic licensees' clinical trials would be a major setback for our product candidates and for us and may require us or our strategic licensees to delay, reduce or re-define the scope of, or eliminate one or more product candidate development programs, any of which could have a material adverse effect on our business, financial condition and prospects.

In addition, a number of events, including any of the following, could delay clinical trials, negatively impact the ability to obtain regulatory approval for, and to market and sell, a particular product candidate, or result in suspension or termination of a clinical trial: conditions imposed by the FDA or any foreign regulatory authority regarding the scope or design of clinical trials;

- delays in obtaining, or the inability to obtain, regulatory agency approval for the conduct of the clinical trials or required approvals from
 institutional review boards, or IRBs, or other reviewing entities at clinical sites selected for participation in our clinical trials;
- the identification of flaws in the design of a clinical trial;
- changes in regulatory requirements and guidance that necessitate amendments to clinical trial protocols;
- delays in sufficiently developing, characterizing or controlling manufacturing processes suitable for clinical trials;
- insufficient supply or deficient quality of the product candidates or other materials necessary to conduct the clinical trials;
- difficulty in sourcing healthy donor material of sufficient quality and in sufficient quantity to meet our development needs;
- lower-than-anticipated enrollment and retention rate of subjects in clinical trials for a variety of reasons, including size of patient population, site selection, nature of trial protocol, the availability of approved effective treatments for the relevant disease and competition from other clinical trial programs for similar indications and competition from approved products;

- delays in reaching agreement on acceptable terms with prospective contract research organizations (CROs) and clinical study sites and obtaining required institutional review board (IRB) approval at each clinical study site;
- the placing of a clinical hold on our strategic licensees' clinical trials—for example, clinical holds were placed on our AMELI-01 Study in September 2018 and on our MELANI-01 Study in July 2020 and on all of our strategic licensee Allogene's AlloCAR T clinical trials in October 2021 and remained in place until the FDA permitted these trials to restart in November 2018, November 2020 and January 2022, respectively;
- unfavorable interpretations by FDA or similar foreign regulatory authorities of interim data;
- determinations by the FDA or similar foreign regulatory authorities that a clinical trial protocol is deficient in design to meet its stated objectives;
- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;
- serious safety issues, including drug-related side effects experienced by patients in clinical trials—for example, following a patient death related to cytokine release syndrome, or CRS, patient recruitment for our AMELI-01 Study was paused, in accordance with its protocol, pending the implementation of a modified protocol treatment strategy, which commenced in December 2022;
- · failure of our or our strategic licensees' third-party contractors to meet their contractual obligations in a timely manner; or
- lack of, or failure to, demonstrate efficacy of our products candidate.

Our product candidates are based on a novel technology, which makes it difficult to predict the time and cost of product candidate development and obtaining regulatory approval.

We have concentrated our research, development and manufacturing efforts on our gene-edited CAR T-cell immunotherapy product candidates, and our future success depends on the successful development of this therapeutic approach. We are in the early stages of developing our UCART platform, and we have experienced significant development challenges, including with prior clinical holds by the FDA. There can be no assurance that any development problems we experience in the future will not cause significant delays or unanticipated costs, or that such development problems can be overcome. We may also experience delays in fully or effectively deploying a sustainable, reproducible and scalable manufacturing process at our new manufacturing facilities, which may prevent us from completing our clinical studies or commercializing our products on a timely or profitable basis, if at all. Our expectations with regard to the scalability and cost of manufacturing may change significantly as we further progress the development of our product candidates.

In addition, the clinical study requirements of the U.S. Food and Drug Administration (the "FDA"), the European Medicines Agency (the "EMA") and other regulatory agencies and the criteria these regulators use to determine the safety and efficacy of a product candidate are determined according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for novel product candidates such as ours can be more complex and consequently more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates. In addition, we may experience additional regulatory challenges with respect to clinical trials in which patients receive a lymphodepletion regimen. For example, regulatory authorities may require us to demonstrate the safety of such a lymphodepletion regimen as well as its contribution to the overall benefit to risk ratio, which could require that we collect additional clinical data.

Approvals by the European Commission, on the basis of the opinion issued by the EMA, and FDA for existing autologous CAR T-cell therapies may not be indicative of what these regulators may require for approval of our therapies. Also, while we expect reduced variability in our products candidates compared to autologous products, we do not have significant clinical data supporting any benefit of lower variability and the use of healthy donor material may create separate variability challenges for us. More generally, approvals by any regulatory agency may not be indicative of what any other regulatory agency may require for approval or what such regulatory agencies may require for approval in connection with new product candidates.

Our business is highly dependent on the success of our lead product candidates, and we cannot be certain that we will be able to obtain regulatory approval for, or successfully commercialize, these product candidates.

Our business and future success depends on our ability to successfully develop, obtain regulatory approval for, and successfully commercialize our most advanced product candidates, UCART123, UCART22 and UCARTCS1, as well as the ability of our strategic licensees to advance the product candidates that they are developing pursuant to licenses from us. Because our lead product candidates, and UCART product candidates of our strategic licensees, are among the first allogeneic products to be clinically evaluated, the failure of any such product candidate, or the failure of other allogeneic T cell therapies, may impede our ability to develop our product candidates, and significantly influence physicians' and regulators' opinions in regards to the viability of our entire pipeline of allogeneic T cell therapies. If significant events, such as significant GvHD or chromosomal abnormality events, are observed with the administration of our or our licensees' product candidates, or if any of the product candidates is viewed as less safe or effective than autologous therapies, our ability to develop other allogeneic therapies may be significantly harmed. For example, all of the clinical trials of our strategic licensee, Allogene, were put on clinical hold due to an observation in Allogene's ALPHA2 trial. While that clinical hold has been resolved, we could be subject to clinical holds in the future due to any similar unexpected observations or as a result of adverse patient outcomes or other issues.

Our therapeutic product candidates will require substantial additional clinical and non-clinical development, testing, and regulatory review and approval in multiple jurisdictions, substantial investment, implementation and scaling of our commercial manufacturing capabilities, and significant marketing efforts before we can generate any revenue from product sales. Before obtaining regulatory approvals for the commercial sale of any product candidate, we must demonstrate, with substantial evidence gathered in well-controlled clinical trials and to the satisfaction regulatory authorities (including the FDA in the United States and the EMA in the EU) that the product candidate is safe and effective for use in each target indication. Following this extensive regulatory process, the manufacturing and marketing of our product candidates will be subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to pursue commercialization.

Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. The process can take many years and may include post-marketing studies and surveillance, which will require the expenditure of substantial resources beyond our existing cash on hand. There can be no assurance that any of our product candidates will successfully complete the foregoing regulatory approval processes. We do not expect any of the product candidates we or our strategic licensees develop to be commercially available for many years and some or all may never become commercially available.

The size of the initial market for our product candidates may be limited.

We expect that, if approved, several of the product candidates we develop will initially receive regulatory approval as treatment for advanced disease or rare diseases with few other treatment options. This could limit the initial size of the market for these product candidates, and we cannot predict when, if ever, such product candidates would receive regulatory approval for indications treating a more expansive patient population.

Any issues that arise in the highly complex manufacturing process for our product candidates could have an adverse effect on our business, financial position or prospects.

Our CAR T-cell immunotherapy products undergo a complex, highly-regulated manufacturing process. The process is subject to strict controls and procedures to ensure no more than very minimal batch-to-batch variability. As a result, our manufacturing process is subject to multiple risks, and the cost to manufacture our products is generally higher than traditional small molecule chemical compounds. The complexity of our manufacturing process makes it susceptible to product loss or failure due to issues associated with the collection of T-cells from healthy donors, manufacturing or supply of raw material or starting material, shipping such material to the manufacturing site, ensuring standardized production batch-to-batch in the context of mass production, freezing the manufactured product, shipping the final product globally, and infusing patients with the product.

Manufacturers of cell therapy products often encounter difficulties in production, particularly in scaling out and validating initial production and ensuring the absence of contamination. These problems include difficulties with production costs and yields, quality control, including stability of the product, inconsistency in cell growth, quality assurance testing, improper installation or operation of equipment, operator error, shortages of qualified personnel, shortage of raw material or starting material and other procurement issues, as well as compliance with strictly enforced federal, state and foreign regulations.

Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects, and other supply disruptions. If microbial, viral, or other contaminations are discovered in our supply of product candidates or in the manufacturing facilities in which our product candidates are made, such supply may have to be discarded and the manufacturing may be stopped or such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.

We operate two in-house manufacturing facilities—a facility in Paris, France, which is dedicated to the manufacturing of certain raw and starting material for our investigational products, and a facility in Raleigh, North Carolina, which is dedicated to the production of clinical UCART products. Both facilities are fully operational and in December 2022, the first patient was dosed with our in-house manufactured product candidate UCART22. Despite our manufacturing success to date, we have very limited experience in operating a manufacturing infrastructure for clinical or commercial pharmaceutical products, and we may never be successful in effectively exploiting such in-house manufacturing capabilities at the scale required for advanced clinical trials or commercialization. We may face additional challenges, including, among others, cost overruns, process scale-up and/or scale-out, process reproducibility, stability issues, lot consistency, timely availability of reagents or raw materials, equipment failures, labor shortages, natural disasters and power failures. Further, the application of new regulatory guidelines or parameters, such as those related to release testing, may also adversely affect our ability to effectively and efficiently manufacture our product candidates. Any of these factors could prevent us from realizing the intended benefits of our internalized manufacturing capabilities and have a material adverse effect on our business. We may ultimately be unable to reduce the cost of goods for the product candidates to levels that will allow for an attractive return on investment if and when those product candidates are commercialized. In addition, we may never obtain the regulatory approvals to manufacture our commercial products in our in-house manufacturing facilities.

Until such time as we are able to operate our manufacturing facilities at commercial scale, we expect to continue to use use third-party contract manufacturing organizations, or CMOs, to manufacture certain of our product candidates. See "Risks Related to Our Reliance on Third Parties."

Any changes to manufacturing processes may result in additional regulatory approvals.

The manufacturing process for any products that we may develop is subject to FDA and foreign regulatory authority approval for the jurisdictions in which we or our strategic licensees will seek marketing approval for commercialization as well as ongoing compliance requirements. If the manufacturing process is changed during the course of product development or subsequent to a product's commercialization, FDA or foreign regulatory authorities could require us to repeat some or all previously conducted trials or conduct additional bridging trials, which could delay or impede our ability to obtain marketing approval. If we or any CMOs on which we rely are unable to reliably produce product candidates or products to specifications acceptable to the FDA or other regulatory authorities, we may not obtain or maintain the approvals we need to further develop, conduct clinical trials for, and commercialize such products in the relevant territories.

Negative publicity and increased regulatory scrutiny of genetic research and therapies involving gene editing may damage public perception of our product candidates or adversely affect our ability to conduct our business or obtain regulatory approvals for our product candidates.

Our gene-editing technologies are novel. Public perception may be influenced by claims that gene editing is unsafe, and products incorporating gene editing may not gain the acceptance of the public or the medical community. In particular, our success will depend upon physicians specializing in our targeted diseases prescribing our product candidates as treatments in lieu of, or in addition to, existing, more familiar, treatments, including those for which greater clinical data may be available. Any increase in negative perceptions of gene editing may result in fewer physicians prescribing our treatments or may reduce the willingness of patients to utilize our treatments or participate in clinical trials for our product candidates. Increased negative public opinion or more restrictive government regulations in response thereto, would have a negative effect on our business or financial condition and may delay or impair the development and commercialization of our product candidates or demand for such product candidates.

For example, there have been patient deaths in CAR-T trials conducted in the United States by our competitors as well as in our UCART123 and UCARTCS1 clinical studies, which have led to clinical trial holds or protocol-based pauses in patient recruitment. In addition, on October 7, 2021, the FDA placed a clinical hold on all of our strategic licensee Allogene Therapeutics' clinical trials following a chromosomal abnormality detected in ALLO-501A, which hold was removed by the FDA in January 2022. Adverse events in clinical studies for the product candidates we develop or those of our competitors, even if not ultimately attributable to the respective product candidates and any resulting publicity could result in increased governmental regulation, unfavorable public perception, potential regulatory delays, stronger labeling for approved product candidates and a decrease in demand for any such product candidates.

Monitoring and managing toxicities in patients receiving our product candidates is challenging, which could adversely affect our ability to obtain regulatory approval and commercialize.

For our clinical trials of our product candidates, we contract or will contract with academic medical centers and hospitals experienced in the assessment and management of toxicities arising during clinical trials. Nonetheless, these centers and hospitals may have difficulty observing patients and treating toxicities, which may be more challenging due to personnel changes, inexperience, shift changes, house staff coverage or related issues. This could lead to more severe or prolonged toxicities or even patient deaths, which could result in us or the FDA delaying, suspending or terminating one or more of our clinical trials, and which could jeopardize regulatory approval. We also expect the centers using our product candidates, if approved, on a commercial basis could have similar difficulty in managing adverse events. Medicines used at centers to help manage adverse side effects of our product candidates may not adequately control the side effects and/or may have a detrimental impact on the efficacy of the treatment. Use of these medicines may increase with new physicians and centers administering our product candidates.

Difficulty enrolling patients could delay or prevent clinical studies of product candidates.

Identifying and qualifying patients to participate in clinical studies is critical to the success of the relevant product candidate. The timing of clinical studies depends, in part, on the speed of recruitment of patients to participate in testing such product candidates as well as completion of required follow-up periods. We or those evaluating product candidates pursuant to licenses from us may not be able to identify, recruit and enroll a sufficient number of patients or patients with required or desired characteristics to achieve the objectives of the study. If patients are unable or unwilling to participate in such studies, the timeline for recruiting patients, conducting studies and obtaining regulatory approval of potential products may be delayed. These delays could result in increased costs, delays in advancing our product candidates, delays in testing the effectiveness of our technology, failure to meet study endpoints or objectives or termination of the clinical studies altogether.

In addition, competition among clinical trials in the same therapeutic areas may reduce the number and types of patients available to participate in our or our strategic licensees' clinical trials. Because the number of qualified clinical investigators is limited, we expect to conduct some clinical trials at the same sites as our competitors, which may reduce the number of patients available for our clinical trials at such sites. Certain of our competitors may have greater success than us in enrolling patients as a result of a variety of factors. Moreover, because of the novel nature of our product candidates, potential patients and their doctors may be less likely to enroll in our clinical trials relative to clinical trials for more conventional therapies.

Patient enrollment is affected by a variety of factors, including:

- severity of the disease under investigation;
- incidence and prevalence of the disease under investigation;
- design of the clinical trial protocol;
- size and nature of the patient population;
- eligibility criteria for the trial in question;
- perceived risks and benefits of the product candidate under trial, including relative to available therapies;
- proximity and availability of clinical trial sites for prospective patients;
- availability of competing therapies and clinical trials;
- patient referral practices of physicians;
- our ability to monitor patients adequately during and after treatment, and
- ability of the clinical sites to have sufficient resources and avoid any backlogs.

If we or our strategic licensees' are unable to enroll a sufficient number of patients to conduct clinical studies as planned, it may be necessary to delay, limit or terminate such clinical studies, which could have a material adverse effect on our business and financial condition. Even if we are able to enroll a sufficient number of patients in our clinical trials, delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of the product candidates we develop.

As certain of our clinical trials require conditioning patients with chemotherapy, including agents such as fludarabine, cyclophosphamide and alemtuzumab, our ability to enroll may also be impacted by the shortage of such agents. For example, the FDA has reported a shortage of fludarabine and any failure or delays by us or by our clinical trial sites to obtain sufficient quantities of fludarabine may delay our ability to enroll and treat patients in our clinical trials.

Our product candidates may cause undesirable side effects that have halted and could in the future halt their clinical development, delay or prevent their regulatory approval, limit their commercial potential, or result in other significant negative consequences.

Undesirable or unacceptable side effects caused by our product candidates have and could in the future cause us or regulatory authorities to interrupt, delay, suspend or halt clinical trials. Such side effects could also result in the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authorities, or could lead to a more restrictive label for our product candidates.

Results of our clinical trials could reveal a high and unacceptable incidence and severity of side effects or unexpected characteristics. Approved autologous CAR T therapies and those under development have shown frequent rates of CRS, neurotoxicity, serious infections, and prolonged cytopenia, and adverse events have resulted in the death of patients.

We have seen similar adverse events for allogeneic CAR T product candidates. In the currently ongoing UCART product candidate clinical studies, the most common severe or life-threatening adverse events include CRS, cytopenia and infections. As reported, there have been patient deaths in the AMELI-01 Study and the MELANI-01 Study as well as in clinical trials conducted by our strategic licensees, including deaths attributable to UCART immuno-therapy. In the future, additional patients may experience severe adverse events related to UCART product candidates, some of which may result in death. In addition, our allogeneic CAR T cell product candidates undergo gene engineering by using lentivirus and TALEN nucleases that can cause insertion, deletion, or chromosomal translocation. These changes can cause allogeneic CAR T cells to cause additional adverse events.

The allogeneic nature of our CAR T cell product candidates may also cause unique adverse events related to the differences between the donor material used to manufacture the product candidates and patients, such as GvHD. GvHD results when allogeneic CAR T cells start recognizing the patient's normal tissue as foreign. We use our TALEN gene-editing technology to inactivate a gene coding for $TCR\alpha$, a key component of the natural antigen receptor of T cells, to cause the engineered T cells to be incapable of recognizing foreign antigens. Accordingly, when injected into a patient, the intent is for the engineered T cell not to recognize the tissue of the patient as foreign and thus avoid attacking the patient's tissue. However, our CAR T cell product candidates may not have the benefits that we anticipate and may not be successful in limiting the risk of GvHD.

In addition, in certain of our clinical trials, we utilize a lymphodepletion regimen, which generally includes fludarabine, cyclophosphamide and alemtuzumab, that may cause serious adverse events. For instance, because the regimen will cause a transient and sometimes prolonged immune suppression, patients will have an increased risk of infection, such as to COVID-19, that may be unable to be cleared by the patient and ultimately lead to other serious adverse events or death. Our lymphodepletion regimen has caused and may also cause prolonged cytopenia. We are also exploring various dosing strategies for lymphodepletion in our clinical trials, which may increase the risk of serious adverse events.

As more patients are included in our and our strategic licensee's clinical trials, previously less common, side effects and adverse events may also emerge. Additional UCART product candidates that enter clinical development may also cause similar or more severe toxicities, particularly if such product candidates require higher dose levels or are administered to higher risk patient populations.

Any undesirable side effects could cause us, our strategic licensees or regulatory authorities to interrupt, delay, halt or terminate clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other regulatory authorities. Treatment-related side effects could also adversely affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. In addition, certain side effects of UCART product candidates are not normally encountered in the general patient population or by medical personnel familiar with more conventional therapies. Although we provide training to medical personnel involved in clinical trials for our product candidates, failure of medical personnel to recognize or manage potential side effects of our product candidates could exacerbate adverse outcomes and potentially result in patient deaths.

Any of these occurrences could prevent our product candidates from achieving or maintaining market acceptance and could increase the cost of development and commercialization, and may harm our business, financial condition and prospects significantly.

The incorporation of an anti-CD52 monoclonal antibody as part of our lymphodepletion regimen prior to administration of UCART product candidates may increase the risk of adverse side effects.

In certain of our clinical trials, we utilize an anti-CD52 monoclonal antibody as part of a lymphodepletion regimen to be infused prior to infusing patients with our product candidates. We believe that using an anti-CD52 antibody in a lymphodepletion regimen may delay rejection of our allogeneic T cells by the patient's immune system, and therefore improve the window of persistence during which such engineered allogeneic T cells can expand and actively target and destroy cancer cells. However, the anti-CD52 antibody may not have the benefits that we anticipate and could result in adverse effects or confounding other adverse effects. For instance, our lymphodepletion regimen, including the use of an anti-CD52 antibody, will cause a transient and sometimes prolonged immune suppression, which is associated with an increased risk of infection, such as COVID-19, that may be unable to be cleared by the patient and ultimately lead to other serious adverse events or death.

We currently use alemtuzumab, a monoclonal antibody that binds CD52, as the anti-CD52 antibody for our lymphodepletion regimen. Alemtuzumab is known to have risk of causing certain adverse events. On November 14, 2019, the EMA completed a pharmacovigilance review of alemtuzumab in the context of the treatment of multiple sclerosis (Lemtrada®) following reports of immune-related disorders and cardiovascular disorders, including fatal cases. Among other things, the EMA recommended that alemtuzumab not be used in patients with certain heart, circulation or bleeding disorders or in patients who have autoimmune disorders other than multiple sclerosis. The EMA also recommended that alemtuzumab only be given in a hospital with ready access to intensive care facilities and specialists who can manage serious adverse reactions. In each of June 2021 and June 2022, the European Commission decided to update the product information of Lemtrada® to add additional adverse reaction warnings. Because of the risk of autoimmunity, infusion reactions, and malignancies, Lemtrada® available in the United States only through restricted distribution under an FDA-approved and mandated Risk Evaluation and Mitigation Strategy (REMS) Program.

On May 11, 2021, we entered into each of a partnership agreement and a supply agreement with Genzyme Corporation, or Genzyme, regarding alemtuzumab to be used as part of the lymphodepleting regimen in certain Cellectis-sponsored UCART clinical trials. As part of the agreement, Genzyme supplies alemtuzumab to support Cellectis' clinical studies, and the parties agreed to to enter into discussions to execute an additional agreement for the commercial supply of alemtuzumab by Genzyme to Cellectis under pre-agreed financial conditions. Following this agreement, we are implementing the use of alementuzumab as a Cellectis investigational medicinal product, coded as CLLS52, in the clinical protocols BALLI-01, MELANI-01, NATHALI-01 in the United States and in the relevant European Union member states. These clinical studies are currently conducted at specialized centers that are experienced at managing patients with advanced malignancies as well as toxicities associated with immunomodulatory therapies. We will monitor the safety profile of CLLS52 and ensure our pharmacovigilance reporting responsibilities as sponsor. If the EMA, FDA or other regulatory agencies further limit the use of alemtuzumab or anti-CD52 antibodies, or if the FDA, EMA or other relevant regulatory agencies issues additional requirements for the use of CLLS52, our clinical programs could be adversely affected.

If we are unable to successfully secure an adequate source of CLLS52 in the timeframe we anticipate, or if regulatory authorities do not approve the use of CLLS52 in combination with our UCART product candidates, we could face delays in our product development efforts and/or the commercialization of our product candidates.

If the product candidates we develop do not achieve projected development and commercialization in the announced or expected timeframes, the further development or commercialization of our product candidates may be delayed, and our business may be harmed.

We sometimes estimate, or may in the future estimate, for planning purposes, the timing of the accomplishment of various scientific, clinical, manufacturing, regulatory and other product development objectives. These milestones may include our expectations regarding the commencement or completion of scientific studies, clinical trials, the submission of regulatory filings, the receipt of marketing approval or commercialization objectives. The achievement of many of these milestones may be outside of our control. All of these milestones are based on a variety of assumptions, including assumptions regarding capital resources and constraints, progress of development activities, and the receipt of key regulatory approvals or actions, any of which may cause the timing of achievement of the milestones to vary considerably from our estimates.

If we or our strategic licensees fail to achieve announced milestones in the expected timeframes, the commercialization of the product candidates may be delayed, our credibility may be undermined, and our business and results of operations may be harmed.

Even if we or our strategic licensees successfully complete clinical trials of product candidates, those candidates may not be commercialized successfully for other reasons.

Even if we or our strategic licensees successfully complete clinical trials for one or more product candidates, those candidates may not be commercialized for other reasons, including:

- failing to receive regulatory approvals required to market them as drugs;
- being subject to proprietary rights held by others;
- failing to comply with GMP requirements;
- being difficult or expensive to manufacture on a commercial scale;
- having adverse side effects that make their use less desirable;
- being inferior to existing approved drugs or therapies;
- · failing to compete effectively with existing or new products or treatments commercialized by competitors; or
- failing to show long-term benefits sufficient to offset associated risks.

In addition, for any product candidates developed by a licensee pursuant to a licensing agreement, we will depend entirely upon such licensee for marketing and sales of that product. These partners may not devote sufficient time or resources to the marketing and commercialization, or may determine not to pursue marketing and commercialization at all, which could prevent the affected products from reaching milestones or sales that would trigger payments to Cellectis.

Even if any of our product candidates are commercialized, they may not be accepted by physicians, patients, or others in the medical community.

The use of engineered T-cells as a cancer treatment is a recent development and may not become broadly accepted by physicians, patients, hospitals, cancer treatment centers or others in the medical community. Even if any of our product candidates receive marketing approval, the medical community may not accept such products as adequately safe and efficacious for their indicated use. We expect physicians in the large bone marrow transplant centers to be particularly important to the medical community's acceptance of our products, and we may not be able to educate them on the benefits of using our product candidates for many reasons. Moreover, physicians may choose to restrict the use of the product, if, based on experience, clinical data, side-effect profiles and other factors, they are not convinced that the product is preferable to alternative drugs or treatments.

Additional factors that may influence whether our product candidates are accepted in the market, include:

- the clinical indications for which product candidates are approved;
- the potential and perceived advantages and risks of our product candidates relative to alternative treatments;
- · the prevalence and severity of side effects;
- the demonstration of the clinical efficacy and safety of the product;
- the approved labeling for the product and any required limitations or warnings;
- the timing of market introduction of the product candidate as well as of competing products;
- the effectiveness of educational outreach to the medical community about the product;
- · the coverage and reimbursement policies of government and commercial third-party payors pertaining to the product; and
- the market price of the product relative to competing treatments.

We cannot predict the degree of market acceptance of any product candidate that receives marketing approval. If our product candidates are approved but fail to achieve market acceptance in the medical community, we will not be able to generate significant revenue. Even if our products achieve market acceptance, we may not be able to maintain that market acceptance over time if new products or technologies are introduced that are more favorably received than our products, are more cost effective or render our products obsolete.

Coverage and reimbursement may be limited or unavailable in certain market segments for our product candidates, which could make it difficult for us to sell our product candidates profitably.

Successful sales of our product candidates, if approved, depend, in part, on the availability of adequate coverage and reimbursement from third-party payors including governmental healthcare programs, such as Medicare and Medicaid, managed care organizations and commercial payors, among others. Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain regulatory approval. In addition, because our product candidates represent new approaches to the treatment of cancer, we cannot accurately estimate the potential revenue from our product candidates.

Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from third-party payors are critical to new product acceptance. The marketability of any product candidates for which we receive regulatory approval for commercial sale may suffer if government and other third-party payors fail to provide coverage and adequate reimbursement. Coverage and reimbursement may depend upon a number of factors, including determinations as to whether a product is:

- a covered benefit under applicable policies or plans;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- · cost-effective; and
- neither experimental nor investigational.

Coverage and reimbursement policies vary, and obtaining coverage and reimbursement approval of a product from a government or other third-party payor is a time-consuming and costly process that could require us or our strategic licensees to furnish on a payor-by-payor basis supporting scientific, clinical and cost-effectiveness data for the use of our products, with no assurance that coverage or adequate reimbursement will be obtained. Even if coverage for a product is obtained, reimbursement rates may be inadequate to achieve profitability or may require co-payments that patients find unacceptably high.

If coverage is unavailable or reimbursement rates are inadequate, patients may not use our products. Because our product candidates represent a new approach to treatment, they may have a higher cost than conventional therapies and may require long-term follow-up evaluations, which may increase the risk that coverage and/or reimbursement rates may be inadequate for us to achieve profitability.

Our future profitability, if any, depends, in part, on our ability to penetrate global markets, where we would be subject to additional regulatory burdens and other risks and uncertainties.

Our future profitability, if any, will depend, in part, on our ability and the ability of our strategic licensees to commercialize the product candidates we develop in markets throughout the world. Commercialization of our product candidates in various markets could subject us to additional risks and uncertainties related to operating in foreign countries, including:

- obtaining, on a country-by-country basis, the applicable marketing authorization from the competent regulatory authority;
- the burden of complying with complex and changing regulatory, tax, accounting and legal requirements in each jurisdiction that we pursue;
- differing medical practices and customs affecting acceptance in the marketplace;
- · import or export licensing requirements;
- increased difficulties in managing the logistics and transportation of storing and shipping product candidates;
- country specific requirements related to the cells used as starting material for manufacturing;
- language barriers for technical training, healthcare professionals and patients documents;
- reduced protection of intellectual property rights in some foreign countries;
- foreign currency exchange rate fluctuations;
- potential imposition of governmental controls;
- economic weakness, including inflation, or political instability in foreign economies and markets;
- difficulties staffing and managing foreign operations and workforces; and
- business interruptions resulting from natural or man-made disasters, including earthquakes, tsunamis, fires, epidemics or pandemics, or geo-political actions, including war and terrorism.

Risks Related to Our Reliance on Third Parties

Third parties on whom we rely to conduct some aspects of our development programs may not perform satisfactorily.

We do not, and do not expect in the future to, independently conduct all aspects of our development programs. We rely, and will continue to rely, on third parties for certain aspects of manufacturing, quality control, protocol development, material supply, research and pre-clinical development, translational activities, and clinical testing, clinical trial conduct and distribution activities. With respect to the clinical trials that we sponsor, we rely on clinical research organizations, or CROs, medical institutions and clinical investigators to conduct our clinical studies. Such reliance on third parties reduces our control over these activities, but does not relieve us of our responsibility to ensure compliance with all required regulations and study and trial protocols.

If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct their activities in accordance with regulatory requirements and our stated study and trial plans and protocols, or if there are disagreements between us and these third parties, we may not be able to complete, or may be delayed in completing, the pre-clinical studies and clinical trials required to support future regulatory submissions and approval of the product candidates we develop.

Reliance on such third-parties entails additional risks to which we would not be subject if we conducted the above-mentioned activities ourselves, including:

- that we may be unable to negotiate agreements with third parties under reasonable terms or that termination or non-renewal of an
 agreement occurs in a manner or time that is costly or damaging to us;
- that such third-parties may have limited experience with our or comparable products and may require significant support from us in order to implement and maintain the infrastructure and processes required to manufacture, test or distribute our product candidates;
- that such third parties may not perform as agreed or in compliance with applicable laws and requirements, or may not devote sufficient resources to our products;
- that we may not have sufficient rights or access to the intellectual property or know how relating to improvements or developments made by our third-party service providers in the course of their providing services to us;
- that regulators object to or disallow the performance of specific tasks by certain third parties or disallow data provided by such third parties;
- that such third parties may experience business disruptions, such as bankruptcy or acquisition, or failures or deficiencies in their supply
 chains, that disrupt their ability to perform their obligations to us.

Under certain circumstances, third party service providers may be entitled to terminate their engagements with us. In such circumstances, product development activities could be delayed while we seek to identify, validate, and negotiate an agreement with a replacement service provider. In some such cases an appropriate replacement may not be readily available or available on acceptable terms, which could cause additional delays to our development process.

Any of these events could lead to manufacturing, supply and/or clinical study delays or failure to obtain regulatory approval, or impact our ability to successfully commercialize future products, which could, in each case, have a material adverse effect on our business, financial condition, results of operations and prospects.

We rely on third parties to manufacture and store our clinical product supplies, and we may have to rely on third parties to produce and process our product candidates, if approved.

Although our two in-house manufacturing facilities in Paris, France, and Raleigh, North Carolina, are both operational, we may not be able to effectively scale our manufacturing to meet our anticipated commercial needs, in the event that any of our product candidates are approved. Accordingly, we continue to rely, in part, on contract manufacturing organizations, or CMOs, for manufacturing our product candidates and certain starting materials. We rely on third parties to manage all other aspects of the supply, including disposition and distribution logistics. There can be no assurance that we will not experience supply or manufacturing issues in the future and any such issues may limit our ability to recruit new patients for our clinical trials.

The full transition of manufacturing solely to our own facilities will require significant investment and that we meet certain regulatory conditions, which may delay or extend our clinical trial timelines. We have not yet caused our product candidates to be manufactured or processed on a commercial scale and may not be able to achieve manufacturing and processing and may be unable to create an inventory of mass-produced, off-the-shelf product to satisfy commercial demands for any of our product candidates. Our self-manufactured clinical supply is also limited to small quantities and any latent defects discovered in our supply could significantly delay our development timelines.

We do not have long-term agreements in place with CMOs for the manufacture of our cell therapies. In addition, although we have an agreement with Genzyme for the supply of alemtuzumab to be used in our sponsored UCART clinical trials, we have not executed an agreement for the commercial supply of alemtuzumab and Genzyme has right to terminate the agreement under certain conditions. If we are unable to contract with CMOs on acceptable terms or at all, this could result in delays in our product development efforts and/or the commercialization of our product candidates.

Our CMOs are subject to the same risks we face in our own manufacturing operations, as described above. See "Any issues that arise in the highly complex manufacturing process for our product candidates could have an adverse effect on our business, financial position or prospects."

We also rely on third parties to store our released product candidates, and any failure to adequately store our product candidates could result in significant delay to our development timelines. Any additional or future damage or loss of raw materials or product candidates could materially impact our ability to manufacture and supply our product candidates. Each of these risks could delay our clinical trials, the approval, if any of our product candidates by the FDA or the commercialization of our product candidates or result in higher costs or deprive us of potential product revenue.

Third parties on whom we rely may not perform satisfactorily.

We and our strategic licensees rely on medical institutions, clinical investigators, CROs and contract laboratories to carry out, or otherwise assist with, clinical trials or to perform data collection and analysis and on CMOs for the manufacturing of certain product candidates and starting materials. While we and our strategic licensees have agreements governing these services, we and our strategic licensees have limited control over such third parties' actual performance. Nevertheless, we or our strategic licensees, as applicable, are responsible for ensuring that such clinical trial is conducted in accordance with the applicable protocol, legal, regulatory, ethical and scientific standards. Reliance on a third party does not relieve the sponsor of a clinical trial of any regulatory responsibilities, including compliance with the FDA's and other regulatory authorities' good clinical practices, or GCP, good manufacturing practices, or GMP, good laboratory practices, or GLP, and other applicable requirements for conducting, recording and reporting the results of clinical trials to assure that the data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected.

If we, our strategic licensees, our respective CROs, or our respective investigators or trial sites, or our respective CMOs fail to comply with applicable GCP, GLP, GMP or other applicable regulatory requirements, the clinical data generated in the applicable clinical trial may be deemed unreliable or otherwise not usable and the regulatory authorities and they may require the performance of additional clinical trials before issuing any marketing authorizations for the relevant product candidates.

Third party performance failures may increase our costs, delay our ability to obtain regulatory approval, and delay or prevent starting or completion of clinical trials and delay or prevent commercialization of our product candidates. While we believe that there are numerous alternative sources to provide these services, in the event that we seek such alternative sources, we may not be able to enter into replacement arrangements without incurring delays or additional costs.

We are party to strategic licensing relationships, which may not advance or be successful.

We have entered into strategic licensing agreements with partners, such as Allogene and Servier, under which our partners have exclusive development and commercialization rights with respect to certain product candidates. We may in the future enter into additional strategic relationships. All of the risks relating to product development, regulatory approval and commercialization described in this Annual Report apply to the activities of our strategic licensees.

Our reliance on strategic licensing arrangements may pose a number of risks, including the following:

- strategic licensees may not perform or prioritize their obligations as expected;
- clinical trials conducted pursuant to strategic licensing agreements may not be successful;
- strategic licensees may not pursue development and commercialization of product candidates that achieve regulatory approval or may elect not to pursue development or commercialization of product candidates based on clinical trial results, changes in the partners' focus or available funding, or external factors, such as an acquisition, that divert resources or create competing priorities;
- strategic licensees may delay clinical trials, provide insufficient funding for clinical trials, stop a clinical trial, or abandon a product candidate:

- strategic licensees could develop, independently or with third parties, products that compete directly or indirectly with our product candidates:
- product candidates developed pursuant to strategic licensing agreements may be viewed by our partners as competitive with their independently developed product candidates or products, which may cause them to devote limited resources to the product candidate's development or commercialization;
- a collaborator may not commit sufficient resources to the commercialization, marketing and distribution of any product candidate;
- disagreements with strategic licensees, including over proprietary rights, contract interpretation, or the preferred course of development, may cause delays or termination of the development or commercialization of such product candidates, or may result in time- consuming and expensive legal proceedings;
- strategic licensees may not properly obtain, maintain, protect, defend or enforce intellectual property rights or may improperly use proprietary information;
- disputes may arise with respect to the ownership of intellectual property developed pursuant to our strategic licensing agreements;
- strategic licensees may infringe, misappropriate or otherwise violate third-party intellectual property rights, which may expose us to litigation and potential liability;
- strategic licensing agreements may be terminated for convenience by the collaborator and, if terminated, the development of product candidates may be delayed or stopped;
- · the negotiation of strategic licensing agreements may require substantial attention from our management team; and
- we could face significant competition in seeking appropriate strategic licensees, and the negotiation process is time-consuming and complex.

We rely on these strategic licensing arrangements to help us finance the development and commercialization of our own biopharmaceutical products. Our success depends, in part, on our ability to collect milestone and royalty payments from our strategic licensees. To the extent our strategic licensees do not aggressively and effectively pursue product candidates for which we are entitled to such payments, we will not realize these significant revenue streams, which may slow our overall development progress and could have an adverse effect on our business and future prospects.

In addition, our strategic license agreements are generally terminable at will upon specified prior notice. If one or more collaborator terminates a strategic license agreement, this could have an adverse effect on our revenues. If we do not receive anticipated payments, our development of product candidates could be delayed and we may need additional resources to develop our product candidates.

Servier's discontinuation of its involvement in the development of CD19 Products may have adverse consequences

Under the License, Development and Commercialization Agreement dated March 6, 2019, between us and Les Laboratoires Servier SAS and Institut de Recherches Internationales Servier SAS (collectively, "Servier"), as amended on March 4, 2020 (as so amended, the "Servier License Agreement"), Servier currently holds an exclusive worldwide license to develop and commercialize gene-edited allogeneic CAR T-cell products targeting CD19, including UCART19, ALLO-501 and ALLO-501A (collectively, "CD19 Products"). The exclusive rights for the development and commercialization of CD19 Products in the United States have been sublicensed by Servier to Allogene.

On September 15, 2022, Servier sent to us and Allogene a notice of discontinuation of its involvement in the development of the CD19 Products and purported to provide Allogene with the ability to elect to obtain a license to the CD19 Products outside of the United States. We do not believe that the Servier License Agreement permits Servier to grant such a world-wide sub-license to Allogene. We also believe that Servier has not complied with its performance obligations under the Servier License Agreement, which we believe may involve material breaches of the Servier License Agreement.

We are evaluating all available options and contractual remedies to address the foregoing matters. Unless an appropriate resolution is reached with Servier, we may incur additional costs and expenses relating to any potential dispute with Servier, the development and commercialization of the CD19 Products may be delayed, and our relationship with Servier as well as the relationship between us and Allogene may be further strained. Any failure to resolve these issues could have a significant adverse impact on our business, financial condition and prospects.

We rely on T cells from healthy donors to manufacture our product candidates, and if we do not obtain an adequate supply of T cells from qualified donors, development of those product candidates may be adversely impacted.

Unlike autologous CAR T companies, we are reliant on receiving healthy donor material to manufacture our product candidates. Healthy donor T cells vary in type and quality, and this variation makes producing standardized product candidates more difficult and makes the development and commercialization pathway of those product candidates more uncertain. We have developed a screening process designed to enhance the quality and consistency of T cells used in the manufacture of our CAR T cell product candidates, but our screening process may fail to identify suitable donor material and we may discover unacceptable variability with the material after production. We may also have to update our specifications for new risks that may emerge, such as to screen for new viruses or chromosomal abnormalities.

We have strict specifications for donor material, which include specifications required by regulatory authorities. If we are unable to identify and obtain donor material that satisfy specifications, agree with regulatory authorities on appropriate specifications, or address variability in donor T cells, there may be inconsistencies in the product candidates we produce or we may be unable to initiate or continue clinical trials on the timelines we expect, which could harm our reputation and adversely impact our business and prospects.

In addition, vendors have faced challenges in obtaining donor material during the COVID-19 pandemic. Future health crises, including any resurgence of the COVID-19 pandemic, could result in challenges to our vendors' abilities to secure sufficient donor material to manufacture our product candidates.

Access to raw materials, starting material and products necessary for the conduct of clinical trials and manufacturing of our product candidates is not guaranteed.

We are dependent on third parties for the supply of various of materials, including certain biological materials, that are necessary to produce our product candidates. The supply of these materials could be reduced or interrupted at any time. In such case, we may not be able to find other acceptable suppliers or on acceptable terms. If key suppliers or manufacturers are lost or the supply of the materials is diminished or discontinued, we may not be able to develop, manufacture, and market our product candidates in a timely and competitive manner. In addition, biological materials are subject to stringent manufacturing process and rigorous testing. Certain of our suppliers are small-scale business and may not have the capacity to support commercial products manufactured under cGMP by biopharmaceutical firms.

Some raw materials are currently available from a single supplier, or a small number of suppliers. We cannot be sure that these suppliers will remain in business or that they will not be purchased by one of our competitors or another company that is not interested in continuing to produce these materials for our intended purpose. In addition, the lead time needed to establish a relationship with a new supplier can be lengthy, and we may experience delays in meeting demand in the event we must switch to a new supplier. The time and effort to qualify a new supplier, including to meet any regulatory requirements for such qualification, could result in additional costs, delays, diversion of resources or reduced manufacturing yields, any of which would negatively impact our operating results. Further, we may be unable to enter into agreements with a new supplier on commercially reasonable terms, which could have a material adverse impact on our business. We also face competition for supplies from other cell therapy companies. Such competition may make it difficult for us to secure raw materials or the testing of such materials on commercially reasonable terms or in a timely manner.

Delays in the completion and validation of manufacturing processes for these materials could adversely affect the ability to complete trials and commercialize our product candidates. In addition, our suppliers or manufacturers may, from time to time, change their internal manufacturing or testing processes and procedures. Such changes may require us to perform or have performed studies to demonstrate equivalence of the materials produced or tested under such new procedures. Such equivalence testing may impose significant delays in the development of our product candidates. Furthermore, our suppliers may face quality issues or findings from regulatory authorities' inspections that could lead to delays or interruption of the supply of our product candidates.

We may enter into agreements with third parties to sell, distribute and/or market any of the products candidates we develop for which we obtain regulatory approval, which may adversely affect our ability to generate revenues.

As a company, we have no experience in sales, marketing and distribution of biopharmaceutical products. If any of our product candidates obtain marketing approval, we intend to develop sales and marketing capabilities, either in-house or with partners. Outsourcing sales, distribution and marketing may subject us to a variety of risks, including:

- · our inability to exercise direct control over sales, distribution and marketing activities and personnel;
- potential failure or inability of contracted sales personnel to successfully market our products to physicians; and
- potential disputes with third parties concerning distribution, sales and marketing expenses, calculation of royalties, and sales and marketing strategies.

There can be no assurance that we will be able to establish or maintain such arrangements, or if we are able to do so, that they will have effective sales forces or be on favorable terms. If we are unable to partner with a third party that has adequate sales, marketing, and distribution capabilities, we may have difficulty commercializing our product candidates, which would adversely affect our business, financial condition, and ability to generate product revenues.

Our reliance on third parties and our strategic licensees requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

Because we rely on third party service providers for certain activities in our development process, we must, at times, share trade secrets with them. In addition, we are required to share certain trade secrets with our strategic licensees pursuant to the terms of our strategic licensing agreements. We also conduct joint research and product development that may require us to share trade secrets under the terms of our research and development partnerships or similar agreements.

We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, licensing agreements, consulting agreements or other similar agreements with our strategic licensees, subcontractors, advisors, employees and consultants prior to beginning research, services or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, such as trade secrets. Despite these contractual provisions, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are incorporated into the technology of others, or are disclosed or used in violation of these agreements. Parties with whom we share confidential information may also be acquired by competitors, which may increase the risk that these entities might breach their confidentiality obligations and share our confidential information with the acquirer. For example, in April 2019, Novartis announced its acquisition of CellForCure, which serves as a CMO for us.

Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure would impair our competitive position and may have a material adverse effect on our business.

Risks Related to Operational Compliance and Risk Management

We will need to develop and expand our company, and we may encounter difficulties in managing this development and expansion, which could disrupt our operations.

As of December 31, 2022, we had 236 full-time employees (excluding employees of Calyxt). As our development, manufacturing and commercialization plans and strategies have developed, we have rapidly expanded our employee base, including the addition of managerial and operational staff at our in-house manufacturing facilities. To manage our anticipated continued development and expansion, including the operation of our manufacturing facilities and the commercialization of our product candidates, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel.

Current and future growth imposes significant responsibility on our management team, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- · effectively managing our internal development efforts, including the clinical and regulatory review process for our product candidates; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to commercialize our product candidates, if approved, and compete effectively will depend, in part, on our ability to effectively manage the future development and growth of our company. To achieve this, our management may need to divert a disproportionate amount of its attention away from its day-to-day activities and devote a substantial amount of time to managing these activities.

If our management is unable to effectively manage our expected development and growth, our expenses may increase more than expected, our ability to generate or increase our revenue could be reduced and we may not be able to implement our business strategy.

Product liability lawsuits could divert our resources, result in substantial liabilities and reduce the commercial potential of our product candidates.

The risk that we may be sued on product liability claims is inherent in the development and commercialization of biopharmaceutical products. Side effects of, or manufacturing defects in, products that we develop could result in the deterioration of a patient's condition, injury or even death. For example, we may be sued if our product candidates cause, or are perceived to cause, injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Once a product is approved for sale and commercialized, the likelihood of product liability lawsuits increases. Criminal or civil proceedings might be filed against us by patients, regulatory authorities, our strategic licensees, biopharmaceutical companies and any other third party using or marketing our products. These actions could include claims resulting from acts by our partners, licensees and subcontractors, over which we have little or no control. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates.

In addition, regardless of merit or eventual outcome, product liability claims may result in: decreased demand for our product candidates; impairment of our business reputation; withdrawal of clinical trial participants; initiation of investigations by regulators; costs due to related litigation; distraction of management's attention from our primary business; substantial monetary awards to trial participants, patients or other claimants; loss of revenue; exhaustion of any available insurance and our capital resources; the inability by us and our strategic licensees to commercialize our product candidates; and a decline in our share price.

We maintain product liability insurance coverage for damages caused by our product candidates, including clinical trial insurance coverage, with coverage limits that we believe are customary for companies in our industry. This coverage may be insufficient to reimburse us for any expenses or losses we may suffer. In addition, in the future, we may not be able to obtain or maintain sufficient insurance coverage at an acceptable cost or to otherwise protect against potential product or other legal or administrative liability claims by us or our partners, licensees or subcontractors, which could prevent or inhibit the commercial production and sale of any of our product candidates that receive regulatory approval, which could adversely affect our business. Our insurance policies may also have various exclusions, and we may be subject to a product liability claim for which we have no coverage.

We may use hazardous chemicals and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment, manufacture and disposal of hazardous materials and wastes. Our research and development processes may involve the controlled use of hazardous materials, including chemicals and biological materials. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed any insurance coverage and our total assets. Federal, state, local or foreign laws and regulations govern to use, manufacture, storage handling and disposal of these hazardous materials and specified waste products, as well as the discharge of pollutants into the environment and human health and safety matters. Compliance with environmental laws and regulations may be expensive and may impair our research and development efforts. If we fail to comply with these requirements, we could incur delays, substantial costs, including civil or criminal fines and penalties, clean-up costs or capital expenditures for control equipment or operational changes necessary to achieve and maintain compliance. In addition, we cannot predict the impact on our business of new or amended environmental laws or regulations or any changes in the way existing and future laws and regulations are interpreted and enforced. These current or future laws and regulations may impair our research, development or production efforts.

Our internal computer systems, or those of our third-party contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs or loss of personal data.

In the ordinary course of our business, we may collect, process, store and transmit proprietary, confidential and sensitive information, including personal data (including health information), intellectual property, trade secrets, and proprietary business information owned or controlled by ourselves or other parties. We may also share or receive sensitive information with our partners, CROs, CMOs, or other third parties. Our ability to monitor these third parties' information security practices is limited, and these third parties may not have adequate information security measures in place.

Despite the implementation of security measures, our internal computer systems and those of our third-party contractors and consultants are vulnerable to damage from computer viruses, cyber-attacks, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Cyberattacks, malicious internet-based activity, and online and offline fraud are prevalent and are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. These threats come from a variety of sources, including traditional computer "hackers," threat actors, personnel (such as through theft or misuse), sophisticated nation-states, and nation-state-supported actors. Some actors now engage and are expected to continue to engage in cyber-attacks, including without limitation nation-state actors for geopolitical reasons and in conjunction with military conflicts and defense activities. During times of war and other major conflicts, we, and the third parties upon which we rely, may be vulnerable to a heightened risk of these attacks, including retaliatory cyber-attacks, that could materially disrupt our systems and operations, supply chain, and ability to produce and distribute our product candidates. Cyberattacks could include, but are not limited to, the deployment of harmful malware (including as a result of advanced persistent threat intrusions), denial-of-service (such as credential stuffing), credential harvesting, social engineering attacks (including through phishing attacks), viruses, ransomware, supply chain attacks, personnel misconduct or error and other similar threats. We may also be the subject of software bugs, server malfunction, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures or other similar issues. In particular, ransomware attacks are becoming increasingly prevalent and severe and can lead to significant interruptions, delays, or outages in our operations, disruptions to our clinical trials, loss of data (including data related to clinical trials), significant expense to restore data or systems, reputational loss and the diversion of funds. Extortion payments may alleviate the negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments. Similarly, supply chain attacks have increased in frequency and severity, and we cannot guarantee that third parties and infrastructure in our supply chain have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach to our information technology systems or the third-party information technology systems that support us and our services. Future or past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies.

Although we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We have experienced attempts to compromise our information technology systems or otherwise cause a security incident. While we do not believe that we have experienced any significant system failure, accident, or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in unauthorized,

unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure of, or access to our sensitive information. A security incident or other interruption could disrupt our ability (and that of third parties upon whom we rely) to manufacture or deliver our product candidates. For example, the loss of clinical trial data for our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications or other data or applications relating to our technology or product candidates, or inappropriate disclosure of confidential or proprietary information, we could incur liabilities and the further development of our product candidates could be delayed.

We may be unable to detect vulnerabilities in our information technology systems because such threats and techniques change frequently, are often sophisticated in nature, and may not be detected until after a security incident has occurred. Despite our efforts to identify and remediate exploitable critical vulnerabilities, if any, in our information technology systems, our efforts may not be successful. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities. Any failure to prevent or mitigate security incidents or improper access to, use of, or disclosure of our clinical data or patients' personal data could result in significant liability under state, federal, and international law and may cause a material adverse impact to our reputation, affect our ability to conduct our clinical trials and potentially disrupt our business.

Data privacy regulations could adversely affect our business, results of operations and financial condition.

We are subject to data privacy and protection laws and regulations that impose requirements relating to the collection, transmission, storage and use of personally-identifying information, including comprehensive regulatory systems in the U.S. and EU. The legislative and regulatory landscape for privacy and data protection continues to evolve in jurisdictions worldwide, and there has been an increasing focus on privacy and data protection issues with the potential to affect our business. Failure to comply with any of these laws and regulations could result in enforcement action against us, including fines, imprisonment of company officials and public censure, claims for damages by affected individuals, damage to our reputation and loss of goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations or prospects.

There are numerous U.S. federal and state laws and regulations related to the privacy and security of personal information, including regulations promulgated pursuant to HIPAA that establish privacy and security standards for the use and disclosure of individually identifiable health information and require the implementation of administrative, physical and technological safeguards to protect the privacy of such protected health information. Determining whether protected health information has been handled in compliance with applicable privacy standards and our contractual obligations can be complex and may be subject to changing interpretation. We cannot be sure how these regulations will be interpreted, enforced or applied to our operations. If we fail to comply with applicable privacy laws, including applicable HIPAA privacy and security standards, we could face civil and criminal penalties.

In the EU, we are subject to the European Regulation (EU) No. 2016/679, known as the General Data Protection Regulation (GDPR), as well as EU Member State legislations complementing the GDPR. GDPR and EU Member State legislation apply to the collection and processing of personal data, including health-related information, of individuals in the EU by companies established in the EU and, in certain circumstances established outside of the EU. These laws impose strict obligations on the ability to process personal data, including health-related information, in particular in relation to their collection, use, disclosure and transfer. These include several requirements relating to (i) obtaining, in some situations, the informed consent of the individuals to whom the personal data relates, (ii) the information provided to the individuals about how their personal information is used, (iii) ensuring the security and confidentiality of the personal data, (iv) the obligation to notify personal data breaches to regulatory authorities and, as applicable, to communicate such breaches to affected individuals, (v) extensive internal privacy governance obligations, and (vi) obligations to honor rights of individuals in relation to their personal data (for example, the right to access, correct and delete their data). The GDPR also imposes restrictions on the transfer of personal data to countries outside of the European Economic Area (EEA) to most countries in the world, including the U.S., unless the parties to the transfer have implemented specific safeguards to protect the transferred personal information. One of the primary safeguards allowing U.S. companies to import personal information from the EEA has been the European Commission's Standard Contractual Clauses (SCCs). However, the Court of Justice of the EU (CJEU) issued a decision that called into question whether the SCCs can lawfully be used for transfers of personal information from Europe to the United States or most other countries. At present, there are few, if any, viable alternatives to the SCCs, on which we have relied for personal information transfers from Europe to the United States and other countries outside of the EEA. After the mentioned CJEU judgment, new sets of SCCs were published on June 4, 2021 and, since December 27, 2022, such new sets must be used for all transfers relying on SCCs. Most importantly, the use of SCCs no longer automatically ensures compliance with the GDPR. Instead, companies remain required to conduct a data transfer impact assessment for each transfer, which adds a compliance burden. The GDPR has thus increased our responsibility and liability in relation to personal data that we process, and we may be required to put in place additional potential mechanisms

to ensure compliance with the new EU data protection rules. Also, some uncertainty remains around the legal and regulatory environment for these evolving privacy and data protection laws and regulations. Potential pecuniary fines for noncompliant companies may be up to ≤ 20 million or 4% of annual global revenue, whichever is higher.

We may become the subject of investigations and/or claims in respect of privacy matters and unfavorable outcomes in any of such matters could preclude the commercialization of products, harm our reputation, negatively affect the profitability of our products and subject us to substantial fines. In addition, our ongoing efforts to comply with evolving laws and regulations in the US, EU and elsewhere may be costly and require ongoing modifications to our policies, procedures and systems.

Provisions in our collaboration agreement with Servier may prevent or delay a change in control.

The Servier License Agreement provides that if a third party, meeting certain criteria, acquires control of us, directly or indirectly, by any means, or in the event that we sell or otherwise convey to a third party all or substantially all of our assets (or all or substantially all of our assets that are material to the performance of our obligations under the Servier License Agreement), and such third party successor conducts research, development, manufacturing or commercialization activities on the primary CD19 target or any other CAR-T products within the indications developed by Servier, then Servier has the right to acquire for one lump sum payment an exclusive fully paid-up worldwide license under our intellectual property, subject to certain exceptions including TAL technologies, to develop, manufacture and commercialize UCART19 products for use in anti-tumor immuno-therapy (the "Servier buy out"). If we and Servier fail to agree on the amount of payment for the Servier buy out within ten days following Servier's provision of a buy-out notice, then the amount of the buy-out payment would be determined based a valuation process involving third-party valuators selected by us and Servier, respectively.

The Servier buy-out mechanism may have the effect of delaying or preventing a change in control transaction involving us, or may reduce the number of companies interested in acquiring us. If Servier were to exercise the Servier buy-out upon a change of control, our successor would not receive milestone payments or royalty payments on net sales of any of the UCART19 products acquired by Servier in the Servier buy-out.

Risks Related to Regulatory Approvals for Our Product Candidates

The regulatory landscape that governs our product candidates is uncertain; regulations relating to more established gene therapy and cell therapy products are still developing, and changes in regulatory requirements could result in delays or discontinuation of development of our product candidates or unexpected costs in obtaining regulatory approval.

Because we are developing novel CAR T-cell immunotherapy product candidates that are unique biological entities, the regulatory requirements that we will be subject to are not entirely clear. Even with respect to more established products that fit into the categories of gene therapies or cell therapies, the regulatory landscape is still developing, and requirements have changed frequently and may continue to change in the future. Moreover, there is substantial, and sometimes uncoordinated, overlap in oversight responsibilities of gene therapy products and cell therapy products. In addition to FDA review and oversight, gene therapy clinical trials are also subject to review and oversight by an institutional biosafety committee, or IBC, a local institutional committee that reviews and oversees basic and clinical research conducted at the institution participating in the clinical trial. Although the FDA decides whether individual gene therapy protocols may proceed, review processes and determinations of other reviewing bodies can impede or delay the initiation of a clinical study, even if the FDA has reviewed the study and allowed its initiation. Conversely, the FDA can place an IND application on clinical hold even if such other entities have provided a favorable review. Furthermore, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which a clinical trial will be conducted. In addition, adverse developments in clinical trials of gene therapy products conducted by others may cause the FDA or other regulatory bodies to change the requirements for approval of any of our product candidates.

Complex regulatory environments exist in other jurisdictions in which we might consider seeking regulatory approvals for our product candidates, further complicating the regulatory landscape. For example, in the EU a special committee called the Committee for Advanced Therapies (CAT) was established within the EMA in accordance with Regulation (EC) No 1394/2007 on advanced-therapy medicinal products (ATMPs) to assess the quality, safety and efficacy of ATMPs, and to follow scientific developments in the field. ATMPs include gene therapy products as well as somatic cell therapy products and tissue engineered products. In this regard, on May 28, 2014, the EMA issued a recommendation that Cellectis' UCART19 be considered a gene therapy product under Regulation (EC) No 1394/2007 on ATMPs. We believe this recommendation is likely to be applicable to each of our UCART product candidates; however, this recommendation is not definitive until such products obtain regulatory approval for commercialization.

These various regulatory authorities, review committees and advisory groups and new or revised rules or guidelines that they promulgate or recommend from time to time may lengthen the regulatory review process, require us to perform additional studies, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our product candidates or lead to significant post-approval limitations or restrictions. Because the regulatory landscape for our CAR T-cell immunotherapy product candidates is new, we may face even more cumbersome and complex regulations than those emerging for gene therapy products and cell therapy products. Furthermore, even if our product candidates obtain required regulatory approvals, such approvals may later be withdrawn as a result of changes in regulations or the interpretation of regulations by applicable regulatory agencies.

As we or our strategic licensees advance product candidates, we and they will be required to consult with these regulatory groups and comply with all applicable guidelines, rules and regulations. Because the UCART19 studies are being sponsored by Servier and Allogene, they are directly interacting with the relevant regulatory agencies and we are not able to direct such interactions. Some of the discussions among our strategic licensees and relevant regulatory agencies could generate additional unexpected requirements from regulatory agencies that may apply to our wholly-controlled UCART product candidates, including UCART123, UCARTCS1, UCART22 and UCART 20x22 and could lead to potential delays or additional requirements, such as additional studies or modifications to our controlled clinical studies.

Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could decrease our ability to generate sufficient product revenue to maintain our business.

Even if we obtain regulatory approval for a product candidate, our products will remain subject to ongoing regulatory requirements.

Even if we obtain regulatory approval in a jurisdiction for the product candidates we develop, the approval will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, and submission of safety and other post-market information. Any regulatory approvals received for the product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and

surveillance to monitor the safety and efficacy of the product. For example, the holder of an approved BLA in the United States is obligated to monitor and report adverse events and any failure of a product to meet the specifications in the BLA. FDA guidance advises that patients treated with some types of gene therapy undergo follow-up observations for potential adverse events for as long as 15 years, Similarly, in the EU, pharmacovigilance obligations are applicable to all medicinal products. In particular, any marketing authorization holder has legal obligations to continuously collect data and conduct pharmacovigilance, i.e., the activities relating to the detection, assessment, understanding and prevention of adverse reactions and other medicine-related problems. Data have to be transmitted to the authorities within defined timelines, and any emerging concern about the benefit-risk balance has to be notified immediately. If necessary, competent authorities may request further investigations, including formal studies. Regulatory procedures exist for updating product information and implementing other safety measures. In addition to those obligations, holders of a marketing authorization for gene or cell therapy products must detail, in their application, the measures they envisage to ensure follow-up of the efficacy and safety of these products. In cases of particular concern, marketing authorization holders for gene or cell therapy products in the EU may be required to design a risk management system with a view to identifying, characterizing, preventing or minimizing risks related to those products, and may be obliged to carry out postmarketing studies and submit them to the EMA for review. In the United States, the holder of an approved BLA must also submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Similar provisions apply in the EU. In particular, any amendment to the marketing authorization (e.g., manufacturing processes, therapeutic indication(s), product information, etc.) must be reviewed by the EMA for medicinal products having received a centralized marketing authorization valid across the entire EU. Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws. Similarly, in the EU any promotion of medicinal products is highly regulated. For example, in the EU, it is prohibited to promote prescription medicinal products to the general public and is permitted exclusively to healthcare professionals. Additional and stricter rules may apply to promotional materials and activities, depending on the specific jurisdiction involved, and these may require their prior vetting by the competent national regulatory authorities.

In addition, product manufacturers and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP requirements and adherence to commitments made in the BLA or foreign marketing application. If we or a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured or if a regulatory agency disagrees with the promotion, marketing or labeling of that product, a regulatory agency may impose restrictions relative to that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market, suspension or revocation of the marketing authorization or suspension of manufacturing.

If we or our strategic licensees fail to comply with applicable regulatory requirements following approval of any of the product candidates we develop, national competent authorities may:

- issue a warning letter asserting a violation of the law;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend or terminate any ongoing clinical trials;
- refuse to approve a pending BLA or comparable foreign marketing application (or any supplements thereto) submitted by us or our strategic licensees;
- restrict the marketing, distribution or manufacturing of the product;
- seize or detain product or otherwise require the withdrawal or recall of product from the market;
- destroy or require destruction of products;
- refuse to permit the import or export of products; or
- refuse to allow us to enter into supply contracts, including government contracts.

Any of the foregoing regulatory actions could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit the ability to commercialize products and generate revenues. In addition, the FDA's policies, and policies of foreign regulatory agencies, may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we or our strategic licensees are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or our strategic licensees are not able to maintain regulatory compliance, marketing approval that has been obtained may be lost and we may not achieve or sustain profitability, which would adversely affect our business, prospects, financial condition and results of operations.

We expect the product candidates we develop will be regulated as biological products, or biologics, and therefore they may be subject to competition sooner than anticipated.

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, was enacted as part of the 2010 Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively, the ACA, to establish an abbreviated pathway for the approval of products that are biosimilar to or interchangeable with an FDA-approved biological product. The regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an approved biologic. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the reference product was approved under a BLA. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty.

We believe that if any of our product candidates is approved in the United States as a biological product under a BLA, it should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider the subject product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of the reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

Similarly in EU, a biosimilar is typically defined as a biological medicine highly similar to another already approved biological medicine (the 'reference medicine'). Developers of biosimilars are required to demonstrate through comprehensive comparability studies with the reference medicine that:

- their biological medicine is highly similar to the reference medicine, notwithstanding natural variability inherent to all biological medicines; and
- there are no clinically meaningful differences between the biosimilar and the reference medicine in terms of safety, quality and efficacy.

Biosimilars can only be commercialized in the EU once the period of market exclusivity on the reference medicine has expired. In general, this means that the biological reference medicine must have been authorized for at least eight years before another company can apply for approval of a similar biological medicine (that protection is referred to data exclusivity). Also, this typically means that the biological reference medicine must have been commercialized for at least ten years before another company's biosimilar medicine can be commercialized (that protection is referred to as market exclusivity). The overall ten-year market exclusivity period can be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are deemed to bring a significant clinical benefit in comparison with existing therapies. However, data and market exclusivity can be challenged under certain circumstances and there is therefore no guarantee that our products will benefit from the associated protection.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

We must obtain regulatory approval to market and sell our product candidates. For example, in the U.S., we must obtain FDA approval for each product candidate that we intend to commercialize, and in the EU we must obtain approval from the European Commission (EC), based on the opinion of the EMA. The approval processes are typically expensive, and the time required to obtain approval by the FDA, the EC and comparable foreign authorities is inherently unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for the commercialization of any product candidate and it is possible that none of our existing product candidates or any product candidates we may seek to develop in the future will ever obtain such regulatory approval.

The FDA or other regulatory authority, as applicable, may delay, limit or deny approval of our product candidates for many reasons, including disagreement with clinical trial design or implementation, determinations that a product candidate is not sufficiently safe or efficacious, objections to the statistical significance of data or our interpretation of data, objections to the production, formulation or labeling of our product candidates, and any other discretionary factors such regulators deem relevant.

This lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market the product candidates we develop, which would significantly harm our business, results of operations and prospects. In addition, even if we or our strategic licensees were able to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products (in jurisdictions where pricing is approved), may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a drug candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for the product candidates we develop.

We plan to seek orphan drug status for some or all of our product candidates, but we may be unable to obtain such designations or to maintain the benefits associated with such status, which may cause our revenue, if any, to be reduced.

We plan to seek orphan drug designation for some or all of our product candidates in specific orphan indications in which there is a medically plausible basis for the use of these products. Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, defined as a disease or condition with a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States when there is no reasonable expectation that the cost of developing and making available the drug or biologic in the United States will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested at any time before submitting a BLA. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. Although we intend to seek orphan product designation for some or all of our product candidates, we may never receive such designations.

If a product that has orphan drug designation subsequently receives the first FDA approval for a particular active ingredient for the disease for which it has such designation, the FDA may grant orphan product exclusivity, which means that the FDA may not approve any other applications, including a BLA, to market the same biologic for the same indication for seven years, except in limited circumstances such as a showing of clinical superiority of the subsequent product to the product with orphan product exclusivity or if FDA finds that the holder of the orphan drug exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the drug was designated. Even if we obtain orphan drug designation for a product candidate, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing pharmaceutical products. Orphan drug exclusive marketing rights in the United States may be limited or lost if we seek and obtain approval for an indication broader than the orphan designated indication and may be lost if the FDA later determines that the request for designation was materially defective, the disease or condition exceeded the population threshold, or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition. Further, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve the same drug with the same active moiety for the same condition if the FDA concludes that the later drug is safer, more effective, or makes a major contribution to patient care. Furthermore, the FDA can waive orphan exclusivity if we are unable

Similarly, in EU, a medicinal product may receive orphan designation under Article 3 of Regulation (EC) No 141/2000 (Orphan Regulation). This applies to products that are intended for a life-threatening or chronically debilitating condition and either (a) such condition affects no more than five in 10,000 persons in the EU when the application is made, or (b) the product, without the benefits derived from orphan status, would unlikely generate sufficient return in the EU to justify the necessary investment. Moreover, in order to obtain orphan designation in the EU it is necessary to demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the EU, or if such a method exists, the product will be of significant benefit to those affected by the condition. Orphan designation is lost if it is established that the product no longer meets the orphan criteria before market authorization is granted.

In EU, orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and applicants can benefit from specific regulatory assistance and scientific advice. Products receiving orphan designation in the EU can receive ten years of market exclusivity from the date on which they are granted a market authorization in the EU, during which time no similar medicinal product for the same indication may be placed on the market. The period of market exclusivity is extended by two years for orphan drug products that have also complied with an agreed Pediatric Investigation Plan (Article 37 of the Orphan

Regulation). However, the 10-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, i.e. the prevalence of the condition has increased above the orphan designation threshold or it is judged that the product is sufficiently profitable so as not to justify maintenance of market exclusivity. Additionally, marketing authorization may be granted to a similar product for the same therapeutic indication at any time if:

- the second applicant can establish that its product, although similar to the orphan medicinal product already authorized, is safer, more
 effective or otherwise clinically superior;
- the holder of the marketing authorization of the orphan medicinal product consents to a second orphan medicinal product application; or
- the holder of the marketing authorization of the orphan medicinal product cannot supply sufficient quantities of the orphan medicinal product.

If we do not obtain, or if – despite having obtained it— we subsequently loose, orphan exclusivity for our products that do not have broad patent protection, our competitors may sell the same drug to treat the same condition and our revenues will be reduced.

Although we may seek fast-track designation from the FDA for some or all of our product candidates, there is no assurance that such designation will be granted or, if granted that it will lead to a faster development or regulatory review or approval process.

We may seek fast-track designation and review for some or all of our product candidates. If a drug is intended for the treatment of a serious or life-threatening condition or disease, the drug sponsor may apply for FDA fast track designation. The FDA has broad discretion whether or not to grant this designation. Thus, even if we believe a particular product candidate is eligible for this designation, we cannot assure that the FDA would decide to grant it. Moreover, even if we do receive fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures and such designation does not assure ultimate approval. In addition, the FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program.

Although we may seek a regenerative medicine advanced therapy (RMAT) designation, a breakthrough therapy designation and/or priority medicines (PRIME) support for our product candidates, there is no assurance that such designations will be granted or, if granted that they will lead to a faster development or regulatory review or approval process.

We may seek special designations for some or all of our product candidates, including RMAT designation or breakthrough therapy designation from the FDA, or PRIME support from the EMA.

A drug is eligible for RMAT designation if, (i) the drug is a regenerative medicine therapy, which is defined as a cell therapy, therapeutic tissue engineering product, human cell and tissue product, or any combination product using such therapies or products, except for those regulated solely under Section 361 of the Public Health Service Act and part 1271 of Title 21, Code of Federal Regulations; (ii) the drug is intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition; and (iii) preliminary clinical evidence indicates that the drug has the potential to address unmet medical needs for such disease or condition.

A drug may be designated as a breakthrough if the product is defined as a product that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development.

The EMA's PRIME scheme focuses on medicines that may offer a major therapeutic advantage over existing treatments, or benefit patients without treatment options. To be accepted for PRIME support, a medicine has to show its potential to benefit patients with unmet medical needs based on early clinical data. Through PRIME, the EMA offers early, proactive and enhanced support to drug developers to optimize the generation of robust data on a therapy's benefits and risks and enable accelerated assessment of medicinal products applications.

For product candidates that obtain an RMAT designation, breakthrough therapy designation or are accepted for PRIME support, interaction and communication between the FDA or the EMA, as applicable, and the sponsor of the trial can help to identify the most efficient path for clinical development. However, the granting of such designations and provisions of support is within the discretion of the FDA or the EMA, respectively. Accordingly, even if we believe, after completing early clinical trials, that one of our product candidates meets the criteria for RMAT designation, breakthrough therapy designation, or PRIME

support, the FDA or EMA, as the case may be, may disagree and instead decide not to grant such designation or support. In any event, the receipt of RMAT designation, breakthrough therapy designation or PRIME support for a product candidate may not result in a faster development process, review or approval compared to products considered for approval under conventional regulatory procedures and does not assure ultimate regulatory approval. In addition, even if one or more of our product candidates qualify for RMAT designation, breakthrough therapy designation or PRIME support, the FDA or EMA, may later decide that such product candidates no longer meet the conditions for qualification.

Even if we or our strategic licensees obtain and maintain approval for product candidates in the United States or another jurisdiction, we or our strategic licensees may never obtain approval for the same product candidates in other jurisdictions, which would limit market opportunities and adversely affect our business.

Approval of a product candidate in the United States by the FDA or in another jurisdiction by the requisite regulatory agencies in such other jurisdiction does not ensure approval of such product candidate by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. The approval process varies among countries and may limit our or our strategic licensees' ability to develop, manufacture, promote and sell our product candidates internationally. Failure to obtain marketing approval in international jurisdictions would prevent the product candidates from being marketed outside of the jurisdictions in which regulatory approvals have been received. In order to market and sell the product candidates in the EU and many other jurisdictions, we and our strategic licensees must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and may involve additional pre-clinical studies or clinical trials both before and post approval. In many countries, a product candidate must be approved for reimbursement before it can be approved for sale in that country. In some cases, the intended price for the product is also subject to approval. Further, while regulatory approval of a product candidate in one country does not ensure approval in any other country, a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory approval process in others. If we or our strategic licensees fail to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, the target market will be reduced and the ability to realize the full market potential of the subject product candidates will be harmed and our business may be adversely affected.

Depending on the results of clinical trials and the process for obtaining regulatory approvals in other countries, we or our strategic licensees may decide to first seek regulatory approvals of a product candidate in countries other than the United States, or we or our strategic licensees may simultaneously seek regulatory approvals in the United States and other countries, in which case we or our strategic licensees will be subject to the regulatory requirements of health authorities in each country in which we seek approvals. Obtaining regulatory approvals from health authorities in countries outside the United States and the EU is likely to subject us or our strategic licensees to risks in such countries that are substantially similar to the risks associated with obtaining approval in the United States or the EU described herein.

Government restrictions on pricing and reimbursement, as well as other healthcare payor cost-containment initiatives, may negatively impact our ability to generate revenues if we obtain regulatory approval for any of our product candidates.

Third-party payors, whether domestic or foreign, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. The continuing efforts of various governments, insurance companies, managed care organizations and other payors to contain or reduce healthcare costs may adversely affect our ability or our strategic licensees' ability to set a price for our products that we believe is fair, to achieve profitability, and to obtain and maintain market acceptance by patients and the medical community.

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory initiatives to contain healthcare costs. By way of example, in the United States, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the ACA) was enacted in March 2010.

The ACA expanded health care coverage through Medicaid expansion and the implementation of a tax penalty for individuals who do not maintain mandated health insurance coverage (the so-called 'individual mandate'). The ACA also contains a number of provisions that affect coverage and reimbursement of drug products. Uncertainty remains regarding the implementation and impact of the ACA. There have been sustained Congressional and legal efforts to modify or repeal all or certain provisions of the ACA. For example, tax reform legislation was enacted at the end of 2017 that eliminated the individual mandate beginning in 2019. We cannot predict the ultimate content, timing or effect of any changes to the ACA or other federal and state reform efforts, and there can be no assurance that any such health care reforms will not adversely affect our future business and financial results.

U.S. federal and state governments have shown significant interest in implementing cost-containment programs to limit the growth of government-paid healthcare costs, including price controls, waivers from Medicaid drug rebate law requirements, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, in August 2022, the United States enacted the Inflation Reduction Act of 2022 (IRA), which includes two policies that are designed to have a direct impact on drug prices. The IRA requires the federal government to negotiate prices for certain high-cost drugs covered under Medicare and requires drug manufacturers to pay rebates to Medicare if they increase prices faster than inflation for drugs used by Medicare beneficiaries. The private sector has also sought to control healthcare costs by limiting coverage or reimbursement or requiring discounts and rebates on products. We are unable to predict what additional legislation, regulations or policies, if any, relating to the healthcare industry or third party coverage and reimbursement may be enacted in the future or what effect such legislation, regulations or policies would have on our business. Any cost containment measures could significantly decrease the available coverage and the price we might establish for our potential products, which would have an adverse effect on our net revenues and operating results.

Likewise, in many EU Member States, legislators and other policymakers continue to propose and implement healthcare cost-containing measures in response to the increased attention being paid to healthcare costs in the EU. Certain of these changes could impose limitations on the prices we will be able to charge for our products and any approved product candidates or the amounts of reimbursement available for these products from governmental and private third-party payers, may increase the tax obligations on pharmaceutical companies or may facilitate the introduction of generic competition with respect to our products. Further, an increasing number of EU countries Member States and other non-U.S. countries use prices for medicinal products established in other countries as "reference prices" to help determine the price of the product in their own territory. If the price of one of our products decreases substantially in a reference price country, that could impact the price for such product in other countries. Consequently, a downward trend in prices of our products in some countries could contribute to similar downward trends elsewhere, which would have a material adverse effect on our revenues and results of operations. Also, in order to obtain reimbursement for our products in some countries, we may be required to conduct clinical trials that compare the cost-effectiveness of our products to other available therapies.

Moreover, this political and legislative uncertainty could harm our and our strategic licensees' ability to market any products and generate revenues. Cost containment measures that healthcare payors and providers are instituting and the effect of further healthcare reform could significantly reduce potential revenues from the sale of any of our product candidates approved in the future, and could cause an increase in our compliance, manufacturing, or other operating expenses.

In some countries, the proposed pricing for a biopharmaceutical product must be approved before it may be lawfully marketed. In addition, in certain foreign markets, the pricing of a biopharmaceutical product is subject to government control and reimbursement may in some cases be unavailable. The requirements governing drug pricing vary widely from country to country. For example, the EU provides options for its Member States to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. An EU Member State may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for biopharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, biopharmaceutical products launched in the EU do not follow price structures of the United States and generally tend to have significantly lower prices.

We believe that pricing pressures will continue and may increase, which may make it difficult for us to sell our potential products that may be approved in the future at a price acceptable to us or any of our future collaborators.

We are subject to healthcare laws and regulations, which could expose us to the potential for criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and others will play a primary role in the recommendation and prescription of our products, if approved. Our arrangements with such persons and third-party payors must be structured in accordance with the broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we research, market, sell and distribute our products, if we obtain marketing approval. Restrictions under applicable federal, state and foreign healthcare laws and regulations include but are not limited to the following:

- The federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration (including any kickback, bribe or rebate), directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase or lease, order or recommendation of, any item, good, facility or service, for which payment may be made under federal healthcare programs such as Medicare and Medicaid.
- The federal civil and criminal false claims laws and civil monetary penalties laws, which impose criminal and civil penalties, including
 those from civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented,
 claims for payment that are false or fraudulent or making a false statement to avoid, decrease, or conceal an obligation to pay money to the
 federal government.
- The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program or knowingly and willingly falsifying, concealing or covering up a material fact or making false statements relating to healthcare matters.
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing
 regulations, which impose certain requirements on covered entities and their business associates, including mandatory contractual terms,
 with respect to safeguarding the privacy, security and transmission of individually identifiable health information.
- The federal transparency requirements under the Physician Payments Sunshine Act, enacted as part of the ACA, that require applicable manufacturers of covered drugs, devices, biologics and medical supplies to track and annually report to CMS payments and other transfers of value provided to physicians and teaching hospitals and certain ownership and investment interests held by physicians or their immediate family members.
- Analogous laws and regulations in various U.S. states, such as state anti-kickback and false claims laws, which may apply to items or
 services reimbursed by any third-party payor, including commercial insurers, state marketing and/or transparency laws applicable to
 manufacturers that may be broader in scope than U.S. federal requirements, state laws that require biopharmaceutical companies to comply
 with the biopharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S.
 government, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from
 each other in significant ways and may not have the same effect as HIPAA.

Similar legislation is applicable in other countries, including by way of example and without limitation: the UK's Bribery Act 2010 or Article D1453-1 to D1453-9 of the French Public Health Code on Transparency of Benefits Given by Companies Manufacturing or Marketing Health and Cosmetic Products for Human Use. Furthermore, in the EU,

harmonized rules prohibit gifts, pecuniary advantages or benefits in kind to Health Care Professionals (HCPs) unless they are inexpensive and relevant to the practice of medicine or pharmacy. Similarly, strict rules apply to hospitality at sales promotion events. Based on these rules, a body of industry guidelines and sometimes national laws in force in individual EU Member States has been introduced to fight improper payments or other transfers of value to HCPs, and in general inducements that may have a broadly promotional character.

Ensuring that our business practices and that our business arrangements with third parties comply with applicable healthcare laws and regulations could be costly. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations were found to be in violation of any laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, individual imprisonment and exclusion from government funded healthcare programs, such as Medicare and Medicaid, any of which could substantially disrupt our operations. If the physicians or other providers or entities with whom we expect to do business are found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Significant regulation applies to the manufacturing of our products and the manufacturing facilities on which we rely may not meet regulatory requirements or may have limited capacity.

All entities involved in the preparation of products for clinical studies or commercial sale, including our existing CMOs as well as our in-house manufacturing facilities in Raleigh, North Carolina, and Paris, France, are subject to extensive regulations. For example, in the United States, components of a finished CAR T-cell immunotherapy product approved for commercial sale or used in clinical studies must be manufactured in accordance with the relevant current Good Manufacturing Practices (cGMP) requirements. Similarly, in the EU, manufacturers and importers of active substances and/or medicinal products must be authorized to carry out these activities. Each of their facilities must comply with cGMP to obtain a manufacturing or import authorization. Also, applicants for a marketing authorization are responsible to ensure that the proposed manufacturing sites included in the marketing authorization application comply with cGMP.

The FDA's cGMP regulations and comparable regulations in other jurisdictions govern manufacturing processes and procedures (including record keeping) and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of adventitious agents or other contaminants, or to inadvertent changes in the properties or stability of the product candidates we develop that may not be detectable in final product testing. In the United States, we or our contract manufacturers must supply all necessary documentation in support of a BLA on a timely basis and must adhere to the FDA's cGMP requirements enforced by the FDA through its facilities inspection program. Our facilities and quality systems and the facilities and quality systems of our third-party contractors must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of our product candidates. In addition, the regulatory authorities may, at any time, inspect a manufacturing facility involved with the preparation and/or control of our product candidates as well as the associated quality systems for compliance with the regulations applicable to the activities being conducted.

Similarly, in the EU, Directive 2003/94/EC, Regulation (EU) No 1252/2014 and Regulation (EU) 2017/1569 lay down the principles and guidelines of cGMP in respect of active substances for medicinal products for human use as well as investigational and medicinal products for human use and require that products are consistently produced and controlled in accordance with the applicable quality standards. EU legislation also requires that medicinal products and investigational medicinal products that are imported from third countries are manufactured in accordance with standards at least equivalent to the GMP standards laid down in the EU. These rules, together with the detailed EU Guidelines on cGMP that are laid down in EudraLex—Volume 4, provide guidance on, inter alia, quality management, personnel, premises, documentation, production operations, quality control, outsources activities, complaints and product recall and self-inspection. GMP inspections are performed by the competent authorities of the EU Member States, and are coordinated by the EMA in the case of medicinal products that are authorized through the EU centralized procedure. Furthermore, specific guidance laying down GMP requirements for the manufacturing of ATMPs that have been granted a marketing authorization and of ATMPs used in a clinical trial setting have been adopted by the EMA.

If we or any of our third-party CMOs fail to provide appropriate products or maintain regulatory compliance, the regulator can impose regulatory sanctions including, among other things, the imposition of a hold on clinical trials, the refusal to permit a clinical trial to commence, the refusal to use certain batches of product candidates intended to be used in the clinical trials, the refusal to approve a pending application for a new product, the revocation or non-renewal of a pre-existing approval, or the refusal to accept some non-clinical and/or clinical data generated with material for which that third-party was responsible. As a result, our business, financial condition and results of operations may be materially harmed.

Manufacturing at our in-house manufacturing facilities requires significant resources and substantial regulatory engagement. Our commercial manufacturing facility in Raleigh, North Carolina, will be subject to FDA inspection, including preapproval inspections, which we may never successfully complete. Even if the facility is appropriately qualified, we will be subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Administration and other foreign agencies to ensure strict compliance with cGMPs, and other government regulations. Accordingly, bringing our own commercial manufacturing capabilities online and maintaining compliant manufacturing capabilities may be costlier than we anticipate or may result in delays.

In addition, if supply from one approved manufacturer or supplier, including our own in-house manufacturing facilities, is interrupted, there could be a significant disruption in commercial and/or clinical supply of our products. Identifying and engaging an alternative manufacturer or supplier that complies with applicable regulatory requirements could result in further delay. Applicable regulatory agencies may also require additional studies if a new manufacturer or supplier is relied upon in connection with commercial production. Switching manufacturers or suppliers may involve substantial costs and time and is likely to result in a delay in our desired clinical and commercial timelines.

These factors could cause commercialization of our product candidates to be delayed, cause us to incur higher costs, or prevent us from commercializing our products successfully. Furthermore, if our manufacturing facilities are unable to produce high quality product for our clinical and commercial needs, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical studies may be delayed or we could lose potential revenue.

Risks Related to Calyxt, Inc.

There is no assurance that the Calyxt Merger will be completed in a timely manner or at all.

On January 13, 2023, Calyxt, Calypso Merger Subsidiary, LLC, a wholly-owned subsidiary of Calyxt, Cibus Global LLC ("Cibus") and certain other parties named therein, entered into an Agreement and Plan of Merger (the "Merger Agreement"), pursuant to which, subject to the terms and conditions thereof, Calyxt and Cibus will merge in an all-stock transaction (the "Calyxt Merger"). The proposed Calyxt Merger would combine two companies in agriculture-based gene editing, with facilities for trait development and next-generation plant breeding.

The closing of the Calyxt Merger is subject to a number of closing conditions, including the approval by Calyxt's stockholders of the issuance of shares of Calyxt's common stock pursuant to the Merger Agreement and other customary closing conditions. If the conditions are not satisfied or waived, the merger will not occur or will be delayed.

If the Calyxt Merger is not consummated, as Calyxt's largest stockholder, we would be indirectly subject to certain material risks that would be faced by Calyxt, including:

- Calyxt has incurred and expects to continue to incur significant expenses related to the Calyxt Merger, which will be payable even if the Calyxt Merger is not consummated;
- Calyxt could be obligated to pay Cibus a termination fee of up to \$1.0 million under certain circumstances pursuant to the Merger Agreement;
- the market price of Calyxt's common stock may decline to the extent that the current market price reflects a market assumption that the Calyxt Merger will be completed; and
- Calyxt may not be able to pursue an alternate merger or other strategic transaction if the Calyxt Merger is not completed.

Following the closing of the Calyxt Merger, we are expected to own approximately 2.4% of the equity interests of the combined company. In connection with the Merger Agreement, we executed a voting agreement with Cibus to vote in favor of and approve all the transactions contemplated by the Merger Agreement, subject to the terms and conditions thereof. Pursuant to the voting agreement, at such time that the annual revenues of the combined company equals \$25.0 million or more for two consecutive 12-month periods after the closing of the Calyxt Merger, Cibus will use commercially reasonable efforts to terminate our guaranty of Calyxt's lease agreement with respect to its headquarters, which we provided in favor of the landlord of that property. As of December 31, 2022, our lease guaranty represents a liability in the amount of \$24.4 million over the remaining 15-year lease period. Cibus, however, will not be required to replace us as guarantor or pay any fees in connection with termination of the guaranty. Until the parties are able to terminate our lease guaranty, the post-Calyxt Merger combined company may not renew or extend Calyxt's lease or enter into any amendment that would increase our liability under the lease guaranty. Further, the combined company, from and after the closing of the Calyxt Merger, agrees to indemnify us and our affiliates in connection with the Calyxt lease and our guaranty thereof.

If the Calyxt Merger is not consummated, we will continue to be exposed to Calyxt as a result of our equity interest in it. In such circumstance and in light of Calyxt's capital resource constraints, Calyxt may default on its lease, which would trigger our lease guaranty. Although Calyxt indemnifies us with respect to our lease guaranty, if Calyxt defaults on its lease it is unlikely that Calyxt would be able to reimburse any amounts required to be paid by us pursuant to this guarantee. Accordingly, this could have a significant adverse impact on our financial condition.

If the Calyxt Merger is not completed, Calyxt's board of directors may decide to pursue a liquidation and dissolution of Calyxt. In such an event and in light of Calyxt's current capital resource constraints, it is unlikely that substantial resources would be available for distributions to stockholders, including us.

While Calyxt has entered into the Merger Agreement with Cibus, the closing of the Calyxt Merger may be delayed or may not occur at all, and there can be no assurance that the Calyxt Merger, if completed, will deliver the anticipated benefits Calyxt expects or enhance stockholder value. If the Calyxt Merger is not completed and the Merger Agreement is terminated under certain circumstances, Calyxt may be required to pay Cibus a termination fee of \$1.0 million. Even if a termination fee is not payable in connection with a termination of the Merger Agreement, Calyxt will have incurred significant fees and expenses, which must be paid whether or not the merger is completed. Further, beginning at the earlier of March 15, 2023 and the date Calyxt's unrestricted cash balance first drops below \$1.5 million, Calyxt can request, and Cibus has agreed to provide to Calyxt an unsecured, interest-free revolving line of credit of up to \$3,000,000 in cash, which amount may be increased to \$4,000,000 if Cibus elects to extend the outside date for the Calyxt Merger to June 30, 2023 (the "Interim Funding"). While the outstanding balance of the Interim Funding will be reduced to zero in connection with the closing of the Calyxt Merger, if the Merger Agreement is terminated under certain circumstances, any portion of the Interim Funding that has been drawn would become due and payable.

If for any reason the Calyxt Merger is not completed, Calyxt's board of directors may elect to, among other things, attempt to complete another strategic transaction, attempt to sell or otherwise dispose of the various assets of Calyxt, or seek to continue to operate Calyxt's business. Any of these alternatives would be costly and time-consuming and would require that Calyxt obtain additional near-term funding. Calyxt expects that it would be difficult to secure such funding in a timely manner, on favorable terms or at all. Further, in each of the foregoing scenarios, the failure to complete the Calyxt Merger may result in negative publicity and a negative impression of Calyxt in the investment community, could significantly harm the market price of Calyxt's common stock, may affect Calyxt's relationship with employees, customers and potential customers and other partners in the business community, and may make further impede the ability to raise additional financing. As Calyxt's largest shareholder, we would be indirectly affected by each of these adverse consequences.

It is unlikely that Calyxt would be able to obtain additional financing or to find a new strategic partner. If a new strategic partner were identified, there is no assurance that Calyxt would be able to close an alternative transaction on terms that are at least as favorable as the terms set forth in the Merger Agreement. Accordingly, there is significant risk that such alternatives, if any, may not be successfully consummated, if pursued. To the extent that Calyxt seeks and is able to raise additional capital through the sale of equity or convertible debt securities, our ownership interest in Calyxt will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our rights as a common stockholder of Calyxt. Debt financing or preferred equity financing, if available, may involve agreements that include covenants limiting or restricting Calyxt's ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If Calyxt raises funds through strategic transactions or commercial or licensing arrangements with third parties, Calyxt may have to relinquish valuable rights to its intellectual property, technologies, future revenue streams or product candidates or to grant licenses on terms that may not be favorable to it. Even if consummated, it is unlikely that any such transaction will fully address Calyxt's current capital resource constraints and liquidity challenges, and Calyxt may need to significantly delay or further scale back operations beyond its already narrowly focused operational activities. In such circumstances, the Calyxt board of directors may decide that it is in the best interests of the Calyxt stockholders to dissolve the company and liquidate its assets.

If the Calyxt Merger is not completed, the Calyxt board of directors may decide that it is in the best interests of the Calyxt stockholders to dissolve the company and liquidate its assets. In that event, the amount of cash, if any, available for distribution to the Calyxt stockholders, including us, would depend on the timing of such decision and the timing of such liquidation since the amount of cash available for distribution continues to decrease as Calyxt funds its operations and incurs fees and expenses related to the merger, including pursuant to the Interim Funding. In addition, if the Calyxt board of directors were to approve and recommend, and the Calyxt stockholders were to approve, a dissolution of Calyxt, it would be required under the DGCL to pay its outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to the Calyxt stockholders. As a result of this requirement, a portion of Calyxt's assets may need to be reserved pending the resolution of such obligations. In addition, Calyxt may be subject to litigation or other claims related to a liquidation and dissolution of the company. If a liquidation and dissolution were pursued, the Calyxt board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, in such a circumstance and in light of Calyxt's current capital resources, it is highly unlikely that substantial resources, if any, would be available for distributions to Calyxt's stockholders, including us. We would likely lose all or a significant portion of our investment in Calyxt.

For so long as we hold a significant equity interest in Calyxt, we are indirectly exposed to each of the risks that affects Calyxt.

As of February 28, 2023, we own a 48.6% equity interest in Calyxt, Inc., which corresponds to our Plants segment. For purposes of our audited financial statements, Calyxt is classified as a disposal group held for sale and as a discontinued operation. Nevertheless, although Calyxt's operations are not material to our consolidated business or operations, for so long as we hold a significant equity interest in Calyxt, we are indirectly exposed to each of the risks that affects Calyxt's business performance, financial condition and results of operations. Following the closing of the proposed Calyxt Merger, Cellectis S.A. is expected to own approximately 2.4% of the equity interests of the combined company. Accordingly, if the proposed Calyxt Merger is consummated it would result in a loss of control over Calyxt. Commencing with the second quarter of 2023, Calyxt should no longer be a consolidated subsidiary if the proposed Calyxt Merger is consummated.

The material risks that Calyxt faces, include:

Risks Related to the Calyxt Merger

- In light of its capital resource constraints, Calyxt has engaged in cost reduction and other cash-focused measures, which may result in challenges in managing its business and executing on its business strategy while successfully completing the Calyxt Merger. If the Calyxt Merger is not consummated, the loss of institutional knowledge and reductions in operational infrastructure resulting from such cost reduction measures may adversely affect Calyxt's ability to effectively operate its business.
- The pendency of the Calyxt Merger could have an adverse effect on the trading price of Calyxt's common stock and on Calyxt's continuing day-to-day operations and third party relationships.

Risks Related to Calyxt's Financial Position and Need for Additional Capital

- If the Calyxt Merger is not completed, Calyxt's ability to continue as a going concern will depend on its ability to obtain additional near-term financing, which may not be available on acceptable terms or at all. Failure to obtain this necessary capital when needed may force Calyxt to delay, limit or terminate its product development efforts or cease operations. In light of Calyxt's current stock price and capital resource constraints, there can be no assurance that a potential financing transaction, if any were available, would be sufficient for Calyxt's financing needs.
- Calyxt has streamlined and focused its business activities on preserving cash sufficient to achieve a closing of the Calyxt merger and currently has no source of material near-term revenue. If the Calyxt Merger is not completed and Calyxt does not pursue a liquidation and dissolution, its ability to continue as a going concern and advance its operations and key products will depend on its ability to obtain additional financing in the near-term.
- Calyxt has a limited operating history under its current synthetic biology business model, which makes it difficult to evaluate its current
 business and prospects and to assess its future viability. In this emergent industry, Calyxt encounters challenges in developing products,
 determining appropriate investments of its limited resources, capital raising and gaining customers for novel products, all of which entails
 significant upfront investment. There is significant risk that Calyxt will not be able to scale the BioFactory.
- If Calyxt were to continue to operate and cannot finance and achieve commercial scale production levels or commercially viable production economics for enough products to support its business plan, including through establishing and maintaining sufficient commercial scale and volume, it will be unable to achieve a sustainable business.

Risks Related to the Company's Business and its Operations

- Calyxt's operational and financial success depends on its ability to successfully deliver synthetic biology solutions for an expanded group of end markets, which requires adaptations to operational infrastructure, substantial capital resources, and is subject to a variety of costs, risks and uncertainties. If the Calyxt Merger is not completed and Calyxt does not pursue a liquidation and dissolution, it would need to execute on its business plan with limited capital resources.
- If Calyxt fails to effectively and efficiently manage and implement its business strategy, if it is unable to differentiate its offerings and capabilities from competitors in the synthetic biology industry, who may have a more established position in the synthetic biology industry, greater financial and operational resources, and other competitive advantages, or if Calyxt is otherwise not successful in marketing its offerings and capabilities to new target customers, its business, financial condition, and results of operations would be adversely impacted.
- The BioFactory production system and Calyxt's ability to produce plant-based chemistries remain relatively unproven and may not be successful at scale or at all. Because of the novelty and complexity of Calyxt's technology and production system, achieving broad commercial success may require Calyxt to overcomes potential customer skepticism regarding its capabilities, particularly in light of the historical challenges of scaling production in the field of synthetic biology.
- Calyxt faces significant competition and many of its competitors have substantially greater financial, technical, and other resources than Calyxt. To compete in an industry marked by rapid technological advancement, Calyxt's development activity needs to occur on a timely and cost-effective basis, and it will need to continue to advance its technology despite its constrained capital resources.
- Potential customers will be required to make assumptions about future product demand that may prove to be incorrect and must accept Calyxt's ability to execute on product development initiatives, including its ability to continue as a going concern through the product development lifecycle.
- If Calyxt cannot enter into new customer partnerships and successfully execute on the underlying product development projects to bring a customer's plant-based chemistry to commercial scale production and ultimately sell them the product, its business will be adversely affected. In its business development efforts, Calyxt may spend considerable time and money, which may not result in a commercial agreement.
- Calyxt relies on third parties for at-scale production and other services, and any performance issues by such third parties, or Calyxt's
 inability to engage third parties on acceptable terms or to maintain such agreements, may impact Calyxt's ability to successfully meet its
 commercial obligations. Calyxt has limited control over the execution of such third parties' activities and poor or improper execution
 could impair success or delay production. Ultimately, Calyxt remains responsible. Switching third-party service providers can be costly
 and time consuming.
- If Calyxt's technology licensees are delayed or unsuccessful in their development activities associated with their license of the technology, Calyxt may not receive milestone and/or royalty payments as expected, and its financial results could be adversely affected.
- Any outdoor agriculture product development agreements that Calyxt may enter in the future may be delayed or may be unsuccessful, which could adversely affect its financial results.

Risks Related to Intellectual Property

- Patents and patent applications involve highly complex legal and factual questions, which, if determined adversely to Calyxt could negatively impact its competitive position. Whether or not challenged, Calyxt's or its licensors' patents and patent applications may not adequately protect its product candidates or technology or prevent others from designing their products or technology to avoid being covered by Calyxt's or its licensors' patent claims. If the breadth or strength of protection provided by the patents Calyxt owns or licenses is threatened, it could dissuade companies from partnering with it to develop, and could threaten the ability to successfully commercialize, Calyxt's product candidates. If Calyxt or its licensors fail to obtain and maintain patent protection and trade secret protection of its product candidates and technology, it could lose competitive advantage.
- Calyxt will not seek to protect its intellectual property rights in all jurisdictions throughout the world and because the laws of some countries do not protect intellectual property rights to the same extent as laws in the U.S., it may not be able to adequately enforce its intellectual property rights even in the jurisdictions where it seeks protection. Competitors may seek to exploit such gaps in intellectual property protection.
- Third parties may assert rights to inventions that Calyxt develops or otherwise regards as its own. Such claims may arise from ambiguities regarding ownership or assignment of intellectual property rights in Calyxt's written agreements with R&D partners or agreements of third parties with Calyxt's employees, contractors or consultants.
- Any infringement, misappropriation, or other violation by Calyxt of intellectual property rights of others may prevent or delay its product development efforts and may prevent or increase the costs of successful commercialization by Calyxt, its customers or its licensees.
 Because such claims involve complex factual and legal questions, their outcome is uncertain and successful infringement claims may result in substantial damages. Such proceedings are inherently costly and may result in some of Calyxt's confidential information being disclosed.
- Calyxt may be unsuccessful in developing, licensing, or acquiring intellectual property that may be required to develop and commercialize its product candidates. If Calyxt is unable to successfully acquire or in-license rights to required third-party intellectual property and proprietary rights or maintain the existing intellectual property and proprietary rights Calyxt has, it may have to cease development of the relevant program, product, or product candidate, which could have a material adverse effect on its business.
- Calyxt licenses a portion of its intellectual property from us and the University of Minnesota, and any breach of the license agreements could result in monetary damages or termination of the license agreements.

Risks Related to Regulatory and Legal Matters

- Ethical, legal, and social concerns about products using genetically modified or edited plant cells could limit or prevent the use of Calyxt's products and technologies, result in greater regulation or restrictions, and could harm its business.
- Because it is difficult to predict whether regulators will alter the manner in which they interpret existing federal and state laws and regulations on hemp or institute new regulations, Calyxt may become subject to increasing regulation as a result of its hemp development activities, which could require it to incur additional costs associated with compliance requirements.
- With respect to gene editing and genetic modification in plants, the regulatory environment outside the United States varies greatly from jurisdiction to jurisdiction and there is less certainty how Calyxt's products will be regulated. Evaluating and complying with global regulatory requirements is costly and time-consuming.
- Calyxt may use biological materials in its business and is subject to numerous environmental, health and safety laws and regulations.
 Compliance with such laws and regulations and any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.
- The regulatory environment in the United States is uncertain and evolving and compliance may involve significant expense. Because
 Calyxt's customers will generally be responsible for regulatory activities, this may impact our customers' willingness to utilize Calyxt's
 products.
- If Calyxt is sued for defective products and if such lawsuits were determined adversely, it could be subject to substantial damages, for which insurance coverage is not available.
- If Calyxt is unable to maintain compliance with Nasdaq's listing requirements, its common stock may be delisted from The Nasdaq Capital Market, which could have a material adverse effect on Calyxt's financial condition and could make it more difficult for us to sell our shares.
- If Calyxt's common stock becomes subject to the penny stock rules, it would become more difficult to trade shares of its common stock.

Risks Related to Calyxt's Organization and Operation

- Calyxt's ability to use its net operating losses to offset future taxable income may be subject to certain limitations.
- Changes to Calyxt's strategic business focus have placed significant demands on its management and infrastructure.
- Calyxt depends on key management personnel and attracting and retaining other qualified personnel, and its business could be harmed if it loses key management personnel. In addition, Calyxt is substantially dependent on its remaining employees to facilitate the consummation of the Calyxt Merger.
- Calyxt's business and operations would suffer in the event of computer system failures, cyber-attacks, or a deficiency in its cyber-security.
- Calyxt's business activities are currently conducted at a limited number of locations, which makes it susceptible to damage or business disruptions caused by natural disasters or acts of vandalism.

Risks Related to Intellectual Property

Our ability to compete may decline if we do not adequately protect our proprietary rights.

Our commercial success depends, in part, on obtaining and maintaining proprietary rights to our and our licensors' intellectual property estate, including with respect to our product candidates, as well as successfully defending these rights against third-party challenges. We will only be able to protect our product candidates from unauthorized use by third parties to the extent that valid and enforceable patents, or effectively protected trade secrets, cover them. Our ability to obtain patent protection for our product candidates is uncertain due to a number of factors, including:

- we or our licensors may not have been the first to invent the technology covered by our or their pending patent applications or issued
 patents;
- we cannot be certain that we or our licensors were the first to file patent applications covering our product candidates, including their compositions or methods of use, as patent applications in the United States and most other countries are confidential for a period of time after filing;
- others may independently develop identical, similar or alternative products or compositions or methods of use thereof;
- the disclosures in our or our licensors' patent applications may not be sufficient to meet the statutory requirements for patentability and the
 plausibility case law requirements that may exist in certain jurisdictions;
- any or all of our or our licensors' pending patent applications may not result in issued patents;
- we or our licensors may not seek or obtain patent protection in countries or jurisdictions that may eventually provide us a significant business opportunity;
- any patents issued to us or our licensors may not provide a basis for commercially viable products, may not provide any competitive
 advantages, or may be successfully challenged by third parties, which may result in our or our licensors' patent claims being narrowed,
 invalidated or held unenforceable;
- our compositions and methods may not be patentable;
- others may design around our or our licensors' patent claims to produce competitive products that fall outside of the scope of our or our licensors' patents; and
- others may identify prior art or other bases upon which to challenge and ultimately invalidate our or our licensors' patents or otherwise render them unenforceable.

Even if we own, obtain or in-license patents covering our product candidates or compositions, we may still be barred from making, using and selling our product candidates or technologies because of the patent rights or other intellectual property rights of others. Others may have filed, and in the future may file, patent applications covering compositions, products or methods that are similar or identical to ours, which could materially affect our ability to successfully develop and, if approved, commercialize our product candidates. In addition, because patent applications can take many years to issue, there may be currently pending applications unknown to us that may later result in issued patents that our product candidates or compositions may infringe. These patent applications, including intermediate documents, may have priority over patent applications filed by us or our licensors.

Obtaining and maintaining a patent portfolio entails significant expense of resources. Part of such expense includes periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications due over the course of several stages of prosecuting patent applications, and over the lifetime of maintaining and enforcing issued patents. We or our licensors may or may not choose to pursue or maintain protection for particular intellectual property in our or our licensors portfolio. If we or our licensors choose to forgo patent protection or to allow a patent application or patent to lapse purposefully or inadvertently, our competitive position could suffer. In some cases, the prosecution and maintenance of our licensed patents is controlled by the applicable licensor. If such licensor fails to properly prosecute and maintain such patents, we could lose our rights to them, which could materially impair any competitive advantage afforded by such patents. Furthermore, we and our licensors employ reputable law firms and other professionals to help us comply with the various procedural, documentary, fee payment and other similar provisions we and they are subject to and, in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules.

There are situations, however, in which failure to make certain payments or noncompliance with certain requirements in the patent prosecution and maintenance process can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

Legal action that may be required to enforce our patent rights can be expensive and may involve the diversion of significant management time. In addition, these legal actions could be unsuccessful and could also result in the invalidation or transfer of ownership of our or our licensors' patents or a finding that they are unenforceable. We or our licensors may or may not choose to pursue litigation or other actions against those that have infringed on our or their patents, or have used them without authorization, due to the associated expense and time commitment of monitoring these activities. In some cases, the enforcement and defense of patents we in-license is controlled by the applicable licensor. If such licensor fails to actively enforce and defend such patents, any competitive advantage afforded by such patents could be materially impaired. In addition, some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we or our licensors can because of their greater financial resources and more mature and developed intellectual property portfolios. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing upon or misappropriating or from successfully challenging or claiming ownership over our intellectual property rights. If we fail to protect or to enforce our intellectual property rights successfully, our competitive position could suffer, which could harm our results of operations.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to patent protection, because we operate in the highly technical field of development of therapies, we rely in part on trade secret protection in order to protect our proprietary technology and processes. However, trade secrets are difficult to protect. Monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our proprietary technologies will be effective or sufficient.

In addition to contractual measures that we implement in our agreements with third-party service providers and in strategic licensing agreements, we try to protect the confidential nature of our proprietary information using physical and technological security measures. Such measures may not provide adequate protection for our proprietary information. For example, our security measures may not prevent an employee, consultant, or collaborator with authorized access from misappropriating our trade secrets and providing them to a competitor, and the recourse we have available against such misconduct may not provide an adequate or sufficiently swift remedy to protect our interests fully. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. Furthermore, our proprietary information may be independently developed or lawfully reverse-engineered by others in a manner that could prevent legal recourse by us.

We cannot guarantee that our trade secrets and other proprietary and confidential information will not be disclosed or that competitors will not otherwise gain access to our trade secrets. If any of our confidential or proprietary information, including our trade secrets, were to be disclosed or misappropriated, or if any such information was independently developed by a competitor, our competitive position could be harmed.

Patents and patent applications involve highly complex legal and factual questions, which, if determined adversely to us, could negatively impact our competitive position.

The patent positions of biotechnology and biopharmaceutical companies and other actors in our fields of business can be highly uncertain and typically involve complex scientific, legal and factual analyses. In particular, the interpretation and breadth of claims allowed in some patents covering biological and biopharmaceutical compositions may be uncertain and difficult to determine, and are often affected materially by the facts and circumstances that pertain to the patented compositions and the related patent claims. The standards of the United States Patent and Trademark Office, or USPTO, and foreign patent offices are sometimes uncertain and could change in the future. Consequently, the issuance and scope of patents cannot be predicted with certainty. Patents, if issued, may be challenged, invalidated, narrowed or circumvented. U.S. patents and patent applications may also be subject to interference proceedings, and U.S. patents may be subject to reexamination proceedings, post- grant review, inter partes review, or other administrative proceedings in the USPTO. Foreign patents as well may be subject to opposition or comparable proceedings in the corresponding foreign patent offices. Challenges to our or our licensors' patents and patent applications, if successful, may result in the denial of our or our licensors' patent applications or the loss or reduction in their scope. For example, on February 2022, following an opposition before the European Patent Office, the EP3004349 patent entitled "a method for producing precise DNA cleavage using CAS9 double nickase activity" was revoked. In addition, such interference, reexamination, post-grant review, inter partes review, opposition proceedings and other administrative proceedings may be costly

and involve the diversion of significant management time. Accordingly, rights under any of our or our licensors' patents may not provide us with sufficient protection against competitive products or processes and any loss, denial or reduction in scope of any such patents and patent applications may have a material adverse effect on our business.

Furthermore, even if not challenged, our or our licensors' patents and patent applications may not adequately protect our product candidates or technology or prevent others from designing their products or technology to avoid being covered by our or our licensors' patent claims. If the breadth or strength of protection provided by the patents we own or license with respect to our product candidates is threatened, it could dissuade companies from collaborating with us to develop, and could threaten our ability to successfully commercialize, our product candidates. Furthermore, for U.S. patent applications in which claims are entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third party or instituted by the USPTO in order to determine who was the first to invent any of the subject matter covered by such patent claims.

In addition, changes in, or different interpretations of, patent laws in the United States and other countries may permit others to use our discoveries or to develop and commercialize our technology and products without providing any notice or compensation to us, or may limit the scope of patent protection that we or our licensors are able to obtain. The laws of some countries do not protect intellectual property rights to the same extent as U.S. laws and those countries may lack adequate rules and procedures for defending our intellectual property rights.

If we or our licensors fail to obtain and maintain patent protection and trade secret protection of our product candidates and technology, we could lose our competitive advantage and competition we face would increase, reducing any potential revenues and have a material adverse effect on our business.

The lives of our patents may not be sufficient to effectively protect our products and business.

Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its first effective filing date. Although various extensions may be available, the life of a patent, and the protection it affords, is limited. Our or our licensors' issued patents and pending patent applications will expire on dates ranging from 2023 to 2042, subject to any patent extensions that may be available for such patents. In addition, although upon issuance in the United States a patent's life can be increased based on certain delays caused by the USPTO, this increase can be reduced or eliminated based on certain delays caused by the patent applicant during patent prosecution. In the EU, Supplementary Protection Certificates (SPCs) are available to extend a patent term for up to five years to compensate for patent protection lost during regulatory review. Although all EU Member States must provide SPCs, SPCs must still be applied for and granted on a country-by-country basis and their protection is subject to exceptions. If we or our licensors do not have sufficient patent life to protect our products, our business and results of operations will be adversely affected.

We will not seek to protect our intellectual property rights in all jurisdictions throughout the world and we may not be able to adequately enforce our intellectual property rights even in the jurisdictions where we seek protection.

Filing, prosecuting and defending patents on our product candidates in all countries and jurisdictions throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States could be less extensive than those in the United States, assuming that rights are obtained in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we or our licensors do not pursue and obtain patent protection to develop their own products and further, may export otherwise infringing products to territories where we or our licensors have patent protection, but where the ability to enforce our or our licensors' patent rights is not as strong as in the United States. These products may compete with our products and our intellectual property rights and such rights may not be effective or sufficient to prevent such competition.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Patent protection must be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we or our licensors may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries. In addition, the legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to biopharmaceuticals or biotechnologies, and the requirements for patentability differ, in varying degrees, from country to country, and the laws of some foreign countries do not protect intellectual property rights, including trade secrets, to the same extent as federal and state laws of the United States. As a result, many companies have encountered significant problems in

protecting and defending intellectual property rights in certain foreign jurisdictions. Such issues may make it difficult for us to stop the infringement, misappropriation or other violation of our intellectual property rights. For example, many foreign countries, including the EU countries, have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, many countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. In those countries, we and our licensors may have limited remedies if patents are infringed or if we or our licensors are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our and our licensors' efforts to enforce intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license. Similarly, if our trade secrets are disclosed in a foreign jurisdiction, competitors worldwide could have access to our proprietary information and we may be without satisfactory recourse. Such disclosure could have a material adverse effect on our business. Moreover, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws.

Furthermore, proceedings to enforce our and our licensors' patent rights and other intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our or our licensors' patents at risk of being invalidated or interpreted narrowly, could put our or our licensors' patent applications at risk of not issuing and could provoke third parties to assert claims against us or our licensors. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded to us, if any, may not be commercially meaningful, while the damages and other remedies we may be ordered to pay such third parties may be significant. Accordingly, our or our licensors' efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Third parties may assert rights to inventions we develop or otherwise regard as our own.

Third parties may in the future make claims challenging the inventorship or ownership of our or our licensors' intellectual property. We have written agreements with collaborators that provide for the ownership of intellectual property arising from our strategic licensing arrangements. These agreements provide that we must negotiate certain commercial rights with such collaborators with respect to joint inventions or inventions made by our collaborators that arise from the results of the strategic arrangement. In some instances, there may not be adequate written provisions to address clearly the allocation of intellectual property rights that may arise from the respective strategic licensing arrangement. If we cannot successfully negotiate sufficient ownership and commercial rights to the inventions that result from our use of a third-party collaborator's materials when required, or if disputes otherwise arise with respect to the intellectual property developed through the use of a collaborator's samples, we may be limited in our ability to capitalize on the full market potential of these inventions. In addition, we may face claims by third parties that our agreements with employees, contractors, or consultants obligating them to assign intellectual property to us are ineffective, or are in conflict with prior or competing contractual obligations of assignment, which could result in ownership disputes regarding intellectual property we have developed or will develop and could interfere with our ability to capture the full commercial value of such inventions. Litigation may be necessary to resolve an ownership dispute, and if we are not successful, we may be precluded from using certain intellectual property and associated products and technology, or may lose our rights in that intellectual property. Either outcome could have a material adverse effect on our business.

In addition, the research resulting in certain of our in-licensed patent rights and technology was funded in part by the United States government. As a result, the United States government has certain rights to such patent rights and technology, which include march-in rights. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention or to have others use the invention on its behalf. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, or because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to the United States industry. Any exercise by the government of any of the foregoing rights could have a material adverse effect on our business.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent which might adversely affect our ability to develop and market our products.

We cannot guarantee that any of our patent searches or analyses, including but not limited to the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our product candidates in any jurisdiction.

The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our products. We may incorrectly determine that our products are not covered by a third-party patent or may incorrectly predict whether a third party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our product candidates. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products.

Third parties may assert that our employees or consultants have wrongfully used or disclosed confidential information or misappropriated trade secrets.

We currently employ, and may in the future employ, individuals who were previously employed or worked as an intern at universities or other biotechnology or biopharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

A dispute concerning the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be time consuming and costly, and an unfavorable outcome could harm our business.

There is significant litigation in the biopharmaceutical industry regarding patent and other intellectual property rights. Although we are not currently subject to any material pending intellectual property litigation, and are not aware of any such threatened litigation, we may be exposed to future litigation by third parties based on claims that our product candidates, technologies or activities infringe the intellectual property rights of others.

Our success will depend in part on our ability to operate without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. Other parties may allege that our or our collaborators' products or product candidates or the use of our or our collaborators' technologies infringe, misappropriate or otherwise violate patent claims or other intellectual property rights held by them or that we or our collaborators' are employing their proprietary technology without authorization.

If our development activities are found to infringe any such patents or other intellectual property rights, we may have to pay significant damages or seek licenses to such patents or other intellectual property. A patentee could prevent us from using the patented drugs or compositions. We may need to resort to litigation to enforce a patent issued to us, to protect our trade secrets, or to determine the scope and validity of third-party proprietary rights.

If we become involved in litigation, it could consume a substantial portion of our managerial and financial resources, regardless of whether we win or lose. Any adverse ruling or perception of an adverse ruling in defending ourselves against these claims could have a material adverse impact on our cash position. Patent and other types of intellectual property litigation can involve complex factual and legal questions, and their outcome is uncertain.

Any legal action against us or our collaborators could lead to:

- payment of damages, potentially including treble or punitive damages if we are found to have willfully infringed a party's patent rights;
- injunctive or other equitable relief that may effectively block our ability to further develop, commercialize, and sell products;
- our or our collaborators being required to obtain a license under third-party intellectual property, and such license may not be available on an exclusive basis, on commercially acceptable terms, or at all; or
- extensive discovery in which our confidential information could be compromised.

Any of these outcomes could have a material adverse impact on our cash position and financial condition and our ability to develop and commercialize our product candidates.

Issued patents covering our product candidates could be found invalid or unenforceable if challenged in court.

If we or one of our licensing partners initiated legal proceedings against a third party to enforce a patent covering our product candidate, the defendant could counterclaim that the patent covering our product candidate is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Furthermore, third parties may petition courts for declarations of invalidity or unenforceability with respect to our patents or individual claims. If successful, such claims could narrow the scope of protection afforded our product candidates and future products, if any. Grounds for a validity challenge include alleged failures to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for unenforceability assertions include allegations that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post grant review and equivalent proceedings in foreign jurisdictions. Such proceedings could result in revocation or amendment of our patents in such a way that they no longer cover our product candidates or competitive products. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to validity, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection would have a material adverse impact on our business.

We may be unsuccessful in licensing or acquiring intellectual property that may be required to develop and commercialize our product candidates from third parties.

We have rights, through licenses from third parties and under patents that we own, to the intellectual property to develop our product candidates. Because our programs may involve additional product candidates or improved formulations of existing product candidates that may require the use of intellectual property or proprietary rights held by third parties, the growth of our business may depend in part on our ability to acquire, in-license or use such intellectual property and proprietary rights. We may be unable to acquire or in-license any third-party intellectual property or proprietary rights or to do so on commercially reasonable terms. For example, we sometimes collaborate with academic institutions to accelerate our research or development under written agreements with these institutions. Typically, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the strategic collaboration. Regardless of such option, we may be unable to negotiate a license within the specified time frame or under terms that are acceptable to us, and the institution may license such intellectual property rights to third parties, potentially blocking our ability to pursue our development and commercialization plans.

The licensing and acquisition of third-party intellectual property and proprietary rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property and proprietary rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size and greater capital resources and development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license intellectual property and proprietary rights to us.

If we are unable to successfully acquire or in-license rights to required third-party intellectual property and proprietary rights or maintain the existing intellectual property and proprietary rights we have, we may have to cease development of the relevant the relevant program, product or product candidate, which could have a material adverse effect on our business.

If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business.

We are a party to a number of intellectual property license agreements that are important to our business and expect to enter into additional license agreements in the future. Our existing license agreements impose, and we expect that future license agreements will impose, various diligence, milestone payment, royalty and other obligations on us. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, our licensors may have the right to terminate the license, in which event we would not be able to market products or product candidates covered by the license.

In addition, disputes may arise regarding the payment of the royalties or other consideration due to licensors in connection with our exploitation of the rights we license from them. Licensors may contest the basis of payments we retained and claim that we are obligated to make payments under a broader basis. In addition to the costs of any litigation we may face as a result, any legal action against us could increase our payment obligations under the respective agreement and require us to pay interest and potentially damages to such licensors.

In some cases, patent prosecution of our licensed technology is controlled solely by the licensor. If such licensor fails to obtain and maintain patent or other protection for the proprietary intellectual property we license from such licensor, we could lose our rights to such intellectual property or the exclusivity of such rights, and our competitors could market competing products using such intellectual property. In addition, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. In that event, we may be required to expend significant time and resources to develop or license replacement technology. If we are unable to do so, we may be unable to develop or commercialize the affected products and product candidates, which could harm our business significantly. In other cases, we control the prosecution of patents resulting from licensed technology. In the event we breach any of our obligations related to such prosecution, we may incur significant liability to our licensing partners. We may also require the cooperation of our licensors to enforce any licensed patent rights, and such cooperation may not be provided. Moreover, we have obligations under these license agreements, and any failure to satisfy those obligations could give our licensor the right to terminate the agreement. Termination of a necessary license agreement could have a material adverse impact on our business.

Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the basis of royalties and other consideration due to our licensors;
- the extent to which our products, product candidates, technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

If disputes over intellectual property that we have licensed from third parties prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

Risks Related to Human Capital

We depend on key management personnel and attracting and retaining other qualified personnel, and our business could be harmed if we lose key management personnel or cannot attract and retain other qualified personnel.

Our success depends to a significant degree upon the technical skills and continued service of certain members of our management team, including Dr. André Choulika, our co-founder and Chief Executive Officer and Dr. David Sourdive, our co-founder and Executive Vice President, Strategic Initiatives. Although we maintain "key person" insurance policies on the lives of our co-founders, the loss of the services of our co-founders or other key executive officers could have a material adverse effect on us.

Our success also will depend upon our ability to attract and retain additional qualified management, regulatory, medical, and technical executives and personnel. The failure to attract, integrate, motivate, and retain additional skilled and qualified personnel, or to find suitable replacements upon departures, could have a material adverse effect on our business. We compete for such personnel against numerous companies, including larger, more established companies with significantly greater financial resources than we possess. In addition, failure to succeed in our product candidates' development may make it more challenging to recruit and retain qualified personnel. There can be no assurance that we will be successful in attracting or retaining such personnel and the failure to do so could have a material adverse effect on our business, financial condition, and results of operations.

In order to induce valuable employees to remain at Cellectis, we have provided from time to time free shares and stock options to purchase ordinary shares that vest over time. The value to employees of free shares and stock options that vest over time may be significantly affected by movements in the price of our ordinary shares that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. In addition, our board's authority to grant equity incentive instruments is subject to an approval of a two-thirds majority of the votes cast of our shareholders. Our shareholders may vote against some or all resolutions giving authority to our board to grant such equity awards.

Risks Relating to Our Status as a Foreign Private Issuer and a French Company

We are limited in our ability to raise additional share capital, which may make it difficult for us to fund our operations.

Under French law, our share capital generally may be increased with the approval of a two-thirds majority of the votes cast of the shareholders present, represented by proxy, or voting by mail at an extraordinary general shareholders' meeting following the recommendation of our board of directors. The shareholders may delegate to our board of directors either the authority (*délégation de compétence*) or the power (*délégation de pouvoir*) to carry out any increase in the share capital. Accordingly, our board of directors may be precluded from issuing additional share capital if the prior approval of the shareholders is not duly obtained.

Our By-laws and French corporate law contain provisions that may delay or discourage a takeover attempt.

Provisions contained in our By-laws and French corporate law could make it more difficult for a third party to acquire us, even if doing so might be beneficial to our shareholders. In addition, provisions of French law and our By-laws impose various procedural and other requirements, which could make it more difficult for shareholders to effect certain corporate actions. These provisions include the following:

- a merger (i.e., in a French law context, a stock-for-stock exchange after which our company would be dissolved without being liquidated into the acquiring entity and our shareholders would become shareholders of the acquiring entity) of our company into a company incorporated in the European Union would require the approval of our board of directors as well as a two-thirds majority of the votes cast of the shareholders present, represented by proxy or voting by mail at the relevant meeting;
- a merger of our company into a company incorporated outside of the European Union would require the unanimous approval of our shareholders;
- under French law, a cash merger is treated as a share purchase and would require the consent of each participating shareholder;
- our shareholders have granted and may in the future grant to our board of directors broad authorizations to increase our share capital or to
 issue additional ordinary shares or other securities (for example, warrants) to our shareholders, the public or qualified investors, which
 could be used as a possible defense following the launching of a tender offer for our shares;

- our shareholders have preferential subscription rights proportional to their shareholding in our company on the issuance by us of any
 additional shares or securities giving the right, immediately or in the future, to new shares for cash or a set-off of cash debts, which rights
 may only be waived by the extraordinary general meeting (by a two-thirds majority vote) of our shareholders or on an individual basis by
 each shareholder;
- our board of directors has the right to appoint directors to fill a vacancy created by the resignation or death of a director, subject to the ratification by the shareholders of such appointment at the next shareholders' meeting, which prevents shareholders from having the sole right to fill vacancies on our board of directors;
- our board of directors can only be convened by its chairman (and our managing director, if different from the chairman, may request the
 chairman to convene the board) or, when no board meeting has been held for more than two consecutive months, by directors representing
 at least one-third of the total number of directors:
- our board of directors meetings can only be regularly held if at least half of the directors attend either physically or by way of
 videoconference or teleconference enabling the directors' identification and ensuring their effective participation in the board of directors'
 decisions;
- our shares take the form of bearer securities or registered securities, if applicable legislation so permits, according to the shareholder's choice. Issued shares are registered in individual accounts opened by us or any authorized intermediary (depending on the form of such shares), in the name of each shareholder and kept according to the terms and conditions laid down by the legal and regulatory provisions;
- under French law, a non-French resident as well as any French entity controlled by non-French residents may have to file a declaration for statistical purposes with the Bank of France (Banque de France) following the date of certain direct or indirect investments in us; see the section of this Annual Report titled "Ownership of Shares and ADSs by Non-French Persons";
- approval of at least a majority of the votes cast of the shareholders present, represented by a proxy, or voting by mail at the relevant ordinary shareholders' general meeting is required to remove directors with or without cause;
- advance notice is required for nominations to the board of directors or for proposing matters to be acted upon at a shareholders' meeting, except that a vote to remove and replace a director can be proposed at any shareholders' meeting without notice;
- transfers of shares shall comply with applicable insider trading rules;
- in the event where certain ownership thresholds would be crossed, a number of disclosures should be made by the relevant shareholder in addition to other certain obligations; see the section of this Annual Report titled "Declaration of Crossing of Ownership Thresholds"; and
- pursuant to French law, the sections of the By-laws relating to the number of directors and election and removal of a director from office may only be modified by a resolution adopted by a two-thirds majority of the votes cast of our shareholders present, represented by a proxy or voting by mail at the meeting.

The rights of shareholders in companies subject to French corporate law differ in material respects from the rights of shareholders of corporations incorporated in the United States.

We are a French company with limited liability. Our corporate affairs are governed by our By-laws and by the laws governing companies incorporated in France. The rights of shareholders and the responsibilities of members of our board of directors are in many ways different from the rights and obligations of shareholders in companies governed by the laws of U.S. jurisdictions. For example, in the performance of its duties, our board of directors is required by French law to consider the interests of our company, its shareholders, its employees and other stakeholders, rather than solely our shareholders and/or creditors. It is possible that some of these parties will have interests that are different from, or in addition to, the interests of our shareholders. See the sections of this Annual Report titled "Memorandum and Articles of Association" and "Corporate Governance."

French law may limit the amount of dividends we are able to distribute, and we do not currently intend to pay dividends,

We have never declared or paid any cash dividends on our share capital and do not currently intend to do so for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, holders of our ordinary shares and ADSs are not likely to receive any dividends for the foreseeable future and any increase in value will depend solely upon any future appreciation. Consequently, holders of our equity securities may need to sell all or part of their holdings after price appreciation, which may never occur, as the only way to realize any future gains.

Further, under French law, the determination of whether we have been sufficiently profitable to pay dividends is made on the basis of our statutory financial statements prepared and presented in accordance with standard applicable in France. Please see the section of this Annual Report titled "Memorandum and Articles of Association" for further details on the limitations on our ability to declare and pay dividends. Therefore, we may be more restricted in our ability to declare dividends than companies not based in France.

Our failure to maintain certain tax benefits applicable to French technology companies may adversely affect our results of operations.

As a French technology company, we have benefited from certain tax advantages, including the French research tax credit (*Crédit d'Impôt Recherche*), or CIR. The CIR is a French tax credit aimed at stimulating research and development. The CIR can be offset against French corporate income tax due and the portion in excess (if any) may be refunded at the end of a three fiscal-year period (or, sooner, in certain cases). The Research tax credit receivables as of December 31, 2022 include the accrual for a French research tax credit related to 2022 for \$6.7 million and research tax credit related to previous periods for \$7.2 million. The CIR is calculated based on our claimed amount of eligible research and development expenditures in France. The French tax authority with the assistance of the Research and Technology Ministry may audit each research and development program in respect of which a CIR benefit has been claimed and assess whether such program qualifies in their view for the CIR benefit, in accordance with the French tax code (*code général des impôts*) and the relevant official guidelines.

During December 2018, the French Tax Authority initiated an audit related to the 2014, 2015, 2016 and 2017 French research tax credits. As a result of the audit, the French Tax Authority withheld a portion of the 2017 and 2018 research tax credits payment corresponding to the nature of certain employee costs. The *Tribunal Administratif* of Paris seized by Cellectis, decided the restitution of the amount withheld by the French Tax Authority. In January 2022, a legal court confirmed that Cellectis was entitled to receive the amounts related to 2017 and 2018 tax credits. \$0.8 million were collected in February 2022. On March 15, 2022, the French tax authorities appealed this decision to the Paris Administrative Court of Appeal and requested that the decision be reversed. On May 18, 2022, the Company filed its observations in defense, so that the litigation is pending before the Paris Administrative Court of Appeal.

Furthermore, if the French Parliament decides to eliminate, modify, or reduce the scope of the CIR benefit, which it could decide to do at any time, our results of operations could be adversely affected.

We may be exposed to significant foreign exchange risk, which may adversely affect our financial condition, results of operations and cash flows.

We incur portions of our expenses and may in the future derive revenues in currencies other than the euro, including, in particular, the U.S. dollar. As a result, we are exposed to foreign currency exchange risk as our results of operations and cash flows are subject to fluctuations in foreign currency exchange rates. While we are engaged in hedging transactions to minimize the impact of uncertainty in future exchange rates on cash flows, we may not hedge all of our foreign currency exchange rate

risk. In addition, hedging transactions carry their own risks and costs, including the possibility of a default by the counterpart to the hedge transaction. We cannot predict the impact of foreign currency fluctuations, and foreign currency fluctuations in the future may adversely affect our financial condition, results of operations and cash flows.

Although not free from doubt, we do not believe we were a "passive foreign investment company," or PFIC, for U.S. federal income tax purposes for the taxable year ended December 31, 2022. However, we cannot assure you that we will not be classified as a PFIC for the taxable year ended December 31, 2023 or any future taxable year, which may result in adverse U.S. federal income tax consequences to U.S. holders (as defined in the section titled "Taxation—Material U.S. Federal Income Tax Considerations" in this Annual Report).

A non-U.S. corporation will be considered a PFIC for any taxable year if either (1) at least 75% of its gross income for such year is passive income or (2) at least 50% of the value of its assets (based on an average of the quarterly values of the assets during such year) is attributable to assets that produce or are held for the production of passive income. Although the matter is not free from doubt, we do not believe that we were a PFIC for U.S. federal income tax purposes for the taxable year ended December 31, 2022. Because certain aspects of the PFIC rules are not entirely certain and because this determination is dependent upon a number of factors, there can be no assurance that we were not a PFIC for such taxable year or that the IRS will agree with any position we take regarding our PFIC statutes. In addition, our determination that we were likely not a PFIC for the taxable year ended December 31, 2022 depends in part on our interpretation of regulations proposed by the Department of Treasury and the IRS in 2021 (the "2021 Proposed Regulations"). No assurances may be given that the IRS will agree with our interpretation of the 2021 Proposed Regulations or that the 2021 Proposed Regulations will be finalized without significant changes.

Further, no assurances may be given at this time as to our PFIC status for the current or future taxable years. The determination of PFIC status is fact-specific, and a separate determination must be made each taxable year as to whether we are a PFIC (after the close of each such taxable year). It is possible that we could be classified as a PFIC for taxable year ended December 31, 2023 or future taxable years due to changes in the composition of our assets or income, as well as changes to the market value of our assets. The market value of our assets may be determined in large part by reference to our market capitalization (and, therefore, the market price of the ADSs and our ordinary shares, which has fluctuated and is likely to continue to fluctuate, substantially).

If we are a PFIC for any taxable year during which a U.S. holder holds ADSs, the U.S. holder may be subject to adverse tax consequences, including (1) the treatment of all or a portion of any gain on disposition of the ADSs as ordinary income, (2) the application of an interest charge with respect to such gain and certain dividends and (3) compliance with certain reporting requirements. Each U.S. holder is strongly urged to consult its tax advisor regarding these issues and any available elections to mitigate such tax consequences. See the section titled "Taxation—Material U.S. Federal Income Tax Considerations" in this Annual Report.

We may have to take undesirable actions to avoid being deemed an investment company under the US Investment Company Act of 1940.

We are engaged in the development of therapeutic products based on gene-editing, with a portfolio of allogeneic Chimeric Antigen Receptor T-cell product candidates in the field of immune-oncology and gene-edited hematopoietic stem and progenitor cells product candidates in other therapeutic indications. Although we do not make speculative investments in third-party companies' securities, from time to time, we have entered into licensing or other commercial agreements for which we have agreed to accept company securities as consideration. Currently, we have entered into such arrangements with Cytovia Therapeutics, LLC and Primera Therapeutics, Inc. We believe we are not an investment company within the meaning of Section 3(a)(1)(C) of the Investment Company Act of 1940, or the US Investment Company Act. However, as a result of these and other investments, volatility in the value of our investments could result in us being deemed an investment company within the meaning of Section 3(a)(1)(C). We will monitor our assets on a quarterly basis and take all necessary steps in order to seek to ensure that we are not deemed an investment company within the meaning of Section 3(a)(1)(C) or otherwise are required to register as an investment company under the US Investment Company Act in the future. The steps we may need to take could include selling all or part of our investments in those companies or investing in a greater proportion of tangible assets relative to our total assets. Depending on timing and other factors, taking one or more of these steps may serve as a distraction of management's attention from our primary business or may require us to transact at undesirable market prices. If we are unable to take the necessary steps to avoid being inadvertently deemed an investment company or otherwise being required to register under the US Investment Company Act, we would not be able to offer our securities in the United States until we were no longer deemed an investment company under the US Investment Company Act.

As a foreign private issuer, we are exempt from a number of rules under the U.S. securities laws and are permitted to file less information with the SEC than a U.S. company. This may limit the information available to holders of ADSs.

We are a "foreign private issuer," as defined in the SEC's rules and regulations and, consequently, we are not subject to all of the disclosure requirements applicable to public companies organized within the United States. For example, we are exempt from certain rules under the Exchange Act that regulate disclosure obligations and procedural requirements related to the solicitation of proxies, consents or authorizations applicable to a security registered under the Exchange Act, including the U.S. proxy rules under Section 14 of the Exchange Act. In addition, our officers and directors are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the Exchange Act and related rules with respect to their purchases and sales of our securities. Moreover, while we currently make annual and quarterly filings with the SEC, we are not required to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. domestic public companies and are not required to file quarterly reports on Form 10-Q or current reports on Form 8-K under the Exchange Act. Accordingly, there may be less publicly available information concerning our company than there would be if we were a U.S. domestic issuer.

As a foreign private issuer, we follow certain home country practices in relation to corporate governance matters that differ significantly from Nasdaq corporate governance standards. These practices may afford less protection to shareholders than they would enjoy if we complied fully with Nasdaq's corporate governance standards.

As a foreign private issuer listed on the Nasdaq Global Market, we are subject to Nasdaq's corporate governance standards. However, as a foreign private issuer, Nasdaq's rules permit us to follow the corporate governance practices of France, which differ significantly from certain corporate governance standards of the Nasdaq. For example, neither the corporate laws of France nor our By-laws require a majority of our directors to be independent and our independent directors are not required to hold regularly scheduled meetings at which only independent directors are present. In addition, French governance practice does not require us to maintain a nominating and corporate governance committee or to maintain a compensation committee composed entirely of independent directors. Currently, we follow home country practice in certain key respects. Therefore, our shareholders may be afforded less protection than they otherwise would have under corporate governance listing standards applicable to U.S. domestic issuers. A discussion of our corporate governance practices is set forth in the section titled "Management—Corporate Governance Practices."

We may lose our foreign private issuer status in the future, which could result in significant additional cost and expense.

Based on our determination made on June 30, 2022 (the last business day of our most recently completed second fiscal quarter), we currently qualify as a foreign private issuer. The next determination will be made with respect to us on June 30, 2023.

We will lose our foreign private issuer status if, as of the relevant determination date, more than 50% of our securities are held by U.S. residents and (i) more than 50% of our executive officers or more than 50% of the members of our board of directors are residents or citizens of the United States, (ii) more than 50% of our assets are located in the United States, or (iii) our business is principally administered within the United States we could lose our foreign private issuer status.

As of June 30, 2022, approximately 30.0% of our securities were held by persons who were U.S. residents.

The regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic public company would be significantly more than the costs we currently incur as a foreign private issuer.

It may be difficult to enforce civil liabilities against our company and directors and senior management and the experts named in this Annual Report.

Certain members of our board of directors and senior management are not residents of the United States, and all or a substantial portion of our assets and the assets of such persons are located outside the United States. As a result, it may not be possible to serve process on such persons or us in the United States or to enforce judgments obtained in U.S. courts against them or us based on civil liability provisions of the securities laws of the United States. Additionally, it may be difficult to assert U.S. securities law claims in actions originally instituted outside of the United States. Foreign courts may refuse to hear a U.S. securities law claim because foreign courts may not be the most appropriate forums in which to bring such a claim. Even if a foreign court

agrees to hear a claim, it may determine that the law of the jurisdiction in which the foreign court resides, and not U.S. law, is applicable to the claim. Further, if U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process, and certain matters of procedure would still be governed by the law of the jurisdiction in which the foreign court resides. In particular, there is some doubt as to whether French courts would recognize and enforce certain civil liabilities under U.S. securities laws in original actions or judgments of U.S. courts based upon these civil liability provisions. In addition, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in France. An award for monetary damages under the U.S. securities laws would be considered punitive if it does not seek to compensate the claimant for loss or damage suffered but is intended to punish the defendant. French law provides that a shareholder, or a group of shareholders, may initiate a legal action to seek indemnification from the directors of a company in the company's interest if it fails to bring such legal action itself. If so, any damages awarded by the court are paid to the company and any legal fees relating to such action are borne by the relevant shareholder or the group of shareholders.

The enforceability of any judgment in France will depend on the particular facts of the case as well as the laws and treaties in effect at the time. The United States and France do not currently have a treaty providing for recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters.

Risks Related to Ownership of Our ADSs

Holders of our ADSs do not directly hold our ordinary shares.

Holders of ADSs are not treated as one of our shareholders and do not have ordinary shareholder rights. French law governs shareholder rights. The depositary, through the custodian or the custodian's nominee, is the holder of the ordinary shares underlying all ADSs. Holders of ADSs have only ADS holder rights. Among other things, ADS holder rights do not provide for double voting rights, which otherwise would be available to holders of ordinary shares held in a shareholders' name for a period of at least two years. The deposit agreement among us, the depositary and purchasers of ADSs in the U.S. offering, as an ADS holder, and all other persons directly and indirectly holding ADSs, sets out ADS holder rights, as well as the rights and obligations of us and the depositary.

Holders of our ADSs may not be able to exercise their right to vote the ordinary shares underlying such ADSs.

Holders of ADSs may exercise voting rights with respect to the ordinary shares represented by the ADSs only in accordance with the provisions of the deposit agreement and not as a direct shareholder. The deposit agreement provides that, upon receipt of notice of any meeting of holders of our ordinary shares, the depositary will fix a record date for the determination of ADS holders who shall be entitled to give instructions for the exercise of voting rights. Upon timely receipt of notice from us, if we so request, the depositary shall distribute to the holders as of the record date (1) the notice of the meeting or solicitation of consent or proxy sent by us and (2) a statement as to the manner in which instructions may be given by the holders.

Holders of ADSs may instruct the depositary of the ADSs to vote the ordinary shares underlying such ADSs. Otherwise, holders of our ADSs may not know about the meeting far enough in advance to withdraw those ordinary shares. If we ask for instructions, the depositary, upon timely notice from us, will notify holders of our ADSs of the upcoming vote and arrange to deliver our voting materials to such holders. We cannot guarantee that holders of our ADSs will receive the voting materials in time to ensure that they can instruct the depositary to vote such ordinary shares or to withdraw such ordinary shares so as to vote them directly. If the depositary does not receive timely voting instructions from holders of our ADSs, it may give a proxy to a person designated by us to vote the ordinary shares underlying such ADSs in accordance with the recommendation of our board of directors. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that holders of our ADSs may not be able to exercise their right to vote, and there may be nothing such holders can do if the ordinary shares underlying such ADSs are not voted as requested.

The right of holders of our ADSs to participate in any future preferential subscription rights or to elect to receive dividends in shares may be limited, which may cause dilution to holders of ADSs.

According to French law, if we issue additional shares or securities for cash, current shareholders will have preferential subscription rights for these securities proportionally to their shareholding unless they waive those rights at an extraordinary meeting of our shareholders (by a two-thirds majority vote) or individually by each shareholder. However, our ADS holders in the United States will not be entitled to exercise or sell such rights unless we register the rights and the securities to which the rights relate under the Securities Act or an exemption from the registration requirements is available. In addition, the deposit agreement for our ADSs provides that the depositary will not make rights available to holders of our ADSs unless the distribution to ADS holders of both the rights and any related securities are either registered under the Securities Act or exempted from registration under the Securities Act. Further, if we offer holders of our ordinary shares the option to receive dividends in either cash or shares, the depositary may require satisfactory assurances from us that extending the offer to holders of ADSs does not require registration of any securities under the Securities Act before making the option available to holders of ADSs. We are under no obligation to file a registration statement with respect to any such rights or securities or to endeavor to cause such a registration statement to be declared effective. Moreover, we may not be able to establish an exemption from registration under the Securities Act. Accordingly, ADS holders may be unable to participate in our rights offerings or to elect to receive dividends in shares and may experience dilution in their holdings and may receive no value for these rights.

Holders of our ADSs may be subject to limitations on the transfer of such ADSs and the withdrawal of the underlying ordinary shares.

ADSs, which may be evidenced by American Depositary Receipts, or ADRs, are transferable on the books of the depositary. However, the depositary may close its books at any time or from time to time when it deems expedient in connection with the performance of its duties. The depositary may refuse to deliver, transfer or register transfers of ADSs generally when our books or the books of the depositary are closed, or at any time if we or the depositary think it is advisable to do so because of any requirement of law, government or governmental body, or under any provision of the deposit agreement, or for any other reason subject to an ADS holders' right to cancel such ADSs and withdraw the underlying ordinary shares. Temporary delays in the cancellation of such ADSs and withdrawal of the underlying ordinary shares may arise because the depositary has closed its transfer books or we have closed our transfer books, the transfer of ordinary shares is blocked to permit voting at a shareholders' meeting or we are paying a dividend on our ordinary shares. In addition, holders of our ADSs may not be able to cancel such ADSs and withdraw the underlying ordinary shares when such holders owe money for fees, taxes and similar charges and when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to ADSs or to the withdrawal of ordinary shares or other deposited securities.

The market price for our ADSs may be volatile or may decline regardless of our operating performance.

The trading price of the ADSs has fluctuated, and is likely to continue to fluctuate, substantially. Since the ADSs were sold in our initial public offering in March 2015 at a price of \$41.50 per share, the price per ADS has ranged as low as \$1.85 and as high as \$47.66 through March 13, 2023. The market price of the ADSs may fluctuate significant in response to numerous factors, including those described in this "Risk Factors" section, many of which are beyond our control. The market price and demand for our ADSs may also fluctuate substantially, regardless of our actual operating performance, which may limit or prevent holders from readily selling their ADSs and may otherwise negatively affect the liquidity of our capital shares.

Share ownership is concentrated in the hands of our principal shareholders and management, who will continue to be able to exercise substantial influence on us.

Our executive officers, directors, current 5% or greater shareholders and affiliated entities beneficially own approximately 46.97% of our ordinary shares outstanding (including those underlying our ADSs, but excluding shares that may be acquired upon exercise of stock options or warrants) as of December 31, 2022. As a result, these shareholders have significant influence over all matters that require approval by our shareholders, including the election of directors and approval of significant corporate transactions. Corporate action might be taken even if other shareholders oppose them. This concentration of ownership might also have the effect of delaying or preventing a change of control of our company that other shareholders may view as beneficial.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Our legal name is Cellectis SA and our commercial name is Cellectis. We were incorporated as a *société anonyme*, or S.A., under the laws of the French Republic on January 4, 2000 for a period of 99 years. We are registered at the Paris Registre du Commerce et des Sociétés under the number 428 859 052. Our principal executive offices are located at 8, rue de la Croix Jarry, 75013 Paris, France, and our telephone number is +33 1 81 69 16 00. Our agent for service of process in the United States is Cellectis, Inc. located at 430 East 29th Street, New York, New York 10016. We also maintain a website at www.cellectis.com. The reference to our website is an inactive textual reference only and the information contained in, or that can be accessed through, our website is not a part of this Annual Report.

On January 13, 2023, Calyxt, Calypso Merger Subsidiary, LLC, a wholly-owned subsidiary of Calyxt, Cibus and certain other parties named therein, entered into the Merger Agreement, pursuant to which, subject to the terms and conditions thereof, Calyxt and Cibus will merge in an all-stock transaction. Following the closing of the proposed Calyxt Merger, Cellectis S.A. is expected to own approximately 2.4% of the equity interests of the combined company. In connection with the Merger Agreement, we executed a voting agreement with Cibus to vote in favor of and approve all the transactions contemplated by the Merger Agreement, subject to the terms and conditions thereof. The closing of the Calyxt Merger is subject to the approval of Calyxt's stockholders, the approval of Cibus' members, the receipt of required regulatory approvals (to the extent applicable) and satisfaction of other customary closing conditions.

Our capital expenditures and additions to tangible and intangible assets including Calyxt for the years ended December 31, 2020, 2021 and 2022 together amounted to \$46.3 million, \$19.7 million, and \$3.3 million respectively. These expenditures primarily consisted of the acquisitions of industrial and laboratory equipment and fittings required to conduct our research programs, the improvements of Calyxt's and Cellectis' sites and investments in connection with the construction of our new manufacturing facilities in Paris and in the United States. We expect our capital expenditures to increase in absolute terms in the near term as we continue to advance our research and development programs and grow our operations. We anticipate our capital expenditure in 2023 to be financed from our cash and cash equivalents on hand. Primarily, these capital expenditures will be made both in France and in the United States, where our research and development facilities are currently located.

For information on the SEC's website and our website, please refer to "Item 10.H. Documents on Display".

Business Overview

We are a clinical stage biotechnological company, employing our core proprietary technologies to develop products based on gene-editing, with a portfolio of allogeneic Chimeric Antigen Receptor T-cells, or UCART, product candidates in the field of immuno-oncology and gene-edited hematopoietic stem and progenitor cells, or HSPC, product candidates in other therapeutic indications.

Our UCART product candidates, based on gene-edited T-cells that express chimeric antigen receptors, or CARs, seek to harness the power of the immune system to target and eradicate cancer cells. We believe that CAR-based immunotherapy is one of the most promising areas of cancer research, representing a new paradigm for cancer treatment. We are designing next-generation immunotherapies that are based on gene-edited CAR T-cells. Our gene-editing technologies allow us to create allogeneic CAR T-cells, meaning they are derived from healthy donors rather than the patients themselves. We believe that the production of allogeneic CAR T-cells will allow us to develop cost-effective, "off-the-shelf" products that are capable of being stored and distributed worldwide. Our gene-editing expertise also enables us to develop product candidates that feature certain safety and efficacy attributes, including control properties designed to prevent them from attacking healthy tissues, to enable them to tolerate standard oncology treatments, and to equip them to resist mechanisms that inhibit immune-system activity.

Together with our focus on immuno-oncology, we are using, through our .HEAL platform, our gene-editing technologies to develop HSPC product candidates for genetic diseases. .HEAL is a new gene-editing platform developed by Cellectis that leverages the power of TALEN technology to allow highly efficient gene inactivation, insertion and correction in hematopoietic stem and progenitor cells. We have announced preclinical programs in sickle cell disease, lysosomal storage disorders and primary immunodeficiencies.

We also own 48.6 % (as of February 28, 2023) of Calyxt, through which our Plants segment is carried out. Calyxt is a plant-based synthetic biology company that leverages its proprietary PlantSpring $^{\text{M}}$ technology to engineer plant metabolism to produce innovative, high-value, and sustainable materials and products for use in helping customers meet their sustainability targets and financial goals.

Cancer is the second-leading cause of death in the United States and accounts for around one in four deaths. Immuno-oncology seeks to harness the power of the body's immune system to target and kill cancer. A key to this effort is a type of white blood cell known as the T-cell, which plays an important role in identifying and killing cancer cells. Unfortunately, cancer cells often develop mechanisms to evade the immune system. CARs, which are engineered receptors that can be expressed on the surface of T-cells, provide the T-cells with a specific targeting mechanism, thereby enhancing its ability to seek, identify, interact with and destroy tumor cells bearing a selected antigen. Research and development of CAR T-cell immunotherapies currently focuses on two approaches: autologous and allogeneic therapies. Autologous CAR T-cell immunotherapies modify a patient's own T-cells to target specific antigens that are located on cancer cells. This type of therapy requires an individualized immunotherapy product for each patient and is currently being tested in clinical trials by several academic institutions, and biotechnology and pharmaceutical companies. In contrast, an allogeneic CAR T-cell immunotherapy is an approach by which a cancer patient is infused with a mass-produced, off-the-shelf immunotherapy product derived from a healthy T-cell donor. Our initial focus is on developing allogeneic treatments, and we believe that we are the leading company pursuing this approach.

Limitations of Current Autologous Treatments and Key Benefits of our UCART approach

Many of the CAR T-cell immunotherapy treatments currently under development are created through an autologous approach in which the patient's own T-cells are engineered to fight cancer cells. Part of our scientific basis for pursuing allogeneic approaches rests in the recognized limitations of autologous approaches, including:

- Autologous treatments must be specifically manufactured for each patient and the resulting engineered cells may have different properties due to significant patient-to-patient variability in the quality of the T-cells;
- Autologous treatments can bear high costs due to the necessity of producing a bespoke treatment for each patient and the effort consumed in modifying and growing each patient's T-cells; and
- At this time, autologous treatments cannot be mass produced, may involve significant delay in production time if the number of patients
 exceeds the number of productions that can be made in parallel, and require patients be treated at select advanced facilities.

Although some autologous approaches to CAR T-cell have demonstrated encouraging clinical data, we believe our CAR-T approach and manufacturing process has the potential to provide the following benefits:

- *Market access*. Enable products to be shipped globally, thereby reducing deployment obstacles and providing accessibility to a broad patient population;
- Cost-effectiveness and Scalable Manufacturing. Streamlined manufacturing process has the potential to reduce costs, with potentially hundreds of doses per batch;
- *Novel Features*. Develop products with specific safety and control properties, through a CAR linked to a "suicide switch—a molecular trigger designed to initiate programmed cell death;
- Safety. Avoid graft-versus-host disease (GvHD) through the inactivation of the T-cell receptor (TCR), which is responsible for T-cells' recognition of non-self antigens; and
- Persistence. Manage rejection and persistence of the UCART product candidate, through the option to inactivate CD52 or beta2-microglobulin (ß2M) genes respectively.

A key enabler of the allogeneic approach is our gene editing technology, relying on a particular class of proteins derived from transcription activator-like effectors fused to the nuclease domain of a type II restriction endonuclease (TALEN). Gene editing is a type of genetic engineering in which DNA is inserted, deleted, repaired or replaced from a precise location in the genome. The most fundamental challenge of gene editing is the need to specifically and efficiently target a precise DNA sequence within a gene. Our proprietary nuclease-based gene-editing technologies, combined with over 20 years of genome engineering experience, allow us to edit any gene with highly precise insertion, deletion, repair and replacement of DNA sequences. Our nucleases, including TALEN, act like DNA scissors to edit genes at precise target sites and allow us to design allogeneic CAR T-cells. Our patented PulseAgile electroporation technology allows us to efficiently deliver our clinical grade nucleases into human cells while preserving cell viability, making it particularly well-suited for a large-scale manufacturing process. We believe these technologies will enable our clinical-grade drug therapeutic products to be manufactured, cryopreserved, stored, distributed broadly and infused into patients in an off-the-shelf approach.

Our candidate products

We are directly developing product candidates internally and have also enter into strategic licensing relationships with Allogene and Servier. We believe that our agreements with Allogene and Servier have validated our technology platform, our strong expertise in the allogeneic CAR T-cells field and the strength of our intellectual property portfolio. The license agreements governing these strategic relationships provide for potential milestone payments to us of up to \$3.2 billion and royalties on future sales, of which \$2.8 billion is potentially payable under the Allogene License Agreement (as defined below) and \$0.4 billion is potentially payable under the Servier License Agreement (as defined below).

Under the License Agreement dated March 8, 2019 between Allogene and us (the "Allogene License Agreement"), Allogene has exclusive rights to pursue development and commercialization of products for a total of fifteen selected targets, including BCMA (targeted by the Allogene's product candidates named "ALLO-715" and "ALLO-605"), FLT3 (targeted by the Allogene's product candidate named "ALLO-819"), CD70 (targeted by the Allogene's product candidate named "ALLO-213") and claudin 18.2 (targeted by Allogene's product candidate named "ALLO-182").

Under the License, Development and Commercialization Agreement dated March 6, 2019, between Servier and us, and as amended on March 4, 2020 (as so amended, the "Servier License Agreement"), Servier has an exclusive worldwide license to develop and commercialize gene-edited allogeneic CAR T-cell products targeting CD19, including ALLO-501A (Allogene's product candidate developed pursuant to a sublicense by Servier to Allogene). When initially entered into in March 2019, the Servier License Agreement extended, updated and replaced a prior collaboration with Servier.

The exclusive rights for the development and commercialization of UCART19 in the United States have been sublicensed by Servier to Allogene.

Historical Overview – Product Candidates Being Developed Pursuant to Licenses

UCART19

In 2016, Servier commenced two Phase 1 clinical studies for the first version of UCART19, one in adult Acute Lymphoblastic Leukemia (ALL), referred to as the CALM study, and one in pediatric ALL, referred to as the PALL study. We refer in this Annual Report to the CALM and the PALL Studies, collectively as the UCART19 Studies.

The CALM study commenced in the United Kingdom, the United States, France and Japan and the PALL study commenced in the United Kingdom, Belgium, France, Spain and the United States.

In November 2020, the UCART19 Studies were completed. Servier has informed us that no additional patients are planned for enrollment, but all patients from the UCART19 Studies will continue the long-term follow-up study as planned.

On September 15, 2022, Servier sent to us and Allogene a notice of discontinuation of its involvement in the development of the CD19 Products and purporting to provide Allogene with the ability to elect and obtain a license to the CD19 Products outside of the United States. See "Risk Factors—Risks Related to Our Reliance on Third Parties—Servier's discontinuation of its involvement in the development of CD19 Products may have adverse consequences."

ALLO-501 and ALLO-501A

In January 2019, Allogene announced, in collaboration with Servier, that the FDA approved the Investigational New Drug (IND) for a Phase 1 clinical study for ALLO-501, in relapsed or refractory Non-Hodgkin Lymphoma (NHL), which is referred to as the "ALPHA Study". The ALLO-501 candidate product is similar to UCART19 and is licensed to Allogene, pursuant to the sublicense from Servier discussed above.

In February 2020, Allogene announced that the FDA had approved the IND for a Phase 1/2 clinical study for ALLO-501A in relapsed or refractory non-Hodgkin lymphoma (NHL), which is referred to as the "ALPHA2 Study". The ALLO-501A candidate product was created to omit the rituximab recognition domains originally added in ALLO-501, allowing for use in a broader patient population, including those NHL patients with recent rituximab exposure.

In February 2021, Allogene announced that the FDA had granted fast track designation to ALLO-501A for relapsed or refractory diffuse large B cell lymphoma (LCBL).

In October 2021, Allogene announced that the FDA had placed a hold on all Allogene's AlloCAR T clinical trials based on a report of a chromosomal abnormality detected post-Allo CAR T administration in a single patient treated with ALLO-501A in the ALPHA2 study. In January 2022, Allogene announced that the FDA removed the clinical hold on all of its AlloCAR T clinical trials.

In June 2022, Allogene announced that the FDA granted Regenerative Medicine Advance Therapy (RMAT) designation to ALLO-501A in relapsed or refractory diffuse large B cell lymphoma (LBCL).

In October 2022, Allogene announced the initiation of the "potentially" pivotal Phase 2 clinical trial of ALPHA2 trial in patients with relapsed or refractory large B-cell lymphoma. Allogene also announced that it was in the process of initiating the EXPAND trial, which is a separate potentially registration trial for ALLO-647—Allogene's anti-CD52 monoclonal antibody. Allogene has stated that, assuming favorable outcomes and subject to FDA discussions, Allogene plans to seek FDA approval of ALLO-501A and ALLO-647 on the basis of the ALPHA2 trial and the EXPAND companion trial.

ALLO-715

In June 2019, Allogene announced that the FDA had approved the IND for a Phase 1 clinical study for ALLO-715, in relapsed or refractory (r/r) Multiple Myeloma (MM), which is referred to as the "UNIVERSAL Study". ALLO-715 is a gene-edited allogeneic CAR T-cell product targeting BCMA and is licensed to Allogene pursuant to the Allogene License Agreement.

Allogene previously started the development of ALLO-715 in combination with nirogacestat, a SpringWorks Therapeutics' investigational gamma secretase inhibitor, in a cohort in the UNIVERSAL trial. In August 2022, Allogene announced that it would not advance ALLO-715 in combination with nirogacestat into the dose expansion cohorts, since there was no clear indication that the combination would meaningfully improve the benefit-risk profile of ALLO-715 as a monotherapy.

In April 2021, Allogene announced that the FDA granted RMAT designation to ALLO-715 in r/r MM and that the FDA granted orphan-drug designation to ALLO-715 for the treatment of multiple myeloma.

ALLO-605

In April 2021, Allogene announced that the FDA had approved the IND for a Phase 1 clinical study for ALLO-605, in relapsed or refractory MM, which is referred as to the "IGNITE Study". ALLO-605 is a gene-edited allogeneic CAR T-cell product targeting BCMA and is licensed to Allogene pursuant to the Allogene License Agreement.

In June 2021, Allogene announced that the FDA had granted fast track designation to ALLO-605. Allogene has also announced that in May 2022, the FDA granted orphan-drug designation to ALLO-605 for the treatment of MM.

ALLO-316

In December 2020, Allogene announced that the FDA had approved the IND for a Phase 1 clinical study for ALLO-316, in Renal Cell Carcinoma (RCC), which is referred to as the "TRAVERSE Study." ALLO-316 is a gene-edited allogeneic CAR T-cell product targeting CD70 and is licensed to Allogene pursuant to the Allogene License Agreement.

In October 2021, Allogene announced that the FDA had placed a hold on all Allogene's AlloCAR T clinical trials based on a report of a chromosomal abnormality detected post-Allo CAR T administration in a single patient treated with ALLO-501A in the ALPHA2 study. In January 2022, Allogene announced that the FDA has removed the clinical hold on all of its AlloCAR T clinical trials.

In March 2022, Allogene announced that the FDA has granted fast track designation to ALLO-316.

Historical Overview - Product Candidate We Are Developing

UCART123

In December 2016, we submitted an IND application for UCART123 with respect to two proposed Phase 1 studies to be conducted, one in Acute Myeloid Leukemia (AML) and one in Blastic Plasmacytoid Dendritic Cell Neoplasm (BPDCN). In June 2019, we decided to focus on the AML clinical trial and terminated the BPDCN study. This discontinuation of the BPDCN study was not a consequence of any safety concern.

In June 2019, we submitted a new IND application with respect to a proposed Phase 1 study to be conducted in relapsed/refractory Acute Myeloid Leukemia (r/r AML) with a new version of the UCART123 product candidate. In July 2019, the FDA approved the IND and the first patient was dosed in January 2020 at MD Anderson Cancer Center (Houston, Texas). We refer in this Annual Report to this study as the UCART123 Study or AMELI-01 Study.

UCART22

In April 2018, we submitted an IND application with respect to a proposed Phase 1/2 study to be conducted in relapsed or refractory B-cell Acute Lymphoblastic Leukemia (r/r B-ALL). In May 2018, the FDA approved the IND, and the first patient was dosed in November 2019 at MD Anderson Cancer Center (Houston, Texas). We refer in this Annual Report to this study as the UCART22 Study or BALLI-01 Study.

UCARTCS1

In December 2018, we submitted an IND application with respect to a proposed Phase 1 study to be conducted in relapsed or refractory Multiple Myeloma (r/r MM). In January 2019, the FDA approved the IND, and the first patient was dosed in October 2019 at MD Anderson Cancer Center (Houston, Texas). We refer in this Annual Report to this study as the UCARTCS1 Study or MELANI-01 Study.

On July 6, 2020, we announced that the MELANI-01 Study was placed on clinical hold by the FDA. On November 17, 2020, we announced that the FDA had lifted the clinical hold. We worked closely with the FDA to address its inquiries, which included adjustments to the MELANI-01 clinical protocol to enhance patient safety.

UCART 20x22

In June 2022, we submitted an IND application with respect to a proposed Phase 1/2a study to be conducted in relapsed or refractory B-Cell Non-Hodgkin's Lymphoma (B-NHL). In August 2022, the FDA approved the IND, and the trial is enrolling patients. We refer in this Annual Report to this study as the NatHaLi-01 Study.

Calyxt

Until July 2017, we fully owned Calyxt, Inc. Calyxt, through which the Plants segment is carried out, is a plant-based synthetic biology company that leverages its proprietary PlantSpring $^{\text{TM}}$ technology to engineer plant metabolism to produce innovative, high-value, and sustainable materials and products for use in helping customers meet their sustainability targets and financial goals.

As of December 31, 2022 and February 28. 2023, Cellectis owned approximately 49.1% and 48.6%, respectively, of Calyxt's common stock. On January 13, 2023, Calyxt and Cibus entered into the Merger Agreement, pursuant to which, subject to the terms and conditions thereof, Calyxt and Cibus will merge in an all-stock transaction. Following the closing of the proposed Calyxt Merger, Cellectis S.A. is expected to own approximately 2.4% of the equity interests of the combined company.

Our Strategy

Our strategy is to leverage the transformative potential of our unique gene-editing technologies and expertise through our cell therapy platform.

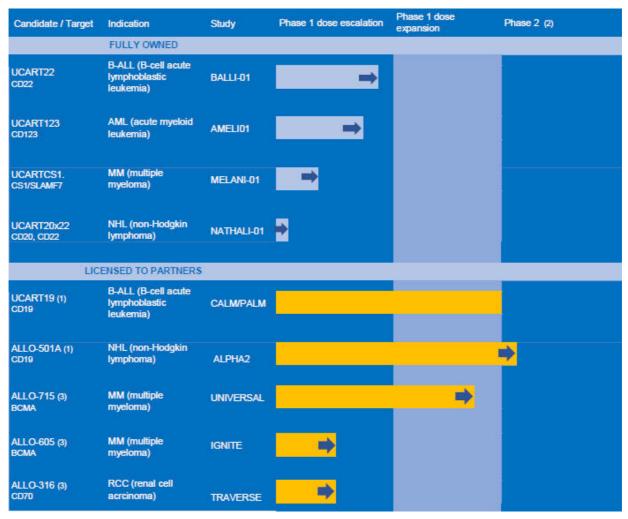
The key elements of our strategy are to:

- Advance our self-owned allogeneic UCART portfolio of product candidates up to the Biologics License Application (BLA) and commercialize them:
- Utilize our self-owned manufacturing network to produce commercial-grade UCART products for clinical use, as well as critical raw and starting material of the UCART product candidates;
- Structure a commercial launch plan for our self-owned product candidates;
- Continue the research and development of our hematopoietic stem and progenitor cells (HSPC) platform (named .HEAL);

UCART Pipeline

We are developing a series of product candidates for advanced hematologic cancers. Our lead immuno-oncology product candidates, which we refer to as Universal CAR T-cells (UCARTs), are allogeneic CAR T-cells engineered to be used as an "off-the-shelf" treatment. Each UCART product candidate is designed to target a selected antigen expressed on tumor cells and bears specific engineered attributes, such as inhibition of alloreactivity and compatibility with specific medical regimens that cancer patients may undergo. UCART is the first therapeutic product line that we are developing with our gene-editing platform to address unmet medical needs in oncology. We are focusing our initial internal pipeline in the hematologic cancer space, targeting diseases with high unmet needs such as ALL, AML, NHL, MM and other types of cancers.

The following chart highlights our key product candidates in clinical development:



- (1) ALLO-501A is exclusively licensed to Servier and under a joint clinical development program between Servier and Allogene. The ALPHA2 studie targets Diffuse Large B-Cell Lymphoma (DLBCL).
- (2) Phase 3 may not be required if Phase 2 is registrational.
- (3) Allogene has an exclusive license to the Cellectis technology for allogeneic products directed at these targets. Allogene holds global development and commercial rights for this investigational candidate.

Targeted Indications

r/r Acute Lymphoblastic Leukemia (ALL)

ALL is a heterogeneous hematologic disease characterized by the proliferation of immature lymphoid cells in the bone marrow, peripheral blood, and other organs. The proliferation and accumulation of blast cells in the marrow results in suppression of hematopoiesis and, thereafter, anemia, thrombocytopenia, and neutropenia. Extramedullary accumulations of lymphoblasts may occur in various sites, especially the meninges, gonads, thymus, liver, spleen, or lymph nodes. Data from the Surveillance, Epidemiology, and End Results (SEER) database have shown an age-adjusted incidence rate of ALL in the United States of 1.8 per 100,000 individuals per year, with approximately 6,660 new cases and 1,560 deaths estimated in 2022. The median age at diagnosis for ALL is 17 years with 53.9% of patients diagnosed at younger than 20 years of age. In contrast, 28.8% of cases are diagnosed at 45 years or older and only 13.5% of patients are diagnosed at 65 years or older. ALL represents 75% to 80% of acute leukemia among children, making it the most common form of childhood leukemia; by contrast, ALL represents approximately 20% of all leukemia among adults. The cure rates and survival outcomes for patients with ALL have improved dramatically over the past several decades, primarily among children. Improvements are largely owed to advances in the understanding of the molecular genetics and pathogenesis of the disease, the incorporation of risk-adapted therapy, and the advent

of new targeted agents. Despite great progress in the development of curative therapies, ALL remains a leading cause of pediatric cancer-related mortality for patients presenting with a relapsed or refractory disease. New therapies are needed to overcome chemotherapy resistance and reduce non-specific treatment associated side effects.

R/r Acute Myeloid Leukemia (AML)

AML is a form of cancer that is characterized by infiltration of the bone marrow, blood, and other tissues by proliferative, clonal, abnormally and/or poorly differentiated cells of the hematopoietic system called blast cells. These cells interfere with normal hematopoiesis, thus contributing to the bone marrow failure which is the most common underlying cause of death. AML is the most common type of acute leukemia in adults with an age-adjusted incidence rate in the United States of 4.1 per 100,000 individuals per year, with approximately 20,050 new cases and 11,540 deaths estimated in 2022. Although it can occur in children and adults, AML is primarily a disease of the elderly. The median age at onset is 68 years and only 15.1% of patients are younger than 45 years of age at diagnosis. While complete response rates can be as high as 80% in patients undergoing initial induction cytotoxic chemotherapy, the majority of AML patients will ultimately be diagnosed with relapsed or refractory disease with a poor prognosis. The outcome in older patients who are unable to receive intensive chemotherapy without unacceptable side effects remains dismal, with a median survival of only 5 to 10 months. CD123 is highly expressed on AML leukemic stem cells and blast cells, as well as in other hematologic malignancies, and constitutes an attractive target for AML.

R/r Multiple Myeloma (MM)

MM is a clonal plasma cell malignant neoplasm that is characterized by the proliferation of a single clone of plasma cells producing a monoclonal immunoglobulin. This clone of plasma cells proliferates in the bone marrow and often results in extensive skeletal destruction with osteolytic lesions, osteopenia, and/or pathologic fractures. Additional disease-related complications include hypercalcemia, renal insufficiency, anemia, and infections. MM accounts for approximately 10% of hematologic malignant disorders. The annual incidence, age-adjusted to the US population, is 7.1 per 100,000, resulting in over 34,470 new patients and 12,640 deaths in the United States in 2022. The median age at onset is 69 years, and only 3.1% of patients are younger than 45 years of age at diagnosis. Several drugs have been approved over the last few years for the treatment of MM, substantially expanding the number of treatment regimens available for patients in all stages of the disease. In the last decade, survival of MM patients has markedly improved with a median survival of approximately 7 to 10 years but with major variation depending on host factors, stage of the disease, cytogenetic abnormalities, and response to therapy. However, despite this progress, patients with disease refractory to both immunomodulatory drugs (iMiDs) and proteasome inhibitors have a median overall survival (OS) of only 9 to 13 months.

R/r Non-Hodgkin Lymphoma (NHL)

NHL is a heterogeneous disease resulting from the malignant transformation of lymphocytes with distinctive morphologic, immunophenotypic, genetic, and clinical features. NHL is more common than the other general type of lymphoma, Hodgkin lymphoma (HL). The past several decades have seen a steady increase in incidence rates of NHL, with overall rates in the United States nearly doubling over the period 1975 to 2008. In 2022, there were 80,470 estimated new cases with 20,250 estimated deaths. In 2019, there were an estimated 763,401 people living with NHL in the United States. The median age at onset is 67 years, and only 10.0% of patients are younger than 45 years of age at diagnosis. Many different subtypes of non-Hodgkin's lymphoma exist. The most common NHL subtypes include diffuse large B-cell lymphoma (DLBCL) and follicular lymphoma (FL).

Renal Cell Carcinoma (RCC)

Clear cell renal cell carcinoma (ccRCC) is the most common subtype of renal cancer. Approximately 79,000 new cases across all kidney and renal pelvis cancers are estimated to be diagnosed in the United States and 13,920 deaths are estimated in 2022, . While the median survival for patients with stage IV disease was a little over one year when cytokines were the predominant systemic therapies, analyses from the International Metastatic Renal Cell Carcinoma Database Consortium (IMDC) based upon more than 2,200 patients treated with targeted therapies report a median survival of 28 months in patients who were eligible for clinical trials. Another contemporary trial using targeted therapy reported a median survival of 28 to 29 months in patients treated with sunitinib or pazopanib, mirroring the IMDC results. Analysis using proteomic and immunohistochemistry techniques have demonstrated a high level of CD70 expression in clear cell renal cell carcinoma (ccRCC) cell lines and in more than 80% of human ccRCC tumor samples.

UCART123 for AML

UCART123 is an allogeneic engineered T-cell product designed for the treatment of hematologic malignancies expressing the alpha chain of the interleukin-3 receptor (IL3RA), or CD123, and is currently being developed for the treatment of AML.

Product Features

UCART123 is designed to become active, proliferate, secrete cytokines and kill CD123 expressing cells. UCART123 bears a CAR targeting the CD123 antigen, providing specificity for CD123 expressing cells. In addition, as with all UCART products, UCART123 lacks the TCR and is intended to be used in an allogeneic context. UCART123 activity could potentially lead to eradication of CD123-expressing cancer cells through T-cell mediated killing, pro-inflammatory cytokine production as well as CAR T-cell amplification. The current version of UCART123 has, in addition of the suppression of the TCR α gene, the suppression of the CD52 gene in order to potentially induce resistance to an anti-CD52 monoclonal antibody, such a alemtuzumab, as part of the preconditioning.

Clinical Development Status

The AMELI-01 Study is an open-label, Phase 1, single arm, multicenter clinical trial designed to evaluate the safety, expansion, persistence and clinical activities of UCART123 in patients with r/r AML. This trial is a dose-escalation study for UCART123 with 4 separate dose cohorts across different lymphodepletion regimens—lymphodepletion with either fludarabine and cyclophosphamide (FC) or FC with alemtuzumab (FCA). The primary endpoints of the trial are to assess the safety and tolerability of Universal Chimeric Antigen Receptor (UCAR) T-cells targeting CD123 (UCART123) administered to patients with relapsed or refractory acute myeloid leukemia (r/r AML); and to determine the maximum tolerated dose (MTD) of UCART123. An optimal dose of UCART123 will be recommended for Phase 2. The clinical study protocol allows for up to 60 patients to enroll in the dose escalation period and 18-37 patients in the dose expansion period of the Phase 1 study.

In March 2020, we filed an amendment to the protocol of the AMELI-01 Study to evaluate the addition of an anti-CD52 antibody to the lymphodepletion regimen compared to the pre-amendment fludarabine (F)-cyclophosphamide I lymphodepletion regimen. An anti-CD52 antibody (alemtuzumab, A)-based lymphodepletion regimen is evaluated in separate cohorts of patients, to guide the future development of UCART123 in AML. The optimal lymphodepletion regimen prior to the administration of CAR-T product candidates remains an area of investigation in the field of CAR T-cell therapy. The AMELI-01 Study is currently open for patient recruitment at University of Texas, MD Anderson Cancer Center (Houston, Texas), H. Lee Moffitt Cancer Center & Research Institute (Tampa, Florida), Dana Farber/ Partners Cancer Care, Inc (Boston, Massachusetts), New York Presbyterian / Weill Medical College of Cornell University (New York, New York), Northwestern University (Chicago, Illinois), University of Miami (Miami, Florida), the Regent of the University of California on behalf of its San Francisco Campus (San Francisco, California), The Trustee of University of Pennsylvania (Philadelphia, Pennsylvania), and Roswell Park Cancer Institute Corporation D/B/A Roswell Park Comprehensive Cancer Center (Buffalo, New York).

After a protocol-based pause in patient recruitment following a grade 5 event related to CRS, the protocol treatment strategy was modified and as of the date of this Annual Report, AMELI-01 has commenced enrolling patients in the FCA 2-dose regimen arm at DL2. The arm incorporated the use of prophylactic tocilizumab, which is associated with reduced incidence of CRS.

Clinical Findings

In December 2022, we reported positive preliminary safety and efficacy clinical data from the Phase 1 AMELI-01 Study, at the American Society of Hematology annual meeting. This preliminary clinical data was collected prior to the protocol amendment described above.

The oral presentation reviewed preliminary data from patients who received UCART123 at one of the following dose levels: dose level 1 (DL1) 2.5×10^5 cells/kg; dose level 2 (DL2) 6.25×10^5 cells/kg; intermediate dose level 2 (DL2i) 1.5×10^6 cells/kg; or dose level 3 (DL3) 3.30×10^6 cells/kg after lymphodepletion with a combination of fludarabine and cyclophosphamide (FC) or after lymphodepletion with a combination of fludarabine, cyclophosphamide and alemtuzumab (FCA).

The preliminary safety data showed that the FCA lymphodepletion regimen resulted in robust lymphodepletion for greater than 28 days in all patients. Seven out of nine patients demonstrated UCART123 expansion, with maximum concentration (C_{max}) ranging from 13,177 to 330,530 copies/µg DNA, an almost nine-fold increase compared with FC lymphodepletion regimen, and a significant increase in area under the curve.

Cytokine release syndrome (CRS) occurred in eight patients in the FC lymphodepletion arm and nine patients in the FCA lymphodepletion arm. In the FC arm, one patient experienced grade 3 immune effector cell-associated neurotoxicity syndrome (ICANS) and two patients experienced grade 4 protocol-defined dose limiting toxicities (DLTs) secondary to CRS. In the FCA arm, two patients experienced Grade 5 DLTs secondary to CRS. Grade 4 toxicities are potentially life threatening and grade 5 toxicities result in death.

With respect to preliminary efficacy data, evidence of UCART123 anti-tumor activity was observed in four patients out of fifteen at DL2 or above with best overall responses in the FCA arm. Two out of eight patients (25%) at DL2 with FCA arm achieved meaningful response. One patient who failed five prior lines of therapy experienced a durable minimal residual disease (MRD) negative complete response (CR) with full count recovery at Day 56 that continued beyond one year as of December 22, 2022, and one patient with stable disease achieved greater than 90% bone marrow blast reduction (60% to 5%) at Day 28.

These preliminary data show that adding alemtuzumab to the FC lymphodepletion regimen was associated with sustained lymphodepletion and significantly higher UCART123 cell expansion, which correlated with improved anti-tumor activity.

UCART22 for B-ALL

UCART22 is an allogeneic engineered T-cell product candidate designed for the treatment of CD22-expressing hematologic malignancies and is currently being developed for the treatment of B-ALL.

Product Features

UCART22 is an allogeneic engineered T-cell product candidate intended for the treatment of CD22-expressing hematologic malignancies. UCART22 is designed to become active, proliferate, secrete cytokines and kill CD22 expressing cells (i.e. either CD22 positive tumor cells or non-malignant CD22-positive B lineage cells). UCART22 bears a CAR targeting the CD22 antigen, providing specificity for CD22 expressing cells. As with all UCART products, UCART22 lacks the TCR and is intended to be used in an allogeneic context. In addition, UCART22 has undergone the suppression of the CD52 gene in order to potentially induce resistance to an anti-CD52 monoclonal antibody, such as alemtuzumab, as part of the preconditioning.

UCART22 activity could potentially lead to eradication of CD22-expressing cancer cells through T-cell mediated killing, pro-inflammatory cytokine production as well as CAR T-cell amplification.

Clinical Development Status

The BALLI-01 Study is an open-label, Phase 1/2, single arm, multicenter clinical trial designed to evaluate the safety, expansion, persistence, and clinical activities of UCART22 in patients with r/r ALL. This trial is a dose-escalation and expansion study for UCART22 with 4 separate dose cohorts currently. The primary endpoints are to assess the safety and tolerability of Universal Chimeric Antigen Receptor (UCAR) T-cells targeting CD22 (UCART22) administered to patients with relapsed or refractory B-cell Acute Lymphoblastic Leukemia (r/r B-ALL) and to determine the Maximum Tolerated Dose (MTD) and/or Recommended Phase 2 Dose (RP2D) of UCART22 in patients with relapsed or refractory B-cell Acute Lymphoblastic Leukemia (r/r B-ALL). Secondary objectives/endpoints include assessing the efficacy of UCART22 (rate of objective response) in relapsed or refractory B-ALL patients, and minimal residual disease (MRD)+ B-ALL patients; assessment of the duration of response (DoR), time to response, progression-free survival (PFS), and overall survival MRD negative rate, and evaluating the pharmacokinetic and pharmacodynamic profile of alemtuzumab. An optimal dose of UCART22 will be recommended for the expansion phase. The clinical study protocol allows for up to 40 patients to enroll in the dose escalation period and 18-53 patients in the dose expansion period of the Phase 1/2 study.

In April 2020 and December 2020, we filed amendments to the protocol of the BALLI-01 Study to open the study to young adults and adolescents and to evaluate the addition of an anti-CD52 antibody (alemtuzumab) to the lymphodepletion regimen with this FCA lymphodepletion regiment compared to the pre-amendment FC lymphodepletion regimen. Alemtuzumab was added to the lymphodepletion regimen to sustain host T-cell and Natural Killer (NK) cell depletion and to promote UCART22 cell expansion and persistence. The anti-CD52 antibody-based lymphodepletion regimen is evaluated in separate cohorts of patients, to guide the future development of UCART22 in ALL. The optimal lymphodepletion regimen prior to the administration of CAR-T product candidates remains an area of investigation in the field of CAR T-cell therapy.

The BALLI-01 Study is currently open to patient recruitment at Memorial Sloan Kettering Cancer Center (New York, New York), Children's Hospital of Philadelphia (Philadelphia, Pennsylvania), the University of Chicago (Chicago, Illinois), University of Texas, MD Anderson Cancer Center (Houston, Texas), The Regents of the University of California on behalf of its Los Angeles campus (Los Angeles, California), Dana Farber/Mass General Brigham Cancer Care, Inc. (Boston, Massachusetts), Hôpital Saint-Louis AP-HP (Paris, France), Hôpital Robert Debré AP-HP (Paris, France), CHU de Nantes (Nantes, France), and CHU de Rennes (Rennes, France). As of the date of this Annual Report, we are enrolling patients of the BALLI-01 Study at dose level 2 with an FCA lymphodepletion regimen, and the BALLI-01 Study is being conducted with UCART22 product candidate that has been fully manufactured in-house at our facility in Raleigh, North Carolina.

Clinical Findings

In December 2022, we presented positive preliminary clinical data from the Phase 1 BALLI-01 Study at a Live Webcast during the American Society of Hematology annual meeting. These data were from five patients who received UCART22 at DL3 (5x10⁶ cells/kg) after lymphodepletion with FCA. No dose limiting toxicities were reported and no Grade 2 or higher CRS, ICANS or adverse events of special interest were observed. Evidence of UCART22 anti-tumor activity was observed in 60% (n=3) of the five patients at: (i) a patient experienced a durable minimal residual disease (MRD) negative complete response with incomplete count recovery (CRi) that continued beyond 6 months as of December 2022, (ii) a patient experienced an MRD negative complete response (CR) that continued beyond Day 56 as of December 2022, and (iii) patient experienced a morphologic leukemia-free state (MLFS) that continued beyond Day 84. All three of the responders failed multiple lines of prior therapy including multiagent chemotherapy, CD19-directed autologous CAR T cell therapy, and allogeneic stem cell transplant. Additionally, the patient with the MRD negative CR also failed both prior blinatumomab (a CD19-directed bi-specific antibody) and inotuzumab (a CD22-directed antibody-drug conjugate), while the two additional responders failed venetoclax based regimens.

UCARTCS1 for MM

UCARTCS1 is an allogeneic engineered T-cell product candidate designed for the treatment of CS1 (also known as SLAMF7 or CD319) expressing hematologic malignancies, and is currently being developed for the treatment of relapsed or refractory MM.

Product Features

UCARTCS1 is designed to become active, proliferate, secrete cytokines and kill CS1 expressing cells. As CS1 is strongly expressed on the cell surface of CD8 T-cells but also mildly expressed on CD4 cells, B cells, NK cells and macrophages, the CS1 gene is inactivated in UCART cells prior to transduction with a viral vector encoding an anti-CS1 CAR. The inactivation of the CS1 gene may improve the production and activity of UCARTCS1 by preserving the balance between CD8 and CD4 T-cell population. In addition, as with all UCART products, UCARTCS1 lacks the TCR and is intended to be used in an allogeneic context. We believe that UCARTCS1 might have a potential lymphodepleting activity by attacking the immune cells of the patient expressing CS1.

As compared to BCMA, another target frequently addressed by MM CAR-T candidates, CS1 expression has been observed to be higher and more uniform. In certain mouse models, CS1 CAR-T therapy has shown deeper response than what is seen with BCMA CAR-T therapy.

Clinical Development Status

The MELANI-01 Study is an open-label, Phase 1, single arm, multicenter clinical trial designed to evaluate the safety, expansion, persistence and clinical activities of UCARTCS1 in patients with r/r MM. This trial will be a dose-escalation study for UCARTCS1 with 3 separate dose cohorts. The primary endpoints are to assess the safety and tolerability of UCARTCS1 administered to patients with relapsed or refractory (r/r) Multiple Myeloma (MM); and to determine the Maximum Tolerated Dose (MTD) of UCARTCS1 in this population. Secondary endpoints include assessment of the efficacy of UCARTCS1 as measured by International Myeloma Working Group response criteria; assessment of the duration of response, time to response, progression-free survival, and overall survival. An optimal dose of UCARTCS1 will be recommended for Phase 2.

In July 2020, the MELANI-01 Study was placed on clinical hold by the U.S. FDA. This clinical hold was initiated following the submission of a safety report regarding one patient enrolled in the study at dose level two (DL2). This patient, who had been treated unsuccessfully, prior to enrollment, with more than ten lines of therapy, including autologous CAR T-cells, experienced a fatal treatment-emergent adverse event of cardiac arrest. We worked closely with the FDA to address the agency's inquiries, which include adjustments to the MELANI-01 clinical protocol designed to enhance patient safety. In November 2020, the FDA lifted the clinical hold.

In May 2021, we presented preliminary translational data from the first group of patients enrolled on the MELANI-01 study at American Society of Gene and Cell Therapy's annual meeting. Early preliminary data validates CS1 as a target for allogeneic CAR-T cells in multiple myeloma. UCARTCS1 expansion and persistence was observed and correlated with anti-myeloma activity, and changes in serum cytokines.

The MELANI-01 Study is currently open to patients recruitment at Hackensack University Medical Center (Hackensack, New Jersey), The University of Texas, MD Anderson Cancer Center (Houston, Texas), The regents of the University of California, on behalf of its San Francisco campus (San Francisco, California), Mayo Clinic Cancer Center (Rochester, Minnesota), Colorado Blood Cancer Institute, Cancer Institute at Presbyterian/St Luke's Medical Center, Sarah Cannon Research Institute, LLC (Denver, Colorado), Tennessee Oncology, PLLC, Sarah Cannon Research Institute, LLC (Nashville, Tennessee), Methodist Healthcare System of San Antonio, Ltd., LLP d/b/a Methodist Hospital, Sarah Cannon Research Institute, LLC (San Antonio, Texas) and Emory University Winship Cancer Institute (Atlanta, Georgia).

As of the date of this Annual Report, we are enrolling patients in the first dose level $(1.0 \times 10^6 \text{ cells/kg})$ of the MELANI-01 Study with a FC lymphodepletion regimen.

UCART20x22 for NHL

UCART20x22 is an allogeneic engineered T-cell product candidate targeting CD20 and CD22, both of which are expressed in B-cell malignancies, and is currently being developed for the treatment of relapsed or refractory B-cell NHL.

Product Features

UCART20x22 is a derivative of UCART22, that includes an additional CAR targeting CD20 to increase breadth of antigen targeting. We believe that targeting both CD20 and CD22 is more likely to prevent tumor escape and is an alternative to approved autologous CAR-T products targeting CD19. As all our UCART product candidates, UCART20x22 lacks the TCR and is intended to be used in an allogeneic context. In addition, UCART20x22 has the suppression of CD52 gene in order to potentially induce resistance to an anti-CD52 monoclonal antibody, such as alemtuzumab, as part of the preconditioning.

Pre-clinical Findings

In April 2022, we presented positive preclinical data of UCART20x22 at the American Association for Cancer Research 2022 annual meeting. These data showed that UCART20x22 has a strong activity against tumor cell lines expressing either a single antigen, CD20 or CD22, or both simultaneously. The in vivo pre-clinical models demonstrated that UCART20x22 efficiently eradicates tumors expressing both or either antigen, and sustained presence of UCART20x22 cells was observed in the bone marrow after tumor clearance. in vitro assays against primary cells from non-Hodgkin lymphoma patients with diverse CD22 and CD20 antigen levels demonstrate that UCART20x22 has potent and specific cytotoxic activity.

Clinical Development Status

The NATHALI-01 Study is currently open to patient recruitment at Dana-Farber/Mass General Brigham Cancer Care, Inc (Boston, Massachusetts), and Sarah Cannon Research Institute, LLC and St. David's Healthcare Partnership, LP., LLP d/b/a St. David's South Austin Medical Center (Austin, Texas).

As of the date of this Annual Report, the NATHALI-01 Study is open for patient recruitment in the first dose level with a FCA lymphodepletion regimen. UCART20x22 product candidate is manufactured in-house by our manufacturing facility in Raleigh, North Carolina.

CLLS52 as anti-CD52 monoclonal antibody

Following the execution of the supply agreement we entered into with Genzyme relating to the supply of alemtuzumab, we are implementing the use of alementuzumab as a Cellectis investigational medicinal product, coded as CLLS52, in the clinical protocols BALLI-01, MELANI-01, NATHALI-01 in the United States and in the relevant European Union member states.

Self-owned UCART programs for solid tumors

We are currently applying our UCART platform to develop CAR-T candidates targeting solid tumors. Our self-owned UCART programs for solid tumors is currently in the preclinical phase of development.

UCARTMESO

UCARTMESO is an allogeneic CAR T-cell product candidate targeting Mesothelin.

In November 2021, we presented the first preclinical data on UCARTMESO at the annual meeting of the Society for Immunotherapy of Cancer (SITC). The poster presentation highlighted Mesothelin as an interesting target for CAR-T cell therapy for solid tumors because it is highly and consistently expressed in mesothelioma and pancreatic cancers. It is also over-expressed in subsets of other solid tumors (ovarian cancer, non-small cell lung cancer, gastric cancer, triple-negative breast cancer) while modestly expressed in healthy cells, indicating that targeting mesothelin may result in a safe and effective therapy. UCARTMESO product candidate is composed of allogeneic non-alloreactive T cells edited with TALEN-encoding mRNAs to disrupt TRAC, CD52 and TGFBR2 genes, and transduced ex vivo with a recombinant lentiviral vector to express a second-generation CAR targeting Mesothelin. It is the first TALEN-induced triple knock out (KO) product candidate in the allogeneic CAR-T space. The preclinical data demonstrated potent activity of UCARTMESO in vitro and in vivo against MSLN expressing cell lines, and in vivo activity in pancreatic and pleural mesothelioma mouse models. Due to TGFBR2 KO, UCARTMESO was shown to restore IL2RA upregulation upon in vitro activation, even in media rich in TGFB1, which contributes to the immune suppressive microenvironment in tumors.

UCARTFAP

UCARTFAP is an allogeneic CAR-T cell targeting Cancer Associated Fibroblasts (CAFs) in the tumor microenvironment. CAFs secrete a number of factors amounting to physical and chemical barriers preventing T-cell activity. Reducing the amount of CAFs, will, in turn reduce the immunosuppressive signals emitted from the tumor and hopefully convert "cold" tumors into "hot" tumors that can then be targeted with checkpoint inhibitor therapy. By targeting the cancer-associated fibroblasts, Cellectis aims to erode the physical barrier encasing the tumor microenvironment that prevents T-cell (and CAR T-cell) infiltration into the tumor. The TCR knockout is to prevent GVHD and the beta-2 microglobulin knocked out to provide resistance to the patient's own T-cells.

UCARTMUC1

UCARMUC1 is an allogeneic CAR T-cell targeting Mucin 1 for triple negative breast cancer and a variety of epithelial cancers. As other solid tumor targets can be plagued by safety concerns due to off-tumor expression, MUC1 is of high interest as its expression in normal epithelium is restricted to apical membranes. Additionally, its heavy glycosylation in normal tissue renders MUC1 undetectable by Cellectis' MUC1 CAR that only recognizes hypoglycosylated MUC1 present in cancer cells. UCARTMUC1 now incorporates four TALEN knockouts (TCR, B2M, PD-1, and TGFBR2) with two knockins (IL-12 and HLA-E). In lieu of the deleted beta-2 microglobulin gene (part of MHC-1 complex), Cellectis has inserted the HLA-E gene to cloak the cells from immune detection by NK cells, thus increasing CART persistence. In lieu of the PD-1 gene, Cellectis has inserted the IL-12 gene to enhance tumor cell killing and attract other pro-inflammatory cells when induced by the MUC1 CAR binding tumor cells. Preclinical data indicates that UCARTMUC1 shows strong intratumoral expansion translating into promising preclinical anti-tumor activity in vivo.

Programs Under Strategic Licensing Agreements

In October 2021, Allogene announced that the FDA had placed a hold on all five of Allogene's chimeric antigen receptor T cell (AlloCAR T^{TM}) clinical trials described below based on a report of a chromosomal abnormality detected post-Allo CAR T administration in a single patient treated with ALLO-501A in the ALPHA2 study. In January 2022, Allogene announced that the FDA has removed the clinical hold on all of its AlloCAR T clinical trials. Investigations concluded that the chromosomal abnormality was unrelated to TALEN gene editing or Allogene's manufacturing process and had no clinical significance. The

abnormality was not detected in any manufactured AlloCAR T product or in any other patient treated with the same ALLO-501A lot. The abnormality occurred in the patient after the cell product was administered. It involved regions of the T-cell receptor and immunoglobulin genes known to undergo rearrangement as part of the T-cell or B-cell maturation process.

UCART19 for ALL

UCART19 is an allogeneic, off-the-shelf T-cell product candidate designed to fight hematological malignancies, such as ALL, expressing the B-lymphocyte antigen CD19.

In November 2015, Servier acquired the exclusive rights to the first UCART19 product from Cellectis. UCART19 is being jointly developed under a clinical development collaboration between Servier and Allogene based on the exclusive license by us to Servier. Servier grants to Allogene exclusive rights to UCART19 in the United States, while Servier retains exclusive rights for all other countries.

Product Features

UCART19 is designed to become active, proliferate, secrete cytokines and kill CD19-bearing B-cell malignancies upon contact with such cells, following administration to patients. Activation of UCART19 is driven by contact between its anti-CD19 CAR and the CD19 protein on the surface of tumor cells.

UCART19 cells bear a CAR targeting the CD19 antigen that drives their capacity to kill CD19-bearing cells. Moreover, as with all UCART product candidates, UCART19 lacks the TCR responsible for recognition of non-self antigens by the T-cells, which allows use of healthy donor T-cells to produce UCART19, with reduced potential for GvHD. In addition, some UCART19 cells lack CD52, a protein expressed on the cell surface that makes T-cells sensitive to alemtuzumab. This feature permits the use of UCART19 in patients recently treated or being treated with the immunosuppressing/lymphodepleting agent alemtuzumab.

Clinical Development Status

In 2016, Servier commenced the UCART19 Studies – a Phase 1 clinical study in pediatric ALL, the PALL study, and a Phase 1 clinical study in adult patients with ALL, the CALM study.

As of the date of this Annual Report, the UCART19 Phase 1 Studies have been completed. Allogene has reported that all patients from both studies will continue the long-term follow-up as planned.

On September 15, 2022, Servier sent to us and Allogene a notice of discontinuation of its involvement in the development of the CD19 Products and purporting to provide Allogene with the ability to elect and obtain a license to the CD19 Products outside of the United States. See "Risk Factors—Risks Related to Our Reliance on Third Parties—Servier's discontinuation of its involvement in the development of CD19 Products may have adverse consequences."

Clinical Findings

In December 2020, Servier published, in the Lancet journal, pooled results of the UCART19 Studies. Between June 2016 and October 2018, seven children and 14 adults were enrolled in the two studies and received UCART19. Cytokine release syndrome, or CRS, was the most common adverse event and was observed in 19 patients (91%); three (14%) of whom had grade 3 or 4 CRS. Other adverse events were grade 1 or 2 neurotoxicity in eight patients (38%), grade 1 acute skin graft-versus-host disease, or GvHD, in two patients (10%), and grade 4 prolonged cytopenia in six patients (32%). Two treatment-related deaths occurred; one caused by neutropenic sepsis in a patient with concurrent CRS and one from pulmonary hemorrhage in a patient with persistent cytopenia. 14 (67%) of 21 patients had a complete response (CR) or complete response with incomplete (Cri) hematological recovery 28 days after infusion.

Patients not receiving alemtuzumab (n=4) showed no UCART19 expansion or antileukemic activity. The median duration of response was 4.1 months with ten (71%) of 14 responders proceeding to a subsequent allogeneic stem-cell transplant. Progression-free survival at 6 months was 27%, and overall survival was 55%.

According to the article, these two studies show, for the first time, the feasibility of using allogeneic, genome-edited CAR T cells to treat patients with aggressive leukemia. UCART19 exhibited in-vivo expansion and antileukemic activity with a manageable safety profile in heavily pretreated pediatric and adult patients with relapsed or refractory B-cell acute lymphoblastic leukemia.

ALLO-501 and ALLO-501A, for DLBCL and FL

ALLO-501 (or UCART19, which we exclusively license to Servier pursuant to the Servier License Agreement, and which has been sublicensed to Allogene by Servier in the United States) is an allogeneic engineered T-cell product intended for the treatment of CD19-expressing hematologic malignancies.

ALLO-501A was created as a second-generation version of ALLO-501, designed to omit the rituximab recognition domains originally added in ALLO-501. Because rituximab is a typical part of the treatment regimen for a patient with NHL, this change is intended to facilitated treatment of a broader patient population.

Development Status

In January 2019, Allogene announced, in collaboration with Servier, that the FDA approved the IND for Phase 1 clinical study for ALLO-501 in relapsed or refractory NHL (the "ALPHA Study"). The ALPHA Study is an open-label, Phase 1, single arm, multicenter clinical trial evaluating the safety and tolerability of ALLO-501 in adult patients with the most common r/r NHL subtypes, including r/r large B-cell lymphoma, including DLBCL, and r/r follicular lymphoma (FL). The trial is a dose-escalation study for ALLO-501 with three separate dose cohorts. Prior to ALLO-501 treatment, all patients undergo lymphodepletion with a regimen of fludarabine, cyclophosphamide and ALLO-647 (an anti-CD52 monoclonal antibody).

In February 2020, Allogene announced that the FDA had approved the IND for a Phase 1/2 clinical study for ALLO-501A in relapsed or refractory NHL (the "ALPHA2 Study"). The ALPHA2 Study is an open-label, Phase 1/2, single arm, multicenter clinical trial of ALLO-501A in adult patients with R/R large B-cell lymphoma, including DLBCL, or transformed FL. The Phase 1 portion of the ALPHA2 Study is designed to assess the safety and tolerability at increasing dose levels of ALLO-501A and identify the recommended doses of ALLO-501A and ALLO-647 (an anti-CD52 monoclonal antibody) for use in the Phase 2 portion of the trial. Allogene initiated the ALPHA2 Study in the second quarter of 2020.

In February 2021, Allogene announced that the FDA had granted fast track designation to ALLO-501A for relapsed or refractory diffuse large B cell lymphoma (LCBL).

In June 2022, Allogene announced that the FDA granted Regenerative Medicine Advance Therapy (RMAT) designation to ALLO-501A in relapsed or refractory large B cell lymphoma (LBCL).

In October 2022, Allogene announced the initiation of the Phase 2 clinical trial of ALPHA2 trial in patients with relapsed or refractory LBCL. Allogene also announced that it was in the process of initiating the EXPAND trial, which is a separate potentially registration trial for ALLO-647—Allogene's anti-CD52 monoclonal antibody that Allogene is developing with the goal of potentially enabling expansion, persistence and improved clinical outcomes of allogeneic CAR T cell product candidates, including ALLO-501A. Allogene has stated that, assuming favorable outcomes and subject to FDA discussions, Allogene plans to seek FDA approval of ALLO-501A and ALLO-647 on the basis of the ALPHA2 trial and the EXPAND companion trial.

Clinical Findings

In December 2021, Allogene, in collaboration with Servier, reported Phase 1 data on ALLO-501 and ALLO-501A r/r NHL at the annual meeting of the American Society of Hematology. As of the October 18, 2021 data cutoff, 50 patients were enrolled in the ALPHA study, of whom 49 were evaluable for safety and 40 were evaluable for efficacy, and 29 patients were enrolled in the ALPHA2 study, of whom 28 were evaluable for safety and 25 were evaluable for efficacy. ALLO-501 and ALLO-501A therapy was associated with consistent and manageable safety with no DLTs or GvHD; low rates of Grade 3 ICANs and CRS. No relapses were observed in Large B Cell Lymphoma (LBCL) CAR T naïve patients who achieved a CR at six months. The longest CRs at this time was 18+ months with ALLO-501 and 15+ months with ALLO-501A. Patients received lymphodepletion containing fludarabine, cyclophosphamide and ALLO-647 (an anti-CD52 antibody) followed by escalating doses of ALLO-501 or ALLO-501A. In consolidation, patients with stable disease or better at Day 28 received a chemotherapy-free lymphodepletion (ALLO-647 only) and AlloCAR T cell infusion. The trials explored two consolidation cohorts. Consolidation 1 used the standard cyclophosphamide dosing. Second consolidation explored a higher cyclophosphamide dose. The consolidation regimen was well tolerated with low rate of adverse events, yielded a 44% CR with ongoing CRs at 9 months, and consolidation produced an 88% Overall Response Rate (ORR) and 75% CR rate in Follicular Lymphoma. Key Advantage of allogeneic delivery was established with >97% of patients treated with a median time from enrollment to initiation of treatment of five days for ALLO-501 and two days for ALLO-501A.

In November 2022, Allogene presented an update on clinical data for the Phase 1 ALPHA Studies. Allogene reported that the Phase 1 ALPHA Studies support the ability of a single administration of CAR T cells to generate responses similar to approved autologous CAR T therapies and that the ALPHA Studies demonstrated a manageable safety profile.

Allogene observed that a single infusion of CAR+ cells with aFCA90 lymphodepletion regimen consisting of fludarabine (30 mg/m2/day x 3 days) and cyclophosphamide (300 mg/m2/day x 3 days) (standard flu/cy) plus 90 mg of ALLO-647 ("Single Dose FCA90") was deemed preferrable to two infusions of CAR+ cells ("Consolidation Regimen"), where ALLO-647 dosing was split into 60 mg and 30 mg prior to the first and second infusion of CAR+ cells. Among 12 patients treated with the Single Dose FCA90 regimen, the overall response rate ("ORR") was 67% and 58% achieved CRs. Among the eight patients in the Single Dose FCA90 cohort who had the opportunity to be followed for six months or more, four (50%) were in CR at both six and 12 months. According to Allogene there were no observed dose limiting toxicities or graft versus host disease. Among patients treated with single dose FCA regimen, there was no grade 3+ CRS or neurotoxicity. One patient (8%) experiences a grade 3+ infection and two patients (17%) experienced prolonged grade 3+ cytopenia. One grade 5 event occurred.

ALLO-715, for MM

ALLO-715, which we exclusively license to Allogene pursuant to the Allogene License Agreement, is an allogeneic engineered CAR T-cell product targeting BCMA.

Development Status

In June 2019, Allogene announced that the FDA had approved the IND for a Phase 1 clinical study for ALLO-715, in relapsed or refractory (r/r) multiple myeloma (MM), which is referred as to the "UNIVERSAL Study". The UNIVERSAL Study is an open-label, Phase 1, single arm, multicenter clinical trial evaluating the safety and tolerability of ALLO-715 in adult patients with r/r MM. The trial is a dose-escalation study for ALLO-715 with three initial planned dose cohorts. Prior to ALLO-715 treatment, patients undergo lymphodepletion with one of two lymphodepletion regimens: FCA (the primary focus of enrollment) – a regimen of fludarabine, cyclophosphamide and ALLO-647; or CA – a regimen of cyclophosphamide and ALLO-647.

Allogene previously started the development of ALLO-715 in combination with nirogacestat, a SpringWorks Therapeutics' investigational gamma secretase inhibitor in a cohort in the UNIVERSAL trial. In August 2022, Allogene announced that it would not advance ALLO-715 in combination with nirogacestat into the dose expansion cohorts since there was no clear indication that the combination would meaningfully improve the benefit-risk profile of ALLO-715 as a monotherapy.

In April 2021, Allogene announced that the FDA granted RMAT designation to ALLO-715 in r/r MM and that the FDA granted orphan-drug designation to ALLO-715 for the treatment of multiple myeloma.

Clinical Findings

In December 2021, Allogene reported results from Phase 1 UNIVERSAL Study at the American Society of Hematology Annual Meeting (ASH). The data focused on dose level 3 and FCA lymphodepletion. As of the December 14, 2021 data cutoff, 48 patients were enrolled, 43 of whom were evaluable for safety and efficacy. Data demonstrate responses similar to approved autologous CAR T therapy. ALLO-715 was well tolerated with no GvHD and manageable safety. The ORR with FCA lymphodepletion regimen was 71%, 46% achieved a Very Good Partial Response or Better (VGPR+) including 25% CR or Stringent Complete Response, 92% of Patients with VGPR+ were Minimal Residual Disease (MRD) Negative. The median duration of response was 8.3 months.

In November 2022, Allogene reported results from Phase 1 UNIVERSAL Study. Allogene reported that dose expansion cohorts comprised of a single dose of ALLO-715 (320 million CAR+ cells) and either FCA39 lymphodepletion (standard flu/cy plus 39 mg of ALLO-647) or FCA60 lymphodepletion (standard flu/cy plus 60 mg of ALLO-647) demonstrated substantial and durable responses. Importantly, 92% of all enrolled patients received investigational product with 100% of infused product manufactured and released as per product specifications. Patients were able to initiate treatment within five days of enrollment and no bridging therapy was required. Through a median follow-up of 14.8 months as of the October 11, 2022 data cutoff, the

ORR was 67% in the FCA60 cohort and the very good partial response or better rate (VGPR+) was 42%. All VGPR+ were minimal residual disease (MRD) negative. The median duration of response was 9.2 months, with the longest ongoing response at 24 months. Safety profile was manageable with low-grade and reversible neurotoxicity and no GvHD. In the expansion cohorts, there was low use of tocilizumab (32%) and steroids (25%). Eight patients (29%) experienced Grade 3+ infections and prolonged Grade 3+ cytopenias. As previously reported, one Grade 5 event occurred in the expansion cohorts and no new Grade 5 events have occurred.

ALLO-605, for MM

ALLO-605, which we exclusively license to Allogene pursuant to the Allogene License Agreement, is an allogeneic engineered CAR T-cell product targeting BCMA. ALLO-605 utilizes the TurboCAR™ technology. According to Allogene, this technology allows signaling to be engineered selectively into CAR T cells and has shown the ability to improve the potency and persistence of the cells and to delay exhaustion of the cells in preclinical model.

Development Status

In April 2021, Allogene announced that the FDA had approved the IND for ALLO-605, in patients with relapsed or refractory MM, which is referred as to as the "IGNITE Study".

In June 2021, Allogene announced that the FDA had granted fast track designation to ALLO-605. Allogene has also announced that in May 2022, the FDA granted orphan-drug designation to ALLO-605 for the treatment of MM.

In November 2022, Allogene reported that it was reviewing the manufacturing process for ALLO-605 and was not enrolling patients in the IGNITE study at that time.

ALLO-316, for RCC

ALLO-316, which we exclusively license to Allogene pursuant to the Allogene License Agreement, is an allogeneic engineered CAR T-cell product targeting CD70.

Development Status

In December 2020, Allogene announced that the FDA had approved the IND for a Phase 1 clinical study for ALLO-316, in RCC, which is referred to as the "TRAVERSE Study".

In March 2022, Allogene announced that the FDA has granted fast track designation to ALLO-316.

Clinical findings

In November 2022, Allogene presented initial data from TRAVERSE Study and reported that observed anti-tumor activity was largely confined to patients with CD70 expressing tumors. As of the data extract date of November 17, 2022, in the nine patients with tumors known to express CD70, the disease control rate (DCR) was 100% including three patients who achieved a partial response (PR) (two confirmed and one unconfirmed with the longest response lasting until month eight). Cell expansion in patients with CD70 positive disease was robust, and there was a trend toward greater tumor shrinkage in patients with the highest levels of CD70 expression Allogene reported that ALLO-316 demonstrated a generally manageable safety profile with no GvHD. One dose limiting toxicity of liver enzyme elevation occurred in the second dose level. Grade 3+ prolonged cytopenia was observed in three patients (18%). CRS was all low grade with the exception of one case of Grade 3 CRS. Neurotoxicity was low grade, reversible and seen in only three patients (18%). No grade 5 events have occurred.

Other gene editing programs

Beyond our CAR-T programs, we are leveraging our TALEN gene editing platform to pursue additional development opportunities, both internally and in collaboration with third party companies and academic centers. We aim to enter the clinic with one or more gene editing programs beyond UCARTs in the future.

HEAL the hematopoietic stem and progenitor cells platform for genetic diseases

We are developing a gene editing platform that leverages the power of TALEN technology, to allow highly efficient gene inactivation, insertion and correction in hematopoietic stem and progenitor cells (HSPCs). We used this platform to develop programs in sickle cell disease (SCD), lysosomal storage disease (LSD) and primary immunodeficiencies.

TalGlobin

TalGlobin is developed with TALEN technology intended to induce a double DNA strand break at the HBB gene causing SCD, and AAV particles containing a DNA repair template designed to correct the faulty HBB gene via endogenous homology directed repair (HDR).

In December 2021, we presented initial pre-clinical data from TalGlobin at the American Society of Hematology Annual Meeting. Initial pre-clinical data from TALGlobin show that TALEN is specific and efficient in correcting the mutated beta-globin gene, the underlying cause of SCD. The data also demonstrate that TALEN-based engineering could be used to correct the beta-globin gene mutation in HbSS patient-derived hematopoietic stem and progenitor cells. The data show up to 70% of HBB allelic correction, with only 9% of HBB biallelic inactivation and a low level of TALEN off-target cleavage. Genetic correction of HBB translates into high level of hemoglobin A expression (up to 47% HbA detected among total hemoglobin) and reversion of the sickling phenotype in differentiated red blood cells. Preclinical data show the capacity of TALEN treatment in SCD patient-derived hematopoietic stem and progenitor cells.

In October 2022, we presented encouraging pre-clinical data from TalGlobin at the European Society of Gene and Cell Therapy 29th Congress. Overall, the results showed that non-viral DNA delivery associated with our TALEN gene editing technology reduces the toxicity observed with viral DNA delivery and allows high levels of HBB gene correction in long-term repopulating hematopoietic stem cells.

ArtEx

We have also developed an artificial exon (ArtEx) strategy to introduce a corrected gene copy coding for a relevant LSD enzyme into the intronic region of a gene expressed in myeloid cells. This approach would avoid the potential collateral effect of knocking out the endogenous gene without a correct replacement. This editing strategy opens new avenues for the treatment of LSDs, as it would allow to address the systemic lack of lysosomal enzyme activity, including in the brain, and could be used to produce virtually any defective LSD enzyme. It represents a new platform, in which a single safe and well characterized TALEN could be used to treat different LSDs.

In October 2022, we presented a TALEN-based gene editing approach that reprograms HSPCs to secrete alpha-L-iduronidase (IDUA), an enzyme missing in Mucopolysaccharidosis type I (MPS-I). MPS-I is associated with severe morbidity representing a significant unmet medical need. We established a TALEN-based ex vivo gene editing protocol to insert an IDUA-expression cassette into a specific locus of HSPC. Editing rates in vivo were 6 to 9% sixteen weeks after injection, depending on the tissue analyzed (blood, spleen, bone marrow). Lastly, 8.3% of human cells were edited in the brain compartment.

RAG1

Until the expiration of the collaboration in March 2022, we collaborated with Pr. Toni Cathomen (University of Freiburg, Germany) to use TALEN in hematopoietic stem cells in order to develop treatment for RAG1 severe combined immunodeficiency (SCID). RAG1 is an essential enzyme temporarily expressed in the early development of T and B cells, making traditional gene therapy approaches challenging in terms of spatio-temporal control. We used TALEN to insert a corrected copy of the gene into the intron 1 of the endogenous RAG1 making the transgene expression under the regulation of the RAG1 endogenous promoter. Successful insertion was observed in \sim 30% of short-term progenitor cells and more importantly in \sim 20% of long-term progenitor cells. Corrected cells highly expressed RAG1 and the lineage differentiation of the CD34+ cells was not affected.

STAT3

Until the expiration of the collaboration in February 2022, we collaborated with Pr. Toni Cathomen (University of Freiburg, Germany), we have developed a strategy applicable in HSCs and T-cells, in which a wild type cDNA sequence containing exon 9 to 24 is inserted into an intronic sequence of the STAT3 gene to restore its functionality. STAT3 is a signal transduction molecule that governs the cytokine response to extracellular signals. Mutation of STAT3 leads to Hyper IgE Syndrome. The expression level of STAT3 needs to be tightly regulated as two isoforms, STAT3 α and STAT3 α , that play oncogenic and tumor-suppressing roles, respectively, need to be expressed in certain ratio. This makes traditional gene therapy approaches very challenging. By using TALEN, gene insertion could be achieved in proof-of-concept experiments. Importantly, the STAT3 α : STAT3 α isoform expression ratio was maintained, which is a key step to restore function of STAT3 in patients.

In October 2021, Pr. Toni Cathomen presented encouraging pre-clinical data that supports further evaluation of the .HEAL platform at the European Society of Gene and Cell Therapy (ESGCT) annual meeting. The presentations highlighted genome editing approach based on TALEN for our two product candidates targeting primary immunodeficiencies: RAG1 for Severe Combined Immunodeficiency (SCID) and STAT3 for Hyper IgE syndrome. Using TALEN technology and the .HEAL platform, Pr. Cathomen engineered HSCs with a corrected copy of RAG1 that replaced the existing, mutated copy of RAG1. The precise replacement of the mutated gene enabled the corrected RAG1 gene to be expressed at its natural timing and stage of cell development. 30% of gene correction was achieved within the long-term HSC population. For STAT3, data highlighted a strategy applicable in HSCs and T-cells to insert a corrected version of the STAT3 gene into the patient's genome to restore its functionality. In T-cells isolated from patients, 60% integration was achieved. More importantly, the α/β isoforms ratio was restored.

Our Licensing Relationships

In addition to the development of our own portfolio of product candidates targeting tumor-associated antigens, we have pursued a strategy of forging strong relationships with pharmaceutical or clinical stage biopharmaceutical companies.

License Agreement with Allogene

In June 2014, we entered into a Research Collaboration and License Agreement (the "Collaboration and License Agreement") with Pfizer, Inc. ("Pfizer") pursuant to which we agreed to collaborate to conduct discovery and pre-clinical development activities to generate CAR T-cells directed at Pfizer- and Cellectis-selected targets in the field of human oncology. We granted Pfizer an exclusive, worldwide, royalty-bearing, sublicensable license, on a target-by-target basis, under certain of our intellectual property to make, use, sell, import, and otherwise commercialize products directed at the Pfizer-selected targets in the field of human oncology. Pursuant to the Collaboration and License Agreement, Pfizer made an upfront, non-refundable \$80.0 million payment to us. Concurrent with this upfront payment, Pfizer also made a €25.8 million equity investment in our company.

On April 3, 2018, Pfizer and Allogene Therapeutic, Inc. ("Allogene") announced that they entered into an asset contribution agreement, pursuant to which Allogene purchased Pfizer's portfolio of assets related to allogeneic CAR T-cell therapy (the "Asset Contribution Transaction"). Pursuant to the Asset Contribution Transaction, effective as of April 6, 2018, Allogene purchased Pfizer's portfolio of assets related to allogeneic CAR T-cell Therapy, including the Collaboration and License Agreement.

On March 8, 2019, we and Allogene agreed to terminate the Collaboration and License Agreement and entered into a new license agreement (the "Allogene License Agreement") to reflect the relationship between us and Allogene following the Asset Contribution Transaction. The Allogene License Agreement establishes the rights and obligations of Cellectis and Allogene with respect to their collaboration program.

Pursuant to the Allogene License Agreement, we granted to Allogene an exclusive, worldwide, royalty-bearing, license, on a target-by-target basis, with sublicensing rights under certain conditions, under certain of our intellectual property, including our TALEN and electroporation technology, to make, use, sell, import, and otherwise exploit and commercialize chimeric antigen receptor (CAR) T cells products directed at a total of 15 selected targets, including BCMA, FLT3, DLL3 and CD70, for human oncologic therapeutic, diagnostic, prophylactic and prognostic purposes. In addition, the Allogene License Agreement accommodates an exclusive global license and collaboration agreement under which Allogene has obtained from Servier exclusive rights to develop and commercialize UCART19 in the United States. Further, Allogene granted us a non-exclusive, worldwide, royalty-free, perpetual and irrevocable license, with sublicensing rights under certain conditions, under certain of Allogene's intellectual property, to make, use, sell, import and otherwise commercialize CAR T products directed at certain targets.

The Allogene License Agreement provides for development and sales milestone payments by Allogene in a per target aggregate amount of up to \$185.0 million, with aggregate potential development and sales milestone payments across all targets totaling up to \$2.8 billion. In connection with (i) the dosing of the first patient in its UNIVERSAL Study for ALLO-715, Allogene made a milestone payment of \$5.0 million, (ii) the dosing of the first patient in its IGNITE Study for ALLO-605, Allogene made a milestone payment of \$5.0 million, and (iii) the dosing of the first patient in its TRAVERSE Study for ALLO-316, Allogene made a milestone payment of \$5.0 million. We are also eligible to receive tiered royalties on annual worldwide net sales of any products that are commercialized by Allogene that contain or incorporate, are made using or are claimed or covered by, our intellectual property licensed to Allogene under the Allogene License Agreement at rates in the high single-digit percentages.

Unless earlier terminated in accordance with the agreement, our agreement with Allogene will expire on a product-by-product and country-by-country basis, upon the later of (1) the expiration of the last to expire of the licensed patents covering such product; (2) the loss of regulatory exclusivity afforded such product in such country, and (3) the tenth anniversary of the date of the first commercial sale of such product in such country; however, in no event shall the term extend, with respect to a particular licensed product, past the twentieth anniversary of the first commercial sale for such product. In addition, Allogene has the right to terminate the agreement at will upon 60 days' prior written notice, either in its entirety or on a target-by-target basis. Either party may terminate the agreement, in its entirety or on a target-by-target basis, upon 90 days' prior written notice in the event of the other party's uncured material breach. The agreement may also be terminated upon written notice by Allogene at any time in the event that we become bankrupt or insolvent or upon written notice within 60 days of a consummation of a change of control of Cellectis.

License, Development and Commercialization Agreement with Servier

In February 2014, we entered into a Research, Product Development, Option, License and Commercialization Agreement (the "Prior Servier Agreement") with Servier. Pursuant to the Prior Servier Agreement, we were responsible for the research and development up to and including the Phase 1 clinical trial of candidate products directed against five targets, including the UCART19 product candidate. Pursuant to the Prior Servier Agreement, we granted Servier the right to exercise an exclusive option to obtain an exclusive, worldwide license, on a product candidate-by-product candidate basis, with respect to each product candidate selected by Servier and developed under the agreement. Pursuant to the Prior Servier Agreement, Servier made upfront payments of \$48.5 million.

On March 6, 2019, we and Servier entered into a new License, Development and Commercialization Agreement (the "March Servier License Agreement"). The March Servier License Agreement superseded and replaced the Prior Servier Agreement in order to modify the targets covered by our license to Servier, to establish the terms of our and Servier's collaboration and to reflect the status of products in development.

On February 18, 2020, we and Servier entered into a binding term sheet to enter into an amendment to the March Servier License Agreement to grant to Servier an exclusive license limited to CD19 target, but extended to all gene-edited allogeneic CAR T-cell products targeting CD19 and gene edited exclusively by Cellectis' TALEN. On March 4, 2020, we and Servier entered into the amendment to the March Servier License Agreement contemplated by this term sheet (such March Servier License Agreement as amended on March 4, 2020, the "Servier License Agreement").

Under the Servier License Agreement, Cellectis grants to Servier, an exclusive worldwide, royalty bearing license with sublicensing rights under certain conditions, under certain of our patents and know-how to develop, manufacture and commercialize gene-edited allogeneic CAR T-cell products targeting CD19 and gene edited exclusively by Cellectis' TALEN. Servier, directly or through its sublicensees, will be solely responsible for the research, development and commercialization of these products. In addition, Servier confirms it will not pursue the development of five other targets for products using Cellectis technology and consequently Cellectis retains control over them.

In addition to an upfront payment of $\[\le \]$ 25 million made by Servier following the execution of the amendment, the Servier License Agreement provides for aggregate additional payments of up to \$410 million ($\[\le \]$ 370 million), comprising payments for certain specified development and commercial milestones. We are also eligible to receive flat low double-digit royalties based on annual net sales of commercialized products. We are also entitled to a low double-digit royalty on certain development milestone payments received by Servier under sublicenses.

For so long as the agreement remains in effect, we are restricted from researching, developing, or commercializing any product directed against a CD19 target that is used for the same purpose as it is used with a product candidate developed under the agreement.

The agreement will expire, unless earlier terminated in accordance with its terms, upon the expiration of the last to expire of the patents covering a product licensed pursuant to the agreement. The parties may terminate the Servier License Agreement at any time by mutual consent. At its sole discretion, Servier has the right to terminate the agreement in its entirety or with respect to specific products, upon three months' prior written notice to us.

In addition, either party may terminate the agreement following the other party's uncured material breach upon 90 days' prior written notice to the breaching party, or 30 days' notice if such breach relates to a payment obligation. The agreement immediately and automatically terminates upon the expiration of Servier's last license option in the event Servier has not exercised any option to license in accordance with the agreement prior to such expiration. Servier may terminate the agreement at any time for product-related safety reasons. Either party may terminate the agreement in the event of the other party's bankruptcy or insolvency.

On September 15, 2022, Servier sent to us and Allogene a notice of discontinuation of its involvement in the development of the CD19 Products and purported to provide Allogene with the ability to elect to obtain a license to the CD19 Products outside of the United States. We do not believe that the Servier License Agreement permits Servier to grant such a world-wide sub-license to Allogene. We also believe that Servier has not complied with its performance obligations under the Servier License Agreement, which we believe may involve material breaches of the Servier License Agreement. See "Risk Factors—Risks Related to Our Reliance on Third Parties—Servier's discontinuation of its involvement in the development of CD19 Products may have adverse consequences."

Research Collaboration and Exclusive License Agreement with Iovance Biotherapeutics

On December 30, 2019, we entered into a research collaboration and exclusive worldwide license agreement with Iovance Biotherapeutics. Iovance licensed our TALEN technology in order to develop tumor infiltrating lymphocytes (TIL) that have been genetically edited to create more potent cancer therapeutics. The worldwide exclusive license enables Iovance to use TALEN® technology to address multiple gene targets to modify TIL for therapeutic use in several cancer indications. Financial terms of this license include development, regulatory and sales milestone payments to us, as well as royalty payments based on net sales of TALEN-modified TIL products.

Collaboration and License with Cytovia Therapeutics

On February 12, 2021, we entered into a research collaboration and non-exclusive license agreement with Cytovia Therapeutics, Inc., or Cytovia to develop induced Pluripotent Stem Cell (iPSC) iPSC-derived Natural Killer (NK) and CAR-NK cells edited with our TALEN (the "Cytovia Agreement").

Pursuant to the Cytovia Agreement, as expanded in November 2021 to include a new CAR target and development in China by Cytovia' joint venture entity, CytoLynkx Therapeutics, Cellectis is eligible to receive an upfront cash payment or equity stake in Cytovia of \$20 million, if certain conditions (the "Cytovia Conditions") were met by December 31, 2021 as well as aggregate additional payment of up to \$805 million of development, regulatory and sales milestones from Cytovia. Cellectis is also eligible to receive single-digit royalty payments on the net sales of the partnered products commercialized by Cytovia. Cellectis also received an option to participate in certain future financing rounds by Cytovia.

The Cytovia Agreement initially provided for an upfront cash payment or equity stake in Cytovia of \$20 million (the "Upfront Collaboration Consideration"), if certain conditions were met by December 31, 2021. Because the conditions of an equity stake transaction were not met by December 31, 2021, we recognized a trade receivable corresponding to the expected cash payment as of December 31, 2021. In April 2022, in connection with Cytovia's entering into a definitive business combination agreement with a publicly traded Special Purpose Acquisition Company ("SPAC"), we entered into an amendment

to the Cytovia Agreement, pursuant to which we received a \$20 million convertible note in payment of the Upfront Collaboration Consideration. The terms of the note provided for (i) conversion into common stock of the combined company upon completion of the business combination or, (ii) in certain circumstances, our ability to elect to be paid in cash on or before December 31, 2022. In connection with this amendment, Cellectis also received a warrant to purchase additional shares of the combined company representing up to 35% of the shares issued upon conversion of the note at a predetermined exercise price, with the number of shares issuable upon exercise and the exercise subject to certain adjustments (the "SPAC Warrant").

Because the SPAC business combination was abandoned and the conditions of the note were not met, we and Cytovia entered into an amended and restated note, which became effective as of December 22, 2022. Although the SPAC Warrant remains outstanding, it only applies in connection with Cytovia's business combination with a SPAC.

The amended and restated note provides for automatic conversion into common stock of Cytovia in the case of certain fundamental transactions pursuant to which Cytovia becomes a public reporting company and for conversion at Cellectis' option in connection with certain financing transactions, upon a company sale and at final maturity. In each case such conversion is subject to a 9.9% ownership cap, with the balance issuable in the form of pre-funded warrants. Among other changes, the amended and restated note increases the applicable interest rate of the note to 10% per annum, subject to a 10% step up upon the occurrence and continuation of an event of default, provides for the repayment of 50% of the outstanding amount on April 30, 2023 and extends the final maturity date for the repayment of the remaining outstanding amount to June 30, 2023.

Immunotherapy: Turning the Immune System into "Smart Drugs"

The immune system has evolved to protect the body from invading pathogens or external harmful materials by identifying these foreign bodies through "non-self" antigens, which are molecular signatures that they carry and are foreign to the body. A central function of the immune system is to discriminate between "self," which is recognized through antigens normally present in the body and borne by cells, proteins, sugars or lipids, and "non-self", which is detected through abnormal or foreign antigens. Cancer cells thrive, in part, because they trick the immune system into treating them as self, even though they express abnormal antigens, and thus immune tolerance occurs when the immune system fails to recognize and attack tumors. Breaking immune tolerance is an important aspect of most immuno-oncology-based therapeutics because it enables the immune system to recognize and treat tumors as non-self and leads to tumor destruction.

The immune system recognizes non-self danger signals and responds to threats at a cellular level. The immune system may be conceptualized as comprising two arms. The first arm, known as the innate immune system, recognizes non-specific signals of infection or abnormalities as a first line of defense. The innate immune system is the initial response to an infection, and the response is the same every time regardless of prior exposure to the infectious agent. The second arm, known as the adaptive immune system, is composed of highly specialized cells and provides long-term specific recognition and protection from infectious agents and abnormal processes such as cancer. The adaptive immune response is further subdivided into antibody-based responses and cellular responses, which include T-cell-based immune responses. The most significant components of the cellular aspect of the adaptive immune response are T-cells, which are specialized cells that generally mature in the thymus. T-cells are involved in sensing and killing infected or abnormal cells, as well as coordinating the activation of other cells and mounting an immune response.

Although the immune system is designed to identify and destroy foreign or abnormal protein-bearing tumor cells, this process is often defective in cancer patients. Additionally, cancer cells employ a number of mechanisms to escape immune detection and attack to suppress the effect of the immune response.

Immunotherapy is a type of treatment that modifies, stimulates, or re-directs certain parts of the immune system to fight diseases, such as cancer. Immunotherapy works by stimulating a patient's own immune system or by turning its attacks towards harmful targets, such as cancer cells. Immunotherapy can also be pursued by giving patients engineered immune cells, such as CAR T-cells to target certain cells. Immunotherapy is playing an increasingly large role in treating cancer, chronic infectious diseases, autoimmune diseases and allergic diseases.

T-cells and T-cell Receptors (TCRs)

T-cells are a class of white blood cells that carry a specific TCR at their surface that allows them to recognize and kill other cells that express antigens foreign to the individual. Normal cells express a set of specific molecules, called human leukocyte antigen, or HLA, at their surface. HLA is associated with small fragments, or peptides of the proteins expressed inside the cell or processed from the extracellular body fluids. Fragments of abnormal or foreign proteins (viruses, for example) can attach to HLAs, be presented at the cell's surface, be recognized by T-cells through these HLA-peptide complexes and identified as foreign antigens. This recognition triggers the activation of the T-cells, which destroy the foreign HLA-peptide complex-bearing cell, secrete specific cytokines attracting other immune-competent cells to their location, and start multiplying to establish a full immune response.

Unlike antibodies that mainly diffuse passively through the body and its circulating fluids, T-cells actively leave blood vessels or lymphoid organs and travel through the tissues of the body where they can attack foreign antigens. Once the antigen is eliminated from the body, the T-cells run out of stimulation and die off, with only a fraction surviving as "memory T-cells," which can react promptly should the antigen reappear in the body.

There is a high variability of HLA molecules in the population. Therefore, if a cell is introduced into a person and originally comes from another individual that is not HLA-matched, it will bear, at its surface, HLA-peptide complexes that are recognized as foreign and will be killed by the T-cells of the recipient. This mechanism of graft rejection has been a major limitation to transplanting patients with allogeneic tissues. Reciprocally, if T-cells are grafted from one individual to another and start recognizing as foreign the normal HLA-peptide complexes at the surface of all tissues of the grafted individual, then they may attack and kill those healthy tissues, leading to Graft-versus-Host disease (GvHD), which can be very severe, and potentially fatal, if left untreated.

Cancerous cells express abnormal antigens and can be killed by T-cells. However, cancer may grow and spread to various organs when T-cells with cancer-specific receptors are in low numbers, of poor quality, or rendered inactive by suppressive mechanisms employed by tumor tissues. T-cells are a key armament when fighting cancers. They play a particularly significant role if they are tailored to target tumors, and potentially even more so if their genes are edited to overcome tumor defenses, to make T-cells compatible with other anti-cancer drugs that can be combined with them, and to prevent GvHD, which would allow the use of allogeneic T-cells.

Chimeric Antigen Receptor (CAR)

CARs are engineered molecules that, when present at the surface of T-cells, enable them to recognize specific proteins or antigens that are present on the surface of other cells. These receptors are typically used to graft the specificity of an antibody derived from a single cell, or a monoclonal antibody, onto a T-cell and provide it with a specific targeting mechanism to seek, identify, interact with and destroy the tumor cells bearing a selected antigen associated with that tumor also known as tumor-associated antigen, or TAA and tumor-specific antigens, or TSA. The expression of some genes, or combinations of genes, can be associated with certain classes of cancers. It is sometimes possible to identify TAAs that are expressed at various levels by tumor cells from a given cancer type. These TAAs may also be normally expressed by other tissues at different stages of development.

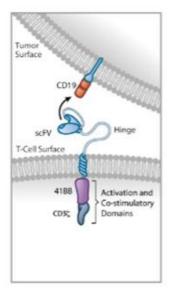
T-cells with CARs are referred to as CAR T-cells. Whereas natural T-cell receptors, or TCRs, only recognize antigens bound to an HLA molecule at a cell's surface, a CAR is able to directly recognize antigens that are present at the targeted cell's surface. It is believed that upon cell-to-cell contact between a CAR T-cell and an antigen-bearing targeted cell, antigen recognition by the CAR "activates" the CAR T-cell, triggering it to multiply, attack and kill its target through the release of "hole-forming" proteins, known as perforins, and "degradation enzymes," known as granzymes, that enter the targeted cell through the perforin-formed holes and carry out the killing. The activation of a T-cell through a CAR results in a target-associated "kill and amplify" chain reaction that eradicates the tumor.

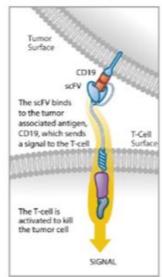
CARs are constructed by assembling components, or domains, from different proteins, including:

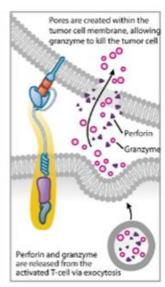
- In the extracellular space, one or more target binding domains, coming from ligands, such as antibodies or receptors, that can recognize their targets on the outside of the T-cell;
- A hinge that helps position the target binding domains relative to their targets;
- Trans-membrane domains that anchor the CAR at the T-cell's surface relative to the T-cells; and

A set of activating or signaling domains, which are located within the T-cell's interior, that deliver appropriate signals to the T-cells leading
to T-cell activation or repression according to the T-cell environment. Such signals may induce tumor cell killing, cytokine secretion and
CAR T-cell multiplication.

The following diagram shows the mechanism by which a CAR T-cell is believed to attack a tumor cell:







Recent immuno-oncology advancements have supported the potential to cure certain cancers by harnessing the body's immune system to fight cancer cells (see "Competition" section for more details). Based on these, immuno-oncology has become a new frontier for treatment, and we believe it is one of the most promising areas of development within oncology.

Our Gene-Editing Approach to Allogeneic CAR T-cell Therapy

The most fundamental challenge of genome engineering is the need to target a precise DNA sequence specifically and efficiently target a precise DNA sequence within a complex genome. Our founder and CEO, Dr. André Choulika, was one of the pioneers and first researchers in nuclease-based genome engineering in the early 1990s and has been integral in the development and advancement of gene-editing tools.

Our proprietary gene-editing platform relies on our capacity to custom design DNA-sequence specific cutting enzymes, or nucleases, for any chosen gene we need to modify and our capability to introduce such custom-made nucleases into the living cells we want to engineer. Our platform relies on precisely chosen protein families that can specifically recognize unique DNA sequences and can be tailored to target such sequences in any chosen gene or genetic region.

Our allogeneic CAR T-cell therapy approach is based on our technology platform which combines CARs, TALEN and PulseAgile, our electroporation device. Our approach aims to deliver off-the-shelf products with the following benefits:

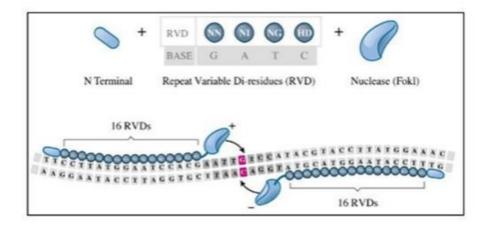
- Market access. Enable products to be shipped globally, thereby reducing deployment obstacles and providing accessibility to a broad
 patient population;
- *Cost-effectiveness and Scalable Manufacturing.* Streamlined manufacturing process has the potential to reduce costs, with potentially hundreds of doses per batch;
- Novel Features. Develop products with specific safety and control properties, through a CAR linked to a "suicide switch" a molecular trigger designed to initiate programmed cell death;

- Safety. Avoid graft-versus-host disease (GvHD) through the inactivation of the T-cell receptor (TCR), which is responsible for T-cells' recognition of non-self antigens;
- Persistence. Manage rejection and persistence of the UCART product candidate, through the option to inactivate CD52 or beta2-microglobulin (ß2M) genes respectively.
- Improved or novel functionalities. Develop products with new properties, such as becoming, through PD1 inactivation, refractory to tumor-deployed T-cell inhibition mechanisms; or such as boosting CAR T-cell activity by controlled expression of immunomodulatory molecules, through targeted gene insertion at specific chosen loci.

TALEN—Proprietary Gene-editing Technology

The flagship nuclease structure we use for gene editing is based on a class of proteins derived from transcription activator-like effectors, or TALE. TALEN products are designed by fusing the DNA-cutting domain of a nuclease to TALE domains, which can be tailored to specifically recognize a unique DNA sequence. These fusion proteins serve as readily targetable "DNA scissors" for genome engineering applications that enable us to perform targeted genome modifications such as sequence insertion, deletion, repair and replacement in living cells.

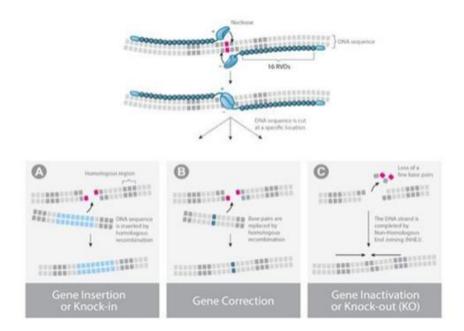
The following diagram shows the structure of a TALEN. The DNA binding domain of TALEN is composed of DNA binding units that individually recognize a single base pair, and that are assembled to collectively recognize a DNA sequence. The specificity of this single base pair recognition is mediated by two of the amino-acids (repeat variable diresidues or RVDs) within each DNA binding units. RVDs (NN, NI, NG, HD, or others) directly interact with the base of the DNA.



We believe the key benefits of TALEN technology are:

- Precision. It is possible to design a TALEN that will cleave at any selected region in any gene, giving us the ability to achieve the desired genetic outcome with any gene in any living species.
- Specificity and Selectivity. TALEN may be designed to limit its DNA cleavage to the desired sequence and to reduce the risk of cutting elsewhere in the genome. This parameter is essential, especially for therapeutic applications, because unwanted genomic modifications potentially could lead to harmful effects for the patient. In addition, gene editing requires only a transient presence of TALEN, thus preserving the integrity and functionality of the T-cell's genome.
- Efficiency. A large percentage of cells treated by the nuclease bear the desired genomic modification after treatment is completed. In our routine gene-editing processes, over 70% of the T-cells treated by TALEN to inactivate one gene bear the desired genomic modification. We believe TALEN's high efficiency will be important to the cost-effectiveness of a manufacturing process involving the generation of gene-edited T-cells.

The following diagram shows the various gene editing mechanisms enabled by TALEN:



We are able to assemble long arrays of modular domains with predictable specificity for a chosen sequence of DNA unique within a genome.

When a TALEN is present, its TALE domains recognize its target DNA sequence and thereby direct the enzyme to the proper chromosomal location. Once bound to their target DNA sequences, DNA cleaving-domains of the TALEN can induce a DNA break at the targeted location to induce permanent DNA modifications. We believe TALEN stands out among nucleases as exceptionally precise, accurate and efficient to perform gene inactivation.

Other Types of Gene Editing Technologies

We have developed a strong expertise and capacity in meganuclease technologies, which involve enzymes capable of recognizing very large unique DNA sequences. In addition, using the flexibility of the TALE domain, we have developed new classes of custom-designed nucleases, such as compact TALEN and mega-TALE nucleases that combine meganucleases and TALEN technology. Compact-TALEN is built with a single TALE molecule fused to a fragment of a chosen meganuclease that carries limited DNA sequence recognition functionality but fully functional DNA-cleaving activity. These chimeric proteins are smaller in size than classical TALEN, which can facilitate their delivery to cells. In contrast, mega-TALE use a full-size meganuclease to enhance their DNA sequence recognition capacities, while demonstrating enhanced precision. We also have discovered a new class of nuclease that we named BurrH nucleases, also based on arrays of single DNA-base recognizing modular domains.

We also capitalized on our expertise with TALEN technology to develop new gene editing approaches, such as base-editing technology.

PulseAgile—Electroporation Technology

In order to perform gene editing, we use our proprietary PulseAgile electroporation technology to introduce nucleases inside the target T-cell where they can access the cell's DNA. Electroporation allows messenger RNA, or mRNA, molecules coding for the nuclease to enter into the cell, where they are translated into the nuclease protein that can cut into the cell's DNA. The mRNA molecules are rapidly degraded by the cell, which means that the nuclease is only expressed for a short time.

PulseAgile electroporation uses a unique electrical field wave-form that, in combination with a proprietary buffer solution, enables molecules, such as nucleases, to enter efficiently into the cell while maintaining a high percentage of viable cells. PulseAgile technology is particularly effective due to the shape of the electrical field that includes high voltage peaks, which are optimized to create transient holes in the cell membrane, followed by lower voltage pulses that help mRNA (for example TALEN-encoding mRNA) migrate into the cells. In addition, PulseAgile is optimized to preserve high cell viability and thus suited for large-scale manufacturing.

Nuclease Technology and T-cells: The Design Process

Our T-cell gene-editing process involves two engineering rounds:

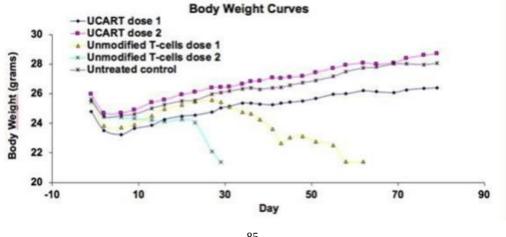
Gene Editing to add Genes, such as a CAR

Genetic material is added to the T-cell's genome using a viral vector—a benign modified virus that cannot replicate autonomously but can efficiently deliver such genetic material into a cell with which it is in contact. The genetic material added includes a gene coding for a CAR, which becomes a new receptor at the T-cell's surface that allows it to recognize and bind to a target molecule that is present at the surface of other cells. At this stage, we can also add other genes to these cells that confer specific properties. For example, we may add "suicide switch" genes, which code for proteins that can make T-cells susceptible to certain drugs and enable us to deplete our engineered T-cells at our discretion by administering a drug to the patient. This system can also be integrated within the CAR itself.

Gene Editing to Inactivate Genes, such as the TCRα and CD52

We use our PulseAgile electroporation technology to introduce specific TALEN mRNA into the T-cells to inactivate a number of genes that are naturally present in the genome of these T-cells.

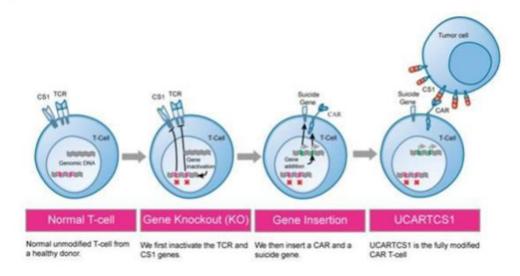
TCRs at the surface of T-cells allow them to recognize cells that express foreign, non-self, antigens (for example, cells infected by a virus or cells coming from another individual). Non-modified allogeneic T-cells bear functional TCRs and, if injected into a patient, can potentially recognize non-self on that patient's tissues and start attacking them. For this reason, to suppress their alloreactivity, all of our UCART product candidates undergo the inactivation of a gene coding for TCRα, a key component of TCRβ, the natural antigen receptor of T-cells. The engineered T-cells lack functional TCRs and are no longer capable of recognizing foreign antigens. As a result, when injected into a patient, the engineered T-cell would not recognize the tissues of the host patient as foreign and thus would avoid attacking the patient's tissues. This could avoid the GvHD that can sometimes be observed when allogeneic TCR-positive T-cells are infused into some patients. The figure below depicts the suppression of alloreactivity in T-cells engineered to lack functional TCRs. The figure summarizes experiments in which we injected mice with T-cells engineered for the inactivation of TCRα while injecting other mice with non-engineered T-cells with functional TCRs. We then measured the effects of such injections on mean body weight, which serves as a proxy for the impact of GvHD.



During the manufacturing process, the T cells from a healthy donor are first engineered. The CAR gene is transduced and cell attributes like the TCR alpha gene are knocked out by TALEN. Then, the T-cells of our UCART products are amplified. The desired TCR alpha deleted cells are finally purified from the cells that may still bear a TCR, and are finally frozen. We perform a battery of specialized testing techniques and various quality assurance and quality control assays to further validate cellular functional integrity following gene editing.

The lack of a TCR at the surface of our UCART product candidates is a key feature that allows them to be used as allogeneic off-the-shelf products. Other genes can also be inactivated in this round to confer additional specific attributes to the T-cells. They can be made resistant to, and therefore compatible with, specific medical regimens used during the course of cancer treatments. For example, we inactivate the CD52 gene, which codes for the target of alemtuzumab, a monoclonal antibody sometimes used in CLL patients, that can also be part of the medication given to patient prior to receiving a UCART (a lymphodepletion regimen), and that would otherwise destroy our engineered T-cells. Likewise, we believe we can inactivate the deoxycytidine kinase (dCK) or glucocorticoid receptor (GR) genes in order to make our T-cells respectively resistant to purine nucleotide analogs (e.g., fludarabine, clofarabine or cytarabine) or to corticoids that are used for several types of cancer patients.

The following diagram shows the key stages in our engineering of UCARTCS1:



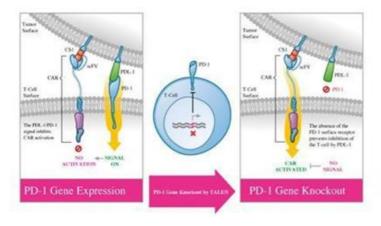
Next-Generation Products - Inactivate Additional Genes, such as B2M and PD-1

The allogeneic CAR T-cell approach developed by Cellectis aims at increasing accessibility to treatment for patients by using healthy donor cells to manufacture CAR T-cells. The inactivation of the $TCR\alpha$ gene reduces the risk of graft vs. host disease. In addition, the use of a lymphodepletion regimen in patients aims at supporting early engraftment of the candidate product, with the optimal lymphodepletion regimen prior to the administration of CAR-T product candidates remaining an area of investigation in the field of CAR T-cell therapy.

We are investigating the inactivation of the beta2-microglobulin (β2M) gene to increase persistence of allogeneic cells in this context. β2M is necessary for presentation of antigens on HLA class I major histocompatibility complex (MHC) to cytotoxic T-cells. Allogeneic TRCαβ2M double knock-out CAR T-cells infused into a patient are expected not to be recognized by the patient's own cytotoxic T-cells and therefore to potentially show prolonged survival after patients' T-cells recover following lymphodepletion.

We have developed several &2M-specific TALEN allowing high efficiency of gene inactivation in combination with TRC α -specific TALEN (up to 88% double knock-out). We have shown on human and mouse cell models that &2M inactivation improves allogeneic cell survival in the presence of alloreactive T-cells, and we are pursuing the &2M inactivation approach for some of our preclinical candidates. We have also developed a single gene editing modification allowing resistance to both alloreactive T-cells and NK cells at the same time, by inserting the HLA-E molecule at the &2M locus with high efficiency. While &2M inactivation provides resistance to alloreactive T-cells &2M knock-out cells can become the target of NK cells (missing-self response). HLA-E acts as a ligand to NK cell inhibitory receptors.

Our engineered T-cell could also be made insensitive to inhibition signals, which diminish immune system activity, that may be present within the tumor microenvironment and that usually block T-cell attacks. For example, we inactivate the programmed cell death 1 (PD-1) gene in our engineered T-cells in order to suppress the checkpoint regulator inhibition by tumors expressing PD-1 ligand (PD-L1), a common anti-immune defense mechanism found in cancer. The following diagram shows the inactivation of the PD-1 gene to suppress checkpoint inhibition in the T-cell:

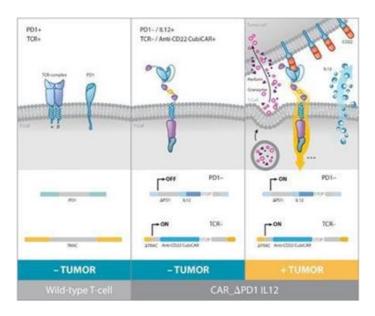


Using our ability to add and to inactivate genes, our platform has the potential to deliver smart T-cells designed for specific indications and purposes.

Next-Generation Products - Armored CARs

While CAR T-cell therapies have led to instances of complete remission in previously untreatable diseases such relapse/refractory ALL, not all patients respond, and even among those that respond, some patients end up relapsing. There is therefore a need to investigate strategies to make CAR T-cells even more effective, such as boosting their activity through overexpression of an immunomodulatory molecule (i.e. a cytokine or a costimulatory receptor). In order to limit toxicity effects due to immunostimulatory molecules being produced uncontrollably and systemically, we have developed strategies exploiting cellular endogenous pathways to restrict expression of a gene of interest only when CAR T-cells are activated. This is made possible by inserting genes of interest at a desired position in the genome by combining a locus-specific nuclease and a donor template vectorized with an adeno-associated viral (AAV) vector. Since PD-1 and CD25 are known to be upregulated upon T-cell activation, inserting certain cytokine coding sequence under the control of PD-1 or CD25 genetic regulatory elements allows secretion of that certain cytokine only upon activation of the CAR T-cells and enhances antitumor activity.

This strategy could be extended to the use of various genetic loci to express genes with therapeutic benefits at desirable expression level or with a specific temporal or regional expression pattern.



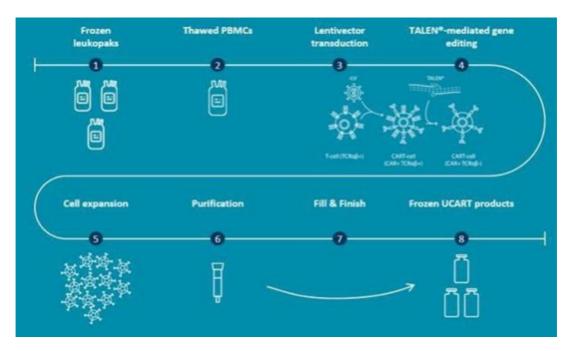
UCART Manufacturing: How can we turn a procedure into a large-scale, widely available drug?

Autologous CAR-T cell approaches are therapeutic procedures conducted for each patient, which involve the engineering of T-cells by addition of a transgene coding for a chimeric antigen receptor into the patient's own T cells. Our UCART approach goes one step further in engineering and also in moving the CAR concept from a patient-by-patient therapeutic procedure to an off-the-shelf widely available pharmaceutical compound.

The manufacturing process of our allogeneic CAR T-cell product line, Universal CARTs or UCARTs, yields frozen, off-the-shelf, allogeneic, engineered CAR T-cells. UCARTs are meant to be readily available CAR T-cells for a large patient population. The specificity of those allogeneic therapies is that T-cells from healthy donors are genetically edited with our proprietary technology, TALEN, to seek and destroy cancer cells. TALEN-based gene editing is designed to suppress T-cell alloreactivity (and, for certain UCART product candidates, to confer resistance to alemtuzumab) to the T-cells. New properties may also be introduced by inserting genes with potential therapeutic benefits at various loci.

Our UCARTs are designed and manufactured through a common platform that relies on defined unit operations and technologies combined into a single process adapted to each individual UCART. The process is gradually developed from small to larger scales, incorporating elements that are eventually used in GMP conditions. Notwithstanding this central unit operations-based model, each product is unique and for each new UCART, a developmental phase is necessary to individually customize each engineering step and to create a robust procedure that can later be implemented in a GMP environment to ensure the production of clinical batches. This work is performed in our research & development environment to evaluate and assess variability in each step of the process in order to define the most reliable experimental conditions.

The following diagram summarizes the generic UCART production process made of distinct unit operations. The engineering steps for transduction and electroporation can take place one before another (and several times), depending on the product.



We aim to continuously improve our manufacturing processes for better safety and robustness of our product lines.

Towards manufacturing autonomy with two state-of-the-art plants

In order to enhance our manufacturing autonomy, we have established two manufacturing facilities. First, in Raleigh, North Carolina, USA, we have developed an ~80,000 sq. ft. in-house manufacturing facility, which is dedicated to the production of clinical and commercial UCART products. The Raleigh facility commenced production of UCART product candidates in 2021. Our product candidates UCART22 and UCART20x22 used respectively in the BALLI-01 and NATHALI-01 Studies have been manufactured in our Raleigh site. Second, in Paris, France, we have completed construction of an ~14,000 sq. ft. in-house manufacturing facility, which is dedicated to the production of certain critical raw and starting material for clinical supply, with the potential to supply commercial raw and starting materials. The Paris facility commenced production of raw and starting materials in 2020. We expect to continue to use certain third-parties manufacturers to complement Cellectis' internal manufacturing facilities.

Raw Materials

We are currently dependent on specialized third parties, who are subject to stringent manufacturing requirements and regulations, for the supply of various critical and biological materials – such as cells, chemicals, water, cytokines, vectors, nucleic acids, antibodies, medium, serum, buffers —that are necessary to produce our product candidates. We source these materials through service agreements or supply agreements and do not systematically have long-term supply contracts in place. However, we believe that competitive pricing is achieved because there are a number of potential long-term replacements to each of our suppliers. Generally, the prices of the principal biological raw and starting materials that we purchase are stable or fluctuate within a limited range. To the extent that we are exposed to price fluctuations, we generally do not expect, in the near term, to be able to pass on cost increases because of the early development stage of our product candidates. However, with the completion of our manufacturing facility project in Paris, we expect to become independent for the supply of our most critical raw and starting materials.

Applications of Calyxt's PlantSpring Technology Platform and the Calyxt BioFactory

Calyxt was incorporated in the State of Delaware in the United States in 2010. Before its initial public offering, which closed on July 25, 2017, Calyxt was a wholly-owned subsidiary of ours. As of December 31, 2022, we owned approximately 49.1% of Calyxt's outstanding common stock.

Following the closing of the proposed Calyxt Merger, Cellectis S.A. is expected to own approximately 2.4% of the equity interests of the combined company.

Calyxt's common stock is listed on the Nasdaq market under the ticker symbol "CLXT".

Calyxt is a plant-based synthetic biology company. Calyxt leverages its proprietary PlantSpringTM technology platform to engineer plant metabolism to produce innovative, high-value, and sustainable materials and products for use in helping customers meet their sustainability targets and financial goals. Calyxt's primary focus and commercialization strategy is on engineering synthetic biology solutions through its PlantSpring platform for manufacture using its proprietary and differentiated BioFactory™ production system for a diverse base of target customers across a range of end markets, including the cosmeceutical, nutraceutical, and pharmaceutical industries. Calyxt also commercializes its PlantSpring technology platform by licensing elements of the platform and historically developed traditional agriculture seed-trait product candidates, as well as selectively developing product candidates for customers in traditional agriculture.

The production of Calyxt's plant-based chemistries occurs in its proprietary BioFactory production system. This strategic initiative was announced in October 2021. In the context of Calyxt's PlantSpring technology platform and BioFactory production system, the term "sustainable", as used in this Annual Report, refers to the plant-based chemistry production methods that use plant biomass as a raw material and are therefore renewable and do not completely use up or destroy natural resources.

Calyxt also out-licenses elements of the PlantSpring technology platform, has historically developed seed-trait product candidates for the traditional agriculture market, and may selectively develop products for customers in traditional agriculture. For example, in the third quarter of 2021, Calyxt announced it had entered into a research collaboration with a global food ingredient manufacturer based in Asia to develop an improved soybean capable of producing oil that would serve as a commercial alternative to palm oil.

Calyxt was previously focused on the development of traits for traditional agriculture that it planned to commercialize using either a vertically integrated or licensing business model. Calyxt's first commercial product, a high oleic soybean, was launched in this manner in the first quarter of 2019. In August 2020, Calyxt announced it was winding down the vertically integrated soybean product line. The wind-down of this product line was completed in late 2021 with the final sales of soybean grain to a large soybean processor. Calyxt's second product, an improved digestibility alfalfa, was developed with and licensed to S&W Seed Company (S&W). S&W is pursuing regulatory clearance for their product candidate and is targeting commercialization in 2022 at which time Calyxt expects to begin to receive initial royalty payments. Calyxt intends to use this licensing strategy for other historically developed, traditional agriculture seed-trait product candidates.

Calyxt has historically operated in a single segment primarily within the United States and its assets are located within the United States.

On September 22, 2022, Calyxt announced that its Board of Directors (the Calyxt Board) had begun evaluating potential strategic alternatives to maximize shareholder value, including financing alternatives, merger, reverse merger, other business combinations, sale of assets, licensing, or other transactions.

On January 13, 2023, Calyxt, Cibus and certain other parties thereto entered into the Merger Agreement Pursuant to the Merger Agreement, following the proposed Calyxt Merger, Calyxt will be organized in an "Up-C" structure and re-named "Cibus, Inc." and its only material asset will consist of common units of Cibus. If the proposed Calyxt Merger is completed, the business of Cibus will continue as the primary business of the combined organization and the equity holders of Cibus will own a substantial majority of the issued and outstanding common stock of Calyxt. Following the closing of the Calyxt Merger, we are expected to own approximately 2.4% of the equity interests of the combined company.

The closing of the Calyxt Merger is subject to the approval of Calyxt's stockholders, the approval of Cibus' members, the receipt of required regulatory approvals (to the extent applicable) and satisfaction of other customary closing conditions. In connection with the Merger Agreement, we executed a voting agreement with Cibus to vote in favor of and approve all the transactions contemplated by the Merger Agreement, subject to the terms and conditions thereof. The closing is currently expected to occur in the second quarter of 2023.

In connection with the Calyxt Merger, beginning at the earlier of March 15, 2023 or the date Calyxt's unrestricted cash balance first drops below \$1,500,000, Calyxt can request, and Cibus has agreed to provide, an unsecured, interest-free revolving line of credit of up to \$3,000,000 in cash, which amount may be increased to \$4,000,000 if Cibus elects to extend the outside date (as defined in the Merger Agreement) to June 30, 2023 (the Interim Funding). Funds can be drawn by Calyxt in \$500,000 increments and may only be used to fund operating expenses incurred in the ordinary course of business consistent with past practice and consistent with the negative covenants in the Merger Agreement. The full outstanding balance of the Interim Funding will be reduced to zero in connection with the closing of the Calyxt Merger, if consummated. The full outstanding balance of the Interim Funding will be forgiven by Cibus if the Merger Agreement is terminated for any reason other than certain under certain conditions, as detailed in the Merger Agreement. The Interim Funding is subject to acceleration in connection with certain bankruptcy events. As a result of Calyxt's substantially narrowed operational focus and in light of the available Interim Funding from Cibus in connection with the proposed Calyxt Merger, Calyxt believes it has sufficient cash to fund operations through the end of the second quarter of 2023.

If, for any reason, the Calyxt Merger is not completed, Calyxt will reconsider its available alternatives at such time and could pursue one of the following courses of action, which Calyxt currently believes to be the most likely alternatives:

- Dissolve and liquidate. Calyxt may decide to dissolve and liquidate its assets. In such a circumstance, Calyxt would be required to pay all of its debts and contractual obligations and to set aside certain reserves for potential future claims. In light of Calyxt's current capital resources, it is highly unlikely, in this case, that substantial resources, if any, would be available for distributions to stockholders.
- Pursue another strategic transaction. Calyxt may decide to resume the process of evaluating a potential merger, reorganization or other business combination transaction or to sell or otherwise dispose of certain of Calyxt's assets. Any of these alternatives would be costly and time-consuming and would require that Calyxt obtain additional near-term funding in parallel to, or as part of, such a strategic transaction. Calyxt expects that it would be difficult to secure such funding in a timely manner, on favorable terms or at all.
- Operate the business. Although substantially less likely than the alternatives above, the Calyxt board could elect to seek to continue to operate Calyxt's business. This alternative would require that Calyxt obtain additional near-term funding, which Calyxt expects would be difficult to secure in a timely manner, on favorable terms or at all. If pursued, Calyxt would likely need to significantly delay or further scale back operations beyond its already narrowly focused operational activities.

Current Calyxt Operational Focus

Prior to the announcement of the Calyxt Merger, Calyxt's primary focus was on the development of synthetic biology products for its customers using its BioFactory production system. In light of the proposed Calyxt Merger and recent capital resource constraints, Calyxt has substantially scaled back its operations and has focused its current business activities on ensuring it has cash sufficient to achieve a closing of the proposed Calyxt Merger. Accordingly, Calyxt's management has implemented cost reduction and other cash-focused measures, including reduction of headcount, reductions of capital expenditures, and renegotiation or termination of professional services agreements. To conserve cash, Calyxt has also strategically evaluated its arrangements with suppliers and service providers and has, in several instances, transitioned such relationships to lower cost alternative providers.

In limiting operations to core activities, Calyxt has focused its continuing operations on

- scaling production of a single Plant Cell MatrixTM (PCMTM) platform with its manufacturing partner, Evologic Technologies GmbH (Evologic);
- licensing efforts with respect to its PlantSpring technology and plant traits, including the TALEN™ technology; and
- continuing to progress its three current customer projects—(1) its research collaboration with a leading global food ingredient manufacturer to develop a soybean trait to serve as an alternative to palm oil, (2) its plant-based chemistry pilot project for a major consumer packaged goods company, and (3) supporting late-stage development activities for its improved digestibility alfalfa trait, which was developed with and licensed to S&W Seed Company.

Calyxt has suspended non-core activities, such as efforts toward the development and integration of artificial intelligence and machine learning capabilities (AIML) and the initiation, development and commercialization of additional synthetic biology products, or chemistries, beyond those involved in the continuing operations identified above.

Our Rights With Respect to Calyxt

At present, through its stock ownership, together with its enumerated rights under our stockholder's agreement with Calyxt, we remain Calyxt's controlling stockholder. Pursuant to the stockholders' agreement, we continue to retain substantial rights with respect to Calyxt for so long as we beneficially own at least 15 percent of the outstanding shares of Calyxt's common stock (the "Continuing Cellectis Rights").

The Continuing Cellectis Rights include the right to nominate a number of designees for Calyxt's Board representing a majority of the directors, to designate the Chairman of the Calyxt Board, and to have at least one designated director serve on each committee of Calyxt's Board. In addition, the Continuing Cellectis Rights include information rights for us, as well as approval rights over a significant number of key operational aspects of Calyxt's business, including certain changes to Calyxt's constitutive documents, the making of any regular or special dividends, the commencement of any voluntary bankruptcy proceeding or any consent to any bankruptcy proceeding, any appointment to or removal from the Calyxt Board, and the consummation of any public or private offering, merger, amalgamation or consolidation of Calyxt, the spinoff of a business of Calyxt, or any sale, conveyance, transfer or other disposition of Calyxt's assets.

In connection with the Merger Agreement, we executed a voting agreement with Cibus to vote in favor of and approve all the transactions contemplated by the Merger Agreement, subject to the terms and conditions thereof.

The PlantSpring Technology Platform, and Calyxt's Development Process

The PlantSpring technology platform is founded on Calyxt's more than a decade of experience engineering plant metabolism and incorporates its scientific knowledge and its proprietary systems, tools and technologies. The PlantSpring platform also has the potential to incorporate AIML capabilities.

In PlantSpring, Calyxt identifies metabolic pathways to produce plant-based chemistries, designs strategies to reprogram host cells, engineers plant cell metabolism to optimally produce targeted compounds or plant traits.

Calyxt uses an efficient development process to deliver innovation through the PlantSpring platform, leveraging its extensive knowledge of plants and their metabolism when developing a plant-based chemistry or plant trait. Calyxt's synthetic biology product development process is comprised of three primary stages: Design, Engineer, and Verify, and activities within each stage are as follows:

- Design identify metabolic pathways to produce the target compound and the genes controlling these pathways, develop strategies for the optimized expression of the target genes, and design the technical approach to achieve the production of the targeted compound or trait. A metabolic pathway is a linked series of chemical reactions occurring within a cell. The reactants, products, and intermediates of an enzymatic reaction are known as metabolites, which are modified by a sequence of chemical reactions catalyzed by enzymes.
- Engineer direct changes in the plant cells using one or more genetic transformation and plant tissue culture techniques, and enhancements of genes in that plant species.
- Verify use a combination of analytical tools to verify the compound or trait produced against the intended specification. The analytical tools used include natural product chemistry, metabolomics, genomics, gene expression tools, and other analytics.

The typical timeline to complete the Design-Engineer-Verify process is currently estimated at 12 months. Calyxt is in the process of scaling plant-based chemistry production beyond the laboratory with its third-party manufacturing partner, Evologic Technologies GmbH.

Commercialization Strategies

Calyxt contemplates three commercialization strategies for its PlantSpring technology platform: (i) the development and sale of high-value synthetic biology products from Calyxt's proprietary BioFactory production system, (ii) the licensing of elements of the PlantSpring technology platform and historically developed, traditional agriculture seed-trait product candidates, and (iii) selective product development for customers in traditional agriculture. In light of Calyxt's capital resource constraints, the implementation of these strategies has been limited to implementation of the core activities described above under "—Calyxt's Current Operational Focus."

The BioFactory Production System

The BioFactory is a bioreactor-based production system that is designed to be capable of continuous production of plant-based chemistries. The bioreactor can be of any size depending upon factors including yield and titer necessary to reach the required commercial scale. For production, multicellular PCM structures are placed inside the bioreactor, and growth media bathes the PCM structures to provide them with nutrition, which differentiates Calyxt's process from other methods that require complete submersion of cells in growth media. A PCM structure is a living system of various cell types, which is designed to emulate the intercellular metabolism of an entire plant, that grows over time and produces and stores, or excretes, the target chemistries. The growth media is the feedstock of the BioFactory production system and contains the essential inputs to support growth of the PCM structures and necessary chemistry production. The growth media is expected to be reused throughout the production cycle, which may run for an extended time period.

In 2022 Calyxt signed an agreement with an infrastructure partner, Evologic Technologies GmbH (Evologic), to further develop and scale the PCM technology. Under the terms of the agreement, Evologic has been engaged by Calyxt to grow and scale Calyxt's proprietary PCM technology. Calyxt is currently using Evologic to scale production of its BioFactory productions system for a single PCM.

Calyxt believes the BioFactory system has the potential to be a highly sustainable synthetic biology production system because of its production methodology, which relies upon a limited quantity of media and nutrients in a continuous flow system that operates for long periods of time, potentially more than one year, in an operating cycle. The BioFactory system involves fewer of the sustainability challenges associated with other traditional plant-based indoor and outdoor production systems, including excess heating, cooling, fertilizer and pesticide uses, and because the BioFactory does not use fermentation, there is no off-gassing, the media can be recycled, and only depleted components are replaced resulting in lower waste levels. This production method is expected to align well with customers' goals of replacing existing compounds that may be scarce in nature, have an unstable supply chain, cannot be produced through fermentation or other similar methods, or are currently produced in a non-sustainable process, with high-value, sustainable, plant-based synthetic biology compounds.

As a result, Calyxt believes that in combination its PlantSpring technology platform and its BioFactory production system are capable of unlocking the power of plants to produce high value and complex plant-based chemistries and plant traits that are finite, that are difficult to source sustainably, and that may not be able to be produced through other production systems, or that cannot be produced as efficiently in single cell plant culture systems.

Technology Licensing & Product Development for Agriculture

Calyxt maintains the capability to implement broad technology licensing arrangements and to selectively develop agricultural products. Potential commercial opportunities include the licensing of elements of the PlantSpring technology platform as well as historically developed, traditional agriculture seed-trait product candidates.

With respect to licensing opportunities for select elements of the PlantSpring technology platform, the opportunities span Calyxt's intellectual property portfolio built for more than a decade as a leading plant-based biotechnology company, including multiple gene editing platforms, plant breeding, and other capabilities. Calyxt's PlantSpring technology platform has been utilized to drive industry-leading modernization of the hemp species, including improved characteristics for protein and oil production and use in advanced materials. Hemp can also contribute to enhancing a wide variety of materials, including strengthening plastics, reducing petroleum-based content, and providing greater strength and longevity compared to other plant-based fabrics like linen or cotton. Calyxt has successfully transformed the hemp genome and also has produced "pollen-proof" (seedless) hemp with its triploid breeding technology. Combined, Calyxt's hemp advancements offer significant potential advantages in innovation, crop management, and harvest yield.

Additional technology-licensing activity may also continue in connection with the licensing of historically developed, traditional agriculture seed-trait product candidates, including soybeans with improved fatty-acid profiles; an improved digestibility alfalfa, which has been licensed for commercialization to S&W; wheat with a higher fiber content than traditionally bred varieties, and its second generation soybean product, which has an improved fatty acid profile compared to commodity soybeans and Calyxt's initial soybean product launched in 2019. Among Calyxt's other development successes are a soybean with improved flavor to help enable wider adoption for plant-based protein applications and controlling the production of storage sugars in potatoes to improve fry quality and reduce acrylamide. While Calyxt will pursue licensing opportunities for these product candidates, it does not intend to invest in further development until specific licensee customers are contracted with.

The potential to opportunistically develop seed-trait product candidates for customers focused on traditional outdoor agriculture market also remains. In 2021, Calyxt entered into a research collaboration with a global food ingredient manufacturer based in Asia to develop an improved soybean capable of producing an oil that would serve as a commercial alternative to palm oil. The food ingredient manufacturer is funding Calyxt's development costs over the term of the agreement and holds an option for future development and commercialization. Calyxt achieved the first \$100 thousand milestone payment in the fourth quarter of 2022, with the overall project scheduled for completion in the first quarter of 2024, at which time the second milestone payment of \$100 thousand would be due.

To manage prioritization of resources and to drive returns on its investment, Calyxt has developed a set of criteria by which all agricultural seed trait licensing and seed trait development opportunities are evaluated, which include the size of the overall opportunity, the nature of the product to be developed, and the amount of cash it expects to receive both up front and over time. At present, no new investments are being made in light of the limited implementation of Calyxt's core activities described above under "—Calyxt's Current Operational Focus."

Intellectual Property

We seek to protect and enhance proprietary technology, inventions, and improvements that are commercially important to the development of our business by seeking, maintaining, and defending patent rights, whether developed internally or licensed from third parties. We will also seek to rely on regulatory protection afforded through orphan drug designations, data exclusivity, market exclusivity and patent term extensions where available.

To achieve this objective, we maintain a strategic focus on identifying and licensing key patents that provide protection and serve as an optimal platform to enhance our intellectual property and technology base.

Historical Perspectives

Cellectis was founded in early 2000. In June 2000, Institut Pasteur provided us with exclusive rights to its gene-editing patent portfolio. This patent portfolio includes patents relating to homologous recombination and rare-cutting endonucleases (also named meganucleases), respectively, for genetic engineering in living cells. Our license agreements with Institut Pasteur expired in the first quarter of 2020 with the expiration of the last to expire patents under such agreements.

Since 2002, we have filed a large number of patent applications, many issued as patents, for custom-made meganucleases, and uses thereof, that specifically target a desired genetic sequence in a genome. In 2014, we entered into a cross-licensing agreement with Precision Biosciences, Inc., or Precision, in settlement of patent litigation and patent proceedings related to this technology. Pursuant to this cross-license, we licensed our patents and patent applications in this area to Precision, and Precision licensed its relevant patents and patent applications to us.

In 2010, we acquired a portfolio of patents and patent applications relating to electroporation methods and devices. In 2011, we entered into an exclusive license agreement with the Regents of the University of Minnesota (UMN) pursuant to which we in-licensed one patent family related to customized rare-cutting endonucleases, in connection with which we have registered the trademark TALEN in certain jurisdictions. This patent portfolio comprises ten patents in the United States and two European patents. In addition, in 2014, we entered into a series of agreements with Life Technologies Corporation (controlled by Thermo Fisher Scientific Inc.) pursuant to which we received a non-exclusive sublicense under certain patents and patent applications related to the research and therapeutic uses of TALE-nucleases and we granted certain rights to Life Technologies under our TALEN technology. In addition, we entered into a license agreement with Calyxt, pursuant to which Calyxt has been granted certain rights in connection with our gene editing and plant intellectual property portfolio.

Since 2012, we have filed about 54 new patent applications families related to the CAR T-cell technology. Included in this patent portfolio are patent applications relating to manufacturing allogeneic immune cells and to CAR design, including multi-subunit CARs and conditional expression CARs. In addition, we have filed a number of patent applications related to new TALEN structures and alternatives to the TALEN structure.

In October 2014 and March 2014, we exclusively in-licensed two patent portfolios from Ohio State Innovation Foundation and University College London, respectively. The Ohio State Innovation Foundation patent portfolio includes patent applications relating to CARs directed to cancer marker CS1. The University College London patent portfolio includes patent applications relating to a polypeptide expressing the "suicide switch" gene RQR8, and uses thereof.

Current Intellectual Property Portfolio

As a result of the licensing opportunities described above and our continuing research and development efforts, our intellectual property estate now contains patent applications that cover our products, including claims that cover:

- methods central to genome engineering and gene editing of blood cells, including gene targeting, replacement, insertions and/or knock-out by using TALE-nucleases;
- the main products we use in the manufacturing process, including nucleases;
- manufacturing steps, including cell electroporation, transformation and genetic modifications;
- resulting engineered cells;
- single-chain and multi-subunit CARs expressed at the surface of T-cells:

- specific gene inactivation and "suicide switch" gene expression;
- allogeneic and autologous treatment strategies using our T-cell products; and
- plant traits and methods for gene editing plant cells.

The most relevant issued patents in our portfolio consist of approximately 59 Cellectis-owned and 12 in-licensed U.S. patents, 46 Cellectis-owned and 4 in-licensed European patents, and 185 Cellectis-owned and 22 in-licensed patents in other jurisdictions, such as Australia, Canada, China, Hong Kong, India, Israel, Japan, Korea, Mexico and Singapore.

The most relevant pending patent applications in our portfolio consist of approximately 37 Cellectis-owned and 2 in-licensed U.S. patent applications, 36 Cellectis-owned and 2 in-licensed European patent applications, 144 Cellectis-owned and 11 in-licensed patent applications pending in other jurisdictions, such as Australia, Brazil, Canada, China, Hong Kong, India, Israel, Japan, Korea, Mexico and Singapore.

Our most relevant portfolio includes a total of 328 owned and in-licensed granted patents, and 232 owned and in-licensed patent applications.

Our UCART product candidates rely for each product candidate upon one or more patent rights protecting various aspects of the technologies, including rights relating to:

- the genetic editing of T-cells, using TALEN technology, covered by approximately twelve Cellectis-owned patent families and three in-licensed patent families;
- the insertion of transgenes into T-cells using electroporation of mRNA, covered by approximately five Cellectis-owned patent families;
- the appending of attributes to T-cells, covered by approximately eight Cellectis-owned patent families and one in-licensed patent family;
- the molecular structure of CARs, covered by approximately six Cellectis-owned patent families; and
- specific CARs that target selected antigen markers are covered by approximately fifteen Cellectis-owned patent applications and one in-licensed patent family.

For additional information, see "—Gene-Editing Platform" below.

Individual patent terms extend for varying periods of time, depending upon the date of filing of the patent application, the date of patent issuance, and the legal term of patents in the countries in which they are obtained. In most countries in which we file patent applications, including the United States, the patent term is 20 years from the date of filing of the first non-provisional application to which priority is claimed. In certain instances, a patent term can be extended under certain circumstances. For example, in the United States, the term of a patent that covers an FDA-approved drug may be eligible for a patent term restoration of up to five years to effectively compensate for the patent term lost during the FDA regulatory review process, subject to several limitations discussed below under "—Our Intellectual Property Strategy." Also, in the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office in granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent. Our issued patents will expire on dates ranging from 2023 to 2038. If patents are issued on our pending patent applications, the resulting patents are projected to expire on dates ranging from 2023 to 2042. However, the actual protection afforded by a patent varies on a product-by-product basis, from country-to-country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country, and the validity and enforceability of the patent.

The patent portfolio for our most advanced product candidates, UCART19, UCART123, UCART22, UCARTCS1 and UCART20x22 are summarized below.

Gene Editing Platform

Our UCART product candidates rely upon our gene-editing platform and T-cell and CAR technology platforms. The patent portfolio covering these platforms and technologies, includes approximately 215 patents or pending patent applications in various countries, comprising 38 in-licensed and 88 Cellectis owned issued patents among which 24 are US granted patents and 11 European granted patents. Certain of these issued patents and pending patent applications, which expire between 2031 and 2041, cover product claims or process claims relevant to each of our product candidates, including UCART19, UCART123, UCART22, UCARTCS1 and UCART20x22.

Our gene-editing platform and each of our UCART product candidates benefits from the protections conferred by several patents and patent applications in our patent portfolio. As a result of this broad range of patent protection, very few individual patents in our portfolio are critical to our ability to effectively conduct our product development activities. Although certain patents relating to our electroporation technology have expired, other patents and patent applications covering this technology remain in force, and additional patents protect the nucleases delivered by our electroporation technology, as well as the methods to modify the cells by use of such nucleases. Among our main patents EP3189073, EP3126390, EP3008186, EP3004349 and EP3116902 are under opposition before the European Patent Office. JP6810685, which was opposed before the Japanese patent office has been maintained under amended form.

UCART19

In addition to the patent portfolio relating to our platform and technologies, described above, our patent portfolio relating specifically to UCART19 includes granted patents and pending patent applications from the patent family WO2014184143 (CD19 Specific Chimeric Antigen Receptor and Uses Thereof).

We believe these patents and pending patent applications, which, if issued, would expire in 2034, include claims to cover the composition of matter of UCART19, methods of manufacture of UCART19, and methods to use UCART19 in treatment.

UCART123

In addition to the patent portfolio relating to our platform and technologies, described above, our patent portfolio relating specifically to UCART123 includes granted patents and pending patent applications from the patent family WO2018178377 (CD123 Specific Chimeric Antigen Receptors for Cancer Immunotherapy). We believe these patent and patent applications, which, if issued, would expire in 2035, include claims to cover the composition of matter of UCART123, methods of manufacture of UCART123, and methods to use UCART123 in cancer treatment.

UCART22

In addition to the patent portfolio relating to our platform and technologies, described above, our patent portfolio relating specifically to UCART22 includes pending patent applications from the families WO2018173878 and WO2028278377. We believe these patent applications, which if issued, would expire in 2038, include claim directed to the composition of matter of UCART22, methods of manufacture of UCART22, and methods to use UCART22 in cancer treatment.

UCART20x22

In addition to the patent portfolio relating to our platform and technologies, described above, our patent portfolio relating specifically to UCART20x22 includes pending patent applications from the family WO2022023529. We believe these patent applications, which if issued, would expire in 2041, include claims directed to the composition of matter of UCART20x22, methods of manufacture of UCART20x22, and methods to use UCART20x22 in cancer treatment.

UCARTCS1

Our patent portfolio relating specifically to UCARTCS1 includes granted patents and pending patent applications from the patent family WO2014179759 (CS1 Specific chimeric antigen receptor engineered immune effector cells) licensed exclusively from the Ohio State University. We believe these patents and patent applications, if issued, would expire in 2034. This patent family is directed to composition of matters including a CAR anti-CS1 per se. Our patent portfolio also includes patent and patent applications filed by Cellectis from the family WO2015166056 (CS1 specific multi chain chimeric antigen receptor) and WO2015121454 (T-cells for immunotherapy engineered for targeting antigen present both on T-cells and pathological cells), which, if issued, would expire in 2035. Both families relate to the use of CAR anti CS1 in T-cells, methods of manufacture of UCARTCS1, and methods to use UCARTCS1 in cell therapy treatment.

In each case, some of the issued patents and pending patent applications, if issued, may be eligible for patent term extension and patent term adjustment, thereby extending their terms, as described above.

Material Exclusive Licenses Granted to Cellectis

License from Regents of the University of Minnesota

In January 2011, we entered into an exclusive license agreement with Regents of the University of Minnesota, or UMN. Pursuant to this agreement, as amended in 2012, 2014, 2015 and 2022 we and our affiliates were granted an exclusive, worldwide, royalty-bearing, sublicensable license, under certain patents and patent applications owned by UMN, to make, use, sell, import, and otherwise dispose of products covered by the licensed patents, for all fields of use. These licensed patents relate to TALEN technology. Pursuant to the agreement, we are required to achieve certain specified research- and sales-related milestones

Pursuant to the terms of the agreement, we paid UMN an upfront license fee in the amount of \$250,000 upon the effective date of the license agreement, and a second upfront payment in the amount of \$1,000,000 following execution of the third amendment. In the non-agricultural field we are also required to pay to UMN low single digit percentage royalties on net sales of licensed products, as well as a percentage of all revenues received by us under sublicenses. Pursuant to the agreement, UMN is entitled to minimum annual royalties of \$30,000 per year. In the agricultural field, no royalties are due on net sales of licensed products, but an annual fee of \$150,000 per year is due to UMN and commercial milestones are due upon the occurrence of certain commercial sale milestones. We are also required to pay UMN milestone payments up to a total of \$290,000 in the aggregate upon the occurrence of specified events and to pay certain patent-related expenses incurred under the agreement for prosecuting and maintaining the licensed patents. If we undergo a change of control and wish to assign our rights and duties under the agreement, we will be required to pay UMN an additional transfer fee.

The license agreement will expire upon the expiration of the last to expire valid claim of the licensed patents. UMN may terminate the agreement upon advance written notice in the event of our insolvency or bankruptcy, and immediately upon written notice in the event that we challenge the validity or enforceability of any licensed patent in a court or other applicable authority. UMN and we may terminate the agreement by written notice in the event of the other party's breach that has not been cured within a specified number of days after receiving notice of such breach.

License from Ohio State Innovation Foundation

In October 2014, we entered into an exclusive license agreement with Ohio State Innovation Foundation. Pursuant to this agreement, we were granted an exclusive, worldwide, royalty-bearing, sublicenseable license under certain patents and patent applications owned by Ohio State Innovation Foundation to use, make, distribute, sell, lease, loan or import products or process covered by the licensed patents, for any and all activities relating to cancer immunotherapy. The licensed portfolio includes an international patent application relating to CAR directed to cancer marker CS1. Pursuant to the agreement, we must use diligence and commercially reasonable efforts to commercialize licensed products or processes, including achieving certain milestone events by specified deadlines, subject to our ability to extend such deadlines upon payment of certain fees.

Pursuant to the terms of the agreement, we paid Ohio State Innovation Foundation an upfront license fee in the amount of \$100,000. We are required to pay an annual license maintenance fee of \$20,000 from 2015 onward until our first sale of a licensed product. We are also required to pay to Ohio State Innovation Foundation low single-digit percentage royalties on net sales of licensed products and licensed processes by us and are subject to minimum annual royalties due to Ohio State Innovation Foundation of \$100,000. We are also required to pay Ohio State Innovation Foundation a percentage of royalties paid to us by sublicensees. We are also required to pay Ohio State Innovation Foundation milestone payments up to a total of \$1,950,000 in the aggregate upon the occurrence of certain development-related events prior to deadlines specified in the aggregatement.

Unless earlier terminated, the license agreement will expire upon the expiration of the last to expire valid claim of the licensed patents, which we expect will be on May 2, 2034. We may terminate the agreement at our option by giving 90 days' written notice. Ohio State Innovation Foundation may immediately terminate the agreement, any part of the licensed patent rights or the agreement's exclusivity if we fail to make required payments under the agreement and such breach continues for sixty days after delivery of written notice from Ohio State Innovation Foundation or if we breach any other provision of the agreement and fail to cure such breach within 60 days after delivery of written notice from Ohio State Innovation Foundation. Ohio State Innovation Foundation may also terminate the agreement if we or our affiliate initiates any proceeding or action challenging the validity, enforceability or scope of any of the patent rights or assists a third party in such a proceeding or action. The agreement automatically terminates if we file for bankruptcy or become bankrupt or insolvent, our board of directors elects to liquidate our assets or dissolve our business, we cease business operations, we make an assignment for the benefit of creditors or if we are otherwise placed in the hands of a receiver, assignee or trustee, whether by our voluntary act or otherwise.

Intellectual Property - Calyxt

Intellectual property protection is key to Calyxt. As of December 31, 2022, Calyxt's patent estate is composed of patents and patent applications owned by Calyxt and in-licensed from other parties. Most of the in-licensed patents and patent applications are licensed from Cellectis or the University of Minnesota. The license from Cellectis includes technologies invented at Cellectis, technologies invented by Calyxt when it was a wholly owned subsidiary of Cellectis, and technologies licensed to Cellectis from third parties. Calyxt also has access to additional patents and patent applications through in-licensing agreements with other research institutions and universities.

Calyxt's patent portfolio is categorized into three major platforms: PlantSpring, BioFactory and other products, and Licensing. Some patents and patent applications are applicable to multiple platforms, and as such are included in multiple categories.

The PlantSpring platform elements of Calyxt's patent portfolio is intellectual property used with its PlantSpring platform and includes geneediting technologies and hemp breeding technologies. This portion of Calyxt's patent portfolio includes nearly 150 patents and patent applications worldwide.

The BioFactory and products platform elements of Calyxt's patent portfolio includes outputs from its BioFactory, gene edited crops, and its Plant Cell Matrix, or PCM technology. This portion of Calyxt's patent portfolio includes approximately 40 patents and patent applications worldwide.

The technologies available for licensing within Calyxt's patent portfolio includes in-licensed technology and Calyxt-originated IP, and includes gene-editing technologies (e.g., TALEN®), gene-edited traits for agriculture, and hemp breeding technologies. This portion of Calyxt's patent portfolio includes approximately 550 patents and patent applications worldwide.

Calyxt is actively involved in the prosecution and protection of its technology. Calyxt's global patent portfolio includes approximately 68 patent families comprised of 413 patents and 125 patent applications. Of those patents, 39 have been issued in the United States, with the remaining issued in key geographies outside the United States, primarily Europe, Japan, and China. This number also includes European patents validated in individual European countries. Of those patent applications, approximately 30 are pending in the United States, with the remaining pending as international applications or country-specific applications in key geographies outside the United States.

Individual patent terms extend for varying periods of time, depending upon the date of filing of the patent application, the date of patent issuance, and the legal term of patents in the countries in which they are obtained. The issued patents that Calyxt has licensed in will expire on dates ranging from 2022 to 2037. If patents are issued on the pending patent applications owned by Calyxt or that it has in-licensed, the resulting patents are projected to expire on dates ranging from 2022 to 2042. Calyxt does not believe that the expiration of any patents expected to occur during 2022 would have a material effect on Calyxt's business, including any impact on its future operations and financial position. For more information regarding the risks related to Calyxt's intellectual property, please see "Risk Factors—Risks Related to Intellectual Property."

As of December 31, 2022, Calyxt had 4 registered trademarks in the United States.

Our Intellectual Property Strategy

We believe our current layered patent estate, together with our efforts to develop and patent next generation technologies, provides us with substantial intellectual property protection. However, the area of patent and other intellectual property rights in biotechnology is an evolving one with many risks and uncertainties.

Our strategy is also to develop and obtain additional intellectual property covering innovative manufacturing processes and methods for genetically engineering T-cells expressing new constructs and for genetically engineering plants expressing new traits. To support this effort, we have established expertise and development capabilities focused in the areas of pre-clinical research and development, manufacturing and manufacturing process scale-up, quality control, quality assurance, regulatory affairs and clinical trial design and implementation. Thus, we expect to file additional patent applications to expand this layer of our intellectual property estate.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the date of filing of the first non-provisional application to which priority is claimed. In the United States, a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office in granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent. The term of a patent that covers an FDA-approved drug may also be eligible for a patent term restoration of up to five years under the Hatch-Waxman Act, which is designed to compensate for the patent term lost during the FDA regulatory review process. The length of the patent term restoration is calculated based on the length of time the drug is under regulatory review. A patent term restoration under the Hatch-Waxman Act cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be restored. Moreover, a patent can only be restored once, and thus, if a single patent is applicable to multiple products, it can only be extended based on one product. Similar provisions are available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug. When possible, depending upon the length of clinical trials and other factors involved in the filing of a BLA, we expect to apply for patent term extensions for patents covering our product candidates and their methods of use.

Our commercial success may depend in part on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business; defend and enforce our patents; preserve the confidentiality of our trade secrets; and operate without infringing the valid enforceable patents and proprietary rights of third parties. Our ability to stop third parties from making, using, selling, offering to sell or importing our products may depend on the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities. With respect to both licensed and company-owned intellectual property, we cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our commercial products and methods of manufacturing the same.

We may rely, in some circumstances, on trade secrets to protect our technology. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with our employees, consultants, scientific advisors and contractors. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered or lawfully reverse-engineered by competitors. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Competition

The biotechnology and pharmaceutical industries put significant resources toward developing novel and proprietary therapies for the treatment of cancer, which often incorporate novel technologies and incorporate valuable intellectual property. We compete with companies in the immunotherapy space, as well as companies developing novel targeted therapies for cancer. In addition, our products will compete with existing standards of care for the diseases that our product candidates target. We anticipate that we will face intense and increasing competition from many different sources, including new and established biotechnology and pharmaceutical companies, academic research institutions, governmental agencies and public and private research institutions.

The immuno-oncology cell therapy competitive landscape is increasing, with the main approaches including CAR-T cells (autologous and allogeneic), autologous T-cell receptors (TCRs) and natural killer (NK) cells approaches.

The most advanced autologous CAR-T cell programs are:

In August 2017, the FDA approved tisagenlecleucel (Kymriah®) from Novartis AG for the treatment of patients up to 25 years of age with B-cell precursor acute lymphoblastic leukemia (ALL) that is refractory or in second or later relapse. In May 2018, the FDA approved a label extension for Kymriah® for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy. In May 2022, the FDA approved Kymriah® for the treatment of in adult patients with relapsed or refractory follicular lymphoma (FL) after two prior lines of systemic therapy.

- In October 2017, the FDA approved axicabtagene ciloleucel (Yescarta®) commercialized by Kite Pharma, a subsidiary of Gilead Sciences, for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy. Sales of Yescarta® were \$264 million in 2018, \$456 million in 2019, \$563 million in 2020 and \$695 million in 2021. In April 2021, the FDA approved Yescarta® forthe treatment of adult patients with relapsed or refractory follicular lymphoma after two or more lines of systemic therapy. In April 2022, the FDA approved Yescarta® for the treatment of adult patients with large B-cell lymphoma that is refractory to first-line chemoimmunotherapy or that relapses within 12 months of first-line chemoimmunotherapy.
- In July 2020, the FDA approved brexucabtagene autoleucel (Tecartus[™]) commercialized by Kite Pharma, a subsidiary of Gilead Sciences, for the treatment of adult patients with relapsed or refractory mantle cell lymphoma. In October 2021, the FDA approved Tecartus[™] for the treatment of adult patients with relapsed or refractory B-cell precursor acute lymphoblastic leukemia.
- In December 2020, Janssen began a rolling submission of a Biologics License Application, or BLA for the anti-BCMA CAR-T cell
 therapy ciltacabtagene autoleucel (cilta-cel) in relapsed or refractory multiple myeloma (formerly known as LCAR-B38M and in
 partnership with Legend Biotech).
- In February 2021, the FDA approved idecabtagene vicleucel (Breyanzi™) commercialized by Bristol Myers Squibb and bluebird bio for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy. In June 2022, the FDA approved Breyanzi™ for the treatment of adult patients with large B-cell lymphoma (LBCL), including diffuse large Bcell lymphoma (DLBCL) not otherwise specified (including DLBCL arising from indolent lymphoma), high-grade B-cell lymphoma, primary mediastinal large B-cell lymphoma, and follicular lymphoma grade 3B, who have: (i) refractory disease to first-line chemoimmunotherapy or relapse within 12 months of first-line chemoimmunotherapy; or (ii) refractory disease to first-line chemoimmunotherapy or relapse after first-line chemoimmunotherapy and are not eligible for hematopoietic stem cell transplantation (HSCT) due to comorbidities or age.
- In March 2021, FDA approved idecabtagene vicleucel (Abecma[™]) commercialized by Bristol Myers Squibb and bluebird bio, for the treatment of adult patients with relapsed or refractory multiple myeloma after four or more prior lines of therapy including an immunomodulatory agent, a proteasome inhibitor, and an anti-CD38 monoclonal antibody.
- In February 2022, the FDA approved ciltacabtagene autoleucel (Carvykti™) commercialized by Janssen Biotech, Inc. and Legend Biotech Corp. for the treatment of adult patients with relapsed or refractory multiple myeloma after four or more prior lions of therapy, including a proteasome inhibitor, an immunomodulatory agent, and an anti-CD38 monoclonal antibody.

Due to the promising therapeutic effect of T-cell therapies in clinical exploratory trials, we anticipate substantial direct competition from other existing and new competitors developing these therapies. In particular, we expect to compete with therapies with tumor infiltrating lymphocytes, or TILs, that are naturally occurring tumor-reactive T-cells harvested, propagated ex vivo and re-infused into patients. We also expect to compete with therapies using genetically engineered T-cells, rendered

reactive against tumor-associated antigens prior to their administration to patients. While a substantial part of our competitors are currently focused on autologous therapies, we believe that an increasing number of companies are developing an allogeneic CAR-T cell approach. Here, we differentiate ourselves by using our proprietary gene-editing capabilities to add specific features to our T-cell products, such as cancer drug resistance or resistance to checkpoint inhibition.

Our competitors include:

- Autologous and Allogeneic CAR T-cell space: Juno Therapeutics, Inc. (in collaboration with Editas Medicine Inc.), acquired by Celgene Corporation and acquired since by Bristol-Myers Squibb; Bluebird bio, Inc. (in collaboration with Celgene Corporation, acquired since by Bristol-Myers Squibb), Ziopharm Oncology Inc. (in collaboration with Intrexon Corporation), Kite Pharma Inc. (in collaboration with Amgen Inc. and with Sangamo Therapeutics Inc.), acquired by Gilead Sciences Inc., Novartis AG (in collaboration with Intellia Inc.), Johnson & Johnson (in collaboration with Transposagen Biopharmaceuticals Inc.), Precision Biosciences (in collaboration with Servier), Regeneron Pharmaceuticals Inc. (in collaboration with Adicet Bio Inc), Fate Therapeutics Inc. (in collaboration with Janssen), CRISPR Therapeutics Inc., Takeda Pharmaceutical Company Limited, Tmunity Therapeutics Inc., Mustang Bio, Atara Biotherapeutics Inc., (in collaboration with Bayer), Adaptimmune (in collaboration with Astellas), Poseida Therapeutics Inc., BioNTech SE, Vor Therapeutics Inc., Autolus Therapeutics plc., Bellicum Pharmaceuticals, Inc., and Celyad S.A.
- Gene-editing space: CRISPR Therapeutics Inc. (in collaboration with Bayer AG and Vertex Inc.), Editas Medicine, Inc. (partnered with Allergan and Celgene), Intellia Therapeutics, Inc. (partnered with Novartis), Precision BioSciences, Inc., Sangamo BioSciences, Inc. (partnered with Kite/Gilead and Pfizer), Vertex/Exonics Therapeutics (partnered with CRISPR Therapeutics), Graphite Bio Inc. and Beam Therapeutics Inc.
- Cell-therapy space: Adaptimmune Ltd, Iovance Biotherapeutics, Unum Therapeutics, Inc., NantKwest, Inc., Cytovia Therapeutics, Inc., Atara Biotherapeutics, Inc., and Immunocore Ltd.

We also face competition from non-cell based treatments offered by companies such as Amgen Inc., AstraZeneca plc, Bristol-Myers Squibb Company, Incyte Corporation, Merck & Co., Inc., and F. Hoffman-La Roche AG. Immunotherapy is further being pursued by several biotech companies as well as by large-cap pharmaceuticals. Many of our current or potential competitors, either alone or with their collaboration partners, have significantly greater financial resources and expertise in research and development, manufacturing, pre-clinical testing, conducting clinical trials, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and gene therapy industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market or make our development more complicated. The key competitive factors affecting the success of all of our programs are likely to be their efficacy, safety, and convenience.

The market for more sustainably produced products is highly competitive. Competition in synthetic biology is largely from fermentation-based companies who generally pursue the development compounds by combining a single cell organism like a microbe, bacteria, or yeast with another organism's DNA to achieve a desired result. These compounds are then marketed by third parties or directly by the fermentation company. These organizations may have substantially larger budgets for R&D, product commercialization, and regulatory process management and greater available capital resources.

Through its technology licensing, Calyxt believes that it faces competition from large agricultural biotechnology, seed, and chemical companies, certain of which have been actively involved in new trait discovery, development, and commercialization. Many of Calyxt's competitors—particularly large chemical companies—have substantially larger budgets for R&D, product commercialization and regulatory process management as well as substantially greater access to capital.

Trait research and development companies as well as research universities and institutions are competitors that typically focus on a limited number of traits and do not generally have the product development, gene editing technologies and regulatory infrastructure necessary to bring traits to market. They generally out-license trait technologies to large industry players with in-house development and regulatory capabilities at a relatively early stage of development.

Calyxt competes that it can compete favorably based on its expertise and the precision, specificity, cost effectiveness and development speed of its proprietary technologies. Nevertheless, certain of Calyxt's competitors are more established in the synthetic biology industry and many of Calyxt's current or potential competitors, either alone or with their R&D or collaboration partners, have significantly greater financial resources and expertise in R&D, manufacturing, testing, and marketing approved products than Calyxt.

Calyxt's commercial opportunity could be reduced or eliminated if its competitors develop and commercialize products faster, with lower research costs than Calyxt.

Government Regulation and Product Approval

Government Regulation of Biological Products

We are subject to extensive regulation. Our product candidates, cell based gene therapies, are regulated as biologics. Governmental authorities, including the FDA and comparable regulatory authorities in other countries, regulate the design, development, production / manufacturing, testing, safety, efficacy, labeling, storage, record-keeping, advertising, promotion and marketing of pharmaceutical products, including biologics.

Non-compliance with applicable requirements can result in fines and other judicially imposed sanctions, including product seizures, import restrictions, injunctive actions and criminal prosecutions of both companies and individuals. In addition, administrative remedies can involve requests to recall violative products; the refusal of the government to enter into supply contracts; or the refusal to approve pending product approval applications until manufacturing or other alleged deficiencies are brought into compliance. The FDA and similar authorities around the world also have the authority to cause the withdrawal of approval of a marketed product, to impose labeling restrictions or to require that we redo some non-clinical and/or clinical studies.

The FDA categorizes human cell- or tissue-based products as either minimally manipulated or more than minimally manipulated, and has determined that more than minimally manipulated products require clinical trials to demonstrate product safety and efficacy and the submission of a BLA for marketing authorization.

Our product candidates must be approved by the FDA before they may be legally marketed in the United States and by the appropriate foreign regulatory agencies before they may be legally marketed in foreign countries. Generally, our activities in foreign countries will be subject to regulation that is similar in nature and scope as that imposed in the United States, although there can be important differences. Additionally, some significant aspects of regulation in the EU are addressed in a centralized way, but country-specific regulation remains essential in many respects. The process for obtaining regulatory marketing approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

Ethical, social and legal concerns about gene therapy, gene modifications, genetic testing and genetic research could result in additional regulations restricting or prohibiting the processes we may use. Federal and state agencies, congressional committees and foreign governments have expressed interest in further regulating biotechnology. More restrictive regulations or claims that our products are unsafe or pose a hazard could prevent us from commercializing any products in one or more jurisdictions. New government requirements may be established that could delay or prevent regulatory approval of our product candidates under development. It is impossible to predict whether legislative changes will be enacted, regulations, policies or guidance changed, or interpretations by agencies or courts changed, or what the impact of such changes, if any, may be.

Set forth below is a description of the process of obtaining U.S. government approval for biological product development. Similar processes apply in other jurisdictions.

U.S. Biological Product Development

In the United States, the FDA regulates biologics under the Federal Food, Drug, and Cosmetic Act, or FDCA, and the Public Health Service Act, or PHSA, and their implementing regulations. Biologics are also subject to other federal, state and local statutes and regulations. The process required by the FDA before biologic product candidates may be marketed in the United States and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative

or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, product recall requests or withdrawals from the market, labeling restrictions, non-clinical and/or clinical studies to be performed again, product seizures, product destruction, total or partial suspension of production or distribution injunctions, import restrictions, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties for both companies and individuals. Any agency or judicial enforcement action could have a material adverse effect on us.

Our biological product candidates must be approved by the FDA through the Biologics License Application, or BLA, process before they may be legally marketed in the United States. The process required by the FDA before a biologic may be marketed in the United States generally involves the following:

- completion of extensive nonclinical, sometimes referred to as pre-clinical laboratory tests, pre-clinical animal studies and formulation studies in accordance with applicable regulations, including the FDA's GLP regulations;
- production and testing of clinical products according to the current Good Manufacturing Practices, or cGMP, and possible FDA product specific requirements;
- submission to the FDA of an IND, which must become effective before clinical trials may begin and must be updated at least annually;
- performance of adequate and well-controlled clinical trials in accordance with applicable IND and other clinical trial-related regulations, sometimes referred to as Good Clinical Practices, or GCPs, to establish the safety and efficacy of the proposed product candidate for each proposed indication;
- submission to the FDA of a BLA;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities where the active pharmaceutical
 ingredient, or API, and finished product are manufactured to assess compliance with the IND/BLA and FDA's cGMP requirements to
 assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality, purity and potency;
- · FDA review and approval of the BLA prior to any commercial marketing or sale of the product in the United States.

The data required to support a BLA is generated in three development segments: manufacturing, pre-clinical and clinical. The manufacturing development stage generally involves laboratory evaluations of drug chemistry and biology properties, formulation and stability. The pre-clinical stage generally involves studies to evaluate pharmacology and toxicity in animals, which support subsequent clinical testing. The conduct of the manufacturing and pre-clinical studies must comply with federal regulations, including GMPs and GLPs for the main Toxicology Studies.

The sponsor must submit the results of the pre-clinical studies, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of an IND before any clinical testing may proceed. An IND is a request for authorization from the FDA to administer an investigational drug product to humans. The IND must become effective before clinical trials may begin. The IND is automatically effective 30 days after receipt by the FDA, unless during that time the FDA raises concerns or questions regarding the proposed clinical trials. In such a case, the FDA may place the IND on clinical hold and the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may also impose clinical holds on a product candidate at any time before or during clinical trials due to safety concerns or non-compliance. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that could cause the trial to be suspended or terminated.

Before the IND becomes active, the clinical protocol will also need to be approved by the relevant Institutional Review Boards, or IRBs, and Institutional Biosafety Committees, or IBCs, which are the cornerstone of institutional oversight of recombinant DNA clinical research.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control, in accordance with GCPs, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND. Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial

participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed.

All gene therapy experiments and clinical trials are also subject to review and oversight by an IBC, a local institutional committee that reviews and oversees basic and clinical research conducted at that institution. The IBC assesses the safety of the research and identifies any potential risk to public health or the environment.

There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries. Sponsors of applicable clinical trials of FDA-regulated products, including biologics, are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to disclose the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved.

Human clinical trials are typically conducted in three sequential phases. However, these phases may overlap or be combined:

- *Phase 1*. The biological product candidate is initially introduced into healthy human subjects and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, if pre-clinical testing warrants, the initial human testing may be conducted in patients with the condition of interest.
- *Phase 2.* The biological product candidate is evaluated in a limited patient population with the condition of interest to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- *Phase 3*. Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency and safety in an expanded patient population with the condition of interest at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk to benefit ratio of the product and provide an adequate basis for approval, including appropriate product labeling.

Post-approval clinical trials, sometimes referred to as "Phase 4" clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up. The FDA recommends that sponsors observe subjects for potential gene therapy-related delayed adverse events for a 15-year period following exposure to the investigational product, including a minimum of five years of annual examinations followed by ten years of annual queries, either in person or by questionnaire, of study subjects.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA, IRB, and the investigators for serious and unexpected adverse events, any findings from other studies, tests in laboratory animals or in vitro testing that suggest a significant risk for human patients, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor or its data safety monitoring board may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk, including risks inferred from other unrelated immunotherapy trials. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the biological product has been associated with unexpected serious harm to patients.

Human immunotherapy products and gene therapy products are a new category of therapeutics. Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the trial period, the number of patients the FDA will require to be enrolled in the trials in order to establish the safety, efficacy, purity and potency of immunotherapy products, or that the data generated in these trials will be acceptable to the FDA to support marketing approval.

Concurrently with clinical trials, companies usually complete additional animal studies and must also develop additional information about the biological and physical characteristics of the biological product as well as finalize a process for production and testing the product in commercial quantities in accordance with cGMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHSA emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop and validate methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes for Biological Product Candidates

After the completion of clinical trials, non-clinical and manufacturing activities of a biological product candidate, FDA approval of a BLA must be obtained before commercial marketing of the biological product. The BLA must include results of product development, laboratory and animal studies, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. The approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a significant user fee. The FDA adjusts the PDUFA user fees on an annual basis. PDUFA also imposes an annual product fee for biological products and an annual establishment fee on facilities used to manufacture prescription biological products. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with cGMP regulations to assure and preserve the product's identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel biological products or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the biological product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure the safe use of the biological product candidate. A REMS may be imposed to ensure safe use of the drug, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS. The FDA will not approve a BLA without a REMS, if requi

Before approving a BLA, the FDA will inspect the facilities at which the product candidate, the associated vector and other key raw or starting materials are manufactured. The FDA will not approve the product candidate unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. For cell based immunotherapy products, the FDA also will not approve the product if the manufacturer is not in compliance with the current good tissue practice, or GTP requirements, to the extent applicable. These requirements are set out in FDA regulations and guidance documents and govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues, and cellular and tissue based products, or HCT/Ps, which are human cells or tissue intended for use in implantation, transplantation, infusion, or transfer into a human recipient. The primary intent of the GTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing. Additionally, before approving a BLA, the FDA may inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND trial requirements and GCP requirements. To assure cGMP, GTP and GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, record keeping, production, and quality control.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data. If the agency decides not to approve the BLA in its submitted form, the FDA will issue a complete response letter that describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product candidate receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product.

Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a REMS, or otherwise limit the scope of any approval. In addition, the FDA may require post marketing clinical trials, sometimes referred to as Phase 4 clinical trials, or additional studies like safety studies, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

In addition, unless a waiver is granted, under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The Food and Drug Administration Safety and Innovation Act, or FDASIA, requires that a sponsor who is planning to submit a marketing application for a drug or biological product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, or PSP, within sixty days after an end-of-Phase 2 or an end-of-Phase 1 meeting or as may be agreed between the sponsor and FDA. The initial PSP must include, among other things, an outline of the pediatric study or studies that the sponsor plans to conduct, including to the extent practicable study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. FDA and the sponsor must reach agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from nonclinical studies, early phase clinical trials, and/or other clinical development programs. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does not apply to any product for an indication for which orphan designation has been granted. However, if only one indication for a product has orphan designation, a pediatric assessment may still be required for any applications to market that same product for the non-orph

One of the performance goals agreed to by the FDA under the PDUFA is to review 90% of standard BLAs in 10 months and 90% of priority BLAs in six months, whereupon a review decision is to be made. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs and its review goals are subject to change from time to time. The review process and the PDUFA goal date may be extended by three months if the FDA requests or the BLA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Orphan Drug Designation

Under the Orphan Drug Act, a sponsor may request and the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States and there is no reasonable expectation that the cost of developing and making available in the United States drug or biologic for this type of disease or condition will be recovered from sales in the United States for that product. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic and trade name, if any, of the drug or biologic and the rare disease or condition for which orphan-drug designation was granted are disclosed publicly by the FDA. While the orphan drug designation affords the holder certain incentives in terms of tax credits, user fee waiver, eligibility for orphan drug exclusivity, and financial incentives, the orphan drug designation does not convey any advantage during, or shorten the duration of, the regulatory review or approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, FDA may grant the product orphan product exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same drug or biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority of the subsequent product to the product with orphan drug exclusivity. Orphan drug exclusivity does not prevent FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application user fee.

A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. Orphan exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same drug or biologic for the same use as defined by the FDA or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

The criteria for designating an "orphan medicinal product" in the EU are similar to those in the United States. Such designation can be requested in the case of products that are intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition and either (a) such condition affects no more than five in 10,000 persons in the EU when the application is made, or (b) the product, without the benefits derived from orphan status, would unlikely generate sufficient return in the EU to justify the necessary investment. Moreover, in order to obtain orphan designation it is necessary to demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the EU, or if such a method exists, the product will be of significant benefit to those affected by the condition. Orphan designation is lost in the EU if it is established that the product no longer meets the orphan criteria before market authorization is granted.

In the EU, orphan medicinal products are eligible for financial incentives as well as specific regulatory assistance and scientific advice. Products receiving orphan status in the EU can receive ten years of market exclusivity, during which time no similar medicinal product for the same indication may be placed on the market. An orphan product can also obtain an additional two years of market exclusivity in the EU for pediatric studies. No extension to any supplementary protection certificate can be granted on the basis of pediatric studies for orphan indications.

However, the 10-year market exclusivity may be reduced to six years in certain circumstances, including for example if, at the end of the fifth year, it is established that the product is sufficiently profitable not to justify maintenance of market exclusivity.

There can be no assurance that we will receive orphan drug designation for any product candidates in the United States, in the EU or in any other market. If we receive orphan drug designation, there can be no assurance that we will receive orphan drug exclusivity for any product candidate in United States, in the EU or in any other market. Additionally, there can be no assurance that orphan exclusivity from a competitor could not block the approval of one of our products for a certain period of time, in the United States, in the EU or in any other market.

Expedited Development and Review Programs

The FDA has a Fast Track program that is intended to facilitate the development, and expedite the process for reviewing new drugs and biological products that meet certain criteria. Specifically, new products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new drug or biologic may request the FDA to designate the drug or biologic as a Fast Track product candidate at any time during the clinical development of the product candidate. Under the Fast Track program, the FDA may consider the review of sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

Any product candidate for a serious condition, submitted to the FDA for approval, including a product with a Fast Track designation, may also be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. A product candidate is eligible for priority review if it has the potential to treat a serious condition and, if approved, would provide safe and effective therapy where no satisfactory alternative therapy exists or is a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new product candidate designated for priority review in an effort to facilitate the review, and aims to review such applications within six months as opposed to ten months for standard

review. Additionally, a product candidate may be eligible for accelerated approval. Product candidates studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval which means that they may be approved on the basis of adequate and well-controlled clinical trials establishing that the product candidate has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on the basis of an effect on a clinical endpoint other than irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug or biological product candidate receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

Breakthrough Therapy / Regenerative Medicine Advanced Therapy Designation

Under the provisions of the Food and Drug Administration Safety and Innovation Act, or FDASIA, enacted in 2012, the FDA established a Breakthrough Therapy Designation which is intended to expedite the development and review of products that treat serious or life-threatening conditions. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The designation includes all of the features of Fast Track designation, as well as more intensive FDA interaction and guidance. The Breakthrough Therapy Designation is a distinct status from both accelerated approval and priority review, but these can also be granted to the same product candidate if the relevant criteria are met.

The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy. All requests for breakthrough therapy designation will be reviewed within 60 days of receipt, and FDA will either grant or deny the request.

In addition, as described in Section 3033 of the 21st Century Cures Act, signed into law in December 2016, a drug is eligible for Regenerative Medicine Advanced Therapy, or RMAT, designation if:

- the drug is a regenerative medicine therapy, which is defined as a cell therapy, therapeutic tissue engineering product, human cell and tissue product, or any combination product using such therapies or products, except for those regulated solely under Section 361 of the Public Health Service Act and part 1271 of Title 21, Code of Federal Regulations;
- · the drug is intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition; and
- preliminary clinical evidence indicates that the drug has the potential to address unmet medical needs for such disease or condition.

The RMAT designation carries all of benefits of Breakthrough and Fast Track therapy designations, including: intensive interaction with FDA on an efficient drug development program beginning as early as Phase 1, organizational commitment involving senior FDA personnel, and rolling BLA review. RMAT designees are also eligible for accelerated approval and priority review if relevant criteria are met.

Where applicable, we plan to request Fast Track and/or Breakthrough Therapy Designation for our product candidates. Even if we receive one of these designations for our product candidates, the FDA may later decide that our product candidates no longer meet the conditions for qualification. In addition, these designations may not provide us with a material commercial advantage.

Post-Approval Requirements

Maintaining compliance with applicable federal, state, and local statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of biological products continues after approval, particularly with respect to cGMP and pharmacovigilance requirements as well as post marketing commitments. Any products for which we receive FDA approval will be subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, and complying with FDA promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting products for uses or in patient populations that are not described in the product's approved uses (known as off-label use), limitations on industry-sponsored scientific and educational activities, and requirements for promotional activities involving the internet. Although physicians may prescribe legally available products for off-label use that they deem to be appropriate in their professional medical judgment, manufacturers may not market or promote such off-label uses.

Other post-approval requirements applicable to biological products include reporting of cGMP deviations that may affect the identity, potency, purity and overall safety of a distributed product, record-keeping requirements, reporting of adverse effects, reporting updated safety and efficacy information, and complying with electronic record and signature requirements. After a BLA is approved, the product may also be subject to official lot release. In this case, as part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA also may perform certain confirmatory tests on lots of some products before releasing the lots for distribution by the manufacturer. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency, and effectiveness of biological products.

In addition, we and any third-party manufacturers of our products will be required to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation. We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products in accordance with cGMP regulations. cGMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Manufacturers and other entities involved in the manufacture and distribution of approved products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic announced and unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. The FDA also may require post-marketing studies, known as Phase 4 studies, and surveillance to monitor the effects of an approved product. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved BLA, including, among other things, recall or withdrawal of the product from the market. In addition, changes to the manufacturing process are strictly regulated, and depending on the significance of the change, may require prior FDA approval before being implemented. Other types of changes to the approved product, such as adding new indications and claims, are also subject to further FDA review and approval.

Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, warning letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties, among others. Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our products under development.

U.S. Patent Term Restoration and Pediatric Marketing Exclusivity

The Biologics Price Competition and Innovation Act, or BPCIA, amended the PHSA to authorize the FDA to approve similar versions of innovative biologics, commonly known as biosimilars. A competitor seeking approval of a biosimilar must file an application to establish its molecule as highly similar to an approved innovator biologic, among other requirements. The BPCIA, however, bars the FDA from approving biosimilar applications for 12 years after an innovator biological product receives initial marketing approval. This 12-year period of data exclusivity may be extended by six months, for a total of 12.5 years, if the FDA requests that the innovator company conduct pediatric clinical investigations of the product.

The first biological product submitted under the abbreviated approval pathway that is approved as interchangeable with the reference product has exclusivity against other biologics submitting applications under the abbreviated approval pathway for the lesser of (1) one year after the first commercial marketing, (2) 18 months after approval if there is no legal challenge, (3) 18 months after the resolution in the applicant's favor of a lawsuit challenging the reference biologic's patents if an application has been submitted, or (4) 42 months after the application has been approved if a lawsuit is ongoing within the 42-month period.

Depending upon the timing, duration and specifics of the FDA approval of the use of our product candidates, some of our U.S. patents, if granted, may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years, as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the

submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future as applicable, we may apply for restoration of patent term for one of our currently owned or licensed patents seeking restored patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

In addition to the forms of exclusivity previously described, pediatric exclusivity is an available market exclusivity in the United States. Pediatric exclusivity, if granted by the FDA, adds six months to existing periods of exclusivity and patent terms. This six-month exclusivity, which attaches to and runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

Other U.S. Healthcare Laws and Compliance Requirements

In the United States, our activities are subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, the Centers for Medicare and Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice, or DOJ, and individual U.S. Attorney offices within the DOJ, and state and local governments. For example, sales, marketing and scientific/educational grant programs must comply with the anti-fraud and abuse provisions of the Social Security Act, the false claims laws, the privacy provisions of the Health Insurance Portability and Accountability Act, or HIPAA, and similar state laws, each as amended.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity, from knowingly and willfully offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term remuneration has been interpreted broadly to include anything of value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution. The exceptions and safe harbors are drawn narrowly and practices that involve remuneration that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Our practices may not in all cases meet all of the criteria for protection under a statutory exception or regulatory safe harbor.

Additionally, the intent standard under the Anti-Kickback Statute was amended by the ACA to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the ACA codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act (discussed below).

The civil monetary penalties statute imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

The federal False Claims Act prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to, or approval by, the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes "any request or demand" for money or property presented to the U.S. government. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies' marketing of the product for unapproved, and thus non-reimbursable, uses.

HIPAA created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations or promises, any money or property owned by, or under the control or custody of, any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

Also, many states have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

We may also be subject to data privacy and security regulations by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to business associates independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.

In addition, state laws govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Additionally, the federal Physician Payments Sunshine Act, enacted as part of the ACA, and its implementing regulations, require certain manufacturers of drugs, devices, biological and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

In order to distribute products commercially, we will need to comply with state laws that require the registration of manufacturers and wholesale distributors of drug and biological products in a state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Several states have enacted legislation requiring pharmaceutical and biotechnology companies to establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, and/or register their sales representatives, as well as to prohibit pharmacies and other healthcare entities from providing certain physician prescribing data to pharmaceutical and biotechnology companies for use in sales and marketing, and to prohibit certain other sales and marketing practices. All of our activities are also potentially subject to federal and state consumer protection and unfair competition laws.

If our operations are found to be in violation of any of the federal and state healthcare laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including without limitation, civil, criminal and/or administrative penalties, damages, fines, disgorgement, exclusion from participation in government programs, such as Medicare and Medicaid, injunctions, private "qui tam" actions brought by individual whistleblowers in the name of the government, or refusal to allow us to enter into government contracts, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Coverage, Pricing and Reimbursement

Sales of our products will depend, in part, on the extent to which our products, if approved, will be covered and reimbursed by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly reducing reimbursements for medical products and services. The process for determining whether a third-party payor will provide coverage for a drug product typically is separate from the process for setting the price of a drug product or for establishing the reimbursement rate that a payor will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the approved drugs for a particular indication.

In order to secure coverage and reimbursement for any product candidate that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product candidate, in addition to the costs required to obtain FDA or other comparable regulatory approvals. Whether or not we conduct such studies, our product candidates may not be considered medically necessary or cost-effective. A third-party payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage for the product. Even if coverage is obtained from third party payors, reimbursement may not be sufficient to enable us to maintain price levels high enough to realize an appropriate return on our investment in product development.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Similar policies and laws have been adopted by many EU Member States. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. Decreases in third-party reimbursement for our product candidate or a decision by a third-party payor to not cover our product candidate could reduce physician usage of the product candidate and have a material adverse effect on our sales, results of operations and financial condition.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the EU provides options for its Member States to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A Member State may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. For example, in France, effective access to the market assumes that our future products will be approved for use by the hospital (through a ministerial order) and reimbursed by social security. The price of medications is negotiated with the Economic Committee for Health Products, or CEPS. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our product candidates. Historically, products launched in the EU do not follow price structures of the United States and generally tend to be significantly lower.

Healthcare Reform and Subsequent Legislation

In March 2010, President Obama signed the ACA, which continues to have the potential to substantially change healthcare financing and delivery by both governmental and private insurers, and significantly impact the pharmaceutical and biotechnology industry. The ACA has and will continue to impact existing government healthcare programs and will result in the development of new programs.

Among the ACA's provisions of importance to the pharmaceutical and biotechnology industries, in addition to those otherwise described above, are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents apportioned among these entities according to their market share in some government healthcare programs;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively and a cap on the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price, or AMP;
- a Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional
 individuals and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level,
 thereby potentially increasing manufacturers' Medicaid rebate liability;
- · expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program; and
- a Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

The ACA is intended to exert additional downward pressure on coverage and the price that we receive for any approved product in the United States, and could seriously harm our business. Any reduction in reimbursement from Medicare and other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment

measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our product candidates, if approved. In addition, it is possible that there will be further legislation or regulation that could change parts of the ACA that affect public and private healthcare coverage. Those changes could harm our business, financial condition, and results of operations.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of 2% per fiscal year, which started in April 2013. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which, among other things, also reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. Congress may also consider subsequent legislation to replace elements of the ACA that are repealed or to enhance the coverage and operation of the ACA. As a result, the full impact of the ACA, any law repealing and/or replacing elements of it, and the political uncertainty surrounding any repeal or replacement legislation remains unclear.

These initiatives recently culminated in the enactment of the Inflation Reduction Act, or IRA, in August 2022, which, among other things, will allow the U.S. Department of Health and Human Services, or HHS, to negotiate the selling price of certain biologics that CMS reimburses under Medicare Part B and Part D, although this will only apply to high-expenditure single-source biologics that have been approved for at least 11 years. The negotiated prices, which will first become effective in 2026, will be capped at a statutory ceiling price representing a significant discount from average prices to wholesalers and direct purchasers. Also, beginning in October 2023, the law will penalize manufacturers that increase prices of Medicare Part B and Part D drugs at a rate greater than the rate of inflation. In addition, the law eliminates the "donut hole" under Medicare Part D beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost through a newly established manufacturer discount program. The IRA also extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. The IRA permits the Secretary of HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. For that and other reasons, it is currently unclear how the IRA will be effectuated, and while the impact of the IRA on the biotechnology industry cannot yet be fully determined, it has the potential to be significant.

Additional Regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect our business. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

European Union Drug Development

Similarly to the U.S., pharmaceutical product development in the EU typically involves preclinical laboratory and animal tests, the submission to the applicable regulatory agency of a Clinical Trial Application (CTA), as well as appropriate filings with Ethics Committees, before clinical testing may commence.

Analogously as to the U.S., clinical trials that are deployed to support marketing authorization application are typically conducted in three sequential phases, but the phases may overlap or be combined.

On January 31, 2022, Regulation EU No 536/2014 (CTR) became fully applicable in the EU. The CTR established a centralized application procedure where one of the National Competent Authorities (NCA) of the EU Member States where the trial is to be deployed takes the lead in reviewing certain aspects of the application, while the other NCAs have a lesser involvement than they had under the previous regime established by Directive 2001/20/EC (CTD). The CTD indeed introduced the first set of harmonized rules on clinical trials in the EU but resulted in a patchwork of different national regimes. The CTR was adopted with a view to introducing a more uniform set of the rules across the EU for the authorization of clinical trials. Such authorization still involves NCAs and Ethics Committees of each of the EU Member States where the trial is to be conducted. However, the relevant procedures have now been streamlined with a view to facilitating a swifter and more seamless authorization and deployment of multi-center trials occurring in more than one EU Member State. More in particular, the CTR allows sponsors to rely on one single submission for CTAs regardless of the number of EU Member States where the trial takes place and based on a single harmonized application.

Furthermore, under the CTR, deadlines for regulatory approvals are shortened with a view to accelerating the authorization process. The CTR also established an EU Portal which is designed to act as a single entry point for submission of data and information relating to clinical trials. The CTD will continue to apply in parallel to the CTR for a transitional period to certain trials only.

Under the CTR, NCAs may order the temporary halt or permanent discontinuation of a clinical trial at any time or impose other sanctions if they believe that the clinical trial is not being conducted in accordance with applicable requirements or presents an unacceptable risk to the clinical trial patients. An Ethics Committee may also require the clinical trial to be halted, either temporarily or permanently, for failure to comply with the applicable requirements, or may impose other conditions.

After completion of the required clinical testing, as in the United States, an application for a marketing authorization is prepared and submitted to the EMA (or NCA in case of a purely national authorization procedure).

EU Marketing Authorization

In the EU, medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. The same rules also apply in the EEA Member States (Norway, Iceland and Liechtenstein). There are two types of marketing authorizations, namely: (i) the Community MA, which is issued by the European Commission through the Centralized Procedure, based on the opinion of the Committee for Medicinal Products for Human Use (CHMP) of the EMA, and which is valid throughout the entire territory of the EEA; and

(ii) "national MAs," which are issued by the competent NCAs and only cover their respective national territory.

The Centralized Procedure is mandatory for certain types of products, namely: medicinal products derived from certain biotechnology processes, orphan medicinal products, medicinal products containing a new active substance indicated for the treatment of HIV/AIDS, cancer, neurodegenerative disorders, diabetes, autoimmune diseases and other autoimmune dysfunctions and viral diseases. The Centralized Procedure is also mandatory for ATMPs, which comprise gene therapy, somatic cell therapy and tissue engineered products. In this regard, on May 28, 2014, the EMA issued a recommendation that Cellectis' UCART19 be considered a gene therapy product under Regulation (EC) No 1394/2007 on ATMPs. The Centralized Procedure is optional for other products containing a new active substance not yet authorized in the EEA, or for products that are deemed to constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the EU. Under the Centralized Procedure, the CHMP serves as the scientific committee that renders opinions about the safety, efficacy and quality of human products on behalf of the EMA. The CHMP is composed of experts nominated by each Member State's national drug authority, with one of them appointed to act as Rapporteur for the co-ordination of the evaluation with the possible assistance of a further member of the Committee acting as a Co-Rapporteur. The CHMP has 210 days to adopt an opinion as to whether a MA should be granted. The process usually takes longer as additional information is requested, which triggers clockstops in the procedural timelines. Based on the CHMP's opinion the European Commission will adopt a decision on the granting of the marketing authorization. In case of ATMPs, the CHMP must consult with the CAT on any scientific assessment necessary to draw up its scientific opinion.

Under the above-described procedures, before granting the MA, the relevant authorities make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

$EU\,A daptive\,\, Pathways$

The EMA has an adaptive pathways approach which allows for early and progressive patient access to a medicine in cases of high medical need. To achieve this goal, several approaches are envisaged including for example identifying small populations with severe disease where a medicine's benefit-risk balance could be favorable or making more use of real-world data where appropriate to support clinical trial data. The adaptive pathways concept applies primarily to treatments in areas of high medical need where it is difficult to collect data via traditional routes and where large clinical trials would unnecessarily expose patients who are unlikely to benefit from the medicine. The approach builds on regulatory processes already in place within the existing EU legal framework. These include: scientific advice; compassionate use; the conditional MA; patient registries and other pharmacovigilance tools that allow collection of real-life data and development of a risk-management plan for each medicine.

A conditional MA may be granted prior to the submission of comprehensive clinical data if the benefit of the immediate availability on the market of the product is deemed to outweigh the risk inherent in the fact that additional data are still required. In emergency situations, a MA for such medicinal products may be granted also where comprehensive pre-clinical or pharmaceutical data have not been provided. Under this procedure a MA can be granted as soon as sufficient data becomes available to demonstrate that the drug's benefits outweigh its risks, with safeguards and controls in place post-authorisation. This procedure can also be combined with a rolling review of data during the development of a promising medicine, to further expedite its evaluation. Conditional MAs are typically subject to obligations that are reviewed annually. These include the obligation to complete ongoing studies, or to conduct new studies, with a view to confirming that the risk-benefit balance is favourable. Conditional MAs are valid for one year, renewable.

EMA PRIME Scheme

The EMA launched its PRIME regulatory initiative to enhance support for the development of therapies that target an unmet medical need. The initiative focuses on drugs that may offer a major therapeutic advantage over existing treatments, or benefit patients with no treatment options. These therapies are considered priority medicines within the EU. Through PRIME, the EMA offers early, proactive and enhanced support to drug developers to optimize the generation of robust data on a therapy's benefits and risks and enable accelerated assessment of drug applications.

Post-approval Requirements in the EU

Following approval, the EMA, or the NCAs, as applicable, may impose certain post-approval requirements related to a product such obligation to perform post-authorization efficacy studies (PAES) or post-authorization safety studies (PASS) imposed as conditions to the MA, or other Risk Minimization Measures (RMMs), such as educational programs or controlled access programs, which may sometimes vary from one EU Member State to another. Moreover, if a company obtains original approval for a product via an accelerated approval pathway, the company will be typically required to conduct a post-marketing confirmatory trial to verify and describe the clinical benefit in support of full approval. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of the MA for a product.

Moreover, NCAs closely regulate the marketing and promotion of approved products, including standards and regulations for direct-to-consumer advertising (which is prohibited in the EU for prescription products), off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the Internet. Furthermore, approved products may be marketed only for the approved indications and in accordance with the provisions of the approved label. Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, may require a submission to and approval by the European Commission, or by the NCA, as applicable.

In addition, adverse event reporting and submission of periodic reports is required following marketing approval. Either the European Commission, or NCAs, as applicable, may also require post-marketing testing, known as Phase 4 testing, a risk evaluation and mitigation strategy, and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control as well as the manufacture, packaging, and labeling procedures must continue to conform to cGMPs after approval. Drug and biological product manufacturers and certain of their subcontractors are subject to periodic unannounced inspections during which the inspectors audit manufacturing facilities to assess compliance with cGMPs. MAs may be suspended or withdrawn if, for example, the MA holder fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered. Moreover, stringent rules have been introduced in the EU to fight medicine falsifications and to ensure that the trade in medicines is subject to rigorous controls.

Furthermore, EU harmonized rules prohibit gifts, pecuniary advantages or benefits in kind to Health Care Professionals (HCPs) unless they are inexpensive and relevant to the practice of medicine or pharmacy. Similarly, strict rules apply to hospitality at sales promotion events. Based on these rules, a body of industry guidelines and sometimes national laws in force in individual EU Member States has been introduced to fight improper payments or other transfers of value to HCPs, and in general inducements that may have a broadly promotional character. Historically, pharmaceutical companies have been the target of anti-corruption and similar investigations, as well as of wide media attention, sometimes resulting in significant penalties, image and other costs for such companies.

Finally, very stringent data privacy requirements apply in the EU. In particular, Regulation (EU) 2016/679 (GDPR) requires that personal data only be collected for specified, explicit and legal purposes, and the data may then only be processed in a manner consistent with those purposes. Personal data collected and processed must be adequate, relevant and not excessive in relation to the purposes for which it is collected and processed, it must be held securely, not transferred outside of the EEA (unless certain steps are taken to ensure an adequate level of protection), and must not be retained for longer than necessary for the purposes for which it was collected. The GDPR also requires companies processing personal data to implement adequate technical measures in order to ensure the most appropriate level of security which may vary depending on different factors such as the categories of processed personal data, the state of the art, the costs of implementation and the nature, scope, context and purposes of processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons. In addition, the GDPR requires companies processing personal data to take certain organizational steps to ensure that they have adequate records, policies, security, training and governance frameworks in place to ensure the protection of data subject rights, including as required to respond to complaints and requests from data subjects. For instance, the GDPR requires companies to make detailed disclosures to data subjects, requires disclosure of the legal basis on which personal data is processed, provides for conditions under which a valid consent for processing

can be obtained, requires the appointment of a data protection officer where sensitive personal data (e.g., health data) is processed on a large scale, imposes mandatory data breach notification throughout the EEA and imposes additional obligations when contracting with service providers or partners. In addition, to the extent a company processes, controls or otherwise uses "special category" of personal data (including patients' health or medical information, genetic information and biometric information), more stringent rules apply, further limiting the circumstances and the manner in which a company is legally permitted to process that data.

Data Exclusivity And Market Exclusivity in the EU

In the EU, new products authorized for marketing (i.e., reference products) qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic applicants from relying on the pre-clinical and clinical trial data contained in the dossier of the reference product when applying for a generic marketing authorization in the EU during a period of eight years from the date on which the reference product was first authorized in the EU. The market exclusivity period prevents a successful generic applicant from commercializing its product in the EU until ten years have elapsed from the initial authorization of the reference product in the EU. The ten-year market exclusivity period can be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies.

Moreover, products receiving orphan designation in the EU can receive ten years of market exclusivity, during which time no similar medicinal product for the same indication may be placed on the market. An orphan product can also obtain an additional two years of market exclusivity in the EU for pediatric studies. No extension to any supplementary protection certificate can be granted on the basis of pediatric studies for orphan indications.

The criteria for designating an "orphan medicinal product" in the EU are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as orphan if (1) it is intended for the diagnosis, prevention or treatment of a lifethreatening or chronically debilitating condition; (2) either (a) such condition affects no more than five in 10,000 persons in the EU when the application is made, or (b) the product, without the benefits derived from orphan status, would not generate sufficient return in the EU to justify investment; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition authorized for marketing in the EU, or if such a method exists, the product will be of significant benefit to those affected by the condition, as defined in Regulation (EC) 847/2000. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers. The application for orphan drug designation must be submitted before the application for marketing authorization.

The 10-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, marketing authorization may be granted to a similar product for the same indication at any time if:

- The second applicant can establish that its product, although similar, is safer, more effective or otherwise clinically superior;
- The applicant consents to a second orphan medicinal product application; or
- The applicant cannot supply enough orphan medicinal product.

EU Supplementary Protection Certificates

In the EU, Supplementary Protection Certificates (SCPs) are available to extend a patent term for up to five years to compensate patent protection lost during regulatory review. Although all EU Member States must provide SPCs, SPCs must be applied for and granted on a country-by-country basis.

Additional Protection for Pediatric Indications in the EU

In the EU, companies developing a new medicinal product must agree to a PIP with the EMA and must conduct pediatric clinical trials in accordance with that PIP, unless a deferral or waiver is granted by the EMA on request by the applicant (e.g., because the relevant disease or condition occurs only in adults). The PIP requirement also applies when a MA holder intends to add a new indication, pharmaceutical form or route of administration for a medicinal product that has already been authorized. The MA application for the product must include the results of pediatric clinical trials conducted in accordance with the PIP,

unless a waiver applies, or a deferral has been granted, in which case the pediatric clinical trials must be completed at a later date. Once all the studies and measures agreed have been conducted in accordance with the PIP, products are eligible for a six month extension of the protection under a supplementary protection certificate – or "SPC"—(if any is in effect at the time of approval) or, in the case of orphan medicinal products, a two year extension of the orphan market exclusivity. This pediatric reward is granted subject to specific conditions. These conditions include that the applicant demonstrates having complied with all the measures contained in the PIP, that the summary of product characteristics, and if appropriate the package leaflet, reflects the results of studies conducted in compliance with such PIP, and that the product is authorized in all EU Member States. The rewards for conducting studies in the pediatric population can be granted irrespective of the fact that the information generated in compliance with the agreed PIP fails to lead to the authorization of a pediatric indication

Government Regulation and Product Compliance—Calyxt

Calyxt's PlantSpring technology platform and its BioFactory production system operate in contained environments without the need for outdoor cropping systems. Any regulated materials used under this process, such as specific bacteria, are therefore subject to well-defined regulations in the United States.

Calyxt's development and production processes involve the use, generation, handling, storage, transportation and disposal of hazardous chemicals and regulated biological materials. Calyxt is subject to a variety of federal, state, and local laws, regulations and permit requirements governing the use, generation, manufacture, transportation, storage, handling and disposal of these materials in the United States. In the future, to the extent Calyxt may operate or sell its products outside the United States, Calyxt would be subject to corresponding international laws and regulations. These laws, regulations and permits can require expensive fees, exposure or pollution control equipment or operational changes to limit actual or potential impact of Calyxt's technology on the environment and violation of these laws could result in significant fines, civil sanctions, permit revocation or costs from environmental remediation. Future developments, including the commencement of or changes in the processes relating to commercial manufacturing of one or more of Calyxt's products, more stringent environmental regulation, policies and enforcement, the implementation of new laws and regulations or the discovery of unknown environmental conditions, may require expenditures that could have a material adverse effect on Calyxt's business, results of operations or financial condition.

Hemp, as defined in the 2018 Farm Bill as Cannabis sativa containing a delta-9 tetrahydrocannabinol (THC) concentration of not more than 0.3 percent on a dry weight basis, has been removed from the United States Federal Controlled Substances Act and is legally distinct from marijuana/cannabis, which is Cannabis sativa containing a THC concentration of more than 0.3 percent on a dry weight basis. Hemp is recognized as an agricultural crop by the United States federal government. Federal and state laws and regulations on hemp address production, monitoring, manufacturing, distribution, and laboratory testing to ensure that that the hemp has a THC concentration of not more than 0.3 percent on a dry weight basis. Federal laws and regulations also address the transportation or shipment of hemp or hemp products.

Consistent with the 2018 Farm Bill, the Minnesota Department of Agriculture (MDA) operates a Hemp Program under its United States Department of Agriculture (USDA) approved Minnesota state plan. This plan establishes that a commercial hemp production license is required for growing and processing of hemp in the State of Minnesota. Calyxt holds an MDA Hemp Program License and has implemented an internal hemp compliance system including procedures, quality control and internal audits. USDA and/or MDA may audit Calyxt at any time for compliance with license requirements.

Additionally, Calyxt has obtained USDA permits for specific regulated materials (e.g., bacteria) that are used as part of its PlantSpring technology platform and BioFactory production system. Calyxt has implemented the required compliance system in order to meet USDA permit conditions and ensure adequate documentation is in place. The USDA may audit Calyxt at any time for compliance with permit requirements.

The BioFactory production system has the capability of producing a diverse range of plant-derived compounds that may be used for applications in cosmetics, dietary supplements, pharmaceuticals, and more. As Calyxt delivers these valuable compounds to its customers, each customer will be responsible for determining how the compound will be used and the regulatory scheme applicable to the compound's use. It is anticipated that because Calyxt's customers would incorporate the purchased compounds into their existing product development processes and areas of applications, the customers will be best positioned to apply their specific expertise in the field to establish regulatory compliance and determine any additional requirements.

Calyxt also expects to continue to license its technology and develop seed traits for agricultural customers based on their needs. This would include the use of gene editing in crops for outdoor use. Neither Calyxt, nor its commercial partners, currently deploy Calyxt's technology for use outside of the United States with the exception of Calyxt's High Oleic Soybean product, which in addition to having clearance from the USDA and FDA, also has clearance from the Canadian Food Inspection Agency and Health Canada for use in Canada. In today's global market, overall business development strategy for plant biology companies depends, in part, on the availability of regulatory clearance in strategic export markets, which enables broader flexibility for product expansion and is a key consideration in evaluating global trade opportunities. Regulatory predictability is critical in order to establish accurate product launch strategies. The costs of achieving clearance in foreign countries is often high, due to stricter regulatory environments than the United States, and there can be no assurance Calyxt will be granted clearance on favorable terms, if at all.

Under Calyxt's partner-driven model, agricultural customers would likely be contractually responsible for obtaining the needed global regulatory clearance for agricultural products developed by Calyxt or using its licensed technology. Accordingly, outside of permitting expenses incurred in the ordinary course of business, Calyxt does not expect compliance with government regulations, including environmental regulations, to have a material effect on Calyxt's capital expenditures, earnings, or competitive position.

Other Regulatory Matters

French Pharmaceutical Company Status

To date, we do not have the status of pharmaceutical establishment, and therefore, cannot either manufacture the product candidates we develop or directly consider their marketing. Obtaining the pharmaceutical establishment license, either as distributor, operator, importer or as manufacturer, requires the submission of a request file specific to each of the mentioned qualifications with the Agence nationale de sécurité du médicament et des produits de santé (ANSM), which only grants it after review of this file and evaluation, usually after verification that the company has adequate premises, the necessary personnel and an adapted structure with satisfactory procedures for carrying out the proposed pharmaceutical activities.

We currently entrust CMOs and Cellectis Biologics Inc., for which the status pharmaceutical establishment is not yet required, with the manufacturing of clinical batches for certain product candidates. Import and certification into the European Union will continue to be done via CMOs.

Legal Proceedings

From time to time, we may be involved in various claims and legal proceedings relating to claims arising out of our operations. We are not currently a party to any legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

C. Organizational Structure

Cellectis, or Cellectis S.A., is a société anonyme, or S.A., organized under the laws of the French Republic.

Group Structure as of December 31, 2022

Subsidiary Name

Jurisdiction of Incorporation

Ownership & Voting Interest Held By Cellectis S.A.

Calyxt, Inc. Delaware 49.1% (held directly)
Cellectis, Inc. Delaware 100% (held directly)

Cellectis Biologics, Inc. Delaware 100% (held indirectly through Cellectis, Inc.)

See "Item 7. Major Shareholders and Related Party Transactions—B. Related Party Transactions—Transactions with subsidiaries: Calyxt IPO and Key Arrangements" for a discussion of certain agreements that provide a framework for Cellectis S.A.'s ongoing relationship with Calyxt.

D. Property, Plant and Equipment

Cellectis S.A. leases a 5,846 square-meter facility in Paris for administrative and research and development activities. The lease commenced on April 1, 2011 and has a term that expires on November 30, 2028. This property includes, our recently completed, ~14,000 sq. ft. in-house manufacturing facility, which will be dedicated to the production of certain raw and starting material for clinical supply, with the potential to supply commercial raw and starting material.

Cellectis, Inc. leases a 24,375 square feet facility in New York, New York for administrative and research and development activities. The lease, which commenced on March 30, 2015, has a term that expires on March 1, 2031 (128 months from July 1st, 2020). In June 2022, a partial sublease of Cellectis' New York commercial facility was signed with Sanavia for a total square feet of 3,562.

Cellectis Biologics, Inc. leases an 82,783 square feet facility in Raleigh, North Carolina. The lease, which commenced in April 2019 has a term that expires on December 31, 2034. We completed construction of our manufacturing facility at this property in 2021, which is dedicated to the production of clinical and commercial UCART products.

Calyxt entered into a sale-leaseback transaction, which included a construction contract, on September 6, 2017 with a third party for its 40,000 corporate headquarters facility in Roseville, Minnesota. The facility includes office, research laboratory space, and outdoor growing plots. Calyxt committed to an initial lease term of twenty years, with four options to extend the term of the lease for five years each. Under the lease agreement, which commenced in May 2018, Calyxt pays an annual base rent of approximately \$1.4 million. Pursuant to a lease guaranty with the landlord, Cellectis has guaranteed Calyxt's obligations under the lease, with such guarantee continuing until the end of the second consecutive calendar year in which Calyxt's tangible net worth exceeds \$300 million. Calyxt has agreed to indemnify Cellectis for any obligations incurred under this guaranty, effective upon Cellectis's ownership level being at or below 50% of Calyxt's outstanding common stock.

In December 2018 Calyxt consummated a sale-leaseback transaction with a third party to finance equipment. The lease had a four-year term and Calyxt was able to add up to \$1.1 million of future purchases to the financing agreement. Calyxt was required to deposit cash into a restricted account in an amount equal to the future rent payments required by the lease.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following Operating and Financial Review and Prospects should be read in conjunction with our audited consolidated financial statements and related notes included elsewhere in this Annual Report. In addition to historical consolidated financial information, this discussion also contains forward-looking statements, based on current expectations and related to future events and our future financial performance, that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors, including but not limited to those set forth under "Risk Factors" and elsewhere in this Annual Report.

This Annual Report contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act and as defined in the Private Securities Litigation Reform Act of 1995. See "Special Note Regarding Forward-Looking Statements".

Financial Overview

The following selected statements of consolidated operations data for the years ended December 31, 2020, 2021 and 2022 and the selected statement of consolidated financial position data as of December 31, 2021 and 2022 have been derived from our audited consolidated financial statements included elsewhere in this Annual Report. Our audited consolidated financial statements have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB.

The audited consolidated financial statements for the years, and as of, December 31, 2020, 2021 and 2022 are presented in U.S. dollars, which differs from the functional currency of Cellectis S.A., which is the Euro.

The following selected consolidated financial data for the periods and as of the dates indicated are qualified by reference to and should be read in conjunction with our consolidated financial statements and related notes beginning on page F-1 of this Annual Report.

Our historical results for any prior period do not necessarily indicate our results to be expected for any future period.

	For the year ended December 31,		
	2020*	2021*	2022
		\$ in thousands	
Revenues and other income	59,564	38,597	25,725
Operating expenses			
Cost of revenue	(1,951)	(1,844)	(1,772)
Research and development expenses	(77,048)	(117,840)	(97,501)
Selling, general and administrative expenses	(22,513)	(22,882)	(17,494)
Other operating income and expenses	(363)	488	1,377
Operating income (loss)	(42,311)	(103,481)	(89,666)
Financial gain (loss)	(11,270)	6,731	(8,935)
Income tax	_	_	(87)
Income (loss) from continuing operations	(53,581)	(96,749)	(98,688)
Income (loss) from discontinued operations	(43,902)	(28,358)	(15,345)
Net income (loss)	(97,483)	(125,107)	(114,034)
Attributable to shareholders of Cellectis	(81,074)	(114,197)	(106,139)
Attributable to non-controlling interests	(16,409)	(10,910)	(7,894)
Earnings per share attributable to shareholders of Cellectis (1)			
Basic and diluted (2)	(1.91)	(2.55)	(2.33)
Number of shares used for computing	0.00		
Basic (1)	42,503,447	44,820,279	45,547,359
Diluted (1)	42,503,447	44,820,279	45,547,359
Other operating data			
Adjusted Net Income (Loss) attributable to shareholders of Cellectis (3)	(66,709)	(101,700)	(98,069)

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation

⁽¹⁾ See Note 18 to our consolidated financial statements for further details on the calculation of basic and diluted loss per ordinary share.

⁽²⁾ Potential ordinary shares resulting from the exercise of share warrants and employee warrants are antidilutive. Adjusted Net Income (Loss) attributable to shareholders of Cellectis is not a measure calculated in accordance with IFRS. We define Adjusted Net Income (Loss) attributable to shareholders of Cellectis as our Net Income (Loss) attributable to shareholders of Cellectis, adjusted to eliminate the impact of Non-cash stock-based compensation expense. See "Note Regarding Use of Non-GAAP Financial Measures" for important information. Please refer below for a reconciliation of Adjusted Net Income (Loss) attributable to shareholders of Cellectis to Net Income (Loss) attributable to shareholders of Cellectis, which is the most directly comparable financial measure calculated in accordance with IFRS.

Statement of Consolidated Financial Position Data

	As of December 31,			
	2020 (1)	2021	2022	
		\$ in thousands		
Current financial assets and Cash and cash equivalents	268,239	186,135	97,697	
Total assets	469,471	382,076	261,216	
Total shareholders' equity	308,846	236,474	125,941	
Total non current liabilities	108,610	96,254	72,279	
Total current liabilities	52,015	49,348	48,131	

Reconciliation of Adjusted Net Income (Loss) attributable to shareholders of Cellectis to Net Income (Loss) attributable to shareholders of Cellectis

	As of December 31,		
	2020*	2021*	2022
		\$ in thousands	
Net Income (Loss) attributable to shareholders of Cellectis	(81,074)	(114,197)	(106,139)
Adjustment of non-cash stock-based compensation expense from continued operations:			
Research and development expenses	6,790	9,381	4,098
Selling, general and administrative expenses	3,238	2,113	1,945
Total non-cash stock-based compensation expense from continued operations	10,028	11,493	6,043
Adjustment of non-cash stock-based compensation expense from discontinued operations	6,708	1,625	4,132
Non-cash stock-based compensation expense attributable to non controlling interests	(2,371)	(621)	(2,105)
Adjusted Net Income (Loss) attributable to shareholders of Cellectis	(66,709)	(101,700)	(98,069)

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation

Overview

We are a clinical stage biotechnological company, employing our core proprietary technologies to develop products based on gene-editing with a portfolio of allogeneic Chimeric Antigen Receptor T-cells ("UCART") product candidates in the field of immuno-oncology, gene-edited hematopoietic stem and progenitor cells ("HSPC") product candidates in other therapeutic indications.

Our UCART product candidates, based on gene-edited T-cells that express chimeric antigen receptors, or CARs, seek to harness the power of the immune system to target and eradicate cancers. We believe that CAR-based immunotherapy is one of the most promising areas of cancer research, representing a new paradigm for cancer treatment. We are designing next-generation immunotherapies that are based on gene-edited CAR T-cells. Our gene-editing technologies allow us to create allogeneic CAR

T-cells, meaning they are derived from healthy donors rather than the patients themselves. We believe that the allogeneic production of CAR T-cells will allow us to develop cost-effective, "off-the-shelf" products that are capable of being stored and distributed worldwide. Our gene-editing expertise also enables us to develop product candidates that feature additional safety and efficacy attributes, including control properties designed to prevent them from attacking healthy tissues, to enable them to tolerate standard oncology treatments, and to equip them to resist mechanisms that inhibit immune-system activity.

Together with our focus on immuno-oncology, we are using, through our .HEAL platform, our gene-editing technologies to develop HSC product candidates in genetic diseases. .HEAL is a new gene editing platform developed by Cellectis that leverages the power of TALEN® technology, to allow highly efficient gene inactivation, insertion and correction in HSPCs. Through the date of this Annual Report, Cellectis has announced preclinical programs in sickle cell disease, lysosomal storage disorders and primary immunodeficiencies.

We currently conduct our operations through two business segments, Therapeutics and Plants. Our Therapeutics segment is focused on the development of products in the field of immuno-oncology and monogenic diseases. Our Plants segment, carried out through our 49.1% (as of December 31, 2022) ownership in Calyxt, a plant-based synthetic biology company, leverages Calyxt's proprietary PlantSpringTM technology platform to engineer plant metabolism produce innovative, high-value plant-based chemistries for use in customers' materials and products. The Plants segment is presented as a discontinued operations following IFRS 5 (see Note 4 to the audited consolidated financial statements included herein).

Since our inception in early 2000, we have devoted substantially all of our financial resources to research and development efforts. Our current research and development focuses primarily on our CAR T-cell immunotherapy and HSPC product candidates, including conducting the pre-clinical activities, and preparing to conduct clinical studies of our UCART product candidates, providing general and administrative support for these operations and protecting our intellectual property.

We do not have any therapeutics products approved for sale and have not generated any revenues from therapeutic product sales.

As of December 31, 2022, we were eligible to receive potential development and commercial milestone payments pursuant to (i) the License, Development and Commercialization Agreement dated March 6, 2019 between Servier and Cellectis, as amended on March 4, 2020 (the "Servier License Agreement") of up to \$410 million and (ii) the License Agreement dated March 8, 2019 between Allogene and Cellectis (the "Allogene License Agreement") of up to \$2.8 billion. Under the Allogene License Agreement, we are eligible to receive tiered royalties on annual worldwide net sales of any products that are commercialized by Allogene that contain or incorporate, are made using or are claimed or covered by, our intellectual property licensed to Allogene under the Allogene License Agreement at rates in the high single-digit percentages. Under the Servier License Agreement, we are eligible to receive flat low double-digit royalties based on annual net sales of commercialized products as well as a low double-digit royalty on certain development milestone payments received by Servier.

For the twelve-month period ended December 31, 2022, we mainly derived our Therapeutics revenues from a milestone payment pursuant to the Servier License Agreement amounting to \$15.8 million recognized in the last quarter of 2022, in connection with the ALPHA2 Phase 2. The milestone payment was collected from Servier in December 2022. In the first quarter of 2022, we also recognized milestone payments in an aggregate amount of \$1.5 million from Cytovia in connection with the recognition of Target B2M and Target TGFßRII.

On September 15, 2022, Servier sent to us and Allogene a notice of discontinuation of its involvement in the development of the CD19 Products and purporting to provide Allogene with the ability to elect and obtain a license to the CD19 Products outside of the United States. See "Risk Factors—Risks Related to Our Reliance on Third Parties—Servier's discontinuation of its involvement in the development of CD19 Products may have adverse consequences."

We have also entered into collaboration and license agreements with Iovance Biotherapeutics and Cytovia Therapeutics for the use of our TALEN technology.

We are currently sponsoring clinical studies with respect to four proprietary Cellectis UCART product candidates at nine sites for the AMELI-01 Study, at ten sites for the BALLI-01 Study, at seven sites for the MELANI-01 Study, and at one site for the NatHaLi-01 Study as follow, each as described above under "Item 4. Information on the Company—B. Business Overview—UCART Pipeline."

For a discussion of our operating capital requirements and funding sources, please see "Liquidity and Capital Resources" below.

Financial Operations Overview

We have incurred net losses in nearly each year since our inception. Substantially all of our net losses resulted from costs incurred in connection with our development programs and from selling, general and administrative expenses associated with our operations. As we continue our intensive research and development programs, we expect to continue to incur significant expenses and expect to incur losses for near-term future periods. We anticipate that such expenses will increase substantially if and as we:

- progress our sponsored clinical trials AMELI-01, BALLI-01, MELANI-01, and NathHaLi-01 and initiate additional clinical trials for other self-owned product candidates;
- continue to advance the research and development of our current and future immuno-oncology product candidates; advance research and development efforts for our HSPC product candidates;
- further develop and refine the manufacturing process for our immuno-oncology product candidates;
- maintain our manufacturing facilities in Paris (France) and Raleigh (North Carolina, USA), continue production at our in-house manufacturing facilities and change or add additional manufacturers or suppliers of biological materials to support our in-house manufacturing capabilities;
- seek regulatory and marketing approvals for our product candidates, if any, that successfully complete development;
- establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- seek to identify and validate additional product candidates;
- acquire or in-license other product candidates, technologies or biological material;
- make milestone or other payments under any in-license agreements;
- maintain, protect and expand our intellectual property portfolio;
- seek to attract and retain new and existing skilled personnel;
- · create additional infrastructure to support our operations as a public company; and
- experience any delays or encounter issues with any of the above.

We do not expect to generate material revenues from sales of our therapeutic product candidates unless and until we successfully complete development of, and obtain marketing approval for, one or more of our product candidates, which we expect will take a number of years and is subject to significant uncertainty. Accordingly, we anticipate that we will need to raise additional capital prior to completing clinical development of any of our therapeutic product candidates. Until such time that we can generate substantial revenues from sales of our product candidates, if ever, we expect to finance our operating activities through a combination of milestone payments received pursuant to our collaboration and license agreements, equity offerings, debt financings, government or other third-party funding and collaborations, and licensing arrangements. However, we may be unable to raise additional funds or enter into such arrangements when needed on favorable terms, or at all, which would have a negative impact on our financial condition and could force us to delay, limit, reduce or terminate our development programs or commercialization efforts or grant to other rights to develop or market product candidates that we would otherwise prefer to develop and market ourselves. Failure to receive additional funding could cause us to cease operations, in part or in full.

Our consolidated financial statements for 2020, 2021 and 2022 have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB.

Financial Operations Overview

Revenues and Other Income

Collaboration agreements and licenses

We derive substantially all of our therapeutics revenues from milestone payments and royalties on licensed technologies. For the year ended December 31, 2022, we derived all of our therapeutics revenues from milestones achieved under the Servier License Agreement, milestones achieved under our agreement with Cytovia Therapeutics, revenues related to a change of control provision of a licensee pursuant to the terms of a license agreement with Cellectis, and royalties on licensed technologies. Our strategic licensing agreements may generate non-refundable upfront payments related to the licensing of rights to technology and research and development programs, milestone payments, research and development cost reimbursements and royalty payments.

Upfront payments for research and development programs are deferred as a contract liability and recognized when the performance obligation is satisfied, as the customer receives the benefits of the services. When a specific research and development program is put on hold, as agreed by our customer as part of a joint executive committee decision, the revenue recognition continues to be deferred until research and development efforts resume. If the joint decision is to abandon the project, deferred revenue is fully recognized.

The triggering event for a milestone payment may be scientific results achieved by us or another party to the arrangement, regulatory approvals, or the marketing of products developed under the arrangement.

Research and development costs reimbursements are recognized on a time and material basis over the length of the specific research and development project.

Royalties are based on sales of licensed products or technologies. They are recognized in accordance with the terms of the licensing agreement when performance obligation can be determined reliably and there is reasonable assurance that the receivables from outstanding royalties will be collected.

Our ability to generate product revenues and become profitable depends upon our and our collaborators' ability to successfully develop and commercialize products. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce our operations.

Sales of products and services

Revenues on sales of products are recognized once the control over the delivered products is transferred to the customer. Sales include shipping and handling charges if billed to the customer and are reported net of trade promotion and other costs, including estimated allowances for returns, unsalable product and prompt pay discounts. Sales, use, value-added and other excise taxes are not recognized in revenue. Trade promotions are recorded based on estimated participation and performance levels for offered programs at the time of sale. We generally do not allow a right of return.

We also offer research services, which revenue is recognized over time, as the customer receives the benefits of the services.

Sales of Agriculture Product Sales

Historically, Calyxt sold soybean grain, oil, and meal. Calyxt recognized sales revenue at the point in time that title transferred to the customer, which was based on shipping terms. Sales included shipping and handling charges if billed to the customer and were reported net of trade promotion and other costs, including estimated allowances for returns, unsalable products, and prompt pay discounts. Sales, use, value-added, and other excise taxes were not recognized in revenue. Trade promotions were recorded based on estimated participation and performance levels for offered programs at the time of sale. Calyxt generally did not allow a right of return.

During 2021 and 2020, Calyxt sold soybean grain to a processor and subsequent to the sale they utilized Calyxt's rented third-party storage facility to hold the grain until such time they requested it be delivered. Calyxt was responsible for all handling charges and delivery activities. In those instances, Calyxt recognized revenue from the sale of grain to the processor upon the transfer of the control of the grain, which was determined to be at the time of the issuance of the purchase order and assignment of warehouse receipts to the customer. Calyxt determined that the reason for the arrangement was substantive, in that the customer had requested the arrangement, the product was separately identified as belonging to the customer, the product was

ready for physical transfer, and Calyxt did not have the ability to use the product or direct it to another customer. Calyxt concluded that any remaining performance obligations (e.g., for custodial services) were immaterial in relation to the contract. Calyxt concurrently accrued all estimated future storage, handling, and delivery costs associated with that sale. All arrangements of this nature were completed prior to December 31, 2021.

In certain transactions occurring in the third quarter of 2020, Calyxt sold grain to a processor with a commitment to provide consideration to the processor in exchange for the soybean meal resulting from the grain crushing activity. Calyxt determined the consideration payable to the processor was not in exchange for a distinct good or service, as the soybean meal was considered highly interrelated to the grain because they both possess Calyxt specific genetic traits, and the transactions were entered into in contemplation of one another, and therefore, were not considered to be distinct within the context of the contract. For these transactions, Calyxt recognized revenue from the sale of grain in the amount of the final net cash settlement with the processor, as the consideration payable to the processor was treated as a reduction of revenue.

Calyxt generated no revenues from the sale of agricultural products during the year ended December 31, 2022.

Changes Between Revenues and Costs

Calyxt was previously focused on the development of traits for traditional agriculture that it planned to commercialize using either a vertically integrated or licensing business model. Calyxt's first commercial product, a high oleic soybean, was launched in this manner in the first quarter of 2019. In August 2020, Calyxt announced it was winding down the vertically integrated soybean product line. The wind-down of this product line was completed in late 2021 with the final sales of soybean grain to a large soybean processor.

As Calyxt transitioned its business model, the composition of revenues and costs has evolved, with soybean-related revenues declining to zero, the negative gross profit margins experienced from sales of those products no longer occurring, and the significant working capital investment to support those activities also declining.

To the extent any revenue is generated under Calyxt's current business model, such revenue would derive from product development activities for customers for both the BioFactory and agricultural production and technology licensing arrangements. Any such cash and revenue-generating opportunities associated with these activities would be expected to primarily arise from up-front and milestone payments, annual license fees, and royalties. If and when the BioFactory begins to produce products for customers, it is anticipated that such revenues would grow and surpass revenues from other sources.

During the course of discussions with Cibus regarding, and following the execution of, the Merger Agreement, Calyxt has streamlined and focused its business activities on preserving cash sufficient to achieve a closing of the Transactions. Accordingly, Calyxt has taken additional steps to streamline its operations and to reduce its operating expenses, while focusing on a limited scope of core projects. While these projects are important for Calyxt's overall product development pipeline, none of these projects is expected to generate material revenue in the near term. While Calyxt continuously implemented cost reduction measures including not filling open positions throughout 2022, the principal impact of these actions affects results of operations beginning in early 2023 following the reduction in employees from 48 to 28, including attrition, in January 2023

Other Income

Research Tax Credit

The main research tax credit that we benefit from is the Crédit d'Impôt Recherche, or CIR, which is granted to companies by the French tax authorities in order to encourage them to conduct technical and scientific research. Companies demonstrating that they have research expenditures that meet the required CIR criteria receive a tax credit that may be used for the payment of their income tax due for the fiscal year in which the expenditures were incurred and during the next three fiscal years. Any unused portion of the credit is then refunded by the French treasury (except for specific cases like e.g. if the Company can be qualified as small and medium-sized enterprises (in France the "PME"). Indeed, if a company meets certain criteria in terms of sales, headcount or assets to be considered a small/middle size company, such company can request immediate refund of the remaining tax credit, without application of the three-year period. As from January 2022, Cellectis S.A. no longer meets such criteria.

The expenditures taken into account for the calculation of the CIR only involve research expenses.

The main characteristics of the CIR are the following:

- the CIR results in a cash inflow to us from the tax authorities;
- a company's corporate income tax liability does not limit the amount of the CIR; and
- the CIR is not included in the determination of the corporate income tax.

We have concluded that the CIR meets the definition of a government grant as defined in IAS 20, Accounting for Government Grants and Disclosure of Government Assistance, and that the classification as other income within operating loss in our statement of operations is appropriate.

Research tax credit receivables as of December 31, 2022 include the accrual for a French research tax credit related to 2022 for \$6.7 million and to previous periods for \$7.2 million. The remaining amount relates to refundable tax credits in the United States. During December 2018, the French Tax Authority initiated an audit related to the 2014, 2015, 2016 and 2017 French research tax credits. In January 2022, a legal court confirmed that Cellectis was entitled to receive the amounts related to 2017 and 2018 tax credits for \$0.8 million, which was collected in February 2022.

Operating Expenses

Our operating expenses consist primarily of cost of revenue, research and development expenses and selling, general and administrative expenses.

Cost of revenue

Cost of goods sold

Calyxt historically capitalized all grain and seed costs into inventory. Grain and risk management costs, net of the benefit from Calyxt's seed activity, were capitalized to inventory and relieved to cost of goods sold as the high oleic soybean oil and high oleic soybean meal is sold. Any valuation adjustments to inventory were recognized as incurred. Cost of goods sold also included crush and refining losses that are expensed as incurred since they do not add to the value of the finished products. Since 2022, Calyxt cost of good sold are included in income (loss) from discontinued operations.

Royalty expenses

We have entered into several license agreements to obtain access to technology that we use in our product development efforts. Royalty expenses consist of in-licensing costs, which reflect royalties we pay to use rights granted to us. Depending on the contractual provisions, royalty expenses are either proportional to revenues generated by using the patents or fixed annual royalties or conditioned by milestones.

Research and Development Expenses

We engage in substantial research and development efforts to develop innovative CAR T-cell immunotherapy and agricultural product candidates.

Research and development expenses consist primarily of:

- personnel costs, including salaries, related benefits and share-based compensation, for our employees engaged in scientific research and development functions;
- cost of third-party contractors such as contract research organizations, or CROs, and academic institutions involved in pre-clinical or clinical trials that we may conduct, or third-party contractors involved in field trials;
- purchases and manufacturing of biological materials, real-estate leasing costs as well as conferences and travel costs;

- costs to write and support the research for filing patents and;
- certain other expenses, such as expenses for use of laboratories and facilities for our research and development activities.

We classify personnel and other costs related to information technology, human resources, business development, legal, intellectual property and general management in research and development expense based on the time that employees spent contributing to research and development activities versus general and administrative activities.

Our research and development efforts are focused on our existing product candidates, (i) UCART123 product candidate, which first entered into clinical trials in the United States in February 2017, (ii) UCART22 product candidate, which entered into clinical trial in the United States in November 2019, (iii) UCARTCS1 product candidate, which entered into clinical trial in the United States in October 2019, (iv) UCART20x22 product candidate evaluated in NATHALI-01 clinical study, the IND of which has been granted by the FDA in August 2022 and (v) other product candidates which are in the pre-clinical development phases. We use our employee and infrastructure resources across multiple research and development programs directed toward developing our cell-based platform and for identifying and developing product candidates. We manage certain activities such as pre-clinical and clinical research and manufacture of product candidates through our partner institutions or other third-party vendors. Due to the number of ongoing projects and our ability to use resources across several projects, we do not record or maintain information regarding the costs incurred for our research and development programs on a program-specific basis.

Our research and development efforts are central to our business and account for a significant portion of our operating expenses. We expect that our research and development costs will increase in the foreseeable future as we continue to implement our new clinical trials, manufacture pre-commercial clinical trial and pre-clinical study materials, expand our research and development and process development efforts, seek regulatory approvals for our product candidates that successfully complete clinical trials, as well as access and develop additional technologies, and hire additional personnel to support our research and development efforts. This is because product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of development, primarily due to the increased size and duration of later-stage clinical trials.

We cannot determine with certainty the duration and completion costs of our future clinical trials of our therapeutic product candidates or if, when, or to what extent we will generate revenues from the commercialization and sale of any of such product candidates, or those of our collaborators, that might obtain regulatory approval. We may never succeed in achieving regulatory approval for any therapeutic product candidates. The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors, including:

- the scope, rate of progress and expense of our ongoing as well as any additional pre-clinical studies, clinical trials and other research and development activities;
- clinical trial and early-stage results;
- the terms and timing of regulatory approvals;
- the expense of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights;
- · the ability to market, commercialize and achieve market acceptance for any product candidate that we may develop in the future; and

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of employee-related expenses for executive, business development, intellectual property, finance, legal and human resources functions. Administrative expenses also include facility-related costs and service fees, other professional services and recruiting fees.

We classify personnel and other costs related to information technology, human resources, business development, legal, intellectual property and general management in research and development expense based on the time that employees spent contributing to research and development activities versus general and administrative activities.

We anticipate that our selling, general and administrative expenses will increase in the future as we increase our headcount to support the expected growth in our research and development activities and the potential commercialization of our product candidates. We also expect to continue to incur significant expenses associated with Cellectis S.A. being a public company in the United States, including costs related to audit, legal, regulatory and tax-related services associated with maintaining compliance with U.S. exchange listing and SEC requirements, director and officer insurance premiums, and investor relations costs.

Financial Gain (Loss)

Financial gain (loss) mainly consists of interest income related to our savings accounts and bank deposits, exchange gains and losses associated with transactions in foreign currencies and fair value of our financial assets, derivative instruments and interests associated with lease debts and financial liabilities. Significant transactions in foreign currencies are translated into euros at the exchange rates effective at the transaction dates, while the average rate for the previous month is used for non-significant transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated into euros using the exchange rate effective at that date. The resulting exchange gains or losses are recorded in the statements of consolidated operations as financial income or expense. Financial gain (loss) reflects the net impact of financial income and financial expenses.

Critical Accounting Policies and Estimates

Some of the accounting methods and policies used in preparing our financial statements under IFRS are based on complex and subjective assessments by our management or on estimates based on past experience and assumptions deemed realistic and reasonable based on the circumstances concerned. The actual value of our assets, liabilities and shareholders' equity and of our losses could differ from the value derived from these estimates if conditions changed and these changes had an impact on the assumptions adopted. We believe that the most significant management judgments and assumptions in the preparation of our financial statements are named below. For further details, see Notes to our consolidated financial statements.

• Revenue Recognition: Collaboration Agreements and Licenses, Sales of Products and Services (Note 3.1)

Revenue is recognized when the Company satisfies a performance obligation by transferring a distinct good or service (or a distinct bundle of goods and or/ services) to a customer, i.e. when the customer obtains control of these goods or services. The Company uses judgement to determine the performance obligations and when they are met.

• Research Tax Credit (Note 3.1)

The amount of the research tax credit for which we are eligible depends on internal and external research and development expenditures. The calculation of eligible expenditures requires management to make judgments and estimates as to whether expenditures qualify as eligible research and development expenditures according to the French tax code (*code général des impôts*) and the relevant official guidelines, as the amount of tax credit granted is based on our claimed amounts of eligible expenditures.

We do not expect the impact of a potential discrepancy between the management calculation and the actual amount collected to have a material impact on our Consolidated Financial Statements.

• Share-Based Compensation (Note 17)

We account for share-based compensation in accordance with IFRS 2 Share-based payment.

We use judgement to determine the fair value of share-based awards at the grant date. Fair value is estimated using the Black-Scholes valuation model for stock options valuation. The determination of the fair value using an option-pricing model is affected by assumptions and variables including the expected term, expected volatility, risk-free interest rates and expected dividends.

If any of the assumptions change significantly, share-based compensation for future awards may differ materially compared with the awards granted previously

We use judgement to determine the expected outcome and timing of realization of non-market performance obligations related to free shares awards

A potential discrepancy between the Company's estimate and the actual realization of the non-market performance conditions could have a material impact on our Consolidated Financial Statements.

• Provisions for risks and charges (Note 19)

A provision is recognized if, as a result of a past event, we have a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the reporting date.

A potential discrepancy between the management estimate and the actual settlement of a litigation or commitment could have a material impact on our Consolidated Financial Statements.

• Currrent financial assets (Note 12.1)

Financial assets are measured at fair value through profit or loss in accordance with IFRS 9. Considering the complexity of the valuation model for Level 3 instruments, we decided to engage an independent valuation expert to assist us on the valuation of such instruments based on the information shared by the management. The selected valuation models developed are based on Black-Scholes model for the equity payment of the instrument mixed with credit risk model for cash payment. Due to the nature of the instrument, the model is enriched to consider the economic and strategic vision of our management.

A. Operating Results

Preliminary Note Regarding Calyxt

The Plants segment is carried out through Calyxt, in which we hold 49.1% (as of December 31, 2022) of all of its outstanding common stock. On January 13, 2023, Calyxt, Calypso Merger Subsidiary, LLC, a wholly-owned subsidiary of Calyxt, Cibus and certain other parties named therein, entered into the Merger Agreement, pursuant to which, subject to the terms and conditions thereof, Calyxt and Cibus will merge in an all-stock transaction.

Accordingly, Calyxt meets the "held-for-sale" criteria specified in IFRS 5 and qualifies as a discontinued operation in accordance with IFRS 5 for all periods presented.

The closing of the Calyxt Merger is expected in the second quarter of 2023.

Operating Results

The following table sets forth our selected consolidated statement of income data:

	For the year ended December 31,			
	2020*	2021*	2022	
	(9	in thousands)		
Revenues and other income				
Revenues	51,057	30,347	19,171	
Other income	8,507	8,250	6,553	
Total revenues and other income	59,564	38,597	25,725	
Operating expenses				
Cost of revenue	(1,951)	(1,844)	(1,772)	
Research and development expenses	(77,048)	(117,840)	(97,501)	
Selling, general and administrative expenses	(22,513)	(22,882)	(17,494)	
Other operating income (expenses)	(363)	488	1,377	
Operating income (loss)	(42,311)	(103,481)	(89,666)	

Financial income	4,846	13,218	8,880
Financial expenses	(16,117)	(6,486)	(17,815)
Net Financial gain (loss)	(11,270)	6,731	(8,935)
Income tax			(87)
Income (loss) from continuing operations	(53,581)	(96,749)	(98,688)
Income (loss) from discontinued operations	(43,902)	(28,358)	(15,345)
Net income (loss)	(97,483)	(125,107)	(114,034)
Attributable to shareholders of Cellectis	(81,074)	(114,197)	(106,139)
Attributable to non-controlling interests	(16,409)	(10,910)	(7,894)

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

Revenues.

	For the year ended					
		December 31,			% change	
				2021	2022	
				vs	vs	
(\$ in thousands)	2020*	2021*	2022	2020	2021	
Collaboration agreements	48,823	29,971	18,230	-38.6%	-39.2%	
Other revenues	2,234	376	941	-83.2%	150.6%	
Revenues	51,057	30,347	19,171	-40.6%	-36.8%	

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The decrease in revenues of \$11.2 million or 36.8%, between the years ended December 31, 2021 and 2022 primarily reflects a decrease of revenue pursuant to our collaboration agreements. Recognition of revenues for the year ended December 31, 2022 mainly reflects (i) the recognition of a \$15.8 million milestone payment from Servier in connection with the first patient dosed in the Allogene ALPHA2 Study, (ii) the recognition of two milestone payments pursuant to Cellectis' agreement with Cytovia for an aggregate of \$1.5 million and (iii) the recognition of \$1.0 million related to the change of control of a licensee pursuant to the terms of a license agreement with Cellectis and the amendment to such license agreement (extension of its option term), compared to the amounts recognized in the year ended December 31, 2021 of \$20.0 million related to a trade receivable obtained as consideration for a license granted to Cytovia and \$10.0 million for Allogene milestones.

The decrease in revenues of \$20.7 million or 40.6%, between the years ended December 31, 2020 and 2021 primarily reflects a decrease of revenue pursuant to our collaboration agreements of \$18.9 million, mainly due to a \$27.6 million upfront payment received in March 2020 and the recognition of \$19.4 million of deferred upfront and milestone payments already received on released targets in each case in connection with the amendment signed in March 2020 to our collaboration agreement with Servier, while revenue related to collaboration agreements for 2021 consists of the recognition of \$20.0 million related to a trade receivable obtained as consideration for a license granted to Cytovia and \$10.0 million for Allogene milestones.

Other income

	For the ye	For the year ended December 31,			inge
(\$ in thousands)	2020*	2021*	2022	2021 vs 2020	2022 vs 2021
Research tax credit	8,433	8,239	6,546	-2.3%	-20.5%
Other income	74	11	7	n.a.	-37.6%
Other income	8,507	8,250	6,553	-3.0%	-20.6%

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The decrease of \$1.7 million in other income between the year ended December 31, 2021 and 2022 reflects a decrease of \$1.7 million in research tax credit, due to lower research and development purchases and external expenses that are eligible for the tax credit during the year ended December 31, 2022 compared to the same period in 2021.

The decrease in other income of \$0.3 million between years ended December 31, 2020 and 2021 reflects a decrease of \$0.2 million in research tax credits, due to lower research and development purchases and external expenses that are eligible for the tax credit during the year ended December 31, 2021 compared to the same period in 2020.

Cost of revenue

	For the year ended December 31,			% change	
(\$ in thousands)	2020*	2021*	2022	2021 vs 2020	2022 vs 2021
Cost of goods sold					
Royalty expenses	(1,951)	(1,844)	(1,772)	-5.5%	-3.9%
Cost of revenue	(1,951)	(1,844)	(1,772)	-5.5%	-3.9%

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The decrease in cost of revenues between years ended December 31, 2021 and 2022 is immaterial.

The decrease in cost of revenues between years ended December 31, 2020 and 2021 is immaterial.

Research and development expenses.

	For the year ended December 31,			% change	
(\$ in thousands)	2020*	2021*	2022	2021 vs 2020	2022 vs 2021
Personnel expenses	(33,001)	(49,210)	(42,610)	49.1%	-13.4%
Purchases, external expenses and other	(44,046)	(68,630)	(54,890)	55.8%	-20.0%
Research and development expenses	(77,047)	(117,840)	(97,501)	52.9%	-17.3%

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

Between the years ended December 31, 2021 and 2022, research and development expenses decreased by \$2.4 million. Personnel expenses decreased by \$6.6 million from \$49.2 million in 2021 to \$42.6 million in 2022 primarily due to a \$0.9 million decrease in social charges on stock option due to the stock price diminution in 2022 and departures, as well as a \$5.3 million decrease in non-cash stock-based compensation expense mainly related to 2022 departures. Purchases, external expenses and other decreased by \$13.7 million (from \$68.6 million in 2021 to \$54.9 million in 2022) mainly explained by less consumables purchases and subcontracting expenses due to continuing internalization of our manufacturing activities to support our R&D pipeline.

Between the years ended December 31, 2020 and 2021, research and development expenses increased by \$40.8 million. Personnel expenses increased by \$16.2 million from \$33.0 million in 2020 to \$49.2 million in 2021 primarily due to a \$12.8 million increase in wages and salaries, a \$0.8 million increase in social charges on stock option mainly granted in March 2021, as well as a \$2.6 million increase in non-cash stock-based compensation expense in relation with new grants at the end of 2020 and in 2021. Purchases, external expenses and other increased by \$24.6 million (from \$44.0 million in 2020 to \$68.6 million in 2021) mainly explained by higher consumables purchases and subcontracting expenses due to patient recruitment ramp-up and increase in manufacturing activities to support our R&D pipeline.

Selling, general and administrative expenses.

	For the year ended December 31,			% change	
(\$ in thousands)	2020*	2021*	2022	2021 vs 2020	2022 vs 2021
Personnel expenses	(11,106)	(9,740)	(7,674)	-12.3%	-21.2%
Purchases, external expenses and other	(11,407)	(13,142)	(9,820)	15.2%	-25.3%
Selling, general and administrative expenses	(22,513)	(22,882)	(17,494)	1.6%	-23.5%

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

Between the years ended December 31, 2021 and 2022, selling, general and administrative expenses decreased by \$5.4 million. Personnel expenses decreased by \$2.1 million from \$9.7 million in 2021 to \$7.7 million in 2022 primarily due to a \$1.6 million decrease in wages and salaries due to departures not replaced, and \$0.3 million decrease in social charges on stock option due to the stock price diminution in 2022 and departures, as well as a \$0.2 million decrease in non-cash stock-based compensation expense mainly related to 2022 departures. Purchases, external expenses and other decreased by \$3.3 million (from \$13.1 million in 2021 to \$9.8 million in 2022) mainly explained by less subcontracting expenses due to reprioritization of activities.

Between the years ended December 31, 2020 and 2021, the slight increase in selling, general and administrative expenses of \$0.4 million primarily reflects an increase of purchases, external expenses and other of \$1.7 million from \$11.4 million in 2020 to \$13.1 million in 2021 partially offset by \$1.1 million decrease in non-cash stock-based compensation expenses.

Other operating income and expenses.

		For the year ended December 31,			% change	
((\$ in thousands)	2020*	2021*	2022	2020 vs 2021	2021 vs 2022
	Other operating income (expenses)	(363)	488	1,377	-234.4%	181.9%

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The increase in other operating income between the years ended December 31, 2021 and 2022 amounted to \$0.9 million and is mainly related to the favorable outcome of a claim with the French social tax authorities regarding tax on stock options for \$1.0 million.

The increase in other operating income between the years ended December 31, 2020 and 2021 amounted to \$0.9 million and is mainly related to the reversal of provisions for bad debt. During the year ended December 31, 2021, other operating income and expenses primarily include a bad debt provision reversal for \$0.5 million.

Financial income.

	For the	For the year ended December 31,		% change	
(\$ in thousands)	2020*	2021*	2022	2020 vs 2021	2021 vs 2022
Financial income	4,846	13,218	8,880	172.7%	-32.8%

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The decrease in financial income of \$4.3 million between the years ended December 31, 2021 and 2022 was mainly attributable to a decrease of the foreign exchange gain for \$4.3 million (from a \$11.9 million gain in 2021 to a \$7.5 million gain in 2022).

The increase in financial income of \$8.4 million between the years ended December 31, 2020 and 2021 was mainly attributable to an increase of the foreign exchange gain of \$8.8 million (from a \$3.1 million gain in 2020 to a \$11.9 million gain in 2021) and to the increase in other financial revenues for \$0.3 million, partially offset by the decrease of interest received from financial investment of \$0.7 million.

Financial expenses.

	For the year ended December 31,			% change		
(\$ in thousands)	2020*	2021*	2022	2020 vs 2021	2021 vs 2022	
Financial expenses	(16,117)	(6,486)	(17,815)	-59.8%	174.7%	

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The increase in financial expenses of \$11.3 million between the years ended December 31, 2021 and 2022 was mainly attributable to Cytovia's convertible note financial change in fair value for \$12.1 million partially offset by a \$0.6 million decrease in foreign exchange loss (from a \$2.1 million loss in 2021 to a \$1.5 million loss in 2022) and a decrease of \$0.4 million in leases interest expenses.

The decrease in financial expenses of \$9.6 million between the years ended December 31, 2020 and 2021 was mainly attributable to the \$11.6 million decrease in foreign exchange loss (from a \$13.7 million loss in 2020 to a \$2.1 million loss in 2021), partially offset by the increase in financial expenses related to lease debt for \$1.5 million, an increase interest expenses for \$0.3 million and other immaterial variances for \$0.2 million.

Income (loss) from discontinued operations

					<u>% change</u>	<u>% change</u>
(\$ in thousands)		2020	2021	2022	2021 vs 2020	2022 vs 2021
Income (loss) from discor	ntinued operations	(43,902)	(28,358)	(15,345)	-35.4%	-45.9%

The \$13.0 million decrease of net income loss from discontinued operations between the years ended December 31, 2021 and 2022 is primarily driven by (i) the decrease of \$29.5 million of cost of revenue, (ii) the decrease of \$4.4 million of R&D expenses (from \$11.2 million in 2021 to \$11.4 in 2022) and SG&A expenses (from \$15 million in 2021 to \$10.4 million in 2022) and (iii) the increase of \$7.9 million of net financial gain partially offset by the \$28.3 million decrease of revenue and other income.

Income tax.

	For the year ended December 31, % change			iange	
(\$ in thousands)	2020*	2021*	2022	2021 vs 2020	2022 vs 2021
Income tax	0	0	(87)		_

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The income tax expense of the year ended December 31, 2022 amounting to \$0.1 million corresponds to the cumulated income tax expense of Cellectis Inc. and Cellectis Biologics Inc., both entities filing a consolidated tax return.

Net Income / loss.

	For the y	For the year ended December 31,			% change	
(\$ in thousands)	2020	2021	2022	2020 vs 2021	2021 vs 2022	
Net income (loss)	(97,483)	(125,107)	(114,034)	28.3%	-8.9%	

Net income includes net income from discontinued operations.

The decrease in net loss of \$11.1 million between the years ended December 31, 2021 and 2022 was mainly due to (i) a decrease of \$17.0 million in purchases, external expenses and other, (ii) a decrease of \$2.0 million in wages (iii) a \$5.5 million decrease in non-cash stock-based compensation expense, (iv) a \$1.2 million decrease in social charges on stock option grants expenses, (v) a \$13.0 million decrease in net loss of discontinued operations, partially offset by (i) a \$12.9 million decrease in revenues and other income and (ii) an increase of net financial loss of \$15.7 million.

The increase in net loss of \$27.6 million between the years ended December 31, 2020 and 2021 was mainly due to (i) a \$21 million decrease in revenues and other income, (ii) an increase of \$12.2 million in wages (iii) an increase of \$26.3 million in purchases, external expenses and other, (iv) a \$1.1 million increase in social charges on stock option grants expenses and (v) a \$1.5 million increase in non-cash stock-based compensation expense, partially offset by (i) a \$18 million increase in net financial gain, (ii) an increase of \$0.9 million of other operating income and (iii) a \$15.5 million decrease in net loss of discontinued operations.

Gain/Loss attributable to non-controlling interests.

	For the year ended December 31,			% change	% change
(\$ in thousands)	2020	2021	2022	2020 vs 2021	2021 vs 2022
Gain (loss) attributable to non-controlling interests	(16,409)	(10,910)	(7,894)	-33.5%	-27.6%

During the year ended December 31, 2022, we recorded \$7.9 million in loss attributable to non-controlling interests. The decrease in net loss attributable to non-controlling interests of \$3 million is a result of a decrease in Calyxt's net loss partially offset by the diminution of Cellectis's ownership interest in Calyxt.

During the year ended December 31, 2021, we recorded \$10.9 million in loss attributable to non-controlling interests. The decrease in net loss attributable to non-controlling interests of \$5.5 million is a result of a decrease in Calyxt's net loss.

Segment Results

Information related to each of our reportable segments is set out below. Segment revenues and other income, research and development expenses, selling, general and administrative expenses, and royalties and other operating income and expenses, and adjusted net income (loss) attributable to shareholders of Cellectis (which does not include non-cash stock-based expense) are used by the CODM to measure performance of each segment. The CODM does not review any asset or liability information by segment or by region.

In light of the proposed Calyxt Merger contemplated by the Merger Agreement, Calyxt meets the "held-for-sale" criteria specified in IFRS 5 and qualifies as a discontinued operation in accordance with IFRS 5.

Adjusted Net Income (Loss) attributable to shareholders of Cellectis is not a measure calculated in accordance with IFRS. Because Adjusted Net Income (Loss) attributable to shareholders of Cellectis excludes Non-cash stock-based compensation expense—a non-cash expense, we believe that this financial measure, when considered together with our IFRS financial statements, can enhance an overall understanding of Cellectis' financial performance. Moreover, our management views the Company's operations, and manages its business, based, in part, on this financial measure.

There have been inter-segment transactions between the two reportable segments, including the allocation of corporate general and administrative expenses by Cellectis S.A. and the allocation of research and development expenses among the reportable segments. With respect to corporate general and administrative expenses, Cellectis S.A. has provided Calyxt with general sales and administrative functions, accounting and finance functions, investor relations, intellectual property, legal services, human resources and communication and information technology pursuant to a Management Services Agreement. Under the Management Services Agreement, Cellectis S.A. charges Calyxt in euros at cost plus a mark-up ranging between zero to 10%, depending on the nature of the service. Amounts due to Cellectis S.A. pursuant to inter-segment transactions bear interest at a rate of 12-month Euribor plus 5% per annum. Effective with the end of the third quarter of 2019, Calyxt has internalized nearly all of the services Cellectis provided and there were no expenses incurred by Calyxt under the Management Services Agreement in 2022.

The intersegment revenues represent the transactions between segments. Intra-segment transactions are eliminated within a segment's results and intersegment transactions are eliminated in consolidation as well as in key performance indicators by reportable segment.

The following table summarizes segment revenues and segment operating profit (loss) for the years ended December 31, 2020, 2021 and 2022:

Years Ended December 31, 2020, 2021 and 2022

		r the year ended cember 31, 2020		For the year ended December 31, 2021			For the year ended December 31, 2022		
(\$ in thousands)	Plants (discontinued operations)	Therapeutics	Total reportable segments	Plants (discontinued operations)	Therapeutics	Total reportable segments	Plants (discontinued operations)	Therapeutics	Total reportable segments
External revenues	22,892	51,057	73,949	26,946	30,347	57,293	157	19,171	19,328
External other income	_	8,507	8,507	1,528	8,250	9,778	_	6,553	6,553
External revenues and other									
income	22,892	59,564	82,456	28,475	38,597	67,071	157	25,725	25,881
Cost of revenue	(34,324)	(1,951)	(36,275)	(29,517)	(1,844)	(31,360)		(1,772)	(1,772)
Research and development									
expenses	(9,903)	(77,048)	(86,951)	(11,190)	(117,840)	(129,030)	(11,402)	(97,501)	(108,903)
Selling, general and									
administrative expenses	(21,688)	(22,513)	(44,201)	(14,987)	(22,882)	(37,869)	(10,354)	(17,494)	(27,849)
Other operating income and									
expenses	(103)	(363)	(466)	23	488	511	414	1,377	1,791
Total operating expenses	(66,018)	(101,875)	(167,893)	(55,671)	(142,077)	(197,748)	(21,343)	(115,390)	(136,733)
Operating income (loss)									
before tax	(43,126)	(42,311)	(85,437)	(27,196)	(103,481)	(130,677)	(21,186)	(89,666)	(110,852)
Net financial gain (loss)	(776)	(11,270)	(12,046)	(1,162)	6,731	5,570	5,840	(8,935)	(3,095)
Income Tax								(87)	(87)
Net income (loss) from									
discontinued operations	(43,902)		(43,902)	(28,358)		(28,358)	(15,345)		(15,345)
Net income (loss)	(43,902)	(53,581)	(97,483)	(28,358)	(96,749)	(125,107)	(15,345)	(98,689)	(114,034)
Non-controlling interests	16,409		16,409	10,910		10,910	7,894		7,894
Net income (loss) attributable to									
shareholders of Cellectis	(27,493)	(53,581)	(81,074)	(17,448)	(96,749)	(114,197)	(7,451)	(98,689)	(106,139)
R&D non-cash stock-based		(,,	(- /- /		(, -)				(22, 22,
expense attributable to									
shareholder of Cellectis	801	6,790	7,591	909	9,381	10,290	465	4,098	4,563
SG&A non-cash stock-based									
expense attributable to									
shareholder of Cellectis	3,536	3,238	6,774	95	2,113	2,207	1,562	1,945	3,508
Adjustment of share-based									
compensation attributable									
to shareholders of Cellectis	4,337	10,028	14,365	1,004	11,493	12,497	2,027	6,043	8,071
Adjusted net income (loss)									
attributable to									
shareholders of Cellectis	(23,156)	(43,553)	(66,709)	(16,444)	(85,256)	(101,700)	(5,424)	(92,645)	(98,068)
Depreciation and amortization									
tangible and intangible									
assets	(1,869)	(7,950)	(9,819)	(1,208)	(6,371)	(7,579)	(1,086)	(10,577)	(11,663)
Additions to tangible and									
intangible assets	1,786	48,813	50,599	1,187	15,451	16,638	873	1,980	2,853

The total reportable segments include discontinued operations which is not presented in the Statement of income in accordance with IFRS 5 presentation.

Therapeutics segment—2021 vs. 2022

External revenues and other income in our Therapeutics segment decreased by \$12.9 million, from \$38.6 million for the year ended December 31, 2021, to \$25.7 million for the year ended December 31, 2022. The decrease was primarily due to a decrease in collaboration agreement revenues as described in sections "Revenues" and "Other income" under "Results of Operations" for the consolidated Group.

The decrease in total operating expenses of \$26.6 million from the year ended December 31, 2021 to the year ended December 31, 2022 resulted primarily from (i) lower purchases, external expenses and other of \$17.0 million and (ii) lower personnel expenses of \$8.7 million mainly attributable to a decrease of \$2.0 million in personnel wages and salaries, a decrease of \$1.2 million in social charges on stock option grants, and a decrease of \$5.5 million in non-cash stock-based compensation expenses and (iii) an increase of \$0.9 million in other operating income

Operating loss before tax for our Therapeutics segment decreased by \$13.7 million from year ended December 31, 2021 to the year ended December 31, 2022.

Adjusted net loss attributable to shareholders of Cellectis for our Therapeutics segment increased by \$7.4 million from year ended December 31, 2021 to year ended December 31, 2022.

Plants segment-2021 vs. 2022

External revenues and other income in our Plants segment decreased by \$28.3 million from \$28.5 million for the year ended December 31, 2021, to \$0.2 million for the year ended December 31, 2022, driven by Calyxt's change of business model to focus on engineering synthetic biology solutions through its PlantSpring Technology and BioFactory, which was announced in October 2021, compared to the sales in the prior year of soybean products at Calyxt pursuant to the Company's previous business model.

The decrease in total operating expenses of \$34.3 million from the year ended December 31, 2021 to the year ended December 31, 2022 resulted primarily from a decrease in Calyxt's activities, which contributed to (i) a decrease in cost of revenue of \$29.5 million and (ii) a decrease of \$2.4 million in purchases, external expenses and other (iii) a decrease of \$4.6 million in personnel wages and salaries mainly related to departures partially offset by (i) an increase of \$2.5 million in non-cash stock-based compensation expenses mainly explained by the favorable impact in 2021 of the recapture of Calyxt's CEO non-cash stock-based from the forfeiture of certain of his unvested stock options, restricted stock units, and performance stock units following his departure and other reductions in personnel costs and professional fees,

Operating loss before tax for our Plants segment decreased by \$6.0 million from the year ended December 31, 2021 to the year ended December 31, 2022.

Adjusted net loss attributable to shareholders of Cellectis for our Plants segment decreased by \$11.0 million from the year ended December 31, 2021 to the year ended December 31, 2022.

Therapeutics segment—2020 vs. 2021

External revenues and other income in our Therapeutics segment decreased by \$21.0 million, from \$59.6 million for the year ended December 31, 2020, to \$38.6 million for the year ended December 31, 2021. The decrease was primarily due to a decrease in collaboration agreement revenues as described in sections "Revenues" and "Other income" under "Results of Operations" for the consolidated Group.

The increase in total operating expenses of \$40.2 million from the year ended December 31, 2020 to the year ended December 31, 2021 resulted primarily from (i) higher purchases, external expenses and other of \$26.3 million and (ii) higher personnel expenses of \$14.8 million mainly attributable to an increase of \$12.2 million in personnel wages and salaries, an increase of \$1.1 million in social charges on stock option grants, and an increase of \$1.5 million in non-cash stock-based compensation expenses partially offset by (i) a decrease of \$0.9 million in other operating income and expenses

Operating loss before tax for our Therapeutics segment increased by \$61.2 million from year ended December 31, 2020 to the year ended December 31, 2021.

Adjusted net loss attributable to shareholders of Cellectis for our Therapeutics segment increased by \$41.7 million from year ended December 31, 2020 to year ended December 31, 2021.

Plants segment-2020 vs. 2021

External revenues and other income in our Plants segment increased by \$5.6 million from \$22.9 million for the year ended December 31, 2020, to \$28.5 million for the year ended December 31, 2021, driven by sales of a portion of the 2020 grain crop as compared to 2020, when the Company was primarily selling soybean oil and meal. As of December 31, 2021, the Company had sold all of the 2020 grain crop.

The decrease in total operating expenses of \$10.3 million from the year ended December 31, 2020 to the year ended December 31, 2021 resulted primarily from a decrease in Calyxt's activities, which contributed to (i) a decrease in cost of revenue of \$4.8 million and (ii) a decrease of \$5.1 million in non-cash stock-based compensation expenses mainly explained by the favorable impact of the recapture of Calyxt's CEO non-cash stock-based from the forfeiture of certain of his unvested stock options, restricted stock units, and performance stock units following his departure and other reductions in personnel costs and professional fees, (iii) a decrease of \$1.0 million in purchases, external expenses and other partially offset by (i) an increase of \$0.6 million in personnel wages and salaries mainly related to Calyxt's former CEO's departure costs.

Operating loss before tax for our Plants segment decreased by \$15.9 million from the year ended December 31, 2020 to the year ended December 31, 2021.

Adjusted net loss attributable to shareholders of Cellectis for our Plants segment decreased by \$6.7 million from the year ended December 31, 2020 to the year ended December 31, 2021.

B. Liquidity and Capital Resources

Introduction

We have incurred losses and cumulative negative cash flows from operations since our inception in 2000, and we anticipate that we will continue to incur losses for at least the next several years. We expect that our research and development and selling, general and administrative expenses will continue to increase and, as a result, we will need additional capital to fund our operations, which we may raise through a combination of equity offerings, debt financings, other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements.

We have funded our operations since inception primarily through private and public offerings of our equity securities, grant revenues, payments received under patent licenses, reimbursements of research tax credit claims and payments under our strategic licensing agreements with Allogene and Servier.

Our ordinary shares have been traded on the Euronext Growth market of Euronext in Paris since February 7, 2007 and our ADSs have traded on the Nasdaq Global Market in New York since March 30, 2015.

Liquidity management

As of December 31, 2022, excluding Calyxt, we had current financial assets and cash and cash equivalents of \$97.7 million comprising cash and cash equivalents of \$89.8 million and the Cytovia convertible note measured at its fair value of \$7.9 million. Long term restricted cash amounts to \$4.7 million and is classified in Other non-current financial assets.

Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation. Currently, our cash and cash equivalents are held in bank accounts, money market funds, and fixed bank deposits, in each case primarily in France. The portion of cash and cash equivalents denominated in U.S. dollars is \$54.7 million as of December 31, 2022. Current financial assets denominated in U.S. Dollars amounted to \$7.9 million as of December 31, 2022.

For Calyxt which is presented as an asset held for sale, as of December 31, 2022, we had current financial assets and cash and cash equivalents of \$3.5 million comprising (i) cash and cash equivalents of \$3.4 million and (ii) current financial assets of \$0.1 million, which corresponds to current restricted cash.

Historical Changes in Cash Flows

The table below summarizes our sources and uses of cash for the years ended December 31, 2020, 2021 and 2022.

Cash flows from Calyxt, which is classified as discontinued operations in the financial statements as of December 31, 2022, are included in the figures presented below.

	For the year	For the year ended December 31,		
	2020	2021	2022	
	(\$	in thousands)		
Net cash flows provided by (used in) operating activities	(80,262)	(104,562)	(87,444)	
Net cash flows provided by (used in) investing activities	(54,342)	7,279	(2,761)	
Net cash flows provided by (used in) financing activities	27,322	47,525	1,145	
Total	(107,282)	(49,758)	(89,060)	
Effect of exchange rate changes on cash	7,908	(5,754)	(3,360)	

Year Ended December 31, 2022

Our net cash provided by operating activities is primarily attributable to net income for the period after adjusting for non-cash items of \$63.1 million for the Therapeutics segment and \$14.9 million for the Plants segment, an increase in tax credit receivable of \$5.8 million, an increase in trade receivables of \$3.2 million for the Therapeutics segment, a decrease in trade payables and other current liabilities of \$4.3 for the Plants segment, partially offset by an increase in trade payables and other current liabilities of \$3.2 million for the Therapeutics segment.

Our net cash flows used in investing activities primarily reflects our investments in R&D equipment and building fittings in both the United States and France of \$2.4 million, and the remainder attributable to investing activity in the Plants segment for \$0.9 million, partially offset by a \$0.2 million decrease in deposits for the Therapeutics segment and a \$0.4 million decrease in other current financial assets for the Plants segment.

Our net cash provided by financing activities reflects mainly the net proceeds of \$10.5 million from Calyxt's follow-on offering and proceeds under Calyxt's ATM equity program, after \$0.8 million transaction costs and the payment of \$5.8 million received in respect of the 2021 research tax credit pre-financing, partially offset by the payments of lease debts for \$12.8 million and of the "PGE" loan for \$1.3 million, \$0.6 million of transaction costs related to the Cellectis ATM program and the follow-on offering of Cellectis, each launched in 2023, as well as \$0.4 million of interest paid on the "PGE" loan along with interests and capital paid on a loan with our landlord in New-York.

Year Ended December 31, 2021

The net cash flows used in operating activities are mainly due to Cellectis cash payments of \$65.6 million to suppliers, wages and social expenses of \$49.9 million, Calyxt operating payments net of receipts of \$16.6 million, partially offset by \$8.9 million of tax credit, the collection of two Allogene milestone payments for \$10.0 million, \$2.0 million of licensing revenue at Cellectis, and \$5.7 million of taxes and others.

The net cash flows used in investing activities primarily reflects our investments in R&D equipment and building fittings in both the United States and France of \$19.7 million, including \$5.8 million that relates to Cellectis' new raw material manufacturing facility and offices in Paris, \$12.6 million relates to the new commercial manufacturing facility in Raleigh, North Carolina, \$0.2 million relates to our innovation center in New York, and the remainder attributable to investing activity in the Plants segment, offset by \$27.0 million of current and non-current financial assets variation.

The net cash provided by financing activities reflects mainly the net proceeds of \$44.6 million from sales under the Cellectis ATM-program in April 2021, the net proceeds of \$3.9 million from sales under the Calyxt ATM-program over the past quarter, the collection of \$11.8 million of proceeds from stock option exercises and is partially offset by the payments of lease debts for \$12.5 million as well as \$0.3 million of interest paid on the "PGE" loan along with interests paid on a loan with our landlord in New-York.

Year Ended December 31, 2020

The net cash flows used in operating activities are mainly due to Cellectis cash payments of \$44.3 million to suppliers, wages and social expenses of \$33.4 million and Calyxt operating activities of \$43.7 million, offset by \$28.5 million of payments received from Servier pursuant to the Servier License Agreements, \$4.7 million from our licensing and other collaboration agreements, \$7.9 million of R&D credit received and \$0.5 million of other income.

The net cash flows used in investing activities primarily reflects (i) our investments in R&D equipment and building fittings in both the United States and France of \$46.2 million, including \$6.9 million that relates to Cellectis' new raw material manufacturing facility in Paris, \$36.4 million relates to the new commercial manufacturing facility in Raleigh, North Carolina and the remainder attributable to investing activity in the Plants segment, (ii) \$6.7 million of new current financial assets and (iii) \$1.4 million of new non-current financial assets.

The net cash provided by financing activities reflects mainly the collection of \$21.2 million related to a state-guaranteed loan at Cellectis and the collection of \$1.5 million related to a Paycheck Protection Program loan at Calyxt over the period, as well as a \$9.2 million net proceeds from Calyxt's capital increase (excluding proceeds attributable to Cellectis' purchase in the offering), the collection of a \$1.5 million loan to finance leasehold improvements at our location in New-York and \$0.6 million from the proceeds of stock-option exercises, and is partially offset by the payments on lease debts for \$6.7 million (after consideration of a \$3.3 million tenant improvement allowance at our location in Raleigh).

Operating capital requirements—Cellectis S.A.

Our cash consumption is driven by our internal operational activities, including manufacturing activity conducted at our in-house manufacturing facilities, as well as our outsourced activities, including the pre-clinical research and development activities, manufacturing and technology transfer expenses payable to CMO providers, costs and expenses associated with our clinical trials, including payments to clinical research centers, CROs involved in the clinical trials, and third-parties providing logistics and testing services. In addition, we incur significant annual payment and royalty expenses related to our in-licensing agreements with different parties including LifeTechnologies and University of Minnesota. We also incur substantial expenses related to audit, legal, regulatory and tax related services associated with our public company obligations in the United States and our continued compliance with applicable U.S. exchange listing and SEC requirements.

To date, we have not generated any revenues from therapeutic product sales. In addition to our cash generated by operations (including payments under our collaboration agreements), we have funded our operations primarily through private and public offerings of our equity securities, grant revenues, payments received under intellectual property licenses, and reimbursements of research tax credits.

We do not know when, or if, we will generate any revenues from therapeutic product sales. We do not expect to generate significant revenues from product sales unless and until we obtain regulatory approval of and commercialize one of our current or future therapeutic product candidates.

We are subject to all risks incident in the development of new gene therapy products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business.

We anticipate that we will need additional funding in connection with our continuing operations, including for the further development of our existing product candidates and to pursue other development activities related to additional product candidates.

Based on the current operating plan, Cellectis (excluding Calyxt) anticipates that the cash, cash equivalents, and restricted cash of \$94.5 million as of December 31, 2022 will fund its Therapeutic segment operations into the third quarter of 2024.

Our assessment of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors. This estimate takes into account our projected cash flow from operations (including payments we expect to receive pursuant to our strategic licensing agreements), anticipated government funding of research programs, and our borrowing of €35.0 million under Tranche A and B of the Finance Contract. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Our future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the initiation, progress, timing, costs and results of pre-clinical and clinic studies for our product candidates;
- the capacity of manufacturing our products in France and in the United States;
- the outcome, timing and cost of regulatory approvals by U.S. and non-U.S. regulatory authorities, including the possibility that regulatory authorities will require that we perform more studies than those that we currently expect;
- the ability of our product candidates to progress through clinical development successfully;
- the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- our need to expand our research and development activities;
- our need and ability to hire additional personnel;
- · our need to implement additional infrastructure and internal systems, including manufacturing processes for our product candidates;
- the effect of competing technological and market developments; and
- · the cost of establishing sales, marketing and distribution capabilities for any products for which we may receive regulatory approval.

If we cannot expand our operations or otherwise capitalize on our business opportunities because we lack sufficient capital, our business, financial condition and results of operations could be materially adversely affected.

Sources of capital —Cellectis S.A.

Until we can generate a sufficient amount of revenues from our products, if ever, we expect to finance a portion of future cash needs through public or private equity or debt offerings. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. If we raise additional funds through the issuance of additional debt or equity securities, it could result in dilution to our existing shareholders, increased fixed payment obligations and these securities may have rights senior to those of our ordinary shares. If we incur indebtedness, we could become subject to covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

EIB Finance Contract

On December 28, 2022, we entered into a Finance Contract with the EIB for up to €40.0 million in loans to support our research and development activities to advance its pipeline of gene-edited allogeneic cell therapy candidate products for oncology indications (the "R&D Activities"). The Finance Contract provides for funding in three tranches as follows: (i) an initial tranche of €20.0 million ("Tranche A"); (ii) a second tranche of €15.0 million ("Tranche B"); and (iii) a third tranche of €5.0 million ("Tranche C," and each of Tranche A, Tranche B, and Tranche C, a "Tranche"), each issuable only in full. Each of our material subsidiaries guarantees our obligations under the Finance Contract. References to our subsidiaries exclude Calyxt, Inc.

The disbursement of each Tranche is conditioned upon certain documentary conditions, including the execution of a warrant agreement with respect to the EIB Warrants (as defined below). Each Tranche is subject to additional specific conditions precedent. The disbursement of Tranche A is subject to, among other conditions, the issuance of the Tranche A Warrants (as defined below), the satisfaction of an arrangement fee obligation, and the satisfaction by a licensee of ours of a specified clinical milestone. The disbursement of Tranche B is subject to, among other conditions, the full drawdown of Tranche A, the issuance of the Tranche B Warrants (as defined below), the satisfaction of an arrangement fee obligation, the receipt by us of a cash injection subsequent to October 31, 2022 of an aggregate amount of at least €20.0 million through the issuance of new ordinary shares or other securities subordinated to the loans from the EIB under the Finance Contract, the receipt by us of an aggregate amount of at least €15.0 million subsequent to October 31, 2022 through upfront and milestone payments in connection with existing or new partnerships, at least two of our clinical trials actively recruiting, and no more than one of our clinical trials being subject to ongoing mandatory holds. The disbursement of Tranche C is subject to, among other conditions, the full drawdown of Tranche B, the issuance of the Tranche C Warrants (as defined below), the satisfaction of an arrangement fee obligation, the receipt by us of a cash injection subsequent to October 31, 2022 of an aggregate amount of at least €25.0 million through the issuance of new ordinary shares or other securities subordinated to the loans from the EIB under the Finance Contract, the receipt by us of an aggregate amount of at least €25.0 million subsequent to October 31, 2022 through upfront and milestone payments in connection with existing or new partnerships, at least two of our clinical trials actively recruiting (with either one in the context of a pivotal study or two in the context of an expansion phase study), and two or more of our clinical trials not being subject to ongoing mandatory holds. Any funds not disbursed within 36 months following the execution of the Finance Contract will be cancelled.

Borrowings under the Finance Contract will mature with respect to each Tranche six years from the respective disbursement date for such Tranche. Interest on each Tranche shall be paid in kind, shall be capitalized annually by increasing the principal amount of the respective Tranche, and shall accrue at a rate equal to (i) 8.0% per annum with respect to Tranche A, (ii) 7.0% per annum with respect to Tranche B, and (iii) 6.0% per annum with respect to Tranche C. Interest on any overdue amounts related to a Tranche shall be payable in cash and shall accrue from the due date through the actual payment of such overdue amount at an annual rate equal to the higher of the rate applicable to a relevant Tranche as noted above plus 2.0% and the one-month EURIBOR rate plus 2.0%.

In connection with the Finance Contract, we also agreed to enter into a warrant agreement with EIB with respect to the issuance of warrants to EIB in connection with, and as a condition to, the funding of each of Tranche (the "Tranche A Warrants," Tranche B Warrants" and "Tranche C Warrants," respectively to each Tranche, and collectively, the "EIB Warrants"). The Finance Contract includes certain preliminary and non-exhaustive terms of the EIB Warrants. The final EIB Warrant terms and conditions will be set forth in a definitive Warrant Agreement to be negotiated with EIB, and the preliminary terms and conditions described in this report are subject in all respects to such final terms and conditions as shall be negotiated in respect of the definitive Warrant Agreement. The number of warrants to be issued to EIB will be determined as follows: (i) with respect to Tranche A, an aggregate number of warrants equal to 20,000,000 divided by the product of the average price of the ordinary shares for the five trading days prior to issuance (the "5-Day AP") multiplied by 3.5, up to a maximum number of warrants representing 5% of the outstanding ordinary shares at the time of disbursement of Tranche A; (ii) with respect to Tranche B, (a) if the sum of cash injections through the issuance of new ordinary shares or other securities subordinated to the Finance Contract and upfront and milestone payments in connection with existing or new partnerships between October 31, 2022 and the Tranche B disbursement exceeds €42,500,000, an aggregate number of warrants equal to 15,000,000 divided by the product of the 5-Day

AP multiplied by four and (b) otherwise, an aggregate number of warrants equal to 15,000,000 divided by the product of the 5-Day AP multiplied by 3.75; and (iii) with respect to Tranche C, (a) if the sum of cash injections through the issuance of new ordinary shares or other securities subordinated to the Finance Contract and upfront and milestone payments in connection with existing or new partnerships between October 31, 2022 and the Tranche C disbursement exceeds €70,000,000, an aggregate number of warrants equal to 5,000,000 divided by product of the 5-Day AP multiplied by 4.75; and (b) otherwise, an aggregate number of warrants equal to 5,000,000 divided by the product of the 5-Day AP multiplied by 4.25. The EIB Warrants will have an exercise price per share equal to 99% of the weighted average price per share of Cellectis over the last 5 trading days prior to the issuance of the EIB Warrants. The warrant agreement shall include anti-dilution protections, which shall not apply in specified circumstances. The EIB Warrants will also include a put option, which shall be subject to a cap at one time the aggregate principal amount disbursed by the EIB pursuant to the Finance Contract at the time of exercise of the put option.

EIB may cancel any undisbursed amount under the Finance Contract upon the occurrence of, or any event or circumstance that would, with notice or the passage of time constitute, any event of default or mandatory prepayment event. In the event of such a cancellation by EIB prior to the expiration of a period of three years after disbursement of a relevant Tranche, we shall be required to pay a cancellation fee representing a low-single digit percentage of the cancelled amount.

Mandatory prepayment events include: (i) any reduction in the total cost of our R&D Activities such that the €40.0 million amount of the Finance Contract, together with certain other funds from the European Union, exceeds specified percentages of the aggregate cost of our R&D Activities, in which case the prepayment amount shall be the amount by which such limits are exceeded, together with accrued interest and all other accrued and outstanding amounts, (ii) any voluntary prepayment, in whole or in part, by us or its subsidiaries has occurred or is likely to occur of any indebtedness or other repayment obligation granted by a party other than EIB, in which case the prepayment amount shall be proportionate to the prepaid amount of such non-EIB indebtedness, together with accrued interest, (iii) any change of control of us or any change in law or regulation that would materially impair our or the guarantors' ability to perform under the Finance Contract, in which case the prepayment amount shall be the full outstanding amount, together with accrued interest and all other accrued and outstanding amounts, and (iv) any event that renders performance under the Finance Contract unlawful, in which case the prepayment amount shall be the full outstanding amount, together with accrued interest and all other accrued and outstanding amounts, and the remaining undisbursed portion shall be cancelled. In addition, any Tranche may be voluntarily prepaid by us, in whole or in part, upon 30 days' notice. Except in connection with a prepayment pursuant to clause (iii) or (iv), all prepayments prior to the expiration of a period of three years after disbursement of a relevant Tranche are subject to a prepayment fee representing a low single-digit percentage of the prepayment amount, which steps down at each anniversary of the applicable disbursement date.

The Finance Contract also includes customary events of default, including: payment defaults; defaults arising from the provision of incorrect, incomplete or misleading representations to the EIB; cross defaults resulting in acceleration or cancellation of any other loan or obligation; cross defaults with respect to any other obligation granted by EIB or the European Union; the occurrence of any material adverse change; any EIB Warrants ceasing to be in full force and effect (other than as a result of exercise), and certain bankruptcy and insolvency events of default. Upon the occurrence of an event of default, EIB may demand immediate repayment by us of all or part of the outstanding funds, together with accrued interest, and all other accrued or outstanding amounts under the Finance Contract.

In connection with the Finance Contract, we agreed to certain customary affirmative and negative undertakings. The negative undertakings include: restrictions on dispositions of assets by us and our subsidiaries, restrictions on changes to the general nature of our business, restrictions on us and our subsidiaries engaging in mergers and other restructuring transactions, restrictions on certain ownership changes with respect to subsidiaries, restrictions on us and our subsidiaries engaging in acquisitions or making investments, restrictions on us and our subsidiaries incurring additional indebtedness or guarantees, restrictions on the making of intercompany loans, restrictions on us and our subsidiaries engaging in certain hedging or derivative transactions, restrictions on us and our subsidiaries making specified restricted payments including dividends and share repurchases, restrictions on us and our subsidiaries becoming creditors in respect of certain indebtedness, and restrictions on the incurrence of security over any of our or our subsidiaries' assets. In addition, we granted EIB most favored nation rights with respect to any obligation, clause or undertaking, whether positive or negative (including, without limitation, events of default, mandatory prepayment events, a loss-of-rating clause or financial covenants) included in any other financing agreement (excluding underwriting agreements in connection with securities offerings). We also granted certain information and inspection rights to the EIB in connection with the Finance Contract. The Finance Contract contains certain customary representations and warranties by us and is governed by French law.

As of December 31, 2022, the EIB Finance Contract was undrawn.

ATM Program

On January 4, 2023, we entered into an amendment to the Sales Agreement, dated as of March 29, 2021, with Jefferies LLC with respect to an equity offering program under which we may offer and sell ADS having an aggregate offering price of up to \$60.0 million from time to time following January 4, 2023, through Jefferies as our sales agent. As of the date of this Annual Report, we have not sold any ADS under the amended program subsequent to such date.

Follow-Offering

On February 7, 2023, Cellectis has announced launch of a follow-on offering of \$22 million of its ADS. Jefferies LLC and Barclays Capital Inc. (the "Underwriters") acted as joint book-running managers for the Global Offering. Pricing occurred on February 2, 2023, at \$2.50 per ADS for 8,800,800 ADSs to be issued. Bpifrance Participations, Baillie Gifford & Co. and Long Focus Capital Management LLC, existing shareholders of the Company, were allocated in the aggregate more than half of the ADS sold in the global offering. On February 7, 2023, Cellectis has announced the exercise by the underwriters, Jefferies LLC and Barclays Capital Inc., of their option (the "Option") to purchase an additional 1,107,800 ordinary shares (the "Additional Ordinary Shares") of the Company to be delivered in the form of an aggregate of 1,107,800 ADSs (the "Additional ADSs"). As a consequence, the total number of ordinary shares issued in the form of ADSs amounted to 9,907,800 for the base offering plus the Option exercise bringing the gross proceed to \$24.8 million. The aggregate net proceeds to the Company, after deducting underwriting commissions and estimated offering expenses, amounted to approximately \$22.8 million.

Cellectis' Contractual Obligations and Commitments

As of December 31, 2022, Cellectis had the following contractual obligations:

As of December 31, 2022	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
	-	\$:	in thousand	s	
Lease agreement	71,984	10,867	20,801	15,718	24,597
License and collaboration agreements	15,330	1,450	2,900	2,900	8,080
Clinical & Research and Development agreements	344	344	_	_	_
IT licensing agreements	618	485	133	_	_
State Guaranteed loan « PGE »	18,484	4,915	9,874	3,695	
Total contractual obligations	106,759	18,060	33,708	22,313	32,677

Cellectis' short-term and long-term material requirements are reflected in the table above and mainly relate to:

- Lease agreements regarding Cellectis' corporate headquarter in Paris, France, its administrative and research and development facility in New York, New York, and its manufacturing facilities in Paris, France, and Raleigh, North Carolina, as well as leased equipment for \$72.0 million, of which \$10.9 million are payable in 2023.
- License and collaboration agreements with third parties that subject the Company to certain fixed license fees, as well as fees based on future events, such as research and sales milestones for \$15.3 million, of which \$1.5 million are payable in 2023.
- Clinical and research agreements for \$0.3 million, payable in 2023.
- IT licensing agreements for \$0.6 million, of which \$0.5 million are payable in 2023.
- A state Guaranteed loan "PGE" of \$18.5 million, of which \$4.9 million are payable in 2023.

An analysis as to Cellectis' ability to meet these requirements is provided under the caption "Operating capital requirements – Cellectis S.A.", discussed above

Operating capital requirements—Calyxt, Inc.

Calyxt has incurred losses since its inception and its net loss was \$16.9 million for the year ended December 31, 2022, and it used \$19.4 million of cash for operating activities for the year ended December 31, 2022.

Calyxt' primary sources of liquidity are its cash and cash equivalents. As of December 31, 2022, Calyxt had \$3.5 million of cash, cash equivalents, and restricted cash. Calyxt's restricted cash balances are cash and cash equivalents deposited in an amount equal to future equipment rent payments, as required under its equipment lease facility. Calyxt may request the return of excess restricted cash collateral annually in December. Calyxt's restricted cash was \$0.1 million as of December 31, 2022. Current liabilities were \$1.7 million as of December 31, 2022. Calyxt's current cash, cash equivalents, and restricted cash is sufficient to cover all of its current liabilities as of December 31, 2022.

Calyxt's liquidity funds its non-discretionary cash requirements and its discretionary spending. Prior to the wind-down of Calyxt's soybean go-to-market strategy, working capital was its principal non-discretionary funding requirement. In addition, Calyxt has contractual obligations related to recurring business operations, primarily related to lease payments for its headquarters and laboratory facilities. Calyxt's principal discretionary cash spending is for capital expenditures, short-term working capital payments, and professional and other transaction-related expenses incurred as Calyxt pursues additional financing and evaluates potential alternative transactions.

Calyxt has incurred losses since its inception. If the Calyxt Merger is not consummated for any reason, Calyxt may decide to dissolve and liquidate its assets. In such a circumstance, Calyxt would be required to pay all of its debts and contractual obligations and to set aside certain reserves for potential future claims. In light of Calyxt's current capital resources, it is highly unlikely, in this case, that substantial resources, if any, would be available for distributions to stockholders.

To the extent the Calyxt Merger is not consummated for any reason and Calyxt is not liquidated and dissolved, it anticipates that it will continue to generate losses for the next several years or until such time as an alternative strategic transaction is consummated.

In the less likely scenario in which Calyxt seeks to continue to operate its business and until Calyxt can generate cash flows sufficient to support its operating capital requirements, it would seek to finance a portion of future cash needs through (i) cash on hand, (ii) commercialization activities, which may result in various types of revenue streams from (a) future product development agreements and technology licenses, including upfront and milestone payments, annual license fees, and royalties; and (b) product sales from its proprietary BioFactory production system; (iii) government or other third-party funding, (iv) public or private equity or debt financings, or (v) a combination of the foregoing. However, capital generated by commercialization activities, if any, is expected to be received over a period of time and near-term additional capital may not be available on reasonable terms, if at all.

Calyxt faces uncertainty regarding the adequacy of its capital resources and presently has limited access to additional financing and expects to rely upon the Interim Funding described below in order to continue operations through the consummation of the Calyxt Merger.

Calyxt believes its cash, cash equivalents, and restricted cash as of December 31, 2022, considering continuing actions taken to reduce its operating expenses to enable the proposed Calyxt Merger to close, \$0.75 million received by Calyxt in the fourth quarter of 2022 in connection with a legal settlement, and the availability of the Interim Funding are sufficient to fund its operations through the second quarter of 2023. Calyxt's management has concluded there is substantial doubt regarding its ability to continue as a going concern for a period of 12 months or more from the date of this filing.

In light of Calyxt's current liquidity challenges and capital resource constraints, Calyxt's management has implemented cost reduction and other cash-focused measures to manage liquidity, including reduction of capital expenditures, headcount reductions, and renegotiation or termination of professional services agreements. To conserve cash, Calyxt has also strategically evaluated its arrangements with suppliers and service providers and has, in several instances, transitioned such relationships to lower cost alternative providers. During the course of discussions with Cibus regarding, and following the execution of, the Merger Agreement, Calyxt has further streamlined and focused its business activities on preserving cash sufficient to achieve a closing of the Calyxt Merger. Accordingly, Calyxt has taken additional steps to reduce its operating expenses and has focused its continuing operations on scaling production of its Plant Cell Matrix[™] platform with its manufacturing partner, licensing efforts with respect to its PlantSpring[™] technology and plant traits and continuing to progress its three key customer projects.

If Calyxt is unable to raise additional capital in a sufficient amount or on acceptable terms or to consummate the Calyxt Merger, Calyxt may have to implement increasingly stringent cost saving measures and significantly delay, scale back, or cease operations, in part or in full. If Calyxt decided to cease operations and dissolve and liquidate its assets, it is unclear to what extent Calyxt would be able to pay its existing obligations. In such a circumstance and in light of Calyxt's current capital resources position, it is unlikely that substantial resources would be available for distributions to stockholders.

Sources of capital —Calyxt

In an offering in February 2022, Calyxt issued 3,880,000 shares of its common stock, Pre-Funded Warrants to purchase up to 3,880,000 shares of its common stock, and Common Warrants to purchase up to 7,760,000 shares of its common stock. In the aggregate, Calyxt received net proceeds of \$10.0 million, after deducting approximately \$0.9 million of underwriting discounts and estimated other offering expenses.

Calyxt has an effective shelf registration on Form S-3 on file with the SEC and additional capital is accessible from the capital markets, including pursuant to its ATM facility. However, amounts available under the shelf registration statement, including the ATM facility, are significantly limited because Calyxt's public float is less than \$75,000,000. Under to Instruction I.B.6 to Form S-3, which is referred to as the "baby shelf" rules, for so long as Calyxt's public float is less than \$75,000,000, it may not sell more than the equivalent of one-third of its public float during any 12 consecutive months pursuant to the baby shelf rules.

In connection with the Calyxt Merger, beginning at the earlier of March 15, 2023 or the date Calyxt's unrestricted cash balance first drops below \$1,500,000, Calyxt can request, and Cibus has agreed to provide, an unsecured, interest-free revolving line of credit of up to \$3,000,000 in cash, which amount may be increased to \$4,000,000 if Cibus elects to extend the outside date to June 30, 2023. Funds can be drawn by Calyxt in \$500,000 increments and may only be used to fund operating expenses incurred in the ordinary course of business consistent with past practice and consistent with certain negative covenants in the Merger Agreement. The full outstanding balance of the Interim Funding will be reduced to zero in connection with the closing of the Calyxt Merger, if consummated. The full outstanding balance of the Interim Funding will be forgiven by Cibus if the Merger Agreement is terminated for any reason other than certain under certain conditions, as detailed in the Merger Agreement. The Interim Funding is subject to acceleration in connection with certain bankruptcy events.

While alternative public and private transaction structures may be available to Calyxt, these would require additional time and cost, may result in fixed payment obligations, may result in substantial dilution to existing stockholders, particularly in light of Calyxt's current stock price, may impose operational restrictions on Calyxt, may grant holders rights senior to those of Calyxt's shares of common stock, and may not be available on attractive terms. Further, during the pendency of the Calyxt Merger, any such transactions could only be entered into with the consent of Cibus. Accordingly, although Calyxt continuously assesses market conditions and available financing alternatives, in light of Calyxt's current stock price, the restrictions imposed by the Merger Agreement and the availability of the Interim Funding, Calyxt does not anticipate any additional third-party funding prior to the consummation of the Calyxt Merger.

Calyxt's Contractual Obligations and Commitments

As of December 31, 2022, Calyxt had the following contractual obligations:

• Liability for minimum lease payments for its corporate headquarters and laboratory facilities and equipment leases due within the next five years represents an aggregate amount of \$7.5 million, of which \$1.5 million is payable in 2023; above five years the amount is \$17.0 million.

Sale-Leaseback of Headquarters and Lab Facility

In September 2017, Calyxt consummated a sale-leaseback transaction with a third party for its corporate headquarters and laboratory facilities in Roseville, Minnesota, which encompasses approximately 44,000 square feet including office and lab space, the first pilot BioFactory production system, greenhouses, and outdoor research plots. Calyxt is deemed the owner for accounting purposes. The lease has a term of twenty years with four options to extend its term for five years each subject to there being no default under the lease terms beyond any cure period and Calyxt occupying the property at the time of extension. In 2017, Calyxt received \$7.0 million in connection with the sale of the land and uncompleted facility.

The lease commenced in May 2018. Under the lease, Calyxt pays an annual base rent of eight percent of the total project cost with scheduled increases in rent of 7.5 percent on the sixth, eleventh, and sixteenth anniversaries of the start of the lease commencement as well as on the first day of each renewal term. Currently, Calyxt pays an annual base rent of \$1.4 million. The first increase will occur during 2023.

Calyxt is also responsible for all operating costs and expenses associated with the property. If the landlord decides to sell the property, Calyxt has a right of first refusal to purchase the property on the same terms offered to any third party.

Concurrent with entering the lease, Cellectis guaranteed the lease agreement for Calyxt's headquarters. However, Calyxt previously agreed to indemnify Cellectis for any obligations under this guaranty, effective upon Cellectis' ownership falling to 50 percent or less of Calyxt's outstanding common stock. Accordingly, Calyxt's indemnification obligation was triggered in October 2022.

Prior to 2022, this lease was considered a failed sale leaseback based on the nature of the transactions and was reported as a financing-type lease. This lease is now considered an operating lease.

Sale-Leaseback of Equipment

Calyxt also has an equipment financing arrangement that is considered a financing-type lease which matures in 2023. Calyxt was required to deposit cash into a restricted account in an amount equal to the future rent payments required by the lease. As of December 31, 2022, this restricted cash totaled \$0.1 million, and will be returned following the payoff of the lease obligations in 2023.

C. Research and Development, Patents and Licenses, etc.

Our research and development teams utilize our deep expertise to contribute to the growth of our business. As of December 31, 2022, we had 217 employees engaged in research and development activities of which 187 are Cellectis employees and 30 are Calyxt employees. In the years ended December 31, 2020, 2021 and 2022 we spent \$87.0 million, \$129.0 million and \$109.5 million respectively, on research and development. For a discussion of our research and development activities, see "Item 4.B—Business Overview" and "Item 5.A—Operating Results."

D. Trend Information

For a discussion of trends, see "Item 4.B—Business Overview," "Item 5.A—Operating Results" and "Item 5.B—Liquidity and Capital Resources." Other than as disclosed in these sections, we are not aware of any trends, uncertainties, demands, commitments or events since December 31, 2021 that are reasonably likely to have a material adverse effect on our revenues, income, profitability, liquidity or capital resources, or that would cause the disclosed financial information to be not necessarily indicative of future operating results or financial condition.

E. Critical Accounting Estimates

Not applicable.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table sets forth information regarding our executive officers and directors as of March 14, 2023.

<u>Name</u>	Age	Position(s)
Executive Officers:		
André Choulika, Ph.D.	58	Director, Chief Executive Officer and Co-Founder
Mark Frattini, MD	57	Chief Medical Officer
Steven Doares, Ph.D.	63	Senior Vice President of US Manufacturing
Philippe Duchateau, Ph.D.	60	Chief Scientific Officer
Kyung Nam-Wortman	53	Chief Human Resources Officer
Stephan Reynier	53	Chief Regulatory & Pharmaceutical Compliance Officer
David Sourdive, Ph.D.	56	Director, Deputy Chief Executive Officer, Executive Vice President, CMC and Manufacturing
Arthur Stril	34	Chief Business Officer
Marie-Bleuenn Terrier	41	General Counsel
Bing Wang, Ph.D.	46	Chief Financial Officer
Non-Employee Directors:		
Jean-Pierre Garnier, Ph.D.	74	Chairman of the Board and Director
Laurent Arthaud	60	Director
Pierre Bastid	68	Director
Rainer Boehm	62	Director
Hervé Hoppenot	63	Director
Axel-Sven Malkomes	56	Director
Annick Schwebig, M.D.	72	Director
Donald A. Bergstrom	51	Director

Executive Officers

André Choulika, Ph.D., is one of the founders of Cellectis and served as Chief Executive Officer since the Company's inception in 1999. He served as Chairman of our board of directors from 2011 to November 2020 and Chairman of the board of directors of Calyxt from August 2010 to July 2020. He is CEO and Chairman of Cellectis, Inc. since December 2014 and Cellectis Biologics, Inc. since January 2019. From 1997 to 1999, Dr. Choulika worked as a post-doctoral fellow in the Division of Molecular Medicine at Boston Children's Hospital, where he was one of the inventors of nuclease-based genome editing technologies and a pioneer in the analysis and use of meganucleases to modify complex genomes. After receiving his Ph.D. in molecular virology from the University of Paris VI (Pierre et Marie Curie), he completed a research fellowship in the Harvard Medical School Department of Genetics. His management training is from the HEC (Challenge +). Since June 2019, Dr. Choulika served at the board of directors of Institut Pasteur. André Choulika was awarded Chevalier of the Légion d'Honneur in France.

Steven Doares, Ph.D. joined Cellectis in July 2020 as Senior Vice President, US Manufacturing and Site Head of the Raleigh, North Carolina manufacturing facility. Dr. Doares is responsible for the deployment of Cellectis' manufacturing facility in Raleigh, for clinical and commercial supplies of the Cellectis' current immuno-oncology UCART product candidates. Prior joining Cellectis, Dr. Doares worked at Biogen, Inc. from 2010 to 2020, most recently serving as Vice President, Global Manufacturing Sciences, responsible for technology transfer into cGMP manufacturing of processes from clinical through commercialization stages for Biogen's therapeutic product portfolio, both internally and externally. Dr. Doares holds a Ph.D. in Biochemistry from the University of Georgia.

Philippe Duchateau, Ph.D., joined Cellectis in 2001 to pioneer the field of genome engineering and has served as Chief Scientific Officer since 2012. After receiving his Ph.D. in 1993 in biochemistry and molecular biology at the Institut Pasteur (Lille, France), he completed a research fellowship from 1993 to 2001 at the University of California, San Francisco (United States) within the Cardiovascular Research Institute. He is co-inventor of numerous patents in the field of nucleases and genome engineering and co-author on more than 50 scientific publications and co-editor of one book entitled "Site-directed Insertion of Transgenes." As head of Cellectis's Research department since 2004, he helped to the development of the key Cellectis technologies.

Mark Frattini, M.D., Ph.D., joined Cellectis in August 2020. He serves as Chief Medical Officer since September 2022. Prior to that date, Dr. Frattini served as Senior Vice President of Clinical Sciences since August 2022. Prior joining Cellectis, Dr. Frattini was Executive Medical Director, Program Lead, Global Research and Development at Celgene. Before joining Celgene, Dr. Frattini spent over 16 years as a physician-scientist specialized in hematology malignancies at Memorial Sloan-Kettering Cancer Center and Columbia University where he was a member of the adult leukemia service and the Experimental Therapeutics Center at both institutions. From 2013 to 2018, Dr. Frattini served as the Director of Research for Hematology Malignancies at Columbia University. Dr. Frattini holds a M.D. and Ph.D. in Biochemistry and Molecular Biology from the University of Chicago and received his Internal Medicine residency and Medical Oncology fellowship training at Johns Hopkins Hospital.

Kyung Nam-Wortman, joined Cellectis in November 2020 as Executive Vice President, Chief Human Resources Officer. Before joining Cellectis, Ms. Nam-Wortman was Senior Vice President, Head of Human Resources, Head of Information Technology, Facilities and Internal Communications at Achillion (recently acquired by Alexion in January 2020) since October 2014. Prior to her tenure at Achillion, Ms. Nam-Wortman was Vice President and Head of Global Talent and Organization Capability at Zoetis, where she supported the spin-off of Pfizer's animal health business unit through its IPO and was responsible for the stand up of Zoetis' global talent management function to support the company's growth worldwide. She also held various human resource leadership roles for Pfizer's business units, divisions, and functions with regional and global accountabilities. In addition to her experience in biotech/biopharma, Ms. Nam-Wortman has 14 years of experience in the consulting industry focused on strategic and organization change management from Delta Consulting Group and IBM. She received her bachelor's degree in marketing from New York University Stern School of Business and MS in human resources management / organization development from the New School of Social Research.

Stephan Reynier, MSc, joined Cellectis in April 2011. He serves as Chief Regulatory and Pharmaceutical Compliance Officer. Mr. Reynier has extensive experience, from his previous positions as Senior Director at Voisin Consulting Life Sciences and European Associate Director Medical Affairs at Gilead Sciences, in the design and implementation of regulatory strategies for the development of drugs and biologics, with a strong focus on cell and gene therapy. Mr Reynier graduated as Agro-Engineer in France and received a Master of Science in Chemical Engineering from the University of Toronto, Canada.

David Sourdive, Ph.D., is a co-founder of Cellectis and has held the position of Executive Vice President, Technical Operations since 2017. Prior to that date, Dr. Sourdive served as Executive Vice President, Corporate Development since 2008. Dr. Sourdive has also been a member of our board of directors since 2000. Since February 2014, Dr. Sourdive also has served on the board of directors of Mediterranean Institute for Life Sciences (MEDILS). Since September 2019, he has served on the Board of Exeliom S.A.S., since February 2021, he has served on the board of directors of Cell-Easy S.A.S, and since April 2021 he served on the board of directors of Mablink SAS. From December 2018 to December 2021, he has served on the board of directors of Enobraq SAS. From October 2017 to May 2020, Dr. Sourdive has served on the Board of Omics SAS. From June 2015 to December 2019, he has served on the board of directors of Eukarys SAS. He previously served on the boards of directors of Cellectis AB, Medicen Paris Region and Seine Saint Denis Avenir. From 1998 to 2000, he directed the biotechnologies laboratory of the Centre d'Etudes du Bouchet for the French Ministry of Defense. From 1997 to 1998, Dr. Sourdive worked at one of the leading laboratories in viral immunology at Emory University in Atlanta, Georgia. His work there was focused on immunological T-cell memory. Dr. Sourdive graduated from the École Polytechnique and received his PhD in molecular virology at the Institut Pasteur. He also has management training from the HEC (Challenge +).

Arthur Stril joined Cellectis in July 2018 as Vice President, Corporate Development, and was appointed Chief Business Officer in 2020. Mr. Stril began his career at the European Commission's Directorate-General for Competition, controlling global pharmaceutical mergers. He later became Head of the Hospital Financing Unit at the French Ministry of Health. Mr. Stril graduated from the École Normale Supérieure, Paris & Cambridge University, and holds a diploma in Immunotherapy from the Université Paris-Descartes. Mr. Stril is also a member of the French Corps des Mines.

Marie-Bleuenn Terrier joined Cellectis as Legal Counsel in 2008, and was appointed General Counsel in 2013. Prior to joining Cellectis, she worked as Legal Counsel for Pfizer from 2004 to 2006, and for Boehringer-Ingelheim from 2006 to 2008. Marie-Bleuenn Terrier has also served as Secretary of our board of directors since 2015. From July 2020 to September 2022, Mrs. Terrier served as president of Standing Ovation S.A.S. She holds a Master's degree in Law from the Panthéon La Sorbonne University in Paris.

Bing Wang, Ph.D. joined Cellectis in February 2022 as Chief Financial Officer. Before joining Cellectis, from March 2016 to December 2021, Mr. Wang was chief executive officer and director of Refuge Biotechnologies, Inc., a private cell immuno-oncology biotechnology company co-founded by him. Mr. Wang holds approximatively 12% of the share capital of Refuge Biotechnologies. Prior to his tenure at Refuge Biotechnologies, Inc., Mr. Wang was director of healthcare investment banking at Barclays Capital, Inc. and served on the board of director of KPB Biosciences from August 2017 to October 2018. Since April 2019, he served on the advisory board of the Healthcare and Pharmaceutical Management Program at Columbia Business School. Mr. Wang holds a Bachelor of Science in Applied Physics from Columbia University and Ph.D. in Electrical Engineering from Princeton University, and a MBA from Columbia Business School.

Non-employee Directors

Jean-Pierre Garnier, M.D., has served as a member and Chairman of our board of directors since November 2020. Since 2019, he served as lead director of the board of directors of Carrier Global Corp., a public company. From 2015 to 2022, Dr. Garnier has served as director of the board of directors of Radius Therapuetic, and from 2018 to 2022, he has served as chairman of the board of directors of Carmat, a public company based in France. From 2018 to 2020, Dr. Garnier was Chairman of Idorsia, a public bio-technology company based in Switzerland and listed on the Swiss Stock Exchange (SIX), which was spun off of Actelion LTD with a billion-dollar investment from Johnson & Johnson (J&J). Previous to his tenure at Idorsia, he was Chairman of Actelion Ltd., a Swiss pharmaceuticals and bio-technology company, sold for \$30 billion to Johnson & Johnson. From 2008 to 2010, Dr. Garnier served as Chief Executive Officer of Pierre Fabre, from 2000 to 2008 he served as Chief Executive Officer and Executive Member of the Board of Directors of GlaxoSmithKline plc, and in 2000, he was Chief Executive Officer of SmithKline Beecham plc. Dr. Garnier has served as board member of Renault S.A., from 2008 to 2016, United Technologies Corporation from 1997 to 2019, and Max Planck Institute from 2013 to 2019. Dr. Garnier holds an MS in pharmaceutical science and a Ph.D. in pharmacology from the Louis Pasteur University of Strasbourg, France. He subsequently earned his MBA at Stanford University, California, as a Fulbright Scholar. He was recently promoted from Chevalier to Officier de la Légion d'Honneur of France.

Laurent Arthaud has served as a member of our board of directors since October 28, 2011. Mr. Arthaud is the Managing Director of Life Sciences and Ecotechnologies for Bpifrance Investissement (formerly CDC Enterprises, a subsidiary of Caisse des Dépôts) since 2012. He currently serves on the boards of directors of Kurma Life Sciences Partners, Sparingvision, a public company based in France, Aledia, Ribogenics, Inc., Enyo Pharma and Argobio. Since July 2020, Mr. Arthaud served at the board of directors of Calyxt, serving as a director designated by Cellectis. He previously served at the Calyxt's board of directors from July 2017 to May 2019. He served on the board of directors of TxCell from 2012 to 2018, on the board of directors of Adocia from 2009 to 2022. From 2006 to 2012, Mr. Arthaud held the position of Deputy CEO at CDC Entreprises. Since 2009 Mr. Arthaud has also directed InnoBio, an investment fund managed by Bpifrance Investissement as part of the FSI France Investissement program. From 1999 to 2004 he served as Vice President of Aventis Capital, an investment subsidiary of the pharmaceuticals group Aventis, and as President of Pharmavent Partners from 2004 to 2006. Mr. Arthaud is a graduate of the École Polytechnique and the École Nationale de Statistique et d'Administration Économique.

Pierre Bastid has served as a member of Cellectis' board of directors since 2011. Mr. Bastid has 25 years of experience in turning around, developing and running technology businesses in Asia, Europe and the United States. In addition to Cellectis, Mr. Bastid is currently serving on the board of directors of Pharnext (a biotechnology company), Carmat S.A., and DCTV Center New-York, and of a series of his owned investment and private equity companies and was Chairman of Z Nautic SAS from November 2019 to January 2020. Mr. Bastid also advises a number of investment and private equity firms. Mr. Bastid is a trustee of the Juilliard School of Music and other non-profit organizations based in the United States.

Rainer Boehm has served as a member of Cellectis' board of directors since 2017. In addition, Mr. Boehm is the founder and owner of Rainer Boehm GmbH and is currently serving on the board of directors of Humanigen, Inc. since February 2018, BioCopy AG since February 2020, since January 2022, Berlin Cure AG, and since September 2022, Omega Therapeutics. From July 2018 to 2022, Mr. Boehm served at the board of directors of Nordic Nanoverctor SA. Mr. Boehm spent 29 years at Novartis, working locally, regionally and globally in various Senior Management roles, after building his career in Marketing & Sales and Medical Affairs. At Novartis, he led all emerging markets regions as well as the United States and Canada, either for Oncology or the Pharmaceuticals division. His most recent assignments were Chief Commercial and Medical Affairs Officer globally for Novartis Pharma from 2010 to 2017, as well as ad interm CEO and Division Head Pharma. Rainer launched and oversaw the commercialization of many brands during his career, amongst them Femara, Zometa and Glivec, as well as Cosentyx and Entresto. Rainer has a medical degree from the University of Ulm in Germany, and a Master of Business Administration from Schiller University in France.

Hervé Hoppenot has served as a member of Cellectis' board of directors since 2017. He served as President and Chief Executive Officer of Incyte Corporation since 2014, and was appointed Chairman of the Board of Directors in 2015. Incyte is one of the fastest growing biopharmaceutical companies in the U.S. Since November 2021, Mr. Hoppenot served as director on the board of directors of NPower. Prior to joining Incyte, Mr. Hoppenot was the President of Novartis Oncology, which included \$11 billion in global sales, the largest oncology pipeline in the industry and 8000 employees in 50 countries. Prior to joining Novartis in 2003, Mr. Hoppenot started his career in 1983 with Rhone Poulenc, later known as Aventis, where he served in several senior roles of increasing responsibility, including Vice President of Oncology and Head of the US Oncology business unit. He and his family are dual citizens of France and the United States, having moved to the U.S. in 1991.

Annick Schwebig, M.D., has served as a member of our board of directors since October 28, 2011. In 2000, she founded the French subsidiary of Actelion, of which she is a Senior Advisor. She formerly served as the General Manager of Actelion from 2000 to 2015. She is also a director of Inventiva Pharma, a biopharmaceutical company, and B Cell Design, a biotechnologies company. A graduate of the University of Paris medical school, Dr. Schwebig worked as a senior manager at the biopharmaceuticals company Bristol-Myers Squibb for 17 years from 1983 to 2000.

Donald A. Bergstrom, M.D., Ph.D., has served as a member of our board of directors since June 2022, after having served as observer of our board of directors since November 2021. Dr. Bergstrom, currently serves as Executive Vice President, Head of Research and Development at Relay Therapeutics, Inc., a public clinical-stage precision medicines company. Prior to his tenure at Relay Therapeutics, from January 2014 to March 2018, Dr. Bergstrom was Chief Medical Officer at Mersana Therapeutics, where he led the advancement of two products based on Mersana's proprietary antibody-drug conjugate platform through non-clinical development and into Phase 1 clinical trials. Prior to Mersana, he was Global Head of Translational and Experimental Medicine at Sanofi Oncology. At Sanofi, Dr. Bergstrom held roles of increasing responsibility at Merck Research Laboratories, culminating in his role as Oncology Franchise Lead, Experimental Medicine. Since April 2021, Dr. Bergstrom served on the Board of Directors at Fusion Pharmaceuticals, a public biotechnologies company. Dr. Bergstrom holds an M.D. from the University of Washington, Seattle, and a Ph.D. from the Fred Hutchinson Cancer Research Center, where he also completed his post-doctoral training. He was a resident in clinical pathology at the University of Washington.

Axel-Sven Malkomes has served as a member of our board of directors since June 2012. Mr. Malkomes currently serves as chief financial officer of Cardior Pharmaceuticals GmbH, a biopharmaceutical company based in Germany. Prior to joining Cardior Pharmaceuticals GmbH, Mr. Malkomes was Chief Financial Officer and Chief Business Officer at Medigene AG until March 31, 2022. Prior to his tenure at Medigene, he served as Vice Chairman and Managing Director of the Life Sciences Practice for Barclays plc, in Europe.

Board Diversity

The table below provides certain information regarding the diversity of our board of directors as of the date of this Annual Report.

Board Diversity Matrix

Country of Principal Executive Offices:	France
Foreign Private Issuer	Yes
Disclosure Prohibited under Home Country Law	No
Total Number of Directors and Roard Observers	10

	Female	Male	Non- Binary	Disclose Gender
Part I: Gender Identity				
Directors	1	9	0	0
Part II: Demographic Background				
Underrepresented Individual in Home Country Jurisdiction			0	
LGBTQ+			0	
Did Not Disclose Demographic Background			0	

Family Relationships

While there are no family relationships among any of our executive officers or directors, Dr. Choulika and Ms. Terrier are domestic partners.

B. Compensation

Compensation of Directors and Executive Officers

The aggregate cash compensation paid and benefits in kind granted by us to our current executive officers and directors, for the year ended December 31, 2022, was \$5.6 million. For the year ended December 31, 2022, 596,365 stock options with an exercise price of €4.41 per ordinary share, 35,000 stock options with and exercise price of €3.48 per ordinary share, and 70,000 stock options with and exercise price of €2.34 per ordinary share were issued to executive officers as compensation under the 2021 Stock Option Plan and the 2022 Stock Option Plan and 174,900 free shares were issued to executive officers as compensation under the 2021 Free Shares Plan and the 2022 Free Shares Plan. The total amount set aside or accrued to provide pension, retirement or similar benefits was \$49,003 for the year ended December 31, 2022.

<u>Directors</u>	Compensation (Gross Salary+Bonus)*	Board fees*	Out-of- pocket expenses*	Equity awards granted in 2022
A. Choulika	744,016			165,000 SO
				35,000 free shares
D. Sourdive	528,920	_	_	45,000 SO
				9,500 free shares
J.P. Garnier	<u> </u>	94,851	32,590	44,165 SO
L. Arthaud	_	_	_	<u> </u>
P. Bastid	_	98,803	_	<u> </u>
R. Boehm	_	86,947	633	<u> </u>
D. Bergstrom	-	105,683	-	-
H. Hoppenot	<u> </u>	96,168	5,580	<u> </u>
A. Schwebig	_	94,851	-	-
A-S Malkomes	_	88,264	_	<u> </u>

^{*} The conversation rate used is the average rate of the period

Service Agreements

Mr. Godard, a former member of our board of directors, entered into a service agreement with us and provided consultancy services in the area of global development strategy, especially in the field of agricultural biotechnology activities. Compensation paid for those services in the years ended December 31, 2020 and 2021 amounted to \$58 thousand and \$71 thousand respectively. No balances were outstanding at the end of each of the fiscal years. The service agreement was not renewed in 2022, no compensation was paid for those services in the year ended December 31, 2022.

Change of Control Benefits

We seek to balance the potential costs of change of control provisions with the costs that would arise from fear of job loss and other distractions that may result from potential, rumored or actual changes of control.

As a result, after careful evaluation of the implications and economics of a change of control plan, on September 4, 2014, our board of directors adopted a change of control plan, which was amended by our board of directors on December 11, 2014 applicable to certain of our executive officers and several of our senior employees, as implemented by change of control agreements or amendments to an existing agreement. On March 4, 2020 and November 5, 2020, our board of directors decided to extend the benefits of the change of control plan adopted in 2014 to also cover any members of the Cellectis executive committee not already covered by the plan adopted in 2014. On September 15, 2022, our board of directors amended the change of control plan applicable to all our executive officers including future executive officers.

Accordingly, as of the date of this Annual Report, the change of control plan applies with respect to each member of the executive committee of Cellectis: Dr. Choulika (Chief Executive Officer, and Director), Dr. Mark Frattini (Chief Medical Officer), Dr. Steve Doares (Senior Vice President, US Manufacturing and Site Head), Dr. Phillippe Duchateau (Chief Scientific Officer), Ms. Kyung Nam-Wortman (Executive Vice President, Chief

Human Resources Officer), Mr. Stephan Reynier (Chief Regulatory and Compliance Officer), Dr. David Sourdive (Executive Vice President CMC and Manufacturing, and Director), Mr. Arthur Stril (Chief Business Officer), Dr. Bing Wang (Chief Financial Officer), and Ms. Marie-Bleuenn Terrier (General Counsel). The change of control plan also applies to Ms. Delphine Jay (Human Resources Director), and Dr. Laurent Poirot (Senior Vice President Immunology).

Pursuant to the amended change of control plan applicable to our executive officers, a severance package shall be paid if, within the 24-month period following a change of control of Cellectis S.A., one of the following triggering event occurs, in each case without the agreement of such executive officer:

- termination (including by non-renewal) of such person's employment other than for gross misconduct (faute lourde); or
- for the U.S. executive officers: relocation of more than 50 miles from the initial place of employment, or material reduction of such U.S. executive's duties, responsibilities or cash compensation; or
- for the French executive officers: relocation of the initial place of employment outside of Ile de France.

Pursuant to the change of control plan applicable to certain of our senior managers (i.e. Mrs Delphine Jay and Mr. Laurent Poirot), a severance package shall be paid if, within the 36-month period following a change of control of Cellectis S.A., the following triggering event occurs, without the agreement of such employee: termination (including by non-renewal) of such person's employment other than for gross misconduct (*faute lourde*).

Under the change of control plan, the severance package shall be equal to 24 months of compensation increased by an amount equal to the annual performance bonus to which the senior managers or executive officers concerned may be entitled for the year of their departure (or for Dr. Choulika only, two times such target bonus), or, in the absence of such a target bonus, 1.5 times the last annual bonus paid to them during the 12 months prior to their departure. The US executive officers are also eligible for 12 months medical benefits.

The severance package shall be in addition to any legal and conventional severance payments owed to the employees or executives concerned under applicable law.

A "change of control" is defined by reference to Article L.233-3 of the French Commercial Code, which provides that one or more persons acting alone or in concert are considered to control a company if (1) they have direct or indirect ownership of a majority of the voting rights or a proportion of the voting rights allowing de facto control of the decisions made by the shareholders, provided that such control is presumed if said persons hold more than 40% of the voting rights and no shareholder holds a greater proportion thereof; or (2) they have the power to appoint or dismiss a majority of the board of directors.

Limitations on Liability and Indemnification Matters

Under French law, provisions of By-laws that limit the liability of directors and officers are prohibited. However, French law allows *sociétés anonymes* to contract for and maintain liability insurance against civil liabilities incurred by any of their directors and officers involved in a third-party action, provided that they acted in good faith and within their capacities as directors or officers of the company. Criminal liability cannot be indemnified under French law, whether directly by the company or through liability insurance.

We maintain customary liability insurance coverage for our directors and executive officers, including insurance against liability under the Securities Act. With certain exceptions and subject to limitations on indemnification under French law, this insurance coverage will provide for indemnification for damages and expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding arising out of his or her actions in that capacity. We believe that this insurance coverage is necessary to attract qualified directors and executive officers.

This insurance coverage may discourage shareholders from bringing a lawsuit against our directors and executive officers for breach of their fiduciary duty. It also may have the effect of reducing the likelihood of derivative litigation against directors and executive officers, even though such an action, if successful, might otherwise benefit us and our shareholders. Furthermore, a shareholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to this insurance coverage.

Certain of our non-employee directors may, through their relationships with their employers or partnerships, be insured against certain liabilities in their capacity as members of our board of directors.

Equity Incentives

We believe that our ability to grant equity awards is a valuable and necessary compensation tool that allows us to attract and retain the best available personnel for positions of substantial responsibility, provides additional incentives to employees and promotes the success of our business. In accordance with French corporate law and tax considerations, we have granted several different equity incentive instruments to our directors, executive officers, employees and other service providers. These are:

- employee warrants (otherwise known as bons de souscription de parts de créateur d'entreprise or BSPCE), granted only to employees of Cellectis:
- non-employee warrants (otherwise known as bons de souscription d'actions or BSA), granted only to non-employee directors and other service providers or consultants not eligible for employee warrants;
- restricted, or free, shares (otherwise known as actions gratuites); and
- stock options (otherwise known as options de souscription d'actions).

Our board of directors' authority to grant these equity incentive instruments and the aggregate number of shares authorized to be granted under these instruments must be approved by a two-thirds majority of the votes cast of our shareholders present, represented or voting by mail at the relevant extraordinary shareholders' meeting. Such extraordinary general meeting shall determine the aggregate amount of equity incentive instruments to be granted and the period during which such authorization may be used by our board of directors, which cannot exceed 18 months for non-employee warrants and employee warrants and 38 months for stock option and restricted (free) shares, in each case beginning from the date of the applicable shareholders' approval.

The authority of our board of directors to grant equity incentives may be extended or increased only by extraordinary shareholders' meetings. As a result, we typically request that our shareholders authorize new pools of equity incentive instruments at every annual shareholders' meeting and cancel the unallocated portions of the previous pools.

Employee warrants and non-employee warrants are usually granted under similar terms. They expire ten years after the date of grant if not exercised earlier according to their vesting schedule (see below). In general, employee warrants (BSPCE) and non-employee warrants (BSA) no longer continue to vest following termination of the employment, office or service of the holder and all vested shares must be exercised within post-termination exercise periods set forth in the applicable equity award grant documents. In the event of certain changes in our share capital structure, such as a consolidation or share split or dividend, French law and applicable equity award grant documentation provide for appropriate adjustments of the numbers of shares issuable and/or the exercise price of the outstanding warrants or share options.

Non-Employee Warrants (BSA)

Non-employee warrants are granted by our board of directors to third-party service providers, consultants and non-employee directors of the Company. In addition to any exercise price payable by a holder upon the exercise of any non-employee warrant, non-employee warrants need to be subscribed for at fair market value and in any case at a price at least equal to five percent (5%) of the volume weighted average price for a company share on the market or markets on which the company shares are listed during the five (5) trading days prior to the date of the grant of said non-employee warrant by the board of directors (rounded up to the next euro cent, if necessary).

Pursuant to delegations granted at our annual shareholders' meeting, our board of directors determines the recipients, dates of grant and exercise price of non-employee warrants, the number of non-employee warrants to be granted and the terms and conditions thereof, including their vesting schedule. The term of each non-employee warrant is generally 10 years from the date of grant.

Our non-employee warrants are generally granted subject to a three-year vesting, subject to continued service.

As of December 31, 2022, 896,225 non-employee warrants exercisable for an aggregate of 896,225 ordinary shares at a weighted average exercise price of €27.18 per share, were outstanding, all of which are held by certain of our directors and some of our consultants and exercisable at the date hereof.

Free Shares

Under our 2012, 2013, 2014, 2015, 2018, Second 2018, 2021 and 2022 Free Share Plans, or collectively the Free Shares Plans, we have granted free shares to certain of our employees and officers. Our current plan, the 2022 Free Share Plan, was adopted by our board of directors on September 15, 2022 according to the authorization granted by the combined ordinary and extraordinary shareholders' general meeting dated June 28, 2022.

Free shares may be granted to any individual employed by us or by any affiliated company. Free shares may also be granted to our Chief Executive Officer. However, no free share may be granted to a beneficiary holding more than 10% of our share capital or to a beneficiary who would hold more than 10% of our share capital as a result of such grant.

Our board of directors has the authority to administer the Free Share Plans.

Pursuant to the shareholders authorization dated June 28, 2022, the maximum aggregate number of ordinary shares, which may be issued is 2,274,216, provided that our board of directors may decide of new grant of free shares only under our current 2022 Free Share Plan and within the overall limit on the amount of issuance made to grant free shares and upon exercise of stock options, which is 2,274,216. As of the date of this Annual Report, 411,120 ordinary shares remain available for issuance under the 2022 Free Share Plan and 2022 Stock Option Plan.

Subject to the terms of the Free Share Plans, our board of directors determines the recipients, the dates of grant, the number of free shares to be granted and the terms and conditions of the free shares, including the length of their vesting period (starting on the grant date, during which the beneficiary holds a right to acquire shares for free but has not yet acquired any shares) and holding period (starting when the shares are issued and definitively acquired but may not be transferred by the recipient) within the limits determined by the shareholders.

For the 2012, 2013, 2014 and 2015 Free Shares Plans, our shareholders have determined that the vesting period must be at least two years from the date of grant and the holding period must be two years from the end of the vesting period, with no holding period applicable to beneficiaries for whom the vesting period was four years or longer.

For the Second 2018 Free Share Plan, our shareholders have determined that the vesting period must be at least one year from the date of grant and the holding period must be one year from the end of the vesting period, with no holding period applicable to beneficiaries for whom the vesting period was two years or longer.

For the 2021 and 2022 Free Share Plans, our shareholders have determined that the vesting period must be at least three years from the date of grant with no holding period applicable, and that the vesting of free shares granted to our corporate officer and members of our executive committee are subject to performance conditions.

The board of directors has the authority to modify awards outstanding under our Free Share Plans, subject to the consent of the beneficiary for any modification adverse to such beneficiary. For example, the board has the authority to release a beneficiary from the continued service condition during the vesting period after the termination of the employment.

The free shares granted under the Free Share Plans will be definitively acquired at the end of the vesting period as set by our board of directors subject to continued service during the vesting period, except if the board releases a given beneficiary from this condition upon termination of his/her employment contract. At the end of the vesting period, the beneficiary will be the owner of the shares. However, the shares may not be sold, transferred or pledged during the holding period. In the event of disability before the end of the vesting period, the free shares shall be definitively acquired by the beneficiary on the date of disability. In the event the beneficiary dies during the vesting period, the free shares shall be definitively acquired at the date of the request of allocation made by his or her beneficiaries in the framework of the inheritance provided that such request is made within six months from the date of death.

Stock Options

Under our 2015, 2016, 2017, 2018, 2021 and 2022 Stock Options Plans, or collectively the Stock Options Plans, we have granted stock options to certain of our employees and officers. Our current plan, the 2022 Stock Option Plan, was adopted by our board of directors on September 15, 2022 according to the authorization granted by the combined ordinary and extraordinary shareholders' general meeting dated June 28, 2022.

The Stock Options Plans follow the same rules. Stock Options issued pursuant to the Stock Option Plans provide the holder with the right to purchase a specified number of ordinary shares from the Company at a fixed exercise price payable at the time the Stock Option is exercised, as determined by our board of directors. The Stock Option Plans generally provides that the exercise price for any Stock Option shall be at least equal to the highest closing price of a share of the Company on Euronext Growth or Nasdaq prior to the date of grant, without in any event be less than ninety-five percent (95%) of the average selling prices of a share at close of trading on said market quoted during the twenty trading days immediately preceding the day of our board of directors decision to grant the options.

Pursuant to the shareholders authorization dated June 28, 2022, the maximum aggregate number of ordinary shares, which may be is 2,274,216, provided that our board of directors may decide of new grant of options only under our current 2022 Stock Option Plan, and within the overall limit on the amount of issuance made to grant free shares and upon exercise of stock options, which is 2,274,216. Incentive Stock Options and Non-qualified stock options may be granted under the Stock Option Plans, except for the 2021 and 2022 Stock Options under which only Non-Qualified stock options are available. As of the date of this Annual Report 411,120 ordinary shares remain available for issuance under the 2022 Stock Option Plan and 2022 Free Share Plan.

For the 2021 and 2022 Stock Options Plans, our shareholders have determined that the vesting period must be at least three years from the date of grant, and that the vesting of stock options granted to our corporate officer and members of our executive committee are subject to performance conditions.

Stock Options may be granted to any individual employed by us or by any affiliated company. Stock Options may also be granted to our Chairman, our general manager and to our deputy general managers. No stock options may be granted to a beneficiary holding more that 10% of our share capital.

Our board of directors has the authority to administer and interpret the Stock Option Plans. Subject to the terms of the Stock Option Plans, our board of directors determines the recipients, the dates of grant, the exercise price of the stock options, the number of stock options to be granted and the terms and conditions of the stock options, including the length of their vesting period. Our board of directors is not required to grant stock options with vesting and exercise terms that are the same for every participant. The term of each stock option granted under the Stock Option Plans will generally be 10 years from the date of grant. Further, Stock Options will generally terminate on the earlier of when the beneficiary ceases to be an employee or the Company or upon certain transactions involving the Company. Under the 2015, 2016, 2018, 2021 and 2022 Stock Options Plans, in the event of a voluntary retirement of the beneficiary, the beneficiary will continue to benefit from the options which may be exercised according to the vesting schedule decided by the board during the grant of the corresponding options until their expiration date.

The board of directors has the authority to modify awards outstanding under our Stock Option Plans, subject to the written consent of the beneficiary for any modification adverse to such beneficiary. For example, the board has the authority to extend a post-termination exercise period.

Stock Options granted under the Stock Option Plans generally may not be sold, transferred or pledged in any manner other than by will or by the laws of descent or distribution. In the event of disability, unless otherwise resolved by our board of directors, the beneficiary's right to exercise the vested portion of his or her option generally terminates six months after the last day of such beneficiary's service, but in any event no later than the expiration of the maximum term of the applicable stock options. In the event the beneficiary dies during the vesting period, then, unless otherwise resolved by our board of directors, the beneficiary's estate or any recipient by inheritance or bequest may exercise any vested portion within the six months following the date of death, but in any event no later than the expiration of the maximum term of the applicable stock options.

During the year ended December 31, 2022:

Cellectis S.A.

- 700 free shares have been granted to a new employee in January 2022 under the 2021 Free Share Plan and are under a vesting period of three years;
- 1,300 stock options have been granted a new employee in January 2022 under the 2021 Stock Option Plan and are under a vesting period
 of four years;
- 274,551 free shares have been granted in March 2022 under the 2021 Free Share Plan. These free shares have been granted to a large number of our employees and officers, of which 136,900 free shares have been granted to our officers. The vesting period of the free shares granted to our employees is three years and to officers (except for our current chief medical officer who was not officer at the date of grant) is over three years and is subject to performance conditions;
- 709,204 stock options have been granted in March 2022 under the 2021 Stock Option Plan. These stock option have been granted to a
 certain number of employees and officers, of which 596,365 to our officers. The vesting period of the stock options granted to our
 employees is four years, and to our officers (except for our current chief medical officer who was not officer at the date of grant) is over
 three years and is subject to performance conditions;
- 1,900 free shares have been granted to a new employee in March 2022 under the 2021 Free Share Plan and are under a vesting period of three years;
- 3,400 stock options have been granted a new employee in March 2022 under the 2021 Stock Option Plan and are under a vesting period of four years;
- 44,659 free shares have been granted to certain employees and officers in May 2022 under the 2021 Free Share Plan, of which 8,000 to certain of our officers. The vesting period of the free shares granted to our employees is four years, and to our officers is over three years and is subject to performance conditions;
- 42,580 stock options have been granted to certain employees and officers in May 2022 under the 2021 Stock Option Plan, of which 35,000 to certain of our officers. The vesting period of the stock options granted to our employees is four years, and to our officers is over three years and is subject to performance conditions; 30,000 free shares have been granted the new Chief Medical Officer in November 2022 under the 2022 Free Share Plan with a vesting period over three years subject to performance conditions;
- 70,000 stock options have been granted the new Chief Medical Officer in November 2022 under the 2022 Stock Option Plan with a vesting period over three years subject to performance conditions;
- 2,960 free shares have been granted to a new employee in December 2022 under the 2022 Free Share Plan and are under a vesting period
 of three years;
- 2,065 stock options have been granted a new employee in December 2022 under the 2022 Stock Option Plan and are under a vesting period of four years;

Calyxt,

During the year ended December 31, 2022, our subsidiary Calyxt granted options, restricted stock unit and performance stock unit representing a 7.5% interest to a group of its employees, directors, executive officers and consultants.

C. Board Practices

Board Composition

Under French law and our By-laws, our board of directors must be composed of between three and eighteen members. Within this limit, the number of directors is determined by our shareholders. Directors are elected, re-elected and may be removed at a shareholders' general meeting with a simple majority of the votes cast of our shareholders. Pursuant to our By-laws, our directors are elected for three-year terms. In accordance with French law, our By-laws also provide that our directors may be removed with or without cause by the votes cast of at least a majority of the shareholders present, represented by a proxy or voting by mail at the relevant ordinary shareholders' meeting, and that any vacancy on our board of directors resulting from the death or resignation of a director, provided there are at least three directors remaining, may be filled by vote of a majority of our directors then in office provided that there has been no shareholders meeting since such death or resignation. Directors chosen or appointed to fill a vacancy shall be elected by the board for the remaining duration of the current term of the replaced director.

The appointment must then be ratified at the next shareholders' general meeting. In the event the board would be composed of less than three directors as a result of a vacancy, the remaining directors shall immediately convene a shareholders' general meeting to elect one or several new directors so there are at least three directors serving on the board, in accordance with French law.

We currently have ten directors. The following table sets forth the names of our directors, the years of their initial appointment as directors and the expiration dates of their current term.

Name	Current Position	Year of Initial Appointment	Term Expiration Year
Jean-Pierre Garnier, M.D.	Chairman and		
	Director	2020	2023
André Choulika, Ph.D.	Director and		
	CEO	1999	2024
David Sourdive, Ph.D.	Director and		
	Deputy CEO	2000	2024
Pierre Bastid	Director	2011	2023
Laurent Arthaud	Director	2011	2023
Annick Schwebig, M.D.	Director	2011	2023
Hervé Hoppenot	Director	2017	2023
Rainer Boehm	Director	2017	2023
Donald A. Bergstrom	Director	2022	2025
Axel-Sven Malkomes	Director	2022	2025

Pursuant to French regulations, any company having more than 50 employees must, implement a Comité Social et Économique or Social and Economic Committee, which replaces and regroups the former various employee representative bodies, including the Délégation Unique du Personnel initially in place at Cellectis. We proceeded with the re-election, for a two-year term, of this Social and Economic Committee on September 14, 2022.

Director Independence

As a foreign private issuer, under the listing requirements and rules of Nasdaq, we are not required to have independent directors on our board of directors, except with respect to our audit and finance committee.

Our board of directors has determined that, applying the applicable rules and regulations of the SEC and the Nasdaq listing standards, all of our directors, except Drs. Choulika and Sourdive and Mr. Arthaud, qualify as "independent directors". In making such determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances our board of directors deemed relevant in determining the director's independence, including the number of ordinary shares beneficially owned by the director and his or her affiliated entities.

Role of the Board in Risk Oversight

Our board of directors is primarily responsible for the oversight of our risk management activities and has delegated to the audit and finance committee the responsibility to assist our board of directors in this task. While our board of directors oversees our risk management, our management is responsible for day-to-day risk management processes. We believe this division of responsibilities is the most effective approach for addressing the risks we face. Our board of directors expects our management to consider risk and risk management in each business decision, to proactively develop and monitor risk management strategies and processes for day-to-day activities and to effectively implement risk management strategies adopted by the board.

Corporate Governance Practices

As a French *société anonyme*, we are subject to various corporate governance requirements under French law. In addition, as a foreign private issuer listed on the Nasdaq Global Market, we will be subject to the Nasdaq corporate governance listing standards. However, the Nasdaq Global Market's listing standards provide that foreign private issuers are permitted to follow home country corporate governance practices in lieu of the Nasdaq rules, with certain exceptions. Certain corporate governance practices in France may differ significantly from Nasdaq's corporate governance listing standards. For example, neither the corporate laws of France nor our By-laws require that (i) a majority of our directors be independent, (ii) our compensation committee include only independent directors, or (iii) our independent directors hold regularly scheduled meetings at which only independent directors are present. Other than as set forth below, we currently intend to comply with the corporate governance listing standards of Nasdaq to the extent possible under French law. However, we may choose to change such practices to follow home country practice in the future.

Although we are a foreign private issuer, we are required to comply with Rule 10A-3 of the Exchange Act, relating to audit committee composition and responsibilities. Rule 10A-3 provides that the audit committee must have direct responsibility for the nomination, compensation and choice of our auditors, as well as control over the performance of their duties, management of complaints made, and selection of consultants. Under Rule 10A-3, if the laws of a foreign private issuer's home country require that any such matter be approved by the board of directors or the shareholders of the Company, the audit committee's responsibilities or powers with respect to such matter may instead be advisory. Under French law, the audit committee may only have an advisory role and appointment of our statutory auditors, in particular, must be decided by our shareholders at our annual meeting.

Further, Nasdaq rules require that listed companies have a compensation committee and a nominations committee comprised solely of independent directors. We follow our French home country practice rather than complying with these Nasdaq committee independence rules.

In addition, Nasdaq rules require that a listed company specify that the quorum for any meeting of the holders of share capital be at least 33^{1/3}% of the outstanding shares of the company's common voting stock. We follow our French home country practice, rather than complying with this Nasdaq rule. Consistent with French Law, our By-laws provide that when first convened, general meetings of shareholders may validly deliberate only if the shareholders present or represented hold at least (1) 20% of the voting shares in the case of an ordinary general meeting or of an extraordinary general meeting where shareholders are voting on a capital increase by capitalization of reserves, profits or share premium, or (2) 25% of the voting shares in the case of any other extraordinary general meeting. If such quorum required by French law is not met, the meeting is adjourned. There is no quorum requirement under French law when an ordinary general meeting or an extraordinary general meeting where shareholders are voting on a capital increase by capitalization of reserves, profits or share premium is reconvened, but the reconvened meeting may consider only questions that were on the agenda of the adjourned meeting. When any other extraordinary general meeting is reconvened, the required quorum under French law is 20% of the shares entitled to vote and the reconvened meeting may consider only questions that were on the agenda of the adjourned meeting. If a quorum is not met at a reconvened meeting requiring a quorum, then the meeting may be adjourned for a maximum of two months.

Finally, Nasdaq rules require shareholder approval when a plan or other equity compensation arrangement is established or materially amended. While the Company may, from time to time, obtain shareholder approval of an equity compensation arrangement in order to obtain advantageous tax treatment or otherwise, as a general matter, we intend to follow our French home country practice, which does not require shareholder approval of such plans or arrangements, rather than complying with this Nasdaq rule.

Board Committees

Our board of directors has established an audit and finance committee, a compensation committee and an environmental and social committee, each of which operates pursuant to a separate charter adopted by our board of directors. The composition and functioning of all of our committees will comply with all applicable requirements of the French Commercial Code, the Exchange Act, Nasdaq, and the rules and regulations of the SEC.

In accordance with French law, committees of our board of directors will only have an advisory role and can only make recommendations to our board of directors. As a result, decisions will be made by our board of directors taking into account non-binding recommendations of the relevant board committee.

Audit and Finance Committee. Our audit and finance committee reviews our internal accounting procedures, consults with and reviews the services provided by our independent registered public accountants and assists our board of directors in its oversight of our corporate accounting and financial reporting. Currently, our audit and finance committee is comprised of three members of the board of directors: Messrs. Malkomes, Bastid, and Bergstrom .

The duties specifically assigned to the audit and finance committee by our board of directors include, but are not limited to:

with regard to our financial statements:

• review on a preliminary basis and express its opinion on the draft annual and quarterly financial statements prior to the board of directors officially receiving the financial statements;

- examine the critical accounting policies and practices of the Company, including their relevance and consistency used for the preparation
 of the Company's consolidated financial statements and rectify any failure to comply with these policies and practices;
- monitor the scope of consolidation and review, where necessary, any explanations in connection thereto;
- interview, when necessary, the statutory auditors, the chairman of the board of directors, the chief executive officer, the chief financial officer, the employees in charge of our internal controls or any other management personnel; these discussions may take place, where required, without the presence of the chairman of our board of directors and the chief executive officer; and
- examine—prior to their publication—the draft annual and interim financial statements, the draft annual report and any other draft financial statements (including projected financial statements) prepared for the needs of upcoming material transactions together with the related press releases;

with regard to internal controls:

- assess the efficiency and quality of internal control systems and procedures within the consolidated Company;
- examine, with the persons in charge of the internal audit, and, if necessary, outside of the presence of the chairman of the board of directors
 and the chief executive officer, the contingency and action plans with respect to internal audit, the findings following the implementation
 of these actions and the recommendations and follow-up actions in connection therewith; and
- entrust the internal audit department with any mission which the committee deems necessary;

with regard to external controls:

- examine any question relating to the appointment, renewal or dismissal of our statutory auditors and their fees regarding the performance of their control review functions;
- oversee the rules relating to the use of the statutory auditors for assignments other than the audit of the financial statements and, more
 generally, ensure that we comply with the principles guaranteeing the statutory auditors' independence;
- at least annually, review and discuss the information provided by management and the auditors relating to the independence of the audit firm:
- pre-approve any services entrusted to the statutory auditors which is outside of the scope of the annual audit;
- review every year with the statutory auditors all fees paid to by the Company and its subsidiaries to any networks to which the auditors belong, their work plan, their findings and recommendations, as well as actions taken by us following such recommendations;
- review and discuss with the statutory auditors their comments on internal controls over financial reporting and any matters that have come to the attention of the statutory auditors that lead them to believe that modification to our disclosures about changes in internal control over financial reporting is necessary for management's certifications pursuant to Section 302 of the Sarbanes-Oxley Act;
- discuss if necessary any points of disagreement between the statutory auditors and the officers of the Company that may arise within the scope of these operations; and
- · review and discuss with the statutory auditors the plans for, and the scope of, the annual audit and other examinations; and

with regard to risks:

- review on a regular basis the financial situation, the cash position and the material risks and undertakings of the Company and its subsidiaries; and
- review the risk management policy and the process implemented to evaluate and manage these risks.

Compensation Committee. Our compensation committee assists our board of directors in reviewing the compensation of our executive officers and directors and makes recommendations in respect thereof. Currently, our compensation committee is comprised of two members of the board of directors: Mr. Hoppenot, Dr. Schwebig, Mr. Boehm and Mr. Bergstrom. The principal duties and responsibilities of our compensation committee include, but are not limited to:

- review the compensation of our employees and managers of the Company and its subsidiaries (fixed and variable compensations, bonus, etc.) and make any recommendation to our board of directors in connection therewith;
- review equity incentive plans (non-employee warrants, stock options, restricted (free) shares, etc.) and make recommendations to our board of directors in connection therewith:
- make recommendations to our board of directors regarding the compensation, pension and insurance plans, benefits in kind and other
 various pecuniary rights, of officers, as well as the allocation of equity incentive instruments granted to executive officers and directors of
 the Company;
- evaluate and make recommendations on the compensation policies and programs of executive officers and on the compensation of directors;
- recommend the approval, adoption and amendment of all cash- and equity-based incentive compensation plans in which any of our executive officers or directors participate and all other equity-based plans;
- review any proposed employment agreement with, and any proposed severance or retention plans or agreements applicable to, any of our executive officers;
- · review, at least annually, corporate goals and objectives relevant to the compensation of our executive officers; and
- evaluate the performance of the executive officers in light of corporate goals and objectives and recommend compensation levels for these
 executive officers based on those evaluations and any other factors the compensation committee deems appropriate.

Environmental and Social Committee. Our environmental and social committee assists our board in reviewing the environmental and social matters within the Company. Currently, our environmental and social committee is comprised of three members of the board of directors: Mr. Malkomes, Mr. Bastid and Don Bergstrom. The principal duties and responsibilities of our environmental and social committee include but are not limited to:

- ensure that social and environmental issues are considered in the Company's strategy;
- examine the reports established pursuant to the legal and regulatory requirements (if any); and
- examine the Company's commitments in terms of sustainable development.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics, or the Code of Conduct, that is applicable to all of our employees, executive officers and directors. The Code of Conduct is available on our website at www.cellectis.com. Our board of directors will be responsible for overseeing the Code of Conduct and will be required to approve any waivers of the Code of Conduct for employees, executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

D. Employees

As of December 31, 2022, we had 237 employees (excluding employees of Calyxt), 231 of whom are full-time, 63 of whom hold M.D, Ph.D. or Pharm.D. degrees, 186 of whom were engaged in research and development activities and 51 of whom were engaged in business development, commercial, legal, finance, information systems, human resources or administrative support. As of December 31, 2022, 143 of our employees were located in France and 94 of our employees were located in the United States. None of our employees is subject to a collective bargaining agreement. We consider our relationship with our employees to be good.

As of December 31, 2022, Calyxt had 48 employees, 30 of whom were in R&D. None of the Company's employees are represented by a labor union or covered by a collective bargaining agreement. Calyxt considers its relationship with employees to be good. In connection with the Company's cost reduction measures, Calyxt has undertaken headcount reductions, primarily in the first quarter of 2023. As of January 31, 2023, Calyxt had 28 full-time employees, of which ten employees are within Calyxt's administrative, legal and finance functions.

E. Share Ownership

For information regarding the share ownership of our directors and executive officers, see "Item 6.B—Compensation" and "Item 7.A—Major Shareholders."

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders.

The following table sets forth information with respect to the beneficial ownership of our ordinary shares as of February 14, 2023 for:

- each beneficial owner of more than 5% of our outstanding ordinary shares;
- each of our directors and executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities and include ordinary shares that can be acquired within 60 days of February 14, 2023. The percentage ownership information shown in the table is based upon 55,584,568 ordinary shares outstanding as of February 8, 2023, following the closing of our follow-on offering.

Except as otherwise indicated, all of the shares reflected in the table are ordinary shares and all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose.

In computing the number of ordinary shares beneficially owned by a person and the percentage ownership of that person, we deemed outstanding ordinary shares subject to options and warrants held by that person that are immediately exercisable or exercisable within 60 days of February 14, 2023. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Beneficial ownership representing less than 1% is denoted with an asterisk (*). The information in the table below is based on information known to us or ascertained by us from public filings made by the shareholders in France. Except as otherwise indicated in the table below, addresses of the directors, executive officers and named beneficial owners are in care of Cellectis, 8, rue de la Croix Jarry, 75013 Paris, France.

Name of Beneficial Owner	Ordinary Shares Beneficially Owned	
	Number Percentage	
5% Shareholders:		
Bpifrance Participations (1)	6,427,497	11.56%
Baillie Gifford & Co. (2)	4,189,420	7.54%
Long Focus Capital Management LLC (3)	4,183,633	7.53%
Pfizer, Inc. (4)	2,786,924	5.01%

Name of Beneficial Owner	Ordinary Shares Beneficially Owned	
	Number	Percentage
Directors and Executive Officers:		
André Choulika, Ph.D. (5)	2,209,334	3.97%
David Sourdive, Ph.D. (6)	1,852,360	3.33%
Philippe Duchateau, Ph.D. (7)	740,726	1.33%
Marie-Bleuenn Terrier (8)	722,641	1.30%
Stephan Reynier (9)	365,616	*
Arthur Stril (10)	52,223	*
Steven Doares (11)	53,871	*
Kyung Nam-Wortman (12)	48,731	*
Bing Wang (13)	33,000	*
Mark Frattini (14)	52,674	*
Pierre Bastid (15)	2,082,191	3.75%
Laurent Arthaud	_	*
Annick Schwebig, M.D. (16)	202,115	*
Hervé Hoppenot (17)	40,000	*
Rainer Boehm (18)	40,000	*
Jean-Pierre Garnier (19)	28,020	*
Donald A. Bergstrom	_	*
Axel-Sven Malkomes	_	*
All directors and executive officers as a group (18 persons)	8,523,501	15.33%

- * Represents beneficial ownership of less than one per cent.
- (1) Amounts beneficially owned were reported pursuant to a Schedule 13D amendment filed with the SEC on February 14, 2023. Consists of 6,427,497 ordinary shares (corresponding to 9,306,997 voting rights) beneficially owned by Caisse des dépôts et consignations, which includes 5,873,247 ordinary shares (corresponding to 8,752,747 voting rights) beneficially owned by each of Bpifrance Participations S.A., EPIC Bpifrance and Bpifrance S.A. The reported beneficial ownership includes 2,186,960 ordinary shares acquired by Bpifrance Participations S.A. in the form of ADSs in our follow-on offering which closed on February 07, 2023. Bpifrance Participations S.A., EPIC Bprifrance and Bprifrance S.A.'s address is 27-31, avenue du Général Leclerc, 94710 Maisons-Alfort Cedex, France. Caisse des Dépôts' address is 56, rue de Lille, 75007 Paris, France. This amount of 6,427,497 ordinary shares includes 2,186,960 ordinary shares acquired by Bpifrance Participations S.A. in the form of ADSs in our follow-on offering, which closed on February 07, 2023.
- (2) Amounts beneficially owned by Baillie Gifford & Co. include 3,149,420 ordinary shares reported pursuant to a Schedule 13G amendment filed with the SEC on January 18, 2023 by Baillie Gifford & Co., supplemented by 1,040,000 additional ordinary shares acquired by Baillie Gifford & Co. in the form of ADSs in our follow-on offering, which closed on February 07, 2023. The address of Baillie Gifford & Co. is Calton Square, 1 Greenside Row, Edinburgh EH1 3AN.
- (3) Amounts beneficially owned include 2,683,633 ordinary shares reported pursuant to a Schedule 13G amendment filed with the SEC on February 14, 2023 supplemented by 1,500,000 ordinary shares acquired in our follow-on offering which closed on February 07, 2023. As reported on the Schedule 13G, Long Focus Capital Master, Ltd. is the beneficial owner of record of 2,683,633 shares of Common Stock covered by this statement. Condagua, LLC is the beneficial owner of record of 1,405,425 shares of Common Stock. Long Focus Capital Management, LLC ("LFCM") and John B. Helmers may be deemed to beneficially own the 1,278,208 shares of Common Stock held by the Long Focus Capital Master, Ltd. and the 1,405,425 shares of Common Stock held by Condagua, LLC as the SEC registered investment adviser and the principal of LFCM, respectively. A. Glenn Helmers is the beneficial owner of the 1,405,425 shares of Common Stock held by Condagua, LLC. In connection with our follow-on offering, which closed on February 7, 2023, funds managed by Long Focus Capital Management LLC acquired 1,500,000 ordinary shares in the form of ADSs. Long Focus Capital Management LLC, Long Focus Capital Master Ltd. and Condagua LLC's address is 207 Calle Del Parque, A&M Tower, 8th Floor San Juan, PR 00912.
- (4) The address of Pfizer, Inc. is 235 East 42nd Street, New York, New York 10017. Shares beneficially owned by Pfizer, Inc. were acquired by Pfizer OTC B.V. on July 31, 2014 in the context of a share capital increase in connection with the entry into a research and collaboration agreement between Pfizer Inc. and Cellectis S.A.
- Includes 219,173 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in March 2015 under the 2015 Stock Option Plan, 200,000 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in September 2015 governed by the 2015 Stock Option Plan, 160,701 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in March 2016 under the 2015 Stock Option Plan, 226,477 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in October 2016 under the 2016 Stock Option Plan, 135,000 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in October 2017 under the 2017 Stock Option Plan, 140,000 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in April 2019 under the 2018 Stock Option Plan, 77,499 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 54,450 ordinary shares that Mr. Choulika has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan.

- Includes 175,343 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in March 2015 under the 2015 Stock Option Plan, 175,000 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in September 2015 governed by the 2015 Stock Option Plan and 140,614 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in March 2016 under the 2015 Stock Option Plan, 198,168 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in October 2016 under the 2016 Stock Option Plan, 80,000 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in October 2017 under the 2017 Stock Option Plan, 70,000 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in April 2019 under the 2018 Stock Option Plan, 17,000 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan, 13,200 ordinary shares that Mr. Sourdive has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 703,041 shares held by Viveoo SARL.
- (7) Includes 131,508 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in March 2015 under the 2015 Stock Option Plan, 150,000 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in September 2015 governed by the 2015 Stock Option Plan, 120,526 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in March 2016 under the 2015 Stock Option Plan, 169,858 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in October 2016 under the 2016 Stock Option Plan, 30,000 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in October 2017 under the 2017 Stock Option Plan, 70,000 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in April 2019 under the 2018 Stock Option Plan, 17,000 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Dr. Duchateau has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan.
- Includes 87,671 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in March 2015 under the 2015 Stock Option Plan, 90,000 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in September 2015 governed by the 2015 Stock Option Plan, 140,614 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in March 2016 under the 2015 Stock Option Plan, 198,168 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in October 2016 under the 2016 Stock Option Plan, 80,000 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in October 2017 under the 2017 Stock Option Plan, 70,000 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in April 2019 under the 2018 Stock Option Plan, 17,000 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Mrs. Terrier has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan.
- (9) Includes 39,452 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in March 2015 under the 2015 Stock Option Plan, 40,000 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in September 2015 governed by the 2015 Stock Option Plan, 58,856 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in March 2016 under the 2015 Stock Option Plan, 67,609 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in October 2016 under the 2016 Stock Option Plan, 40,000 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in October 2017 under the 2017 Stock Option Plan, 70,000 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in April 2019 under the 2018 Stock Option Plan, 17,000 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in March 2022 under the 2018 Stock Option Plan and 13,200 ordinary shares that Mr. Reynier has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.
- (10) Includes 5,000 ordinary shares that Mr. Stril has the right to acquire pursuant to stock options granted in October 2018 under the 2018 Stock Option Plan, 13,062 ordinary shares that Mr. Stril has the right to acquire pursuant to stock options granted in April 2019 under the 2018 Stock Option Plan, 17,000 ordinary shares that Mr. Stril has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Mr. Stril has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.
- (11) Includes 10,624 ordinary shares that Mr. Doares has the right to acquire pursuant to stock options granted in July 2020 under the 2018 Stock Option Plan, 17,000 ordinary shares that Mr. Doares has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan, 6,562 ordinary shares that Mr. Doares has the right to acquire pursuant to stock options granted in May 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Mr. Doares has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.
- (12) Includes 11,531 ordinary shares that Mrs. Nam-Wortman has the right to acquire pursuant to stock options granted in November 2020 under the 2018 Stock Option Plan, 17,000 ordinary shares that Mrs. Nam-Wortman has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 13,200 ordinary shares that Mrs. Nam-Wortman has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.

- (13) Includes 33,000 ordinary shares that Mr. Wang has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.
- (14) Includes 28,124 ordinary shares that Mr. Frattini has the right to acquire pursuant to stock options granted in September 2020 under the 2018 Stock Option Plan, 7,750 ordinary shares that Mr. Frattini has the right to acquire pursuant to stock options granted in March 2021 under the 2018 Stock Option Plan and 1,800 ordinary shares that Mr. Frattini has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.
- (15) The ordinary shares include 50,000 non-employee warrants which are exercisable since March 27, 2016, 50,000 non-employee warrants, which are exercisable since September 8, 2016, 40,175 non-employee warrants, which are exercisable since March 14, 2017, 40,000 non-employee warrants, which are exercisable since October 28, 2017, 40,000 non-employee warrants, which are exercisable since October 11, 2018, 1,743,678 shares held by Lohas SARL and 62,438 shares held by Zaka Investments L.
- (16) The ordinary shares include 30,000 non-employee warrants which are exercisable since March 27, 2016, 50,000 non-employee warrants, which are exercisable since September 8, 2016, 40,175 non-employee warrants, which are exercisable since March 14, 2017, 40,000 non-employee warrants, which are exercisable since October 28, 2017 and 40,000 non-employee warrants, which are exercisable since October 11, 2018.
- (17) The ordinary shares include 40,000 non-employee warrants which are exercisable since October 11, 2018.
- (18) The ordinary shares include 40,000 non-employee warrants which are exercisable since October 11, 2018.
- (19) Includes 13,445 ordinary shares that Mr. Garnier has the right to acquire pursuant to stock options granted in April 2021 under the 2018 Stock Option Plan and 14,574 ordinary shares that Mr. Garnier has the right to acquire pursuant to stock options granted in March 2022 under the 2021 Stock Option Plan.

None of our principal shareholders has voting rights different than our other shareholders.

As of June 30, 2022 and December 31, 2022, we estimate that approximately 30.0% and 33.6%, respectively, of our outstanding ordinary shares were held in the United States.

B. Related Party Transactions

Since January 1, 2022, we have engaged in the following transactions with our directors, executive officers and holders of more than 5% of our outstanding voting securities and their affiliates, which we refer to as our related-parties.

Transactions with Our Principal Shareholders, Directors and Executive Officers

Bpifrance, which is a shareholder of Cellectis, participated in a bank syndicate that provided Cellectis an €18.5 million state guaranteed loan in 2020 (Prêt Garanti par l'Etat). Since January 1, 2022, we have made payments of \$1.2 million in principal and \$0.3 million in interest pursuant to the PGE loan.

We entered into a transfer of receivables agreement with Bpifrance, to provide to Cellectis financing of 80% of the tax receivables due to Cellectis in connection with the research tax credit (*Crédit Impôts Recherche*). Pursuant to this agreement and according to market standards, Bpifrance advances 5,456,000 euros over the period from June 15, 2022 to June 15, 2023, with a fee to be charged to Cellectis of 0.40%.

Agreements with Our Directors and Executive Officers

Director and Executive Officer Compensation

See "Item 6.B—Compensation of Directors and Executive Officers" for information regarding compensation of directors and executive officers and service agreement with Director.

Equity Awards

Since January 1, 2022, we have granted equity awards to certain of our directors and executive officers:

- On March 3, 2022, we granted 636,365 stock options to our executive officers, with a vesting over four years and subject to performance conditions.
- On March 3,2022, we granted 145,400 free shares to our executive officers, with a vesting over three years and subject to performance conditions.
- On March 3, 2022, we granted 44,165 stock options to the chairman of our board of directors, with a vesting between three and four years.
- On April 24, 2022, we granted 40,000 stock options to our executive officers, with a vesting over four years and subject to performance conditions.
- On April 24, 2022, we granted 9,000 free shares to our executive officers, with a vesting over three years and subject to performance conditions.
- On November 8, 2022, we granted 70,000 stock options to our executive officers, with a vesting over four years and subject to
 performance conditions.
- On November 8, 2022, we granted 30,000 free shares to our executive officers, with a vesting over three years and subject to performance conditions.

See "Item. 7A—Major Shareholders" for information regarding equity awards to certain of our executive officers.

Indemnification Agreements

See "Item. 6B—Limitations on Liability and Indemnification Matters."

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Transactions with subsidiaries: Calyxt Offerings and Key Arrangements

In connection with Calyxt's initial public offering in 2017, we and Calyxt entered into certain agreements that provide a framework for our ongoing relationship with Calyxt. The summaries of the most significant provisions of these agreements. These summaries are qualified in their entirety by reference to the full text of such agreements.

Management Services Agreement

We are party to a management services agreement dated January 1, 2016, amended on July 25, 2017 and on January 29, 2020 that we entered into with Calyxt, Inc., a Delaware corporation and our wholly-owned subsidiary ("Cellectis, Inc."), and Cellectis Biologics, Inc., a Delaware corporation and a wholly-owned subsidiary of Cellectis, Inc. ("Cellectis Biologics, Inc.") pursuant to which each party to this agreement (the "providing party") is entitled to provide certain services to the others (the "receiving party"), including certain general management, finance, investor relations, communication, legal, intellectual property, human resources and information technology services. In consideration for such services, the receiving party pays to the providing party certain fees, consisting of reimbursement of all costs and expenses reasonably incurred by us in connection with the provision of such services, payment of a mark-up corresponding to a percentage of certain of the costs and expenses, which range from zero to 10%, and reimbursement of costs and expenses of services that are subcontracted by the providing party on the receiving party's behalf.

The management services agreement is automatically renewed for one-year periods starting on January 1st of each year. Either party has the right to terminate the agreement at the anniversary date of the agreement by giving three months prior notice. We also entered into an amendment to the agreement in connection with IPO to provide that the agreement may otherwise be terminated by us or by Calyxt in connection with certain material breaches by the other party upon prior written notice subject to limited cure periods, the sale of all or substantially all of the assets of either party, certain bankruptcy events or certain judgments.

During fiscal year 2022, we did not provide any management services under the management services agreement. Accordingly, Calyxt did not make any payments to us for services provided. We had a direct re-invoicing related to the UMN agriculture license fee in the year ended December 31, 2022.

Stockholders Agreement

On July 25, 2017 we entered into a stockholders agreement with Calyxt, which we subsequently amended on May 7, 2018. We refer to as these agreements, together, as the stockholders agreement. Pursuant to our stockholders agreement with Calyxt, we possessed certain contractual rights for so long as we beneficially owned at least 50% of the then outstanding shares of Calyxt's common stock (the "Majority Ownership Rights). Such Majority Ownership Rights included:

- to approve any modification to Calyxt's or any future Calyxt subsidiary's share capital (e.g., share capital increase or decrease), the creation of any subsidiary by Calyxt, any grant of stock-based compensation, any distributions or initial public offering, merger, spin-off, liquidation, winding up or carve-out transactions;
- to approve Calyxt's annual business plan and annual budget and any modification thereto;
- to approve any external growth transactions of Calyxt exceeding \$500,000 and not included in the approved annual business plan and annual budget;
- to approve any investment and disposition decisions by Calyxt exceeding \$500,000 and not included in the approved annual business plan and annual budget (it being understood that this clause excludes the purchase and sale of inventory as a part of the normal course of business):
- to approve any related-party agreement and any agreement or transaction between the executives or shareholders of Calyxt, on the one hand, and Calyxt or any of its subsidiaries, on the other hand;
- to approve any decision by Calyxt pertaining to the recruitment, dismissal/removal, or increase of the compensation of executives and corporate officers;
- to approve any material decision by Calyxt relating to a material litigation;
- · to approve any decision by Calyxt relating to the opening of a social or restructuring plan or pre-insolvency proceedings;
- to approve any buyback by Calyxt of its own shares;
- to approve any new borrowings or debts of Calyxt exceeding \$500,000 and early repayment of loans, if any (it being understood that we will approve the entering into of contracts for revolving loans and other short-term loans and the repayment of such for financing general operating activities, such as revolving loans for inventory or factoring of receivables);
- to approve grants by Calyxt of any pledges on securities;
- to develop new activities and businesses not described in the annual business plan and annual budget;
- · to approve entry into any material agreement or partnership; and
- to approve any offshore and relocation activities of Calyxt.

In October 2022, our ownership interest in Calyxt dropped below the 50% threshold for such Majority Ownership Rights.

In addition, we have the following rights for so long as we beneficially own at least 15% of the then outstanding shares of Calyxt's common stock ("Continuing Cellectis Rights"), including:

- to nominate the greater of three members of Calyxt's Board of Directors or a majority of the directors;
- to designate the Chairman of Calyxt's Board of Directors and one member to each of the audit committee of the Board of Directors, the compensation committee of the Board of Directors and the nominating and corporation governance committee of the Board of Directors;
- to approve any amendments to Calyxt' amended and restated certificate of incorporation or its amended and restated by-laws that would
 change the name of Calyxt, its jurisdiction of incorporation, the location of its principal executive offices, the purpose or purposes for
 which Calyxt is incorporated or the Cellectis approval items set forth in the stockholders agreement;
- to approve the payment of any regular or special dividends;
- to approve the commencement of any proceeding for the voluntary dissolution, winding up or bankruptcy of Calyxt or a material subsidiary;
- to approve any public or private offering, merger, amalgamation or consolidation of Calyxt or the spinoff of a business of Calyxt or any sale, conveyance, transfer or other disposition of Calyxt's assets; and
- to approve any appointment to, or removal from, Calyxt's Board of Directors, to the extent permissible by the laws of the State of Delaware.

In addition to the Continuing Cellectis Rights, for so long as we beneficially own at least 15% of the then outstanding shares of Calyxt's common stock, (i) we will be entitled to certain information rights, including the right to consult with and advise senior management, to receive quarterly and annual financial statements and to review Calyxt's books and records and (ii) Calyxt will also be required to cooperate with us in connection with certain sales and pledges of Calyxt's shares or grants of security interests in respect thereof, including in connection with margin loans.

The stockholders agreement will also provide us with certain registration rights, including certain demand and piggyback registration rights. The registration rights will remain in effect with respect to any shares covered by the Stockholders Agreement until (i) all of our Calyxt shares have been sold pursuant to an effective registration statement under the Securities Act; (ii) all of our Calyxt shares have been sold to the public pursuant to Rule 144 under the Securities Act; or (iii) we own less than 10% of the then outstanding shares of Calyxt's common stock.

Following the closing of the Calyxt Merger, we are expected to own approximately 2.4% of the equity interests of the combined company. Accordingly, we would no longer be entitled to the foregoing rights.

Separation Agreement

On July 25, 2017, we entered into a separation agreement with Calyxt, which sets forth certain agreements between us and Calyxt that will govern the relationship between us and Calyxt following this offering, including with respect to the following matters:

- guarantees;
- insurance policies;
- mutual releases and indemnification matters:
- accounting, financial reporting and internal control issues;
- confidentiality:
- ability of the parties to compete with each other; and
- · settlement of intercompany accounts.

The separation agreement will terminate upon the earlier of (i) mutual written consent of us and Calyxt and (ii) the date on which we and our affiliates cease to hold at least 15% of the then outstanding shares of Calyxt's common stock.

License Agreement with Calyxt

We are party to a license agreement with Calyxt pursuant to which Calyxt has been granted an exclusive, worldwide license (subject to existing licenses granted by us to third parties) to use, commercialize and exploit certain intellectual property in the field of researching, developing and commercializing agricultural and food products, including traits, seeds, and feed and food ingredients (excluding any application in connection with animals and animal cells), except that such license will be non-exclusive in such field for any activities relating to researching, developing or commercializing certain modified or mutated I-CreI homing endonucleases. Calyxt has also been granted a non-exclusive license to use the TALEN trademark in connection with its exploitation of licensed products under the agreement. Any improvements Calyxt makes to the licensed intellectual property will be owned by Calyxt but licensed back to us on an exclusive basis for any use outside of Calyxt's exclusive agricultural field of use.

In consideration for the license from us, Calyxt is required to pay to us, on a product-by-product and country-by-country basis, a royalty of 3% of net sales less costs for grain and seed of any products that are covered by the patents licensed from us. In addition, Calyxt will be required to pay us 30% of revenue Calyxt receives for sublicensing its rights under the agreement to third parties. Calyxt's payment obligations to us will expire upon the expiration of the last-to-expire valid claim of the patents licensed to Calyxt by us.

Under our license agreement with Calyxt, and as between the parties, we have the first right to control the prosecution, maintenance, defense and enforcement of the licensed intellectual property and Calyxt will have the right to step in and assume such control with respect to the patents owned by us and exclusively licensed to Calyxt under the agreement if we elect to not prosecute, maintain, defend or enforce such patents. In certain circumstances, if we elect to abandon any patents owned by us and exclusively licensed to Calyxt under the agreement, Calyxt will have the right to assume ownership of such patents. In

addition, some of the intellectual property that will be licensed to Calyxt by us consists of an exclusive sublicense, subject to existing sublicenses granted by us to third parties, of intellectual property originally licensed to us by the University of Minnesota to exploit such intellectual property in Calyxt's exclusive agricultural field of use. Therefore, as to such sublicensed intellectual property, Calyxt's license from us will be subject to the terms and conditions of the license agreement between the University of Minnesota and us, and to the extent Calyxt's activities under such sublicense violate any terms and conditions of the license agreement between us and the University of Minnesota, Calyxt will be responsible for any damages that we may incur. In addition, Calyxt is required to reimburse us for any and all payments made by us to the University of Minnesota pursuant to the license agreement between the University of Minnesota and us to the extent that any such payments are required to be made as a result of Calyxt's applicable activities. Under the license agreement between us and the University of Minnesota, the University of Minnesota has the first right to control the prosecution and maintenance of the licensed intellectual property.

Calyxt's license agreement with us is perpetual. However it may be terminated upon the mutual written agreement of both parties, either party's uncured material breach of the agreement, or upon certain bankruptcy and insolvency related events.

Voting Agreement

In connection with the Merger Agreement entered into between Calyxt and Cibus Global LLC, we executed a voting agreement with Cibus to vote in favor of and approve all the transactions contemplated by the Merger Agreement.

Related-Party Transactions Policy

We have adopted a related-party transaction policy that sets forth our procedures for the identification, review, consideration and approval or ratification of related-party transactions. The policy became effective immediately upon the completion of our initial public offering. For purposes of our policy only, a related-party transaction is a transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and any related parties are, were or will be participants, which are not (1) in the ordinary course of business, (2) at arms' length and (3) in which the amount involved exceeds \$120,000. Transactions involving compensation for services provided to us as an employee or director are not covered by this policy. For purposes of this policy, a related party is any executive officer, director (or nominee for director) or beneficial owner of more than five percent (5%) of any class of our voting securities, including any of their respective immediate family members and any entity owned or controlled by such persons.

Under the policy, related-party transactions must be reported to us by all related parties. If a transaction has been identified as a related-party transaction, our management must present information regarding the related-party transaction to our board of directors for review, consideration and approval. Certain transactions may be presented to the Audit and Finance Committee, which will determine whether the transaction is a related-party transaction, in which case the related-party transaction will be submitted to our board of directors. The presentation will include a description of, among other things, the material facts, the interests in the transaction, direct and indirect, of the related parties, the benefits to us of the transaction and whether the transaction is on terms that are comparable to the terms available to or from, as the case may be, an unrelated third-party or to or from employees generally. In addition, under our Code of Business Conduct and Ethics, our employees and directors have an affirmative responsibility to disclose any transaction or relationship that reasonably could be expected to give rise to a conflict of interest. In considering related-party transactions, our board of directors, or to the extent permitted by applicable law an independent committee of our board of directors, will take into account the relevant available facts and circumstances including, but not limited to:

- the benefits and perceived benefits to us;
- the opportunity costs of alternative transactions;
- the materiality and character of the related party's interest;
- the actual or apparent conflict of interest of the related party; and
- the terms available to or from, as the case may be, unrelated third parties or to or from employees generally.

The policy requires that, in determining whether to approve, ratify or reject a related-party transaction, our board of directors, or if permitted by applicable law an independent committee of our board of directors, must consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our shareholders, as our board of directors, or if permitted by applicable law an independent committee of our board of directors, determines in the good faith exercise of its discretion.

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Our consolidated financial statements are appended at the end of this Annual Report starting at page F-1, and form a part hereof.

Legal Proceedings

From time to time, we may be involved in various claims and legal proceedings relating to claims arising out of our operations. We are not currently a party to any legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business or our cash flows. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Dividend Distribution

Approval of Dividends. Pursuant to French law, our board of directors may propose a dividend and/or reserve distribution for approval by the shareholders at the annual ordinary general meeting related to the statutory financial statements of Cellectis S.A.

Upon recommendation of our board of directors, our shareholders may decide to allocate all or part of any distributable profits to special or general reserves, to carry them forward to the next fiscal year as retained earnings or to allocate them to the shareholders as dividends. However, dividends may not be distributed when as a result of such distribution, our net assets are or would become lower than the amount of the share capital plus the amount of the legal reserves which, under French law, may not be distributed to shareholders (the amount of our share capital plus the amount of our legal and other reserves which may not be distributed was equal to \$2.5 million on December 31, 2022). Moreover, Cellectis accumulated deficit is \$130.5 million as of December 31, 2022 which only corresponds to 2022 net result. During the annual shareholders meeting of June 28, 2022, the shareholders, in accordance with French Law, approved the absorption of \$362.9 million of retained earnings into share premium. This transaction has no impact on the total equity, comprehensive income (loss), assets (including cash) nor liabilities.

Our board of directors may distribute interim dividends after the end of the fiscal year but before the approval of the financial statements for the relevant fiscal year when the interim balance sheet, established during such year and certified by an auditor, reflects that we have earned distributable profits since the close of the last financial year, after recognizing the necessary depreciation and provisions and after deducting prior losses, if any, and the sums to be allocated to reserves, as required by law or the By-laws, and including any retained earnings. The amount of such interim dividends may not exceed the amount of the profit so defined.

Distribution of Dividends. Dividends are distributed to shareholders proportionally to their shareholding interests. In the case of interim dividends, distributions are made to shareholders on the date set by our board of directors during the meeting in which the distribution of interim dividends is approved. The actual dividend payment date is decided by the shareholders at an ordinary general shareholders' meeting or by our board of directors in the absence of such a decision by the shareholders. Shareholders that own shares on the actual payment date are entitled to the dividend.

Dividends may be paid in cash or, if the shareholders' meeting so decides, in kind, provided that all the shareholders receive a whole number of assets of the same nature paid in lieu of cash. Our By-laws provide that, subject to a decision of the shareholders' meeting taken by ordinary resolution, each shareholder may be given the choice to receive his dividend in cash or in shares.

B. Significant Changes

On January 13, 2023, Calyxt, Calypso Merger Subsidiary, LLC, a wholly-owned subsidiary of Calyxt, Cibus and certain other parties named therein, entered into the Merger Agreement, pursuant to which, subject to the terms and conditions thereof, Calyxt and Cibus will merge in an all-stock transaction. Following the closing of the proposed Calyxt Merger, Cellectis S.A. is expected to own approximately 2.4% of the equity interests of the combined company. Accordingly, if the proposed Calyxt Merger is consummated it would result in a loss of control over Calyxt.

The closing of the proposed Calyxt Merger is expected in the second quarter of 2023. In this context, the assets and liabilities of Calyxt are be presented in the financial statements for the year ending December 31, 2022 as non-current assets and liabilities held for sale, and the results of Calyxt's operations are presented as discontinued operations in accordance with IFRS 5. Commencing with the second quarter of 2023, Calyxt may no longer be a consolidated subsidiary if the proposed Calyxt Merger is consummated.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

Our ADS have been listed on Nasdaq Global Market under the symbol "CLLS" since March 24, 2015. Prior to that date, there was no public trading market for ADSs. Our ordinary shares have been trading on Euronext Growth market of Euronext Paris under the symbol "ALCLS" since February 7, 2007. Prior to that date, there was no public trading market for ADSs or our ordinary shares.

B. Plan of Distribution

Not applicable.

C. Markets

The ADS have been listed on Nasdaq Global Market under the symbol "CLLS" since March 24, 2015 and our ordinary shares have been listed on the Euronext Growth market of Euronext in Paris under the symbol "ALCLS" since February 7, 2007.

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

Key Provisions of Our By-laws and French Law

The description below reflects the terms of our By-laws, and summarizes the material rights of holders of our ordinary shares under French law. Please note that this is only a summary and is not intended to be exhaustive. For further information, please refer to the full version of our By-laws which is included as an exhibit to this Annual Report.

Corporate Purpose

Our corporate purpose, which is set forth in Article 3 of our Bylaws, in France and abroad includes:

- all activities related to genetics and more specifically to genome engineering, in particular, research, development and invention, filing and
 use of patents and trademarks, sale and marketing, advising and assisting, in all areas, in particular in the agro-food, pharmaceutical, textile
 and environmental sectors; and
- more generally, all industrial, commercial, financial and civil transactions and transactions involving real estate or movable property
 relating directly or indirectly to any of the aforementioned corporate purposes or any similar or related purpose.

Directors

Quorum and Voting. The board of directors may only deliberate if at least half of the directors attend the applicable meeting in the manner provided for in our By-laws. In particular, French law and the charter of the board of directors allow directors to attend meetings of the board of directors in person or, to the extent permitted by applicable law, by videoconference or other telecommunications arrangements. The board of directors may also take by written consultation certain decisions restrively listed by French law.

In addition, our By-Laws allow a director to grant another director a proxy to represent him or her at a meeting of the board of directors, but no director can hold more than one proxy at any meeting. Decisions of the board of directors are adopted by the majority of the voting rights held by the directors present or represented, it being specified that in case of a vote-split, the Chairman of the board of directors shall have a casting vote.

Directors' Voting Powers on Proposal, Arrangement or Contract in which any Director is Materially Interested. Under French law, any agreement entered into (directly or through an intermediary) between us and any director that is not entered into (1) in the ordinary course of business and (2) under standard terms and conditions is subject to the prior authorization of the board of directors, excluding the vote of the interested director.

The foregoing requirements also apply to agreements between us and another company, provided that the company is not one of our wholly-owned subsidiaries, if one of our directors is the owner or a general partner, manager, director, general manager or member of the executive or supervisory board of the other company, as well as to agreements in which one of our directors has an indirect interest.

Directors' Compensation. The aggregate amount of compensation (formerly named "jetons de présence") of the board of directors is determined at the shareholders' annual ordinary general meeting. The board of directors then divides all or part (at the board's discretion) of this aggregate amount among some or all of its members by a simple majority of the votes cast. In addition, the board of directors may grant exceptional compensation ("rémunérations exceptionnelles") to a director on a case-by-case basis for special and temporary assignments. The board of directors may also authorize the reimbursement of reasonable travel and accommodation expenses, as well as other expenses incurred by directors in the corporate interest.

Board of Directors' Borrowing Powers. There are currently no limits imposed by our By-laws on the amounts of loans or borrowings that the board of directors may approve.

Directors' Age Limits. The number of directors who are more than seventy-five (75) years old may not exceed one third of the directors in office.

Term of Director Office. Our By-laws provide that members of our board of directors are elected for a tenure of three years.

Employee Director Limits. The number of directors who are also party to employment contracts with the Company may not exceed one third of the directors in office.

Directors' Share Ownership Requirements. None.

For a discussion of the information required by Item 10.B. 2 through 10, please refer to Exhibit 2.3 to this Annual Report, which is incorporated by reference herein.

Listing

Our ADSs have been listed on the Nasdaq Global Market under the symbol "CLLS" and our ordinary shares have been listed on the Euronext Growth market of Euronext in Paris under the symbol ALCLS".

Transfer Agent and Registrar

The transfer agent and registrar for our ADSs is Citibank, N.A. The transfer agent and registrar for our ordinary shares is Société Générale Securities Services.

C. Material Contracts

For information on our material contracts, please refer to Items 4, 6 and 7.B. of this Annual Report.

D. Exchange Controls

Under current French foreign exchange control regulations there are no limitations on the amount of cash payments that we may remit to residents of foreign countries. Laws and regulations concerning foreign exchange controls do, however, require that all payments or transfers of funds made by a French resident to a non-resident such as dividend payments be handled by an accredited intermediary. All registered banks and substantially all credit institutions in France are accredited intermediaries.

E. Taxation

Material U.S. Federal Income Tax Considerations

The following is a discussion of the material U.S. federal income tax consequences of owning and disposing of ADSs. This summary does not address any aspect of U.S. federal non-income tax laws, such as U.S. federal estate and gift tax laws, or state, local or non-U.S. tax laws, and does not purport to be a comprehensive description of all of the U.S. tax considerations that may be relevant to particular holders, such as the effects of section 451(b) of the Internal Revenue Code of 1986, as amended (the "Code").

The discussion applies to you only if you hold the ADSs as capital assets for U.S. federal income tax purposes (generally, for investment). This section does not apply to you if you are a member of a special class of holders subject to special tax rules, including:

- a broker
- a dealer in securities, commodities or foreign currencies;
- a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings;
- a bank or other financial institution;
- a tax-exempt organization;
- an insurance company;
- a real estate investment trust;
- a controlled foreign corporation;
- a passive foreign investment company;
- a regulated investment company;
- an investor who is a U.S. expatriate, former U.S. citizen or former long term resident of the United States;
- a mutual fund;
- an individual retirement or other tax-deferred account;
- a holder liable for alternative minimum tax;
- a holder that actually or constructively owns 10% or more, by voting power or value, of our voting stock;
- ullet a partnership or other pass-through entity for U.S. federal income tax purposes;
- a holder that holds ADSs as part of a straddle, hedging, constructive sale, conversion or other integrated transaction for U.S. federal income tax purposes; or
- a U.S. holder (as defined below) whose functional currency is not the U.S. Dollar.

This section is based on the Code, existing and proposed income tax regulations issued under the Code, legislative history, and judicial and administrative interpretations thereof, all as of the date of this Annual Report. All of the foregoing are subject to change at any time, and any change could be retroactive and could affect the accuracy of this discussion. In addition, the application and interpretation of certain aspects of the passive foreign investment company, or PFIC, rules, referred to below, require the issuance of regulations which in many instances have not been promulgated and which may have retroactive effect. There can be no assurance that any of these regulations will be enacted or promulgated, and if so, the form they will take or the

effect that they may have on this discussion. This discussion is not binding on the U.S. Internal Revenue Service, or IRS, or the courts. No ruling has been or will be sought from the IRS with respect to the positions and issues discussed herein, and there can be no assurance that the IRS or a court will not take a different position concerning the U.S. federal income tax consequences of an investment in the ADSs or that any such position would not be sustained.

YOU SHOULD CONSULT YOUR OWN TAX ADVISORS CONCERNING THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSEQUENCES OF OWNING AND DISPOSING OF THE ADS IN YOUR PARTICULAR SITUATION.

You are a "U.S. holder" if you are a beneficial owner of ADSs or are treated for U.S. federal income tax purpose as:

- a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons are authorized to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person for U.S. federal income tax purposes.

In addition, this discussion is limited to holders who are not resident in France for purposes of the income tax treaty between the United States and France.

If a partnership (including for this purpose any entity treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of the ADSs, the U.S. tax treatment of a partner in the partnership generally will depend on the status of the partner and the activities of the partnership. A holder of the ADSs that is a partnership and partners in such a partnership should consult their own tax advisors concerning the U.S. federal income tax consequences of owning and disposing of ADSs.

A "non-U.S. holder" is a beneficial owner of ADSs that is neither a U.S. holder nor a partnership for U.S. federal income tax purposes.

Generally, holders of ADSs should be treated for U.S. federal income tax purposes as holding the ordinary shares represented by the ADSs. Accordingly, no gain or loss will be recognized upon an exchange of ordinary shares for ADSs or an exchange of ADSs for ordinary shares. The U.S. Treasury has expressed concerns that intermediaries in the chain of ownership between the holder of an ADS and the issuer of the security underlying the ADS may be taking actions that are inconsistent with the claiming of foreign tax credits for U.S. holders of ADSs. Accordingly, the credibility of foreign taxes, if any, as described below, could be affected by actions taken by intermediaries in the chain of ownership between the holder of an ADS and the company.

PFIC Considerations

The Code provides special rules regarding certain distributions received by U.S. persons with respect to, and sales, exchanges and other dispositions, including pledges, of, shares of stock (including ordinary shares represented by ADSs) in a PFIC. A non-U.S. corporation will be treated as a PFIC for any taxable year in which either: (1) at least 75 % of its gross income is "passive income" or (2) at least 50 % of its gross assets during the taxable year (based on the average of the fair market values of the assets determined at the end of each quarterly period) are "passive assets," which generally means that they produce passive income or are held for the production of passive income. Passive income for this purpose generally includes, among other things, dividends, interest, rents, royalties, gains from commodities and securities transactions, and gains from assets that produce passive income. In determining whether a foreign corporation is a PFIC, a pro rata portion of the income and assets of each corporation in which it owns, directly or indirectly, at least a 25% interest (by value) is taken into account.

Although the matter is not free from doubt, we do not believe that we were a PFIC for U.S. federal income tax purposes for the taxable year ended December 31, 2022. No assurances may be given at this time as to our PFIC status for the taxable year ended December 31, 2023 or future taxable years. PFIC status must be determined annually and therefore is subject to change. Because this determination is made annually at the end of each taxable year and is dependent upon a number of factors, some of which are beyond our control, including the amount and nature of our income, as well as on the market valuation of our assets (which may be determined in large part by reference to the market value of the ADSs and our ordinary shares, which may fluctuate substantially) and our spending schedule for our cash balances, and because certain aspects of the PFIC rules are not entirely

certain, there can be no assurance that we were not a PFIC, that we are not or will not become a PFIC or that the IRS will agree with any position we take regarding our PFIC status. In addition, our determination that we were likely not a PFIC for the taxable year ended December 31, 2022 depends in part on our interpretation of the 2021 Proposed Regulations. No assurances may be given that the IRS will agree with our interpretation of the 2021 Proposed Regulations will be finalized without significant changes. If we are not a PFIC during any taxable year in which you hold ADSs, then the remainder of the discussion under "Taxation—Material U.S. Federal Income Tax Considerations," outside of this "— PFIC Considerations" portion may be relevant to you. U.S. holders should consult their tax advisors as to the applicability of the PFIC rules.

A U.S. holder that holds ADSs during any taxable year in which we qualify as a PFIC is subject to special tax rules with respect to (a) any gain realized on the sale, exchange or other disposition of the ADSs and (b) any "excess distribution" by the corporation to the holder, unless the holder elects to treat the PFIC as a "qualified electing fund," or QEF, or makes a "mark-to-market" election, each as discussed below. An "excess distribution" is that portion of a distribution with respect to ADSs that exceeds 125% of the annual average of such distributions over the preceding three-year period or, if shorter, the U.S. holder's holding period for its ADSs. Excess distributions and gains on the sale, exchange or other disposition of ADSs of a corporation which was a PFIC at any time during the U.S. holder's holding period are allocated ratably to each day of the U.S. holder's holding period. Amounts allocated to the taxable year in which the disposition occurs and amounts allocated to any period in the shareholder's holding period before the first day of the first taxable year that the corporation was a PFIC will be taxed as ordinary income (rather than capital gain) earned in the taxable year of the disposition. Amounts allocated to each of the other taxable years in the U.S. holder's holding period are not included in gross income for the year of the disposition, but are subject to the highest ordinary income tax rates in effect for individuals or corporations, as applicable, for each such year and the interest charge generally applicable to income tax deficiencies will be imposed on the resulting tax attributable to each year. The tax liability for amounts allocated to years before the year of disposition or "excess distribution" cannot be offset by any net operating losses for such years, and gains (but not losses) realized on the sale of the ADSs cannot be treated as capital, even if a U.S. holder held such ADSs as capital assets.

If we are a PFIC for any taxable year during which a U.S. holder holds ADSs, then we generally will continue to be treated as a PFIC with respect to the holder for all succeeding years during which such holder holds ADSs, even if we no longer satisfy either the passive income or passive asset tests described above, unless the U.S. holder terminates this deemed PFIC status by making a "deemed sale" election. If such election is made, a U.S. holder will be deemed to have sold the ADSs at their fair market value on the last day of the last taxable year for which we were a PFIC, and any gain from such deemed sale would be subject to the excess distribution rules as described above. After the deemed sale election, the ADSs with respect to which the deemed sale election was made will not be treated as shares in a PFIC unless we subsequently become a PFIC.

If we are or become a PFIC, the excess distribution rules may be avoided if a U.S. holder makes a QEF election effective beginning with the first taxable year in the holder's holding period in which we are treated as a PFIC with respect to such holder. A U.S. holder that makes a QEF election with respect to a PFIC is required to include in income its pro rata share of the PFIC's ordinary earnings and net capital gain as ordinary income and capital gain, respectively, subject to a separate election to defer payment of taxes, which deferral is subject to an interest charge. If a foreign corporation ceases to be a PFIC, the U.S. holder's QEF election would no longer require an annual income inclusion. However, cessation of a foreign corporation's status as a PFIC will not terminate a QEF election and if the corporation becomes a PFIC again, an annual income inclusion may be required.

In general, a U.S. holder makes a QEF election by attaching a completed IRS Form 8621 to a timely filed (taking into account any extensions) U.S. federal income tax return for the year beginning with which the QEF election is to be effective. In certain circumstances, a U.S. holder may be able to make a retroactive QEF election. A QEF election can be revoked only with the consent of the IRS. In order for a U.S. holder to make a valid QEF election, the non-U.S. corporation must annually provide or make available to the holder certain information. For any taxable year in which we are a PFIC, we will determine whether we will provide to U.S. holders the information required to make a valid QEF election. There can be no assurance that we will make such information available for any taxable year in which we are or may be a PFIC.

As an alternative to making a QEF election, a U.S. holder may make a "mark-to-market" election with respect to its ADSs if the ADSs meet certain minimum trading requirements, as described below. If a U.S. holder makes a valid mark-to-market election for the first taxable year in which such holder holds (or is deemed to hold) ADSs in a corporation and for which such corporation is determined to be a PFIC, such holder generally will not be subject to the PFIC rules described above in respect of its ADSs. Instead, a U.S. holder that makes a mark-to-market election will be required to include in income each year an amount equal to the excess, if any, of the fair market value of the ADSs that the holder owns as of the close of the taxable year over the holder's adjusted tax basis in the ADSs. The U.S. holder will be entitled to a deduction for the excess, if any, of the holder's adjusted tax basis in the ADSs over the fair market value of the ADSs as of the close of the taxable year; provided, however, that the deduction will be limited to the extent of any net mark-to-market gains with respect to the ADSs included by the U.S. holder under the election for prior taxable years. The U.S. holder's basis in the ADSs will be adjusted to reflect the amounts included or deducted pursuant to the election. Amounts included in income pursuant to a mark-to-market election, as well as gain on the sale, exchange or other disposition of the ADSs, will be treated as ordinary income. The deductible portion of any mark-to-market

loss, as well as loss on a sale, exchange or other disposition of ADSs to the extent that the amount of such loss does not exceed net mark-to-market gains previously included in income, will be treated as ordinary loss. If a U.S. holder makes a valid mark-to-market election, any distributions made by us in a year in which we are a PFIC would generally be subject to the rules discussed below under "—Taxation of Dividends," except the lower rate applicable to qualified dividend income would not apply. If we are not a PFIC when a U.S. holder has a mark-to-market election in effect, gain or loss realized by a U.S. holder on the sale of our ADSs will be a capital gain or loss and taxed in the manner described below under "—Taxation of Sale, Exchange or other Disposition of ADSs."

The mark-to-market election applies to the taxable year for which the election is made and all subsequent taxable years, unless the ADSs cease to meet applicable trading requirements (described below) or the IRS consents to its revocation. The excess distribution rules generally do not apply to a U.S. holder for taxable years for which a mark-to-market election is in effect. If we are a PFIC for any year in which the U.S. holder owns ADSs but before a mark-to-market election is made, the interest charge rules described above will apply to any mark-to-market gain recognized in the year the election is made. Generally, if a foreign corporation ceases to be a PFIC, the U.S. holder's mark-to-market election would no longer require the income inclusion described above. However, cessation of a foreign corporation's status as a PFIC will not terminate a mark-to-market election and if the corporation becomes a PFIC again, mark-to-market income inclusions may be required.

A mark-to-mark election is available only if the ADSs are considered "marketable" for these purposes. ADSs will be marketable if they are regularly traded on a national securities exchange that is registered with the SEC (such as the Nasdaq Global Market) or on a non-U.S. exchange or market that the IRS determines has rules sufficient to ensure that the market price represents a legitimate and sound fair market value. For these purposes, ADSs will be considered regularly traded during any calendar year during which more than a de minimis quantity of the ADSs is traded on at least 15 days during each calendar quarter. Any trades that have as their principal purpose meeting this requirement will be disregarded. Each U.S. holder should ask its own tax advisor whether a mark-to-market election is available or desirable.

If we are a PFIC for any year in which a U.S. holder holds ADSs, such U.S. holder must generally file an IRS Form 8621 annually. A U.S. holder must also provide such other information as may be required by the U.S. Treasury Department if the U.S. holder (1) receives certain direct or indirect distributions from a PFIC, (2) recognizes gain on a direct or indirect disposition of ADSs, or (3) makes certain elections (including a QEF election or a mark-to-market election) reportable on IRS Form 8621.

Under attribution rules, if we are a PFIC, U.S. holders of our ADSs will be deemed to own their proportionate shares of our subsidiaries that are PFICs, if any. Like the determination of whether we are a PFIC, the determination of whether any of our subsidiaries is a PFIC is made annually at the end of each taxable year Assuming a U.S. holder does not receive from a PFIC subsidiary the information that the U.S. holder needs to make a QEF election with respect to such a subsidiary, a U.S. holder generally will be deemed to own a portion of the shares of such lower-tier PFIC and may incur liability for a deferred tax and interest charge if we receive a distribution from, or dispose of all or part of our interest in, or the U.S. holder otherwise is deemed to have disposed of an interest in, the lower-tier PFIC, even though the U.S. holder has not received the proceeds of those distributions or dispositions directly. We currently do not have any non-U.S. subsidiaries that could be PFIC subsidiaries.

U.S. holders are urged to consult their tax advisors as to our status as a PFIC, and, if we are treated as a PFIC, as to the effect on them of, and the reporting requirements with respect to, the PFIC rules and the desirability of making, and the availability of, either a QEF election or a mark-to-market election with respect to our ADSs.

Taxation of Dividends

U.S. Holders. Subject to the PFIC rules described above under "—PFIC Considerations," if you are a U.S. holder, you must include in your gross income the gross amount of any distributions of cash or property (other than certain pro rata distributions of ADSs) with respect to ADSs, to the extent the distribution is paid out of our current or accumulated earnings and profits, as determined for U.S. federal income tax purposes. A U.S. holder must include the dividend as ordinary income at the time of actual or constructive receipt. The amount of any dividend income paid in Euro will be the U.S. dollar amount calculated by reference to the exchange rate in effect on the date of receipt, regardless of whether the payment is in fact converted into U.S. dollars. If the dividend is converted into U.S. dollars on the date of receipt, a U.S. holder should not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt. Distributions in excess of current and accumulated earnings and

profits, as determined for U.S. federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the ADSs and thereafter as capital gain from the sale or exchange of such ADSs. Notwithstanding the foregoing, we do not intend to maintain calculations of our earnings and profits as determined for U.S. federal income tax purposes. Consequently, distributions generally will be reported as dividend income for U.S. information reporting purposes. The dividend will not be eligible for the dividends-received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations.

Subject to the PFIC rules described above under "—PFIC Considerations," dividends paid by a non-U.S. corporation generally will be taxed at the preferential tax rates applicable to long-term capital gain of non-corporate taxpayers if (a) such non-U.S. corporation is eligible for the benefits of certain U.S. treaties or the dividend is paid by such non-U.S. corporation with respect to stock that is readily tradable on an established securities market in the United States, (b) the U.S. holder receiving such dividend is an individual, estate, or trust, (c) such dividend is paid on shares that have been held by such U.S. holder for at least 61 days during the 121-day period beginning 60 days before the "ex-dividend date," and (d) we are not a PFIC in the year of the dividend or the immediately preceding year. If the requirements of the immediately preceding sentence are not satisfied, a dividend paid by a non-U.S. corporation to a U.S. holder, including a U.S. holder that is an individual, estate, or trust, generally will be taxed at ordinary income tax rates (and not at the preferential tax rates applicable to long-term capital gains). As discussed above under "PFIC Considerations," although the matter is not free from doubt (and while we can give no assurances as to our PFIC status for the taxable year ending December 31, 2023 or future taxable years), we do not believe that we were a PFIC for U.S. federal income tax purposes for the taxable year ending December 31, 2022. The dividend rules are complex, and each U.S. holder should consult its own tax advisor regarding the dividend rules.

The amount of dividend will include any amounts withheld by the Company in respect of French taxes. Subject to applicable limitations, some of which vary depending upon the U.S. holder's circumstances and subject to the discussion above regarding concerns expressed by the U.S. Treasury, French income taxes withheld from dividends on ADSs at a rate not exceeding the rate provided by the Treaty will be creditable against the U.S. holder's U.S. federal income tax liability.

Dividends received generally will be income from non-U.S. sources, which may be relevant in calculating your U.S. foreign tax credit limitation. Such non-U.S. source income generally will be "passive category income," or in certain cases "general category income" or "foreign branch income," which is treated separately from other types of income for purposes of computing the foreign tax credit allowable to you. The rules with respect to the foreign tax credit are complex and involve the application of rules that depend upon a U.S. holder's particular circumstances. You should consult your own tax advisor to determine the foreign tax credit implications of owning the ADSs.

Non-U.S. Holders. If you are a non-U.S. holder, dividends paid to you generally will not be subject to U.S. income tax unless the dividends are "effectively connected" with your conduct of a trade or business within the United States, and the dividends are attributable to a permanent establishment (or in the case of an individual, a fixed place of business) that you maintain in the United States if that is required by an applicable income tax treaty as a condition for subjecting you to U.S. taxation on a net income basis. In such cases you generally will be taxed in the same manner as a U.S. holder (other than with respect to the Medicare Tax described below). If you are a corporate non-U.S. holder, "effectively connected" dividends may, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or a lower rate if you are eligible for the benefits of an income tax treaty that provides for a lower rate.

Taxation of Sale, Exchange or other Disposition of ADSs

U.S. Holders. Subject to the PFIC rules described above under "—PFIC Considerations," if you are a U.S. holder and you sell, exchange or otherwise dispose of your ADSs, you generally will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference between the value of the amount realized and your tax basis in your ADSs. Gain or loss recognized on such a sale, exchange or other disposition of ADSs generally will be long-term capital gain if you have held the ADSs for more than one year. Long-term capital gains of U.S. holders who are individuals (as well as certain trusts and estates) are generally taxed at preferential rates. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes, unless it is attributable to an office or other fixed place of business outside the United States and certain other conditions are met. Your ability to deduct capital losses is subject to limitations. As discussed above under "—PFIC Considerations," although the matter is not free from doubt (and while we can give no assurances as to our PFIC status for taxable year ending December 31, 2023 or future taxable years), we do not believe that we were a PFIC for U.S. federal income tax purposes for the taxable year ended December 31, 2022.

Non-U.S. Holders. If you are a non-U.S. holder, you will not be subject to U.S. federal income tax on gain recognized on the sale, exchange or other disposition of your ADSs unless:

- the gain is "effectively connected" with your conduct of a trade or business in the United States, and the gain is attributable to a permanent establishment (or in the case of an individual, a fixed place of business) that you maintain in the United States if that is required by an applicable income tax treaty as a condition for subjecting you to U.S. taxation on a net income basis; or
- you are an individual, you are present in the United States for 183 or more days in the taxable year of such sale, exchange or other disposition and certain other conditions are met.

In the first case, the non-U.S. holder will be taxed in the same manner as a U.S. holder (other than with respect to the Medicare Tax described below). In the second case, the non-U.S. holder will be subject to U.S. federal income tax at a rate of 30% on the amount by which such non-U.S. holder's U.S. source capital gains exceed such non-U.S. holder's U.S. -source capital losses.

If you are a corporate non-U.S. holder, "effectively connected" gains that you recognize may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or at a lower rate if you are eligible for the benefits of an income tax treaty that provides for a lower rate.

Medicare Tax

Certain U.S. holders who are individuals, estates or trusts are required to pay a 3.8% Medicare surtax on all or part of that holder's "net investment income", which includes, among other items, dividends on, and capital gains from the sale or other taxable disposition of, the ADSs, subject to certain limitations and exceptions. U.S. holders should consult their own tax advisors regarding the effect, if any, of this surtax on their ownership and disposition of the ADSs.

Information with Respect to Foreign Financial Assets

U.S. holders that are individuals (and, to the extent provided in regulations, certain entities) that own "specified foreign financial assets," including possibly the ADSs, with an aggregate value in excess of \$50,000 are generally required to file IRS Form 8938 with information regarding such assets. Depending on the circumstances, higher threshold amounts may apply. Specified foreign financial assets include any financial accounts maintained by foreign financial institutions, as well as any of the following, but only if they are not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-U.S. persons, (ii) financial instruments and contracts held for investment that have non-U.S. issuers or counterparties and (iii) interests in non-U.S. entities. If a U.S. holder is subject to this information reporting regime, the failure to timely file IRS Form 8938 may subject the U.S. holder to penalties. In addition to these requirements, U.S. holders may be required to annually file FinCEN Report 114, Report of Foreign Bank and Financial Accounts with the U.S. Department of Treasury. U.S. holders are thus encouraged to consult their U.S. tax advisors with respect to these and other reporting requirements that may apply to their acquisition of the ADSs.

Backup Withholding and Information Reporting

In general, information reporting requirements will apply to distributions made on our ADSs within the United States to a non-corporate U.S. holder and to the proceeds from the sale, exchange, redemption or other disposition of ADSs by a non-corporate U.S. holder to or through a U.S. office of a broker. Payments made (and sales or other dispositions effected at an office) outside the U.S. will be subject to information reporting in limited circumstances.

In addition, U.S. holders may be subject to backup withholding with respect to dividends on and proceeds from the sale, exchange or other disposition of the ADSs. A paying agent within the United States will be required to withhold at the applicable statutory rate, currently 24%, in respect of any payments of dividends on, and the proceeds from the disposition of, ADSs within the United States to a U.S. holder (other than U.S. holders that are exempt from backup withholding and properly certify their exemption) if the holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with applicable backup withholding requirements. U.S. holders who are required to establish their exempt status generally must provide a properly completed IRS Form W-9.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a U.S. holder's U.S. federal income tax liability. A U.S. holder generally may obtain a refund of any amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the IRS in a timely manner and furnishing any required information. U.S. holders are advised to consult with their own tax advisors regarding the application of the United States information reporting rules to their particular circumstances.

A non-U.S. holder generally may eliminate the requirement for information reporting and backup withholding by providing a properly completed and duly executed certification of its non-U.S. status to the payor, under penalties of perjury, on IRS Form W-8BEN, W-8BEN-E or other appropriate W-8, as applicable. You should consult your own tax advisor as to the qualifications for exemption from backup withholding and the procedures for obtaining the exemption.

The foregoing does not purport to be a complete analysis of the potential tax considerations relating to the ownership and disposition of the ADSs. Prospective investors should consult their own tax advisors as to the particular tax considerations applicable to them relating to the ownership and disposition of the ADSs, including the applicability of U.S. federal, state and local tax laws or non-tax laws, foreign tax laws, and any changes in applicable tax laws, including the Tax Cuts and Jobs Act, and any pending or proposed legislation or regulations.

Material French Income Tax Considerations

The following describes the material French income tax consequences to U.S. Holders (as defined below) of purchasing, owning and disposing of the ADSs and, unless otherwise noted, this discussion is the opinion of Jones Day, our French tax counsel, insofar as it relates to matters of French tax law and legal conclusions with respect to those matters.

This discussion does not purport to be a complete analysis or listing of all potential tax effects of the acquisition, ownership or disposition of our securities to any particular investor, and does not discuss tax considerations that arise from rules of general application or that are generally assumed to be known by investors. All of the following is subject to change. Such changes could apply retroactively and could affect the consequences described below.

In 2011, France introduced a comprehensive set of new tax rules applicable to French assets that are held by or in foreign trusts. These rules, among other things, provide for the inclusion of trust assets in the settlor's net assets for purpose of applying the French wealth tax, for the application of French gift and death duties to French assets held in trust, for a specific tax on capital on the French assets of foreign trusts not already subject to the French wealth tax and for a number of French tax reporting and disclosure obligations. The following discussion does not address the French tax consequences applicable to securities (including ADSs) held in trusts. If securities are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax advisor regarding the specific tax consequences of acquiring, owning and disposing of securities.

The description of the French income tax and wealth tax consequences set forth below is based on the Convention between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital of August 31, 1994 which came into force on December 30, 1995 (as amended by any subsequent protocols, including the protocol of January 13, 2009), and the tax guidelines issued by the French tax authorities in force as of the date of this Annual Report, or the Treaty.

For the purposes of this discussion, the term "U.S. Holder" means a beneficial owner of securities that is (1) an individual who is a U.S. citizen or resident for U.S. federal income tax purposes, (2) a U.S. domestic corporation or certain other entities created or organized in or under the laws of the United States or any state thereof, including the District of Columbia, or (3) otherwise subject to U.S. federal income taxation on a net income basis in respect of securities.

If a partnership holds securities, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. If a U.S. Holder is a partner in a partnership that holds securities, such holder is urged to consult its own tax advisor regarding the specific tax consequences of acquiring, owning and disposing of securities.

This discussion applies only to investors that hold our securities as capital assets that have the U.S. dollar as their functional currency, that are entitled to Treaty benefits under the "Limitation on Benefits" provision contained in the Treaty, and whose ownership of the securities is not effectively connected to a permanent establishment or a fixed base in France. Certain U.S. Holders (including, but not limited to, U.S. expatriates, partnerships or other entities classified as partnerships for U.S. federal income tax purposes, banks, insurance companies, regulated investment companies, tax-exempt organizations, financial institutions, persons subject to the alternative minimum tax, persons who acquired the securities pursuant to the exercise of employee share options or otherwise as compensation, persons that own (directly, indirectly or by attribution) 5% or more of our voting stock or 5% or more of our outstanding share capital, dealers in securities or currencies, persons that elect to mark their securities to market for U.S. federal income tax purposes and persons holding securities as a position in a synthetic security, straddle or conversion transaction) may be subject to special rules not discussed below.

U.S. Holders are urged to consult their own tax advisors regarding the tax consequences of the purchase, ownership and disposition of securities in light of their particular circumstances, especially with regard to the "Limitations on Benefits" provision.

Estate and Gift Taxes and Transfer Taxes

In general, a transfer of securities by gift or by reason of death of a U.S. Holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of the Convention between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978, unless the donor or the transferor is domiciled in France at the time of making the gift or at the time of his or her death, or the securities were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

Financial Transactions Tax

Pursuant to Article 235 ter ZD of the French Tax Code (*Code général des impôts*), or the FTC, purchases of certain securities issued by a French company, including ordinary shares and ADSs, which are listed on a regulated market of the EU or an exchange market formally acknowledged by the AMF (in each case within the meaning of the French Monetary and Financial Code, or the FMFC) are subject in France to a 0.3% tax on financial transactions, or the TFT, provided inter alia that the issuer's market capitalization exceeds €1 billion as of December 1 of the year preceding the taxation year.

A list of relevant French companies whose market capitalization exceeds €1.0 billion as of December 1 of the year preceding the taxation year within the meaning of Article 235 ter ZD of the FTC is published by the French tax authorities, and could be amended at any time. Pursuant to Regulations BOI-ANNX-000467-21/12/2022 issued on December 21, 2022, Cellectis is currently not included in such list. Please note that such list may be updated from time to time, or may not be published anymore in the future.

As a result, neither the ADSs nor the ordinary shares are currently within the scope of the TFT.

Purchases of Cellectis's securities may however become subject to the TFT if Cellectis's market capitalization exceeds €1.0 billion.

Registration Duties

In the case where the TFT is not applicable, (1) transfers of shares issued by a French company which are listed on a regulated or organized market within the meaning of the FMFC are subject to uncapped registration duties at the rate of 0.1% if the transfer is evidenced by a written statement (acte) executed either in France or outside France, whereas (2) transfers of shares issued by a French company which are not listed on a regulated or organized market within the meaning of the FMFC are subject to uncapped registration duties at the rate of 0.1% notwithstanding the existence of a written statement (acte).

As ordinary shares of Cellectis are listed on Euronext Growth market of Euronext in Paris, which is an organized market within the meaning of the FMFC, their transfer should be subject to uncapped registration duties at the rate of 0.1% subject to the existence of a written agreement (*acte*).

Although there is neither case law nor official guidelines published by the French tax authorities on this point, transfers of ADSs should remain outside of the scope of the aforementioned 0.1% registration duties.

Wealth Tax

The French wealth tax (*impôt de solidarité sur la fortune*) has been repealed by the finance bill for 2018 (*loi de finances pour 2018*) dated December 30, 2017. It used to apply only to individuals and did not generally apply to securities held by a U.S. Holder who is a resident pursuant to the provisions of the Treaty, provided that such U.S. Holder does not own directly or indirectly more than 25% of the issuer's financial rights.

As from January 1, 2018, it has been replaced by a new real estate wealth tax (impôt sur la fortune immobilière) which applies only to individuals owning French real estate assets or rights, directly or indirectly through one or more legal entities and whose net taxable assets amount to at least 1,300,000 euros.

French real estate wealth tax may only apply to a U.S. individual to the extent such individual holds, directly or indirectly, financial rights into a company the assets of which comprise French real estate assets that are not allocated to its operational activity. Such financial rights may be taxable for the fraction of their value representing the French real estate assets that are not allocated to an operational activity. In any case, pursuant to Article 965, 2° of the FTC, shares of an operating company holding French real estate assets in which the relevant individual holds, directly and indirectly, less than 10% of the share capital or voting rights are exempt from real estate wealth tax.

Taxation of Dividends

Dividends paid by a French corporation to non-residents of France are generally subject to French withholding tax at a rate of 30%. Such withholding tax may be reduced to 12.8% for dividends paid to non-resident individuals. Dividends paid by a French corporation in a non-cooperative State or territory, as defined in Article 238-0 A of the FTC, will generally be subject to French withholding tax at a rate of 75%. However, eligible U.S. Holders entitled to Treaty benefits under the "Limitation on Benefits" provision contained in the Treaty who are U.S. residents, as defined pursuant to the provisions of the Treaty, will not be subject to this 12.8%, 30% or 75% withholding tax rate, but may be subject to the withholding tax at a reduced rate (as described below).

Under the Treaty, the rate of French withholding tax on dividends paid to an eligible U.S. Holder who is a U.S. resident as defined pursuant to the provisions of the Treaty and whose ownership of ordinary shares or the ADSs is not effectively connected with a permanent establishment or fixed base that such U.S. Holder has in France, is generally reduced to 15%, or to 5% if such U.S. Holder is a corporation and owns directly or indirectly at least 10% of the share capital of the issuer; such U.S. Holder may claim a refund from the French tax authorities of the amount withheld in excess of the Treaty rates of 15% or 5%, if any.

For U.S. Holders that are not individuals but are U.S. residents, as defined pursuant to the provisions of the Treaty, the requirements for eligibility for Treaty benefits, including the reduced 5% or 15% withholding tax rates contained in the "Limitation on Benefits" provision of the Treaty, are complicated, and certain technical changes were made to these requirements by the protocol of January 13, 2009. U.S. Holders are advised to consult their own tax advisers regarding their eligibility for Treaty benefits in light of their own particular circumstances.

In the event that dividends are paid by Cellectis, dividends paid to an eligible U.S. Holder may immediately be subject to the reduced rates of 5% or 15% provided that such holder establishes before the date of payment that it is a U.S. resident under the Treaty by completing and providing the depositary with a treaty form (Form 5000). Otherwise, dividends paid to a U.S. Holder that is a legal person or another legal entity and has not filed the Form 5000 before the dividend payment date will be subject to French withholding tax at the rate of 25%, or 75% for any U.S. Holder if paid in a non-cooperative State or territory (as defined in Article 238-0 A of the FTC) (unless the Company proves that neither the purpose nor the effect of paying the dividend in that State or territory are that of allowing, with the intent of tax evasion or avoidance, their location in such a State or territory), and then reduced at a later date to 5% or 15%, provided that such holder duly completes and provides the French tax authorities with the treaty forms Form 5000 and Form 5001 before December 31 of the second calendar year following the year during which the dividend is paid.

Certain qualifying pension funds and certain other tax-exempt entities are subject to the same general filing requirements as other U.S. Holders except that they may have to supply additional documentation evidencing their entitlement to these benefits.

Form 5000 and Form 5001, together with appropriate instructions, will be provided by the depositary to all U.S. Holders registered with the depositary. The depositary will arrange for the filing with the French tax authorities of all such forms properly completed and executed by U.S. Holders of ordinary shares or ADSs and returned to the depositary in sufficient time so that they may be filed with the French tax authorities before the distribution in order to obtain immediately a reduced withholding tax rate.

Tax on Sale or Other Disposition

As a matter of principle, under French tax law, a U.S. Holder should not be subject to any French tax on any capital gain from the sale, exchange, repurchase or redemption by us of ordinary shares or ADSs, provided that all of the following apply to such holder:

• it is not a French tax resident for French tax purposes; and,

- it has not held more than 25% of our dividend rights, known as "droits aux bénéfices sociaux" at any time during the preceding five years, either directly or indirectly, and, as relates to individuals, alone or with relatives; and,
- it has not transferred ordinary shares or ADSs as part of redemption by Cellectis, in which case the proceeds may under certain circumstances be partially or fully characterized as dividends under French domestic law and, as result, be subject to French dividend withholding tax. As an exception, a U.S Holder, established, domiciled or incorporated in a non-cooperative State or territory as defined in Article 238-0 A of the FTC should be subject to a 75% withholding tax in France on any such capital gain, regardless of the fraction of the dividend rights it holds.

In case an applicable double tax treaty between France and the U.S. Holder country of residence contains more favorable provisions, a U.S. Holder may not be subject to any French income tax or capital gains tax in case of sale or disposal of any ordinary shares or ADSs of Cellectis even if one or more of the above mentioned statements are not applicable.

Particularly, a U.S. Holder who is a U.S. tax resident for purposes of the Treaty and is entitled to Treaty benefit will not be subject to French tax on any such capital gain, unless the ordinary shares or the ADSs form part of the business property of a permanent establishment or fixed base that the U.S. Holder has in France.

U.S. Holders who own ordinary shares or ADSs through U.S. partnerships that are not residents for Treaty purposes are advised to consult their own tax advisors regarding their French tax treatment and their eligibility for Treaty benefits in light of their own particular circumstances.

A U.S. Holder that is not a U.S. resident for Treaty purposes or is not entitled to Treaty benefit (and in both cases is not resident, established or incorporated in a non-cooperative State or territory as defined in Article 238-0 A of the FTC) and has held more than 25% of our dividend rights, known as "droits aux bénéfices sociaux" at any time during the preceding five years, either directly or indirectly, and, as relates to individuals, alone or with relatives will be subject to a levy in France at the rate of 25%, if such U.S. Holder is a legal person, or 12.8%, if such U.S. Holder is an individual.

Special rules apply to U.S. Holders who are residents of more than one country.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are subject to the information reporting requirements of the Exchange Act applicable to foreign private issuers and under those requirements file reports with the SEC. Those reports may be inspected without charge at the locations described below. As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as United States companies whose securities are registered under the Exchange Act. Nevertheless, we file with the U.S. Securities and Exchange Commission an Annual Report containing financial statements that have been examined and reported on, with and opinion expressed by an independent registered public accounting firm, and we submit quarterly interim consolidated financial data to the SEC under cover of the SEC's Form 6-K.

We maintain a corporate website at www.cellectis.com. We intend to post our Annual Report on our website promptly following it being filed with the SEC. Information contained on, or that can be accessed through, our website does not constitute a part of this Annual Report. We have included our website address in this Annual Report solely as an inactive textual reference.

You may also review a copy of this Annual Report, including exhibits and any schedule filed herewith, and obtain copies of such materials at prescribed rates, at the Securities and Exchange Commission's Public Reference Room in Room 1580, 100 F Street, NE, Washington, D.C. 20549-0102. You may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission maintains a website (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding registrants, such as Cellectis, that file electronically with the Securities and Exchange Commission.

With respect to references made in this Annual Report to any contract or other document of Cellectis, such references are not necessarily complete and you should refer to the exhibits attached or incorporated by reference to this Annual Report for copies of the actual contract or document.

I. Subsidiary Information

Not applicable

J. Annual Report to Security Holders

To the extent we furnish an annual report to security holders, we will promptly submit an English version of this annual report to U.S. security holders under the cover of Form 6-K.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Exchange Risk

We derive a significant portion of our revenues, including payments under our collaboration agreement with Allogene, in U.S. dollars. Since the beginning of fiscal year 2015, we have been significantly expanding our activities in the United States, but there continues to be a currency mismatch in our cash flows since most of our expenses remain denominated primarily in Euros. If the average value of the U.S. Dollar had been 10% higher relative to the euro during 2022, our collaboration revenues denominated in euros would have increased by \$1.6 million. Our exposure to currencies other than the U.S. dollar is negligible.

Our financial condition and results of operations are measured and recorded in the relevant local base currency and then translated into Euros for inclusion in our Consolidated Financial Statements. We translate balance sheet amounts at the exchange rates in effect on the date of the balance sheet, while income and cash flow items are translated at the average rate of exchange in effect for the relevant period. Our exposure to currencies other than the U.S. dollar is negligible.

For the year ended December 31, 2022, our revenues denominated in U.S. dollars are mainly related to Cytovia collaboration agreements and revenues from our Plants segment. Our cash and cash equivalents and marketable securities denominated in U.S dollars amounted to \$58.3 million as of December 31, 2022 and \$54.7 million excluding Calyxt. Current financial assets denominated in U.S. dollars amounted to \$0.1 million as of December 31, 2022.

The net foreign exchange result of continuing operations for the fiscal year 2022 is a gain of \$3.9 million. We cannot rule out the possibility that a significant increase in our business, particularly in the United States, may result in greater exposure to exchange rate risk. We would then consider adopting an appropriate policy for hedging against these risks.

Interest Rate Risk

We seek to engage in prudent management of our cash and cash equivalents, mainly cash on hand and common financial instruments (typically short- and mid-term deposits). Furthermore, the interest rate risk related to cash, cash equivalents and common financial instruments is not significant based on the quality of the financial institutions with which we work.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

Commodity Price Risk

Prior to Calyxt's shift in business strategy, Calyxt's primary exposure to market risk was commodity price sensitivity under its former soybean go-to-market strategy. Calyxt was susceptible to changes in commodity market prices that could impact the selling price for grain inventories, which were carried at historical cost. Prior to the purchase, Calyxt also had market exposure associated with fixed price Forward Purchase Contracts. Under this former strategy, Calyxt managed its exposure to changes in market prices by entering commodity hedges to convert fixed price grain inventories and fixed price Forward Purchase Contracts to floating market prices. By executing these hedging strategies, Calyxt could closely match the expected economic terms of the grain sale with the market. In a rising market these positions resulted in losses, and in a falling market these positions resulted in gains once any losses, if any, are recaptured. At time of sale, the gains or losses on the commodity derivatives were realized and fully offset by gains or losses on the grain inventories. As a result of the wind-down of the soybean product line, Calyxt's market risk related to commodity price sensitivity has been eliminated. As a result, Calyxt held no commodity derivative contracts as of December 31, 2022.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

Citibank, N.A., as depositary for our ADSs, registers and delivers ADSs. Each ADS represents one ordinary share deposited with Citibank Europe PLC, located at EGSP 186, 1 North Wall Quay, Dublin 1 Ireland or any successor, as custodian for the depositary. Each ADS will also represent any other securities, cash or other property which may be held by the depositary in respect of the depositary facility. The depositary's corporate trust office at which the ADSs will be administered is located at 388 Greenwich Street, New York, New York 10013.

A deposit agreement among us, the depositary and the ADS holders sets out the ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADSs. A copy of the Agreement is incorporated by reference as an exhibit to this Annual Report.

Fees and Charges

ADS Services

As an ADS holder, you will be required to pay the following fees under the terms of the depositary agreement:

Serv •	Issuance of ADSs upon deposit of shares (excluding issuance as a result of distributions of shares)	Fees Up to U.S. 5¢ per ADS issued
•	Cancellation of ADSs	Up to U.S. 5¢ per ADS canceled
•	Distribution of cash dividends or other cash distributions (i.e., sale of rights and other entitlements)	Up to U.S. 5¢ per ADS held
Serv •	Distribution of ADSs pursuant to (1) stock dividends or other free stock distributions, or (2) exercise of rights to purchase additional ADSs	Fees Up to U.S. 5¢ per ADS held
•	Distribution of securities other than ADSs or rights to purchase additional ADSs (i.e., spin-off shares)	Up to U.S. 5¢ per ADS held

As an ADS holder you will also be responsible to pay certain fees and expenses incurred by the depositary and certain taxes and governmental charges such as:

- taxes (including applicable interest and penalties) and other governmental charges;
- the registration fees as may from time to time be in effect for the registration of ordinary shares on the share register and applicable to transfers of ordinary shares to or from the name of the custodian, the depositary or any nominees upon the making of deposits and withdrawals, respectively;

Up to U.S. 5¢ per ADS held on the applicable record date(s)

established by the depositary

- · certain cable, telex and facsimile transmission and delivery expenses;
- the expenses and charges incurred by the depositary in the conversion of foreign currency;
- the fees and expenses incurred by the depositary in connection with the compliance with exchange control regulations and other regulatory requirements applicable to ordinary shares, ADSs and ADRs; and
- the fees and expenses incurred by the depositary, the custodian, or any nominee in connection with the servicing or delivery of deposited property.

ADS fees and charges payable upon (1) deposit of ordinary shares against issuance of ADSs and (2) surrender of ADSs for cancellation and withdrawal of ordinary shares are charged to the person to whom the ADSs are delivered (in the case of ADS issuances) and to the person who delivers the ADS, for cancellation (in the case of ADS cancellations). In the case of ADSs issued by the depositary into DTC or presented to the depositary via DTC, the ADS issuance and cancellation fees and charges may be deducted from distributions made through DTC, and may be charged to the DTC participant(s) receiving the ADSs or the DTC participant(s) surrendering the ADSs for cancellation, as the case may be, on behalf of the beneficial owner(s) and will be charged by the DTC participant(s) to the account(s) of the applicable beneficial owner(s) in accordance with the procedures and practices of the DTC participant(s) as in effect at the time. ADS fees and charges in respect of distributions and the ADS service fee are charged to the holders as of the applicable ADS record date. In the case of distributions of cash, the amount of the applicable ADS fees and charges is deducted from the funds being distributed. In the case of (1) distributions other than cash and (2) the ADS service fee, holders as of the ADS record date will be invoiced for the amount of the ADS fees and charges and such ADS fees and charges may be deducted from distributions made to holders of ADSs. For ADSs held through DTC, the ADS fees and charges for distributions other than cash and the ADS service fee may be deducted from distributions made through DTC, and may be charged to the DTC participants in accordance with the procedures and practices prescribed by DTC and the DTC participants in turn charge the amount of such ADS fees and charges to the beneficial owners for whom they hold ADSs.

In the event of refusal to pay the depositary fees, the depositary may, under the terms of the deposit agreement, refuse the requested service until payment is received or may set off the amount of the depositary fees from any distribution to be made to the ADS holder. Certain ADS fees and charges (such as the ADS service fee) may become payable shortly after the closing of the ADS offering.

Note that the fees and charges you may be required to pay may vary over time and may be changed by us and by the depositary. You will receive prior notice of such changes. The depositary may reimburse us for certain expenses incurred by us in respect of the ADR program, by making available a portion of the ADS fees charged in respect of the ADR program or otherwise, upon such terms and conditions as we and the depositary agree from time to time.

Depositary Payments for 2022

From time to time, the Depositary may make payments to us to reimburse and/or share revenue from the fees collected from ADS holders, or waive fees and expenses for services provided, generally relating to costs and expenses arising out of establishment and maintenance of the ADS program. In performing its duties under the deposit agreement, the Depositary may use brokers, dealers or other service providers that are affiliates of the Depositary and that may earn or share fees or commissions.

For the year ended December 31, 2022, Citibank, N.A., as Depositary, had made reimbursements to the Company of \$291 thousand.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES.

Not applicable.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS.

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES.

- (a) Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Form 20-F, have concluded that our disclosure controls and procedures were effective as of December 31, 2022.
- (b) Report of Management on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Management, with the participation of the Chief Executive Officer and the Chief Financial Officer, has assessed the effectiveness of internal control over financial reporting as of December 31, 2022. Management's assessment was based on the framework in "Internal Control – Integrated Framework", or 2013 framework, issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO.

Based on that assessment, management concluded that, as of December 31, 2022, the Company's internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of its financial statements for external purposes, in accordance with generally accepted accounting principles.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements, and can only provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The effectiveness of the Company's internal control over financial reporting has been audited by Ernst & Young et Autres, independent registered public accounting firm, as stated in their report on the Company's internal control over financial reporting as of December 31, 2022, which is included herein. See paragraph (c) of the present Item 15, below.

- (c) See report of Ernst & Young et Autres, independent registered public accounting firm, included under "Item 18. Financial Statements" on page F-3.
- (d) During the year ended December 31, 2022, the company has implemented a new enterprise resource planning system to manage core operational and finance processes for all Therapeutics segment's entities. Processes and controls, as well as information technology controls were adapted to the new system and have been tested as part of the internal control program for 2022. Other than this change, we have not made any significant change in internal controls over financial reporting during the year ended December 31, 2022.

ITEM 16. RESERVED

Not applicable.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Mr. Axel-Sven Malkomes, Mr. Pierre Bastid, Mr. Hervé Hoppenot, and Donald Bergstrom are audit and finance committee financial experts as defined by the Securities and Exchange Commission rules and have the requisite financial sophistication under the applicable rules and regulations of the Nasdaq Stock Market. Mr. Axel-Sven Malkomes, Mr. Pierre Bastid, Mr. Hervé Hoppenot and Donald Bergstrom are independent as such term is defined in Rule 10A-3 under the Exchange Act and under the listing standards of the Nasdaq Stock Market.

ITEM 16B. CODE OF ETHICS

We have adopted a Code of Business Conduct and Ethics, or the Code of Conduct that is applicable to all of our employees, executive officers and directors. Following the completion of our initial public offering, the Code of Conduct became available on our website at www.cellectis.com. Our board of directors is responsible for overseeing the Code of Conduct and is required to approve any waivers of the Code of Conduct for employees, executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Ernst & Young et Autres, or Ernst & Young LLP, has served as our independent registered public accounting firm for 2020 and 2021. Our accountants billed the following fees to us for professional services in each of those fiscal years:

	Year I	Ended
	Decem	ber 31,
	<u>2021</u>	2022
	(\$, in the	usands)
Audit Fees	838	995
Audit-Related Fees		_
Tax Fees	_	_
Other Fees		241
Total	838*	1,235*

(*) \$404 thousand and \$862 thousand for Cellectis and \$434 thousand and \$374 thousand for Calyxt, respectively for the years ended December 31, 2021 and 2022.

"Audit Fees" are the aggregate fees billed for the audit of our annual financial statements. This category also includes services that generally the independent accountant provides, such as consents and assistance with and review of documents filed with the SEC.

"Audit-Related Fees" are the aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit and are not reported under Audit Fees.

"Tax Fees" are the aggregate fees billed for professional services rendered by the principal accountant for tax compliance, tax advice and tax planning related services.

"Other Fees" relate to services provided with respect to our registration statement for Cellectis and Calyxt's respective ATM programs and offerings.

There were no "Audit Related Fees," "Tax Fees" either billed or paid during 2021 or 2022.

Audit and Non-Audit Services Pre-Approval Policy

The audit and finance committee has responsibility for appointing, setting compensation of and overseeing the work of the independent registered public accounting firm. In recognition of this responsibility, the audit and finance committee has adopted a policy governing the pre-approval of all audit and permitted non-audit services performed by our independent registered public accounting firm to ensure that the provision of such services does not impair the independent registered public accounting firm's independence from us and our management. Unless a type of service to be provided by our independent registered public accounting firm has received general pre-approval from the audit and finance committee, it requires specific pre-approval by the audit and finance committee. The payment for any proposed services in excess of pre-approved cost levels requires specific pre-approval by the audit and finance committee. All audit and non-audit services rendered by our independent registered public accounting firm in 2022 were pre-approved by the audit and finance committee.

Pursuant to its pre-approval policy, the audit and finance committee may delegate its authority to pre-approve services to the chairperson of the audit and finance committee. The decisions of the chairperson to grant pre-approvals must be presented to the full audit and finance committee at its next scheduled meeting. The audit and finance committee may not delegate its responsibilities to pre-approve services to the management.

The audit and finance committee has considered the non-audit services provided by Ernst & Young as described above and believes that they are compatible with maintaining Ernst & Young's independence as our independent registered public accounting firm.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

Not applicable.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16G. CORPORATE GOVERNANCE

As a French société anonyme, we are subject to various corporate governance requirements under French law. In addition, as a foreign private issuer listed on the Nasdaq Global Market, we will be subject to the Nasdaq corporate governance listing standards. However, the Nasdaq Global Market's listing standards provide that foreign private issuers are permitted to follow home country corporate governance practices in lieu of the Nasdaq rules, with certain exceptions. Certain corporate governance practices in France may differ significantly from Nasdaq's corporate governance listing standards. For example, neither the corporate laws of France nor our By-laws require that (i) a majority of our directors be independent, (ii) our compensation committee include only independent directors, or (iii) our independent directors hold regularly scheduled meetings at which only independent directors are present. Other than as set forth below, we currently intend to comply with the corporate governance listing standards of Nasdaq to the extent possible under French law. However, we may choose to change such practices to follow home country practice in the future.

Although we are a foreign private issuer, we are required to comply with Rule 10A-3 of the Exchange Act, relating to audit committee composition and responsibilities. Rule 10A-3 provides that the audit committee must have direct responsibility for the nomination, compensation and choice of our auditors, as well as control over the performance of their duties, management of complaints made, and selection of consultants. Under Rule 10A-3, if the laws of a foreign private issuer's home country require that any such matter be approved by the board of directors or the shareholders of the Company, the audit committee's responsibilities or powers with respect to such matter may instead be advisory. Under French law, the audit committee may only have an advisory role and appointment of our statutory auditors, in particular, must be decided by our shareholders at our annual meeting.

In addition, Nasdaq rules require that a listed company specify that the quorum for any meeting of the holders of share capital be at least 33 1/3% of the outstanding shares of the company's common voting stock. We follow our French home country practice, rather than complying with this Nasdaq rule. Consistent with French Law, our By-laws provide that when first convened, general meetings of shareholders may validly convene only if the shareholders present or represented hold at least (1) 20% of the voting shares in the case of an ordinary general meeting or of an extraordinary general meeting where shareholders are voting on a capital increase by capitalization of reserves, profits or share premium, or (2) 25% of the voting shares in the case of any other extraordinary general meeting. If such quorum required by French law is not met, the meeting is adjourned. There is no quorum requirement under French law when an ordinary general meeting or an extraordinary general meeting where shareholders are voting on a capital increase by capitalization of reserves, profits or share premium is reconvened, but the reconvened meeting may consider only questions that were on the agenda of the adjourned meeting. When any other extraordinary general meeting is reconvened, the required quorum under French law is 20% of the shares entitled to vote. The reconvened meeting may consider only questions that were on the agenda of the adjourned meeting. If a quorum is not met at a reconvened meeting requiring a quorum, then the meeting may be adjourned for a maximum of two months.

Finally, Nasdaq rules require shareholder approval when a plan or other equity compensation arrangement is established or materially amended. While the Company may, from time to time, obtain shareholder approval of an equity compensation arrangement in order to obtain advantageous tax treatment or otherwise, as a general matter, we intend to follow our French home country practice, which does not require shareholder approval of such plans or arrangements, rather than complying with this Nasdaq rule.

In accordance with French law, committees of our board of directors will only have an advisory role and can only make recommendations to our board of directors. As a result, decisions will be made by our board of directors taking into account nonbinding recommendations of the relevant board committee.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

See pages F-1 through F-67 of this Annual Report.

ITEM 18. FINANCIAL STATEMENTS

Not applicable.

ITEM 19. EXHIBITS

Exhibit Index

The following exhibits are filed as part of this Annual Report:

Exhibit Number	Description of Exhibit	Schedule/ Form	File Number	Exhibit	File Date
1.1#	By-laws (Statuts) of the registrant (English translation)	20-F	001-36891	1.1	Filed herewith
2.1#	Form of Deposit Agreement	F-1	333-202205	4.1	March 10, 2015
2.2#	Form of American Depositary Receipt (included in Exhibit 2.1)	F-1	333-202205	Included in 4.1	March 10, 2015
2.3	<u>Description of Securities registered under Section 12 of the Exchange</u> <u>Act</u>				Filed herewith
4.1#*	Exclusive Patent License Agreement between Regents of the University of Minnesota and Cellectis S.A., dated January 10, 2011	F-1	333-202205	10.6	March 12, 2015
4.1.1#*	First Amendment to the Exclusive Patent License Agreement between Regents of the University of Minnesota and Cellectis S.A., dated May 24, 2012	F-1	333-202205	10.6.1	March 12, 2015
4.1.2#*	Second Amendment to the Exclusive Patent License Agreement between Regents of the University of Minnesota and Cellectis S.A., dated April 1, 2014	F-1	333-202205	10.6.2	March 12, 2015
4.1.3#*	Third Amendment to the Exclusive Patent License Agreement between Regents of the University of Minnesota and Cellectis S.A., dated December 16, 2015	20-F	001-36891	4.6.3	March 13, 2018
4.1.4**	Fourth Amendment to the Exclusive Patent License Agreement between Regents of the University of Minnesota and Cellectis S.A., dated November, 4 2022				Filed herewith
4.2#	Patent & Technology License Agreement between Ohio State Innovation Foundation and Cellectis S.A., dated October 23, 2014	20-F	001-36891	4.7	March 12, 2019
4.3†#	Form of Change in Control Agreement	20-F	001-36891	4.3	Filed herewith
4.4†#	2012 Free Share Plan	F-1	333-202205	10.13	March 10, 2015
4.5†#	2013 Free Share Plan	F-1	333-202205	10.14	March 10, 2015
4.6†#	2014 Free Share Plan	F-1	333-202205	10.15	March 10, 2015
4.7†#	2015 Free Share Plan	20-F	001-36891	4.16	March 10, 2015
4.8†#	2015 Stock Option Plan	20-F	001-36891	4.17	March 10, 2015
4.9†#	2016 Stock Option Plan	S-8	333-214884	99.1	December 2, 2016
4.10†#	2017 Stock Option Plan	S-8	333-222482	99.1	January 9, 2018
4.11†#	Free Share 2018 Plan	S-8 POS	333-222482	99.3	April 13, 2018
4.12†#	2018 Stock Option Plan	S-8	333-227717	99.1	October 5, 2018
4.13†#	Summary of BSA Plan	S-8	333-227717	99.2	October 5, 2018
4.14†#	Second Free Share 2018 Plan	S-8 POS	333-227717	99.3	March 4, 2021
4.15†#	2021 Stock Option Plan	S-8	333-258514	99.1	August 5, 2021
4.16†#	2021 Free Shares Plan	S-8	333-258514	99.2	August 5, 2021
4.17†#	2022 Stock Option Plan	S-8	333-267760	99.1	October 6, 2022
4.18†#	2022 Free Shares Plan	S-8	333-267760	99.2	October 6, 2022
4.19#**	<u>License Agreement between Allogene Therapeutics, Inc. and Cellectis S.A. dated March 7, 2019</u>	20-F/A	001-36891	4.25	April 25, 2019
4.20#**	<u>License, Development and Commercialization Agreement between Les</u> <u>Laboratoires Servier and Cellectis S.A. dated March 6, 2019</u>	20-F/A	001-36891	4.26	April 25, 2019

Amendment No. 1 to License, Development and Commercialization Agreement between Les Laboratoires Servier and Cellectis S.A. dated March 4, 2020

4.20#**

20-F 001-36891

4.26.1 March 5, 2020

Exhibit Number	Description of Exhibit	Schedule/ Form	File Number	Exhibit	File Date
4.21	Management Services Agreement between Cellectis S.A., Cellectis, Inc. and Calyxt, Inc. dated as of January 1, 2016	20-F	001-36891	4.27	March 12, 2019
4.21.1	Management Services Agreement Amendment dated July 25, 2017 between Cellectis S.A. and Calyxt, Inc.	20-F	001-36891	4.28	March 12, 2019
4.21.2	Second Amendment to the Management Services Agreement Amendment dated January 29, 2020 between Cellectis S.A., Cellectis, Inc., Cellectis Biologics, Inc. and Calyxt, Inc.	20-F	001-36891	4.27.2	March 5, 2020
4.22	Separation Agreement dated July 25, 2017 between Cellectis S.A. and Calyxt, Inc.	20-F	001-36891	4.29	March 12, 2019
4.23	Stockholders Agreement dated July 25, 2017 between Cellectis S.A. and Calyxt, Inc.	20-F	001-36891	4.3	March 12, 2019
4.23.1	Amendment No. 1 to Stockholders Agreement dated May 7, 2018 between Cellectis S.A. and Calyxt, Inc.	20-F	001-36891	4.30.1	March 5, 2020
4.24	<u>License Agreement dated July 25, 2017 between Cellectis S.A. and Calyxt, Inc.</u>	20-F	001-36891	4.31	March 12, 2019
4.25#	<u>Sales Agreement, dated as of March 29, 2021, by and between Cellectis S.A. and Jefferies LLC</u>	6-K	001-36891	1.1	March 29, 2021
4.25.1#	Amendment No. 1 to the Sales Agreement between Jefferies LLC and Cellectis S.A., dated January 4, 2023	6-K	001-36891	1.2	January 4, 2023
4.26**	<u>Credit Facility Agreement between the European Investment Bank and Cellectis S.A., dated December 28, 2022</u>				Filed herewith
8.1	List of subsidiaries of the registrant				Filed herewith
12.1	Certificate of Principal Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				Filed herewith
12.2	Certification by the Principal Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				Filed herewith
13.1	Certification by the Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes- Oxley Act of 2002				Filed herewith
13.2	Certification by the Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-				
15.4	Oxley Act of 2002				Filed herewith
15.1	Consent of Ernst & Young et Autres (PCAOB # 1704)				Filed herewith
101	The following materials from Cellectis S.A.'s Report on Form 20.F formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Interim Statements of Consolidated Financial Position, (ii) the Unaudited Statements of Consolidated Operations, (iii) the Interim Statements of Consolidated Comprehensive Income (Loss), (iv) the Interim Statements of Consolidated Cash Flows, (v) the Statements of Changes in Consolidated Shareholders' Equity, and (vi) Notes to the Interim Consolidated Financial Statements.				
104.1	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)				

Indicates a management contract or any compensatory plan, contract or arrangement.

Indicates a document previously filed with the Commission.

Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment.

Portions of this exhibit (indicated by asterisks) have been omitted because they are not material and would likely cause competitive harm if disclosed.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Financial Statements for the Years Ended December 31, 2020, 2021 and 2022:

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Auditor Firm Id: 1704 Auditor Name: Ernst & Young et Autres Auditor Location: Courbevoie, France

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Cellectis S.A.

Opinion on the Consolidated Financial Statements

We have audited the accompanying statements of consolidated financial position of Cellectis S.A. (the Company) as of December 31, 2022 and 2021, and the related statements of consolidated operations, consolidated comprehensive income (loss), consolidated cash flows and changes in consolidated shareholders' equity for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2022 and 2021, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and in accordance with International Financial Reporting Standards as endorsed by the European Union.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 14, 2023, expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of convertible note receivable

Description of the Matter

As discussed in Note 12.1 to the consolidated financial statements, the Company measured at fair value a convertible note associated with the research collaboration and non-exclusive license agreement, and related amendments, signed with Cytovia Therapeutics (Cytovia). As of December 31, 2022, the fair value of the convertible note was \$7.9 million. For the year ended December 31, 2022, the Company recognized a financial loss of \$12.1 million related to the fair value remeasurement of the convertible note.

Auditing the Company's accounting for the convertible note was complex due to the significant judgments required by management to analyze and develop the assumptions used to calculate the fair value of the convertible note. In particular, the fair value estimate is sensitive to assumptions such as the probability of conversion options, the probability of default.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design, and tested the operating effectiveness of controls over management's development of the assumptions used in the determination of the fair value of the convertible note, including management's oversight of the work performed by the independent valuation specialist engaged by the Company.

Our audit procedures related to the determination of the fair value of the convertible note included, among others, assessing the valuation methodologies, including key assumptions made, such as the probability of each conversion option occurrence, and the probability of default. We read the underlying convertible note agreement to understand the contractual terms and the provisions impacting the Company's valuations. We assessed the completeness and accuracy of the underlying data supporting the assumptions and involved our valuation specialists to assist us in reviewing the valuation methodology and testing the probability of default and the IPO conversion probability assumptions included in the models. We performed sensitivity analyses of significant assumptions to evaluate the changes in fair value of the convertible note from changes in these assumptions. We also assessed the accuracy and sufficiency of the fair value disclosures.

/s/ Ernst & Young et Autres

Ernst & Young et Autres has served as the Company's auditor since 2012.

Paris-La Défense, France

March 14, 2023

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Cellectis S.A.

Opinion on Internal Control over Financial Reporting

We have audited Cellectis S.A.'s (the "Company") internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the statements of consolidated financial position of the Company as of December 31, 2022 and 2021, and the related statements of consolidated operations, consolidated comprehensive income (loss), consolidated cash flows and changes in consolidated shareholders' equity for each of the three years in the period ended December 31, 2022 and the related notes, and our report dated March 14, 2023 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Report of Management on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young et Autres

Paris-La Défense, France March 14, 2023

Cellectis S.A. STATEMENTS OF CONSOLIDATED FINANCIAL POSITION \$ in thousands

		As of		
ACCETC	Notes	December 31, 2021	December 31, 2022	
ASSETS Non-current assets				
	C	1.054	710	
Intangible assets	6 8	1,854	718	
Property, plant, and equipment	8 7	78,846	63,621	
Right-of-use assets		69,423	44,275	
Non-current financial assets	9.2	6,524	8,791	
Total non-current assets		156,647	117,406	
Current assets	40			
Inventories	10	_	_	
Trade receivables	11.1	20,361	772	
Subsidies receivables	11.2	9,268	14,496	
Other current assets	11.3	9,665	9,078	
Current financial assets	12.1	499	7,907	
Cash and cash equivalents	12.2	185,636	89,789	
Total current assets		225,429	122,043	
Total assets held for sale (1)	4	_	21,768	
TOTAL ASSETS		382,076	261,216	
LIABILITIES				
Shareholders' equity			_	
Share capital	16	2,945	2,955	
Premiums related to the share capital	16	934,696	583,122	
Currency translation adjustment		(18,021)	(28,605)	
Retained earnings		(584,129)	(333,365)	
Net income (loss)		(114,197)	(106,139)	
Total shareholders' equity - Group Share		221,293	117,968	
Non-controlling interests		15,181	7,973	
Total shareholders' equity		236,474	125,941	
Non-current liabilities		200,171	123,5 11	
Non-current financial liabilities	13	20,030	20,531	
Non-current lease debts	13	71,526	49,358	
Non-current provisions	19	4,073	2,390	
Other non-current liabilities		626	_	
Total non-current liabilities		96,254	72,279	
Current liabilities		30,231		
Current financial liabilities	13	2,354	5,088	
Current lease debts	13	8,329	7,872	
Trade payables	13	23,762	21,456	
Deferred revenues and contract liabilities	15	301	59	
Current provisions	19	871	477	
Other current liabilities	14	13,731	13,179	
Total current liabilities	17	49,348	48,131	
	4	45,340		
Total liabilities related to asset held for sale (1)	4		14,864	
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		382,076	261,216	

⁽¹⁾ These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

Cellectis S.A. STATEMENTS OF CONSOLIDATED OPERATIONS For the year ended December 31 \$ in thousands, except per share amounts

		For the y	ear ended Decem	ber 31,
	Notes	2020 *	2021 *	2022
Revenues and other income				
Revenues	3.1	51,057	30,347	19,171
Other income	3.1	8,507	8,250	6,553
Total revenues and other income		59,564	38,597	25,725
Operating expenses				
Cost of revenue	3.2	(1,951)	(1,844)	(1,772)
Research and development expenses	3.2	(77,048)	(117,840)	(97,501)
Selling, general and administrative expenses	3.2	(22,513)	(22,882)	(17,494)
Other operating income (expenses)		(363)	488	1,377
Total operating expenses		(101,875)	(142,077)	(115,390)
Operating income (loss)		(42,311)	(103,481)	(89,666)
Financial income	3.3	4,846	13,218	8,880
Financial expenses	3.3	(16,117)	(6,486)	(17,815)
Net Financial gain (loss)		(11,270)	6,731	(8,935)
Income tax				(87)
Income (loss) from continuing operations		(53,581)	(96,749)	(98,688)
Income (loss) from discontinued operations	3.3	(43,902)	(28,358)	(15,345)
Net income (loss)		(97,483)	(125,107)	(114,034)
Attributable to shareholders of Cellectis		(81,074)	(114,197)	(106,139)
Attributable to non-controlling interests		(16,409)	(10,910)	(7,894)
Basic / Diluted net income (loss) per share attributable to shareholders of Cellectis	18			
Basic net income (loss) attributable to shareholders of Cellectis per share (\$ /share)		(1.91)	(2.55)	(2.33)
Diluted net income (loss) attributable to shareholders of Cellectis per share (\$ /share)		(1.91)	(2.55)	(2.33)
Basic net income (loss) attributable to shareholders of Cellectis per share (\$ /share) from discontinued				
operations		(0.65)	(0.39)	(0.16)
Diluted net income (loss) attributable to shareholders of Cellectis per share (\$ /share) from				
discontinued operations		(0.65)	(0.39)	(0.16)

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS) For the year ended December 31 \$ in thousands

	For the y 2020 *	mber 31, 2022	
Net income (loss)	(97,483)	2021 * (125,107)	(114,034)
Actuarial gains and losses	(447)	240	1,983
Other comprehensive income (loss) that will not be reclassified subsequently to income or loss from			
continued operations	(447)	240	1,983
Currency translation adjustment	25,769	(21,458)	(16,770)
Other comprehensive income (loss) that will be reclassified subsequently to income or loss from continuing			
operations	25,769	(21,458)	(16,770)
Other comprehensive income (loss) from discontinued operations	(6,733)	6,220	5,831
Total Comprehensive income (loss)	(78,894)	(140,106)	(122,989)
Attributable to shareholders of Cellectis	(62,952)	(127,890)	(114,739)
Attributable to non-controlling interests	(15,942)	(12,216)	(8,250)

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

Cellectis S.A. STATEMENTS OF CONSOLIDATED CASH FLOWS For the year ended December: 31 \$ in thousands

We present our consolidated statements of cash flows using the indirect method:

		For the year ended Decem		
	Notes	2020 *	2021 *	2022
Cash flows from operating activities				
Net income (loss)		(97,483)	(125,107)	(114,034)
Net loss for the period of discontinued operations		(43,902)	(28,358)	(15,345)
Net (loss) income for the period of continuing operations		(53,581)	(96,749)	(98,688)
Adjustment to reconcile net income (loss) to cash provided by (used in) operating activities				
Adjustments for				
Intercompany transactions between continuing and discontinued operations (1)		2,517	203	152
Amortization and depreciation		7,834	14,156	18,435
Net loss (income) on disposals		78	2	1,612
Net financial loss (gain)		11,270	(6,731)	8,935
Income tax		_	_	87
Expenses related to share-based payments		10,028	11,493	6,043
Provisions		(2,366)	421	270
Other non-cash items		(19)	_	(460)
Realized foreign exchange gain (loss)		505	719	(664)
Interest (paid) / received (2)		1,717	969	1,158
Operating cash flows before change in working capital		(22,018)	(75,518)	(63,120)
Decrease (increase) in inventories		100	215	_
Decrease (increase) in trade receivables and other current assets		(2,542)	(13,091)	(3,187)
Decrease (increase) in subsidies receivables		(685)	654	(5,806)
(Decrease) increase in trade payables and other current liabilities		5,688	177	3,247
(Decrease) increase in deferred income		(19,884)	(252)	23
Change in working capital		(17,323)	(12,297)	(5,723)
Net cash flows provided by (used in) operating activities of continuing operations		(39,341)	(87,815)	(68,843)
Net cash flows provided by (used in) operating activities of discontinued operations		(40,920)	(16,746)	(18,601)
Net cash flows provided by (used in) operating activities		(80,261)	(104,562)	(87,444)

Cash flows from investment activities				
Acquisition of intangible assets		(347)	(13)	(10)
Acquisition of property, plant and equipment	8	(44,076)	(18,543)	(2,431)
Net change in non-current financial assets	9	(2,117)	(143)	126
Sale (Acquisition) of current financial assets	9	4,997	15,000	
Net cash flows provided by (used in) investing activities of continuing operations		(41,544)	(3,699)	(2,315)
Net cash flows provided by (used in) investing activities of discontinued operations		(12,798)	10,979	(446)
Net cash flows provided by (used in) investment activities		(54,342)	7,279	(2,761)
Cash flows from financing activities				
Proceeds from the exercise of Cellectis stock options (3)	17	344	11,601	_
Increase in share capital Cellectis, net of transaction costs (4)	17		44,638	(569)
Increase in borrowings	13	24,170	_	5,750
Decrease in borrowings		_	_	(1,343)
Interest paid on financial debt		(30)	(368)	(332)
Payments on lease debts	13	(4,737)	(10,641)	(11,011)
Net cash flows provided by financing activities of continuing operations		19,747	45,230	(7,505)
Net cash flows provided by (used in) financing activities of discontinued operations		7,575	2,294	8,650
Net cash flows provided by (used in) financing activities		27,321	47,525	1,145
(Decrease) increase in cash and cash equivalents		(107,281)	(49,758)	(89,060)
Cash and cash equivalents at the beginning of the year		340,522	241,148	185,636
Effect of exchange rate changes on cash		7,907	(5,754)	(3,360)
Cash from discontinued operations		17,299	13,823	3,427
Cash from continuing operations		223,849	171,813	89,789
Cash and cash equivalents at the end of the period	12	241,148	185,636	93,216

- * These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)
- (1) Net cash flows used in operating activities from continuing and discontinued operations being presented separately, the effect of intercompany transactions between the two categories is presented within the cash flows of each, although these transactions are fully eliminated in the Group's financial statements
- (2) In line with IAS 7.31, interests (paid) / received are presented separately
- (3) Proceeds from the exercise of Cellectis stock options exercised in December 2020 were collected in January 2021, generating a \$6.0 million variance between the statement of consolidated cash flows and the statement of changes in consolidated shareholder's equity
- (4) In line with IAS 32, expenses incurred in 2022 for \$0.6 million which qualify for transaction costs related to the "at the market" offering and to the follow-on offering of Cellectis started respectively in January 2023 and February 2023 are deducted from equity as of December 31, 2022

Cellectis S.A. STATEMENTS OF CHANGES IN CONSOLIDATED SHAREHOLDERS' EQUITY For the year ended December 31 \$ in thousands, except share date

		Share C Ordinary		Down !				Equi	ity	
	Notes	Number of shares	Amount	Premiums related to share capital	Currency translation adjustment	Retained earnings (deficit)	Income (Loss)	attributable to shareholders of Cellectis	Non- controlling interests	Total Shareholders' Equity
As of January 1,						,	<u> </u>			
2020		42,465,669	2,767	851,700	(22,641)	(406,390)	(102,091)	323,345	32,125	355,471
Net Loss Other							(81,074)	(81,074)	(16,409)	(97,483
comprehensive										
income (loss)					18,552	(430)		18,122	467	18,589
Total										
comprehensive income (loss)					18,552	(430)	(81,074)	(62,952)	(15,942)	(78,894
Allocation of prior period loss						(102,091)	102,091			
Exercise of stock						(102,031)	102,051			
options Calyxt (1)	16					136		136	74	210
Capital Increase Calyxt (2)						4,243		4,243	4,962	9,205
Transaction with subsidiaries						(1,461)		(1,461)	1,461	
Exercise of share and employee warrants / stock-options										
Cellectis Non-cash stock-	16	314,517	18	6,101					6,119	6,119
based compensation										
expense	17			14,365		22		14,365	2,371	16,736
Other movements				(32)		32	_			
As of December 31, 2020		42,780,186	2,785	872,134	(4,089)	(505,961)	(81,074)	283,795	25,051	308,846
As of January 1, 2021		42,780,186	2,785	872,134	(4,089)	(505,961)	(81,074)	283,795	25,051	308,846
Net Loss							(114,197)	(114,197)	(10,910)	(125,107
Other comprehensive					(42,022)	240		(12 (02)	(1.200)	(1.4.000
income (loss) Total					(13,932)	240		(13,693)	(1,306)	(14,999
comprehensive										
income (loss)					(13,932)	240	(114,197)	(127,890)	(12,216)	(140,106
Allocation of prior period					(13,032)	=.v	(11 1,107)	(127,000)	(12,210)	(110,100
loss Exercise of stock						(81,074)	81,074			
options and capital increase										
Calyxt Capital Increase	16					2,699		2,699	1,668	4,367
Cellectis (ATM)		2,415,630	143	46,811				46,954		46,954
Transaction costs		, -,		(2,316)				(2,316)		(2,316
Transaction with subsidiaries						(58)		(58)	58	
Exercise of share warrants, employee warrants, stock- options and free-shares										
vesting Cellectis	16	288,494	17	5,597(2)				5,612		5,612

Non-cash stock-						
based						
compensation						
expense	17	12,497		12,497	621	13,118
Other movements		(27)	27			

As of December 31,										
2021		45,484,310	2,945	934,696	(18,021)	(584,129)	(114,197)	221,293	15,181	236,474
As of January 1, 2022		45,484,310	2,945	934,696	(18,021)	(584,129)	(114,197)	221,293	15,181	236,474
Net Loss							(106, 139)	(106, 139)	(7,894)	(114,034)
Other comprehensive										
income (loss)					(10,583)	1,983		(8,600)	(355)	(8,955)
Total comprehensive										
income (loss)		_	_	_	(10,583)	1,983	(106,139)	(114,739)	(8,250)	(122,989)
Allocation of prior										
period loss						(114,197)	114,197			_
Issuance of Calyxt's										
common stock and										
exercise of Calyxt's										
pre-funded warrants (1)						1,341		1,341	1,392	2,733
Capital Increase of						1,541		1,541	1,332	2,733
Calyxt (2)						162		162	168	329
Transaction costs						102		102	100	323
related to Calyxt's										
capital increase (2)						(104)		(104)	(108)	(212)
Capital increase of						(-)		(-)	()	()
Cellectis (3)										
Transaction costs										
related to Cellectis'										
capital increase (3)		_	_	(570)	_	_	_	(570)		(570)
Transaction with										
subsidiaries (4)		_	_	_		2,515		2,515	(2,515)	
Exercise of share										
warrants, employee										
warrants, stock-										
options and free-										
shares vesting of Cellectis	16	191,658	10			(10)				
Non-cash stock-based	10	191,030	10			(10)		_		_
compensation										
expense	17			8,071				8,071	2,105	10,175
Other movements (5)	Ι,			(359,076)		359,076				
As of December 31,				(222,210)						
2022		45,675,968	2,955	583,122	(28,605)	(333,365)	(106,139)	117,968	7,973	125,941

- (1) On February 23, 2022, Calyxt completed a follow-on offering, in which it issued 3,880,000 shares of its common stock, pre-funded warrants to purchase up to 3,880,000 shares of its common stock. The aggregate offering price for each share of common stock and accompanying common warrant was \$1.41. The aggregate offering price for each pre-funded warrant and accompanying common warrant was \$1.4099. In the aggregate, Calyxt received net proceeds of \$10.0 million, after deducting approximately \$0.9 million of underwriting discounts and estimated other offering expenses. The Pre-Funded Warrants have been classified as a liability measured at fair value through profit and loss in the Company's consolidated balance sheet until their exercise in full on May 4, 2022, and subsequently settled with the counterparty in common stock. At the exercise date, the fair value of the Pre-Funded Warrants amounted to \$1.6 million. The issuance of common stock and pre-funded warrants generates a \$2.9 million of impact on equity.
- (2) During the full year ended December 31, 2022, 2,006,108 shares were issued through Calyxt's At-The-Market ("ATM") financing program with a net proceed of \$0.1 million, including \$0.2 million of issuance costs related to the Calyxt ATM financing program were recorded as a reduction of share premium.
- (3) These costs correspond to the issuance costs related to the Cellectis At-The-Market ("ATM") financing program and to the follow-on Offering started respectively in January 2023 and February 2023 and were recorded as a reduction of share premium, in anticipation of share issuances that are planned in 2023.
- (4) Transactions with subsidiaries during the year ended December 31, 2022 correspond to the reduction in Cellectis' percentage of interest in Calyxt from 61.8% at December 31, 2021 to 49.1% at December 31, 2022, without a change in the consolidation method.
- (5) During the annual shareholders meeting of June 28, 2022, the shareholders, in accordance with French Law, approved the absorption of \$362.9 million of retained earnings into share premium. This transaction has no impact on the total equity, comprehensive income (loss), assets (including cash) nor liabilities

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS DECEMBER 31, 2022

Note 1. The Company

Cellectis S.A, a limited liability company ("société anonyme") registered and domiciled at 8 rue de la Croix de Jarry 75013 Paris, France, is the ultimate parent of the Group (hereinafter "Cellectis" or "we").

We are a clinical stage biotechnological company, employing our core proprietary technologies to develop products based on gene-editing with a portfolio of allogeneic Chimeric Antigen Receptor T-cells ("UCART") product candidates in the field of immuno-oncology and gene-edited hematopoietic stem and progenitor cells ("HSPC") product candidates in other therapeutic indications.

Our UCART product candidates, based on gene-edited T-cells that express Chimeric Antigen Receptors ("CARs"), seek to harness the power of the immune system to target and eradicate cancers. We believe that CAR-based immunotherapy is one of the most promising areas of cancer research, representing a new paradigm for cancer treatment. We are designing next-generation immunotherapies that are based on gene-edited CAR T-cells. Our gene-editing technologies allow us to create allogeneic CAR T-cells, meaning they are derived from healthy donors rather than the patients themselves. We believe that the allogeneic production of CAR T-cells will allow us to develop cost-effective, "off-the-shelf" products that are capable of being stored and distributed worldwide. Our gene-editing expertise also enables us to develop product candidates that feature additional safety and efficacy attributes, including control properties designed to prevent them from attacking healthy tissues, to enable them to tolerate standard oncology treatments, and to equip them to resist mechanisms that inhibit immune-system activity.

Together with our focus on immuno-oncology, we are using, through our .HEAL platform, our gene-editing technologies to develop HSPC product candidates in genetic diseases.

As of December 31, 2022, Cellectis S.A. also owns 49.1% of the outstanding shares of common stock of Calyxt, Inc., through which our Plants segment is carried out. Calyxt is a plant-based synthetic biology company that leverages its proprietary PlantSpring™ technology platform to engineer plant metabolism to produce innovative, high-value materials and products for use in helping customers meet their sustainability targets and financial goals. The production of Calyxt's plant-based chemistries occurs in its proprietary BioFactory production system.

Cellectis S.A., Cellectis, Inc., Cellectis Biologics Inc. and Calyxt, Inc. (or "Calyxt") are sometimes referred to as a consolidated group of companies as the "Group".

Note 2. Accounting principles

2.1 Basis of preparation

The Consolidated Financial Statements of Cellectis as of and for the year ended December 31, 2022 were approved by our Board of Directors on March 8, 2023.

Our Consolidated Financial Statements are presented in thousand U.S. dollars.

The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and in conformity with IFRS as endorsed by the European Union.

The Consolidated Financial Statements have been prepared using the historical cost measurement basis except for certain assets and liabilities that are measured at fair value in accordance with IFRS.

IFRS include International Financial Reporting Standards ("IFRS"), International Accounting Standards ("the IAS"), as well as the interpretations issued by the Standards Interpretation Committee ("the SIC"), and the International Financial Reporting Interpretations Committee ("IFRIC"). The significant accounting methods used to prepare the Consolidated Financial Statements are described below.

Application of new or amended standards or new amendments

The following pronouncements and related amendments have been adopted by us from January 1, 2022 but had no significant impact on the Consolidated Financial Statements:

- Amendments to IAS 37 Onerous Contracts: Cost of Fulfilling a Contract (Effective for the accounting periods as of January 1, 2022)
- Amendments to IAS 16 Property, Plant and Equipment: Proceeds before Intended Use (Effective for the accounting periods as of January 1, 2022)
- Amendments to IFRS 3 Reference to the Conceptual Framework (Effective for the accounting periods as of January 1, 2022)
- IFRS 9 Financial Instruments Fees in the '10 per cent' Test for Derecognition of Financial Liabilities (Effective for the accounting periods as of January 1, 2022)

Standards, interpretations and amendments issued but not yet effective

The following pronouncements and related amendments are applicable for first quarter accounting periods beginning after January 1, 2023, as specified below. We do not anticipate that the adoption of these pronouncements and amendments will have a material impact on our results of operations, financial position or cash flows.

- IFRS 17 Insurance Contracts (including Amendments to IFRS 17 issued in June 2020 and Amendment to IFRS 17 Initial Application of IFRS 17 and IFRS 9 Comparative Information issued in December 2021) (issued in May 2017 and Effective for the accounting periods as of January 1, 2023)
- Amendments to IAS 1 Classification of Liabilities as Current or Non-current (issued in July 2020 and Effective for the accounting periods as of January 1, 2023)
- Amendments to IAS 8 Definition of Accounting Estimates (issued on 12 February 2021 and Effective for the accounting periods as
 of January 1, 2023)
- Amendments to IAS 1 and IFRS Practice Statement 2 –Disclosure of Accounting Policies (issued in March 2021 and Effective for the accounting periods as of January 1, 2023)
- Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued in May 2021 and Effective for the accounting periods as of January 1, 2023)

Going concern

The consolidated financial statements were prepared on a going concern basis. With cash and cash equivalents of \$89,789 as of December 31, 2022, excluding Calyxt (and \$93,216 including Calyxt), the Company believes it has sufficient resources to continue operating for at least twelve months following the consolidated financial statements' publication.

2.2 Currency of the financial statements

The Consolidated Financial Statements are presented in U.S. dollars, which differs from the functional currency of Cellectis, which is the euro.

All financial information (unless indicated otherwise) is presented in thousands of U.S. dollars.

The statements of financial position of consolidated entities having a functional currency different from the U.S. dollar are translated into U.S. dollars at the closing exchange rate (spot exchange rate at the statement of financial position date) and the statements of operations, statements of comprehensive income (loss) and statements of cash flow of such consolidated entities are translated at the average period to date exchange rate. The resulting translation adjustments are included in equity under the caption "Currency Translation Adjustments" in the Consolidated Statements of Changes in Shareholders' Equity.

2.3 Basis of consolidation

Accounting policy

We control all the legal entities included in the consolidation. An investor controls an investee when the investor is exposed to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Control requires power, exposure to variability of returns and a linkage between the two.

To have power, the investor needs to have existing rights that give it the current ability to direct the relevant activities that significantly affect the investee's returns.

In order to ascertain control, potential voting rights which are substantial are taken into consideration.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary.

All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full consolidation.

Consolidated entities

For the year ended December 31, 2022, the consolidated group of companies (sometimes referred to as the "Group") includes Cellectis S.A., Cellectis, Inc., Cellectis Biologics Inc. and Calyxt.

As of December 31, 2022, Cellectis S.A. owns 100% of Cellectis, Inc., which owns 100% of Cellectis Biologics, Inc., and approximately 49.1% of Calyxt's outstanding shares of common stock. As of December 31, 2021, Cellectis S.A. owned 100% of Cellectis, Inc. and approximately 61.8% of Calyxt's outstanding shares of common stock. Cellectis' voting rights continue to give the company power to direct relevant activities of Calyxt and therefore Calyxt is still consolidated.

On November 23, 2022, Calyxt received a non-binding letter of intent from Cibus Global, LLC (Cibus) regarding a potential reverse merger with Calyxt (with Calyxt absorbing Cibus). With Calyxt as the surviving entity, current equityholders of Cibus would receive shares of Calyxt common stock issued for the purpose of the transaction. On January 13, 2023, Calyxt, Calypso Merger Subsidiary, LLC, a wholly-owned subsidiary of Calyxt, Cibus and certain other parties, entered into an Agreement and Plan of Merger with respect to this all-stock transaction (the Calyxt Merger). Upon completion of the proposed Calyxt Merger, Cellectis S.A. is expected to own approximately 2.4% of the equity interests of the merged combined company, resulting in a loss of control by the Group over Calyxt. A merger agreement was signed on January 17, 2023. The closing of the transaction is expected in the second quarter of 2023. In this context, the assets and liabilities of the Calyxt entity are presented in the financial statements for the year ending December 31, 2022 as non-current assets and liabilities held for sale, in accordance with IFRS 5. The statements of consolidated operations, statements of consolidated comprehensive income and statements of consolidated cash flows reflect the presentation of Calyxt as a discontinued operation, with a restatement of the 2020 and 2021 statements. Commencing with the second quarter of 2023, Calyxt should no longer be a consolidated subsidiary if the proposed Calyxt Merger is consummated.

On May 17, 2022, Calyxt, Inc. received a written notice from the Listing Qualifications Department of The Nasdaq Stock Market LLC ("Nasdaq") of Calyxt's noncompliance with the requirement to maintain a minimum closing bid price of \$1.00 per share, as set forth in Nasdaq Listing Rule 5450(a) (1) (the "Bid Price Requirement"), because the closing bid price of the Calyxt's common stock was below \$1.00 per share for 30 consecutive business days. At the Calyxt's 2022 annual meeting of stockholders held on June 1, 2022, Calyxt's stockholders approved an amendment to Calyxt's amended and restated certificate of incorporation to effect a reverse stock split of Calyxt's shares of common stock at a ratio not less than 2-to-1 and not greater than 10-to-1, with the exact ratio set within that range at the discretion of the Calyxt's board of directors before April 1, 2024 without further approval or authorization of the Calyxt's stockholders (the "Reverse Stock Split"). There can be no assurance that the Reverse Stock Split, if implemented, will increase the market price of the Calyxt's common stock in proportion to the reduction in the number of shares of the Calyxt's common stock outstanding before the Reverse Stock Split or result in a permanent increase in the market price.

Non-controlling interests

Non-controlling shareholders hold a 51.0 % interest in Calyxt as of December 31, 2022 and a 38.2% interest in Calyxt Inc as of December 31, 2021. These non-controlling interests were generated during the initial public offering of Calyxt and subsequent follow-on offerings, as well as through vesting and exercises of equity awards and Calyxt's ATM Program.

2.4 Foreign currencies

Foreign currency transactions and balances

Transactions in foreign currencies are initially recorded by the Group's entities at their respective functional currency spot rate at the date the transaction first qualifies for recognition. The revaluation is done automatically by the accounting system.

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency using the exchange rate effective at the period end date. Differences arising on settlement or translation of monetary items are recognized as financial income or expenses in profit or loss

Non-monetary items that are measured in a foreign currency are translated using the exchange rates at the date of the initial transaction. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. Differences arising on translation of non-monetary items are recognized respectively in profit or loss when the change in fair value of the item is recognized in profit or loss and in OCI when the change in fair value of the item is recognized in OCI.

Foreign currency translation

On consolidation the assets and liabilities of foreign operations having a functional currency different from the euro are translated into euros at the period end exchange rate. The income and expenses of foreign operations are translated into euros using the average exchange rate for the reporting period.

Gains and losses arising from currency translation are recognized in other comprehensive loss.

Consolidated financial statements are then converted into U.S. dollars using the method described in Note 2.2.

The difference in effect of exchange rate changes on cash and cash equivalents between the statements of consolidated operations and consolidated cash flows is mainly explained by the following elements:

- · the differential between the average exchange rate and the period end rates applied to the cash flows of the period;
- the differential between the opening exchange rates and the period end exchanges rate applied on our opening cash and cash equivalents balance denominated in dollars; and
- the foreign exchange rate impact of the conversion of the financial statements of our US subsidiaries.

2.5 Use of judgment, estimates and assumptions

The preparation of these consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures, including the disclosure of contingent liabilities. Actual amounts may differ from those estimates.

The Group's exposure to risks and uncertainties is disclosed in Note 9.3: Financial instruments risk management and policies.

Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the period end date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below. The Group based its assumptions and estimates on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

- Revenue Recognition: Collaboration Agreements and Licenses, Sales of Products and Services (Note 3.1)
- Research Tax Credit (Note 3.1)
- Share-Based Compensation (Note 16)
- Provisions for risks and charges (Note 18)
- Current financial assets (Note 12.1)

Note 3. Information concerning the Group's Consolidated Operations

3.1 Revenues and other income

Accounting policies

Collaboration agreements and licenses

Under IFRS 15, "Revenue from contracts with customers", revenue is recognized when Cellectis satisfies a performance obligation by transferring a distinct good or service (or a distinct bundle of goods and/or services) to a customer, i.e. when the customer obtains control of these goods or services.

We have entered into certain research and development collaboration agreements that consist of the licensing of rights to technology, research and development programs, research and development cost reimbursements and royalties. We have analyzed the agreements to identify the separate performance obligations.

These collaboration agreements may generate cash flows through non-refundable upfront payments related to the licensing of rights to technology and research and development programs, milestone payments research and development cost reimbursements and royalties. Licensing of rights to technology pursuant to non-cancelable, non-refundable fixed and upfront fee arrangements are recognized when such technology is delivered to the co-contracting party and our exclusive rights to access the technology have stopped.

Up-front payments for research and development programs are deferred as a contract liability and recognized when the performance obligation is satisfied, as the customer receives the benefits of the services. When a specific research and development program is put on hold, as agreed by our customer as part of a joint executive committee decision, the revenue recognition continues to be deferred until research and development efforts resume. If the joint decision is to abandon the project, deferred revenue is fully recognized.

Research and development costs reimbursements are recognized on a time and material basis over the length of the specific research and development project.

Milestone payments represent variable consideration, the receipt of which is dependent upon the achievement of certain scientific, regulatory, or commercial milestones. Such payments are considered variable consideration. We recognize milestone payments when it is highly probable that any revenue recognized will not be subsequently reversed. This includes consideration of whether the performance obligation is achieved and may be when the triggering event has occurred, depending on the nature of the triggering event, there are no further contingencies or services to be provided with respect to that event, and the co-contracting party has no right to require refund of payment. The triggering event may be scientific results achieved by us or another party to the arrangement, regulatory approvals, or the marketing of products developed under the arrangement.

Royalty revenues arise from our contractual entitlement to receive a percentage of product sales achieved by co-contracting parties under our license arrangements. As we have no products approved for sale, we have not received any royalty revenue from commercial sales to date. Royalty revenues, if earned, will be recognized at the later of when (1) the subsequent sale or usage occurs; and (2) the performance obligation to which the sales-based or usage-based royalties relates has been satisfied.

In addition, we license our technology to other third parties and revenues are recognized ratably over the period of the license agreements.

Sales of products and services

Revenues on sales of products are recognized at the point in time once the control over the delivered products is transferred to the customer, which is based on shipping terms. Sales include shipping and handling charges if billed to the customer and are reported net of trade promotion and other costs, including estimated allowances for returns, unsalable product and prompt pay discounts. Sales, use, value-added and other excise taxes are not recognized in revenue.

Our sales of product are related to our electroporation solution sent to one of our partners for the use of a specific machine.

We also offer research services, which revenue is recognized over time, as the customer receives the benefits of the services.

Research Tax Credit

The main Research Tax Credit from which we benefit is the Crédit d'Impôt Recherche, or "CIR", which is granted to entities by the French tax authorities in order to encourage them to conduct technical and scientific research. Entities that demonstrate that their research expenditures meet the required CIR criteria receive a tax credit. As a general principle, such R&D tax credit can be offset against the corporate income tax ("CIT") due on the profits of the financial year during which the expenses have been incurred and the following three years; any unused portion of the credit is then refunded by the French treasury (except for specific cases like e.g. if the Company can be qualified as small and medium-sized enterprises in France (the "PME")). Indeed, if a company meets certain criteria in terms of sales, headcount or assets to be considered a small/middle size company, such company can request immediate refund of the remaining tax credit, without application of the three-year period. As from January 2022, Cellectis S.A. no longer meets such criteria.

We apply for CIR for research expenditures incurred in each fiscal year and recognize the amount claimed in the line item "Other income" in the same fiscal year. Research tax credit is subject to audit of tax authorities. When tax authorities' payment related to CIR is late, default interests are applied and are recognized in "other income".

Details of revenues and other income

Revenues by country of origin and other income

	For the year ended December 3:		
	2020*	2021*	2022
		\$ in thousands	
From France	51,057	30,347	19,171
From USA			
Revenues	51,057	30,347	19,171
Research tax credit	8,433	8,239	6,546
Subsidies and other	74	11	7
Other income	8,507	8,250	6,553
Total revenues and other income	59,564	38,597	25,725

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

All revenues are generated by Cellectis SA since Calyxt revenues are presented within income (loss) from discontinued operations.

The decrease of \$1.7 million in other income between the year ended December 31, 2021 and 2022 reflects a decrease of \$1.7 million in research tax credit, due to lower research and development purchases and external expenses that are eligible for the tax credit during the year ended December 31, 2022 compared to the same period in 2021.

Revenues by nature

	For the year ended December		
	2020*	2021*	2022
		\$ in thousands	
Recognition of previously deferred upfront payments	20,291	_	_
Other revenues from collaboration agreements	28,532	29,971	18,230
Collaboration agreements	48,823	29,971	18,230
Licenses	2,123	250	686
Products & services	111	125	255
Total revenues	51,057	30,347	19,171

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

Recognition of other revenues from collaboration agreements for the year ended December 31, 2022 mainly reflects (i) the recognition of a \$15.8 million milestone from Servier in connection with the first patient dosed in the Allogene ALPHA2 Study, (ii) the recognition of two milestones in connection with Target B2M and Target TGFbRII under Cellectis' agreement with Cytovia for an aggregate of \$1.5 million and (iii) the recognition of \$1.0 million related to the change of control of a licensee pursuant to the terms of its license agreement with Cellectis and the amendment to such license agreement (extension of its option term).

For the year ended December 31, 2021, other revenues from collaboration agreements include the recognition point in time of \$20.0 million of upfront amounts related to the grant of a right-of-use license as part of the agreement signed between Cellectis and Cytovia Therapeutics Inc. on February 12, 2021 and the recognition of two milestones related to Cellectis' agreement with Allogene Therapeutics Inc. for \$10.0 million. The agreement with Cytovia provides for several types of financial compensation to Cellectis, including cash compensation of \$20 million, as well as cash milestones payments, cash upfront payment upon delivery of products and single-digit royalties.

In 2020, recognition of previously deferred upfront payments mainly reflects the recognition of \$19.4 million of deferred upfront and milestone payments on released targets, which is associated with the amendment to the License, Development and Commercialization Agreement between Les Laboratoires Servier and Institut de Recherches Internationales Servier ("Servier") and Cellectis dated March 4, 2020 (the "Servier Amendment").

For the years ended December 31, 2022, 2021 and 2020, revenues related to licenses includes royalties received under our various license agreements.

Entity-wide disclosures:

In 2022, one client represents more than 10% of the total revenue: Client A with 82%

In 2021, three clients represent more than 10% of the total revenue: Client A with 45%, Client B with 35% and Client C with 18%.

In 2020, two clients represent more than 10% of the total revenue: Client A with 64% and Client B with 25%.

3.2 Operating expenses

Accounting policies

Royalty expenses correspond to costs from license agreements that we entered into to obtain access to technology that we use in our product development efforts. Depending on the contractual provisions, expenses are based either on a percentage of revenue generated by using the patents based on fixed annual royalties or conditioned by milestones.

Research and development expenses include employee-related costs, laboratory consumables, materials supplies and facility costs, as well as fees paid to non-employees and entities to conduct research and development activities on our behalf. They also include expenses associated with obtaining patents. The costs associated with manufacturing of product candidates are recorded depending on the use of the material. If products are not intended to be used in clinical studies, we recognize the expense when the product is delivered. If they are intended to be used for clinical studies, the expense is recognized when the certificate of compliance is obtained.

Selling, general and administrative expenses consist primarily of employee-related expenses for executive, business development, intellectual property, finance, legal and human resource functions. Administrative expenses also include facility-related costs and service fees, other professional services, recruiting fees and expenses associated with maintaining patents.

We classify a portion of personnel and other costs related to information technology, human resources, business development, legal, intellectual property and general management in research and development expenses based on the time that each employee or person spent contributing to research and development activities versus sales, general and administrative activities.

The operating expenses included in the loss from discontinued operations include Calyxt's cost of goods sold. In the first quarter of 2019, Calyxt began to capitalize all grain and seed costs into inventory. Grain and risk management costs, net of the benefit from Calyxt's seed activity, are capitalized to inventory and relieved to cost of goods sold as the high oleic soybean oil and high oleic soybean meal is sold. Any valuation adjustments to inventory are recognized as incurred. Calyxt's cost of goods sold also includes crush and refining losses that are expensed as incurred since they do not add to the value of the finished products.

Details of operating expenses by nature

	2020		2022
		\$ in thousand	ls
Cost of revenue			
Cost of goods sold	-		0
Royalty expenses	(1,9	951) (1,844)	(1,772)
Cost of revenue	(1,0	(1,844)	(1,772)
	For the ye	ar ended December	r 31,
	2020 *	2021 *	2022
		in thousands	
Research and development expenses			
Wages and salaries	(26,154)	(38,961)	(38,523)
Social charges on stock option grants	(56)	(868)	10
Non-cash stock-based compensation expense	(6,790)	(9,381)	(4,098)
Personnel expenses	(33,001)	(49,210)	(42,610)
Purchases and external expenses	(36,339)	(55,627)	(37,736)
Other (1)	(7,707)	(13,003)	(17,154)
Total research and development expenses	(77,047)	(117,840)	(97,501)
	For t	he year ended Dece	mher 31
	2020 *	2021 *	2022
		\$ in thousands	

For the year ended December 31,

	For the year ended December 31,		
	2020 *	2021 *	2022
		in thousands	
Selling, general and administrative expenses			
Wages and salaries	(7,846)	(7,281)	(5,686)
Social charges on stock option grants	(23)	(347)	(43)
Non-cash stock-based compensation expense	(3,238)	(2,113)	(1,945)
Personnel expenses	(11,106)	(9,740)	(7,674)
Purchases and external expenses	(9,748)	(10,433)	(6,712)
Other	(1,659)	(2,709)	(3,108)
Total selling, general and administrative expenses	(22,513)	(22,882)	(17,494)

	For the year ended December 31,			
	2020 *	2021 *	2022	
		\$ in thousands		
Personnel expenses				
Wages and salaries	(34,000)	(46,242)	(44,209)	
Social charges on free shares and stock option grants	(79)	(1,215)	(33)	
Non-cash stock-based compensation expense	(10,028)	(11,493)	(6,043)	
Total personnel expenses	(44,107)	(58,950)	(50,285)	

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

⁽¹⁾ Other research and development expenses amounting to \$17.2 million for the year ended December 31, 2022 relate mainly to tangible assets depreciation for \$9.8 million and to right-of-use assets depreciation for \$6.7 million.

3.3 Financial income and expenses

Accounting policies

Financial income and financial expense include, in particular, the following:

- Interest income from savings accounts and fixed term bank deposits;
- Interest expense from leases;
- · Foreign exchange gain (loss) from transactions in foreign currencies; and
- Other financial income and expenses, mainly derived from fair value adjustments related to our financial assets and derivative instruments.

Details of financial income and expenses

	For the yea	ember 31,	
	2020 *	2021 *	2022
Interest income	1,392	719	1,120
Foreign exchange gain	3,091	11,860	7,541
Other financial revenues	364	638	219
Total financial income	4,846	13,218	8,880
Interest expenses	(73)	(368)	(371)
Interest expenses for leases	(2,334)	(3,803)	(3,416)
Foreign exchange loss	(13,681)	(2,119)	(1,481)
Other financial expenses	(29)	(197)	(12,546)
Total financial expenses	(16,117)	(6,486)	(17,815)
Net Financial gain (loss)	(11,270)	6,731	(8,935)

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

The decrease in financial income of \$4.3 million between the year period ended December 31, 2021 and 2022 was mainly attributable to a decrease of the foreign exchange gain for \$4.3 million (from a \$11.9 million gain in 2021 to a \$7.5 million gain in 2022).

The increase in financial expenses of \$11.3 million between the year ended December 31, 2021 and 2022 was mainly attributable to Cytovia's convertible note change in fair value of \$(12.1) million, partially offset by a \$0.6 million decrease in foreign exchange loss (from a \$2.1 million loss in 2021 to a \$1.5 million loss in 2022) and a \$0.4 million decrease in lease debt interest expenses.

Following the first amendment of the Cytovia Agreement on April 26, 2022, which substantially modified the cash flows to which Cellectis was entitled under the arrangement, the trade receivable amounting to \$20 million was derecognized and a financial asset was recorded (i.e. a convertible note and a warrant were recognized at their fair value under Level 3 instrument). The convertible note, which is convertible into a number of ordinary or preferred shares of Cytovia that varies depending on several scenarios or paid in cash in some circumstances, is a financial asset that is measured at fair value through profit or loss. The fair value of the convertible note on December 31, 2022 is \$7.9 million (refer to Note 12.1). Therefore, the total profit (loss) impact for year ended December 31, 2022 is a \$(12.1) million financial loss.

The increase in financial income of \$8.4 million between 2020 and 2021 was mainly attributable to an increase of the foreign exchange gain of \$8.8 million (from a \$3.1 million gain in 2020 to a \$11.9 million gain in 2021) and to the increase in other financial revenues for \$0.3 million, partially offset by the decrease of interest received from financial investment of \$0.7 million. The decrease in financial expenses of \$9.6 million between 2020 and 2021 was mainly attributable to the \$11.6 million decrease in foreign exchange loss (from a \$13.7 million loss in 2020 to a \$2.1 million loss in 2021), partially offset by the increase in financial expenses related to lease debt for \$1.5 million, an increase interest expenses for \$0.3 million and other immaterial variances for \$0.2 million.

3.4 Income tax

Accounting policies

Income tax (expense or income) comprises current tax expense (income) and deferred tax expense (income).

Deferred taxes are recognized for all the temporary differences arising from the difference between the tax basis and the accounting basis of assets and liabilities. Tax losses that can be carried forward or backward may also be recognized as deferred tax assets. Tax rates that have been enacted as of the closing date are utilized to determine deferred tax. Deferred tax assets are recognized only to the extent that it is likely that future profits will be sufficient to recover them. We have not recorded deferred tax assets or liabilities in the statements of financial position.

Tax proof

	For the year	For the year ended December 31,		
	2020 *	2021 *	2022	
	\$	in thousands		
Income (loss) before taxes from continuing operations	(53,582)	(96,749)	(98,601)	
Theoretical group tax rate (1)	24.85%	24.38%	25.16%	
Theoretical tax benefit (expense)	13,315	23,584	24,804	
Increase/decrease in tax benefit arising from:				
Permanent differences	(320)	(1,228)	(162)	
Research tax credit	3,104	4,284	4,852	
Share-based compensation & other IFRS adjustments	(2,513)	(3,596)	(987)	
Non recognition of deferred tax assets related to tax losses and temporary				
differences	(12,965)	(22,997)	(28,557)	
Other differences (2)	(621)	(47)	(38)	
Effective tax expense			(87)	
Effective tax rate	0.00%	0.00%	0.09%	

- * These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)
- (1) The Group's theoretical tax rate corresponds to the average of the income tax rates of each country in which the Group operates, i.e. for the year ended December 31, 2022 25% for France and 21% for the United States, weighted by the pre-tax income from each country.
- (2) Primarly relates to intercompany transactions between discontinued and continuing operations.

Deferred tax assets and liabilities

	As of December 31,		
	2020 2021		2022
		in thousands	
Credits and net operating loss carryforwards	141,954	157,823	124,263
Pension commitments	1,003	1,018	597
Leases	319	1,113	774
Impairment of assets	1	1	1
Revenue recognition	(491)	_	(125)
Other (1)	1,308	(3,973)	2,937
Total unrecognized deferred tax assets, net	(144,095)	(155,982)	(128,448)

(1) Other deferred tax assets as of December 31, 2022 relate mainly to US R&D expenses capitalized under Internal Revenue Code section 174 and differences between the carrying value of our fixed assets in Raleigh and their tax basis.

We have cumulative tax loss carryforwards for the French entity of the Group totaling \$453 million as of December 31, 2022, \$387 million as of December 31, 2021 and \$325 million as of December 31, 2020. Such carryforwards can be offset against future taxable profit within a limit of €1.0 million per year, plus 50% of the tax profit exceeding this limit. Remaining unused losses will continue to be carried forward indefinitely.

The cumulative tax loss carryforwards for the U.S. entities of the Group totaled \$277.8 million as of December 31, 2022, \$286 million as of December 31, 2021 and \$160 million as of December 31, 2020. As of December 31, 2022, Calyxt has \$239.2 million of tax loss carryforwards. Of this amount, \$55.2 million are state operating loss carryforwards and \$184.0 million are federal operating loss carryforwards. The federal carryforward periods are as follows: \$142.0 million do not expire and \$41.9 million expire between 2032 and 2037. The state net operating losses will expire between 2027 and 2041, with some amounts having indefinite carryover. As of December 31, 2022, Cellectis, Inc., Cellectis Biologics Inc. have cumulative tax loss carryforwards of \$38.6 million, of which \$30 million are state operating loss carryforwards and \$8.6 million are federal operating loss carryforwards.

3.5 Reportable segments

Accounting policies

Reportable segments are identified as components of the Group that have discrete financial information available for evaluation by the Chief Operating Decision Maker ("CODM"), for purposes of performance assessment and resource allocation.

Cellectis' CODM is composed of:

- The Chief Executive Officer:
- The Executive Vice President CMC and Manufacturing (previously The Executive Vice President Strategic Initiatives);
- The Senior Vice President of US Manufacturing;
- The Chief Scientific Officer;
- The Chief Financial Officer
- The General Counsel;
- The Chief Business Officer:
- The Chief Regulatory & Pharmaceutical Compliance Officer;
- The Chief Medical Officer; and
- The Chief Human Resources Officer.

We view our operations and manage our business in two operating and reportable segments that are engaged in the following activities:

- Therapeutics: Therapeutics: This segment is focused on the development (i) gene-edited allogeneic Chimeric Antigen Receptor T-cells product candidates (UCART) in the field of immuno-oncology (UCART) and (ii) gene-edited hematopoietic stem and progenitor cells (HSPC) product candidates in other therapeutic indications. These approaches are based on our core proprietary technologies. All these activities are supported by Cellectis S.A., Cellectis, Inc. and Cellectis Biologics, Inc. The operations of Cellectis S.A., the parent company, are presented entirely in the Therapeutics segment which also comprises research and development, management and support functions.
- *Plants:* This segment is focused on using Calyxt's proprietary PlantSpringTM technology to engineer plant metabolism to produce innovative, high-value, and sustainable materials and products for use in helping customers meet their sustainability targets and financial goals. Calyxt's diversified product offerings will primarily be delivered through its proprietary BioFactory™ production system. It corresponds to the activity of our U.S.-based subsidiary Calyxt, which is currently based in Roseville, Minnesota. As of December 31, 2022, we owned a 49.1% equity interest in Calyxt. This segment is only related to assets held for sale as of December 31, 2022.

There are inter-segment transactions between the two reportable segments, including allocation of corporate general and administrative expenses by Cellectis S.A. and allocation of research and development expenses to the reportable segments.

With respect to corporate general and administrative expenses, Cellectis S.A. has provided Calyxt, with general sales and administrative functions, accounting and finance functions, investor relations, intellectual property, legal advice, human resources, communication and information technology under a Management Services Agreement. Effective with the end of the third quarter 2020, Calyxt has internalized nearly all of the services previously provided by Cellectis under this agreement. Under the Management Services Agreement, Cellectis S.A. charges Calyxt, in euros at cost plus a mark-up ranging between zero to 10%, depending on the nature of the service. Amounts due to Cellectis S.A. pursuant to inter-segment transactions bear interest at a rate of the higher between 0% and 12-month Euribor plus 5% per annum. There were no expenses incurred by Calyxt under the Management Services Agreement in 2022.

The intersegment revenues represent the transactions between segments. Intra-segment transactions are eliminated within a segment's results and intersegment transactions are eliminated in consolidation as well as in key performance indicators by reportable segment.

Information related to each reportable segment is set out below. Segment revenues and other income, Research and development expenses, Selling, general and administrative expenses, and Cost of revenue and other operating income and expenses, and adjusted net income (loss) attributable to shareholders of Cellectis (which does not include non-cash stock-based compensation expense) are used by the CODM for purposes of making decisions about allocating resources to the segments and assessing their performance. The CODM does not review any asset or liability information by segment or by region.

Adjusted Net Income (Loss) attributable to shareholders of Cellectis S.A. is not a measure calculated in accordance with IFRS. Because Adjusted Net Income (Loss) attributable to shareholders of Cellectis excludes non-cash stock-based compensation expense—a non-cash expense, our management believes that this financial measure, when considered together with our IFRS financial statements, can enhance an overall understanding of Cellectis' financial performance. Moreover, our management views the Company's operations, and manages its business, based, in part, on this financial measure.

The net income (loss) includes the impact of the operations between segments while the intra-segment operations are eliminated.

Details of key performance indicators by reportable segment

	For the ye	For the year ended December 31, 2020			For the year ended December 31, 2021		For the ye	ear ended Decem	ber 31,
(\$ in thousands)	Plants (discontinued operations)	Therapeutics	Total reportable segments	Plants (discontinued operations)	Therapeutics	Total reportable segments	Plants (discontinued operations)	Therapeutics	Total reportable segments
External revenues	22,892	51,057	73,949	26,946	30,347	57,293	157	19,171	19,328
External other income	<u></u>	8,507	8,507	1,528	8,250	9,778	_	6,553	6,553
External revenues and other									
income	22,892	59,564	82,456	28,475	38,597	67,071	157	25,725	25,881
Cost of revenue	(34,324)	(1,951)	(36,275)	(29,517)	(1,844)	(31,360)		(1,772)	(1,772)
Research and development					, ,	, , ,			
expenses	(9,903)	(77,048)	(86,951)	(11,190)	(117,840)	(129,030)	(11,402)	(97,501)	(108,903)
Selling, general and									
administrative expenses	(21,688)	(22,513)	(44,201)	(14,987)	(22,882)	(37,869)	(10,354)	(17,494)	(27,849)
Other operating income and									
expenses	(103)	(363)	(466)	23	488	511	414	1,377	1,791
Total operating expenses	(66,018)	(101,875)	(167,893)	(55,671)	(142,077)	(197,748)	(21,343)	(115,390)	(136,733)
Operating income (loss)									
before tax	(43,126)	(42,311)	(85,437)	(27,196)	(103,481)	(130,677)	(21,186)	(89,666)	(110,852)
Net financial gain (loss)	(776)	(11,270)	(12,046)	(1,162)	6,731	5,570	5,840	(8,935)	(3,095)
Income Tax								(87)	(87)
Net income (loss) from									
discontinued operations	(43,902)		(43,902)	(28,358)		(28,358)	(15,345)		(15,345)
Net income (loss)	(43,902)	(53,581)	(97,483)	(28,358)	(96,749)	(125,107)	(15,345)	(98,689)	(114,034)
Non-controlling interests	16,409		16,409	10,910		10,910	7,894		7,894
Net income (loss) attributable to									
shareholders of Cellectis	(27,493)	(53,581)	(81,074)	(17,448)	(96,749)	(114,197)	(7,451)	(98,689)	(106, 139)
R&D non-cash stock-based									
expense attributable to									
shareholder of Cellectis	801	6,790	7,591	909	9,381	10,290	465	4,098	4,563
SG&A non-cash stock-based									
expense attributable to									
shareholder of Cellectis	3,536	3,238	6,774	95	2,113	2,207	1,562	1,945	3,508
Adjustment of share-based									
compensation attributable									
to shareholders of Cellectis	4,337	10,028	14,365	1,004	11,493	12,497	2,027	6,043	8,071
Adjusted net income (loss)									
attributable to									
shareholders of Cellectis	(23,156)	(43,553)	(66,709)	(16,444)	(85,256)	(101,700)	(5,424)	(92,645)	(98,068)
Depreciation and amortization tangible and intangible									
assets	(1,869)	(7,950)	(9,819)	(1,208)	(6,371)	(7,579)	(1,086)	(10,577)	(11,663)
Additions to tangible and	. =06	40.045	E0 E00	4.40=	4= 4= 4	46.606	0=0	4.000	0.050
intangible assets	1,786	48,813	50,599	1,187	15,451	16,638	873	1,980	2,853

The total reportable segments include discontinued operations which is not presented in the Statement of income in accordance with IFRS 5 presentation.

Note 4. Discontinued operations

Accounting policies

Non-current assets held for sale and disposal groups

In accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, non-current assets (including property, plant and equipment and intangible assets) and disposal groups (a group of assets to be disposed of) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction and when the following conditions are met: i) management is committed to a plan to sell; ii) the asset or disposal group is available for immediate sale; iii) an active program to locate a buyer is initiated; iv) the sale is highly probably, within 12 months of classification as held for sale; v) the asset or disposal group is being actively marketed for sale at a sales price reasonable in relation to its fair value; and vi) actions required to complete the plan indicate that it is unlikely that plan will be significantly changed or withdrawn.

Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell, as appropriate.

Depreciation and amortization on these assets cease when they meet the criteria to be classified as non-current assets held for sale.

Non-current assets and related liabilities classified as held for sale are presented separately as current items in the statement of consolidated financial position.

Discontinued operations

The Group classifies as discontinued operations a component of the Group that either has been disposed of, or is classified as held for sale, and i) represents a separate major line of business or geographical area of operations; ii) is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations; or iii) is a subsidiary acquired exclusively with a view to resell.

The components of profit or loss after taxes from discontinued operations and the post-tax gain or loss recognized on the measurement to fair value less costs to sell or on the disposal of the assets or disposal groups constituting the discontinued operation would be presented as a single line item in the statement of consolidated comprehensive income.

Cash flows generated by the assets or disposal groups constituting the discontinued operation would be presented as a single line item within each of the categories of cash flows in the statement of consolidated cash flows.

Details of discontinued operations and disposal groups

On November 23, 2022, Calyxt received a non-binding letter of intent from Cibus regarding a potential reverse merger with Calyxt (with Calyxt absorbing Cibus). On January 13, 2023, Calyxt, Cibus and certain other parties thereto signed the Merger Agreement relating to this proposed Calyxt Merger. The closing of the proposed Calyxt Merger is expected in the second quarter of 2023. In connection with the Merger Agreement, Cellectis executed a voting agreement with Cibus to vote in favor of and approve all the transactions contemplated by the Merger Agreement, subject to the terms and conditions thereof.

The Group considers that Calyxt meets the definition of a group of assets held for sale as the criteria defined by IFRS 5 are met on November 23, 2022. In the present financial statements, Calyxt is therefore classified as a disposal group held for sale as of December 31, 2022 and as a discontinued operation for each period presented.

As prescribed by IFRS 5, Calyxt's assets and liabilities have been measured at the lower of their carrying amount and their fair value less costs to sell. No gain or loss was recognized pursuant to this measurement.

The results of Calyxt are as follows:

	For the year ended December 31,		
	2020 *	2021 *	2022
Revenues and other income	22,892	28,475	157
Operating expenses	(66,018)	(55,671)	(21,342)
Operating income (loss)	(43,126)	(27,196)	(21,186)
Net Financial gain (loss)	(776)	(1,162)	5,840
Net income (loss) from discontinued operations	(43,902)	(28,358)	(15,345)

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The earning per share attributable to Calyxt is as follows:

	For the year ended December 31,		
	2020 *	2021 *	2022
Basic net income (loss) attributable to shareholders of Cellectis per share (\$ /share) from			
discontinued operations	(0.65)	(0.39)	(0.16)
Diluted net income (loss) attributable to shareholders of Cellectis per share (\$/share) from		·	
discontinued operations	(0.65)	(0.39)	(0.16)

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The net cash flows incurred by Calyxt are as follows:

	For the year ended December 31,		
	2020 *	2021 *	2022
Net cash flows provided by (used in) operating activities of discontinued operations	(40,920)	(16,746)	(18,601)
Net cash flows provided by (used in) investing activities of discontinued operations	(12,798)	10,979	(446)
Net cash flows provided by (used in) financing activities of discontinued operations	7,575	2,294	8,650
(Decrease) increase in cash and cash equivalents	(46,143)	(3,476)	(10,396)

* These amounts reflect adjustments made in connection with the presentation of the discontinued operation

The major classes of assets and liabilities of Calyxt classified as held for sale as at December 31, 2022 are as follows:

	For the year ended December 31,
	2022
Intangible assets	697
Property, plant, and equipment	4,110
Right-of-use assets	13,263
Other non-current assets	_
Other current assets	272
Cash and cash equivalents	3,427
Total assets held for sale	21,768
Non-current lease debts	13,387
Other non-current liabilities	_
Current lease debts	463
Trade payables	747
Other current liabilities	267
Total liabilities related to assets held for sale	14,864
Net assets held for sale	6,903

Note 5. Impairment tests

Accounting policy

Amortizable intangible assets, depreciable tangible assets and right-of-use are tested for impairment when there is an indicator of impairment. Impairment tests involve comparing the carrying amount of cash-generating units with their recoverable amount. The recoverable amount of an asset is the higher of (i) its fair value less costs to sell and (ii) its value in use. If the recoverable amount of any asset is below its carrying amount, an impairment loss is recognized to reduce the carrying amount to the recoverable amount.

Our cash-generating units ("CGUs") correspond to the operating/reportable segments: Therapeutics and Plants. Plants CGU is classified as held for sale as of December 31, 2022.

Results of impairment test

No indicator of impairment has been identified for any intangible or tangible assets in either of the CGUs for the years ended December 31, 2020, 2021 or 2022.

As Calyxt is classified as a disposal group of assets as of December 31, 2022, Calyxt's assets and liabilities have been measured at the lower of their carrying amount and their fair value less costs to sell. The underlying value of Calyxt from the reverse merger with Cibus being higher than the carrying value of Calyxt's net assets, no impairment loss has been recognized in connection with this remeasurement.

Note 6. Intangible assets

Accounting policy

Capitalization of development expenses

In accordance with IAS 38 Intangible Assets, development expenses are recorded as intangible assets only if all the following criteria are met:

- technical feasibility necessary for the completion of the development project;
- intention on our part to complete the project and to utilize it;
- capacity to utilize the intangible asset;
- proof of the probability of future economic benefits associated with the asset;
- availability of the technical, financial, and other resources for completing the project; and
- reliable evaluation of the development expenses.

Other intangible assets

The other intangible assets we acquired with definite useful lives are recognized at cost less accumulated amortization and impairment. Amortization expense is recorded on a straight-line basis over the estimated useful lives of the intangible assets, in the line Research and Development expenses or Selling, general and administrative expenses of the Statement of Consolidated Operations, depending on the use of the related asset.

The estimated useful lives are as follows:

- Software: from 1 year to 3 years;
- Patents: amortized from acquisition until legal protection expires, maximum of 20 years.

Cloud computing arrangements

On April 27, 2021, the IFRS Interpretations Committee (IC) issued a decision regarding the appropriate accounting treatment under IFRS Standards for fees paid to cloud services providers and related implementation costs which intends to clarify the accounting classification of these costs. Such costs, depending on their nature, may be either recognized as an intangible asset or recorded in operating expenses as incurred. The application of the IFRIC decision is considered as a change in accounting policy. Under IAS 8, the retrospective approach should be applied. However, the Company assessed the impact on its financial statements and decided not to restate its financial statements for 2020, given that the impact of the IFRIC decision application was not material.

For 2021, the application of the decision led to recording an impact of \$2.0 million in operating expenses in the consolidated statement of operations, corresponding to the impact of the Company's new ERP implementation costs incurred over the period.

For 2022, the application of the decision led to recording an impact of \$1.0 million in operating expenses in the consolidated statement of operations, corresponding to the impact of the Company's new ERP implementation costs incurred over the period.

Details of intangible assets

	Software and Patents	Assets under construction	Total
\$ in thousands	401	677	1 100
Net book value as of January 1, 2020	431	677	1,108
Additions to intangible assets	558	(41)	517
Disposal of intangible assets	— 70	_	— 70
Reclassification	76	_	76
Depreciation expense	(206)		(206)
Translation adjustments	30	59	89
Net book value as of December 31, 2020	889	695	1,584
Gross value at end of period	3,309	695	4,004
Accumulated depreciation and impairment at end of period	(2,419)	_	(2,419)
Net book value as of January 1, 2021	889	695	1,584
Additions to intangible assets	_	956	956
Disposal of intangible assets	(310)	_	(310)
Reclassification	956	(956)	_
Depreciation expense	(304)	_	(304)
Translation adjustments	(19)	(54)	(72)
Net book value as of December 31, 2021	1,212	641	1,854
Gross value at end of period	3,437	641	4,078
Accumulated depreciation and impairment at end of period	(2,225)	_	(2,225)
Net book value as of January 1, 2022	1,212	641	1,854
Additions to intangible assets	8	_	8
Disposal of intangible assets	_	_	_
Reclassification	92	_	92
Depreciation expense	(492)	_	(492)
Translation adjustments	(10)	(37)	(47)
Assets held for sale (Note 4)	(697)	_ <u></u>	(697)
Net book value as of December 31, 2022	114	604	718
Gross value at end of period	2,357	604	2,961
Accumulated depreciation and impairment at end of period	(2,192)	_	(2,192)

Intangible assets mainly consist of electroporation technology patents acquired in 2011. Assets under construction primarily relates to the development of these patents. The 2020 and 2021 additions in intangible assets under construction corresponds to software expenditures.

Amounts reclassified corresponds to assets under construction put into service.

Note 7 Right-of-use assets

Accounting policy

Lease contracts recognition

Lease contracts, as defined by IFRS 16 "Leases", are recorded in the statement of consolidated financial position, which leads to the recognition of:

- · an asset representing a right of use of the asset leased during the lease term of the contract "right-of-use"; and
- a liability related to the payment obligation "lease debt".

Measurement of the right-of use asset

At the commencement date, the right-of-use asset is measured at cost and comprises:

- the amount of the initial measurement of the lease liability, to which is added, if applicable, any lease payments made at or before the commencement date, less any lease incentives received;
- where relevant, any initial direct costs incurred by the lessee for the conclusion of the contract. These are incremental costs which would not have been incurred if the contract had not been concluded; and
- estimated costs for restoration of the leased asset according to the terms of the contract.

Following the initial recognition, the right-of-use asset must be depreciated over the useful life of the underlying assets as lease term for the rental component.

Measurement of the lease liability

At the commencement date, the lease liability is recognized for an amount equal to the present value of the lease payments over the lease term.

Amounts involved in the measurement of the lease liability are:

- fixed payments (including in-substance fixed payments meaning that even if they are variable in form, they are in-substance unavoidable);
- variable lease payments that depend on an index or a rate, initially measured using the index or the rate in force at the lease commencement date; amounts expected to be payable by the lessee under residual value guarantees; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

The lease liability is subsequently measured based on a process similar to the amortized cost method using the discount rate:

- the liability is increased by the accrued interests resulting from the discounting of the lease liability, at the beginning of the lease period; and
- payments made are deducted.

The interest cost for the period as well as variable payments, not taken into account in the initial measurement of the lease liability and incurred over the relevant period are recognized as costs.

In addition, the lease liability may be remeasured in the following situations:

- the occurrence of a change in the lease term or a modification related to the assessment of the reasonably certain nature (or not) of the
 exercise of an option,
- a remeasurement linked to residual value guarantees,
- the occurrence of an adjustment to the rates and indices according to which the rents are calculated when rent adjustments occur.

COVID-19-Related Rent Concessions

On May 28, 2020, the IASB issued "Covid-19-Related Rent Concessions", an amendment to IFRS 16. The amendment, which is applicable from June 1, 2020 allows lessees not to account for rent concessions as lease modifications if they are a direct consequence of Covid-19 and meet certain conditions. The practical expedient has been applied by the Group to all rent concessions that meet the conditions in IFRS 16.46B.

The amount recognized in profit or loss for the reporting period to reflect changes in lease payments that arise from rent concessions to which the Group has applied the practical expedient in IFRS 16.46A is immaterial.

Main contracts applicable

Based on its analysis, the Group has identified lease contracts according to the standard concerning office buildings, laboratories, production facilities and storage facilities.

For purposes of IFRS 16, the lease term reflects the Group's reasonable expectation of the period during which the underlying asset will be used.

The discount rate used to calculate the lease debt is determined, for each portfolio of assets, according to the incremental borrowing rate at the contract date.

The incremental borrowing rate is the rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment.

The rental charges relating to short terms and low value lease remains classified as leases expenses in operating expenses and are immaterial.

Details of Right-of-use assets

IFRS 16 "Leases" was applicable for annual periods beginning on or after January 1, 2019. The consequence of the application of this standard is to recognize a right of use and lease liability on the balance sheet.

For the leaseback on Calyxt Headquarters, according to IFRS 16, the value of the right-of-use asset has been adjusted for the amount of the net deferred losses recognized in the statement of financial position immediately before the date of initial application, which was \$1.8 million.

The breakdown of right-of-use assets is as follows:

	Building lease	Office and laboratory equipment \$ in thousands	Total
Net book value as of January 1, 2021	62,424	11,421	73,845
Additions to right-of-use assets	(139)	6,336	6,197
Depreciation expense	(5,721)	(3,300)	(9,021)
Translation adjustments	(1,367)	(231)	(1,598)
Net book value as of December 31, 2021	55,197	14,226	69,423
Gross value at end of period	69,782	19,696	89,478
Accumulated depreciation at end of period	(14,586)	(5,470)	(20,056)
Net book value as of January 1, 2022	55,197	14,226	69,423
Additions to right-of-use assets	396	310	706
Disposals of right-of-use assets	(2,988)	(459)	(3,447)
Depreciation expense	(4,766)	(3,280)	(8,046)
Translation adjustments	(915)	(183)	(1,099)
Assets held for sale (Note 4)	(13,257)	(6)	(13,263)
Net book value as of December 31, 2022	33,666	10,609	44,275
Gross value at end of period	49,421	17,742	67,163
Accumulated depreciation at end of period	(15,755)	(7,133)	(22,889)

Entity-wide disclosures:

In 2022, approximately \$15 million of our right-of-use assets related to France, while approximately \$29 million related to the United States.

In 2021, approximately \$18 million of our right-of-use assets relate to France, while approximately \$51 million relate to the United States.

In 2020, approximately \$22 million of our right-of-use assets related to France, while approximately \$52 million related to the United States.

Note 8. Property, plant and equipment

Accounting policy

Property, plant and equipment are recognized at acquisition cost less accumulated depreciation and any impairment losses. Acquisition costs include expenditures that are directly attributable to the acquisition of the asset and costs to ready it for use.

Depreciation is expensed on a straight-line basis over the estimated useful lives of the assets. If components of property, plant and equipment have different useful lives, they are accounted for separately.

The estimated useful lives are as follows:

 Buildings and other outside improvements 	10-20 years
 Leasehold improvements 	5-10 years
Office furniture	10 years
Laboratory equipment	3-10 years
Office equipment	5 years
IT equipment	3 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted, if appropriate.

Any gain or loss on disposal of an item of property, plants and equipment is determined by comparing the proceeds from disposal with the carrying amount of the item. The net amount is recognized in the statement of consolidated operations under the line item "Other operating income and expenses."

Before IFRS 16 adoption as of January 1, 2019, payments made under operating leases were expensed on a straight-line basis over the term of the lease. Lease incentives received were recognized as an integral part of the total lease expense, over the term of the lease.

If, according to the terms of a lease, it appeared that substantially all the risks and rewards incidental to ownership were transferred from the lessor to the lessee, the associated leased assets were initially recognized as an asset at the lower of their fair value and the present value of the minimum lease payments and subsequently depreciated or impaired, as necessary. Finance lease assets were transferred to Right-of-use assets upon adoption. The associated financial obligations were reported in the line item "non-current financial debt" and "current financial debt." Such amounts were reclassified to lease debts on the date of adoption.

Details of property, plant and equipment

	Lands and Buildings	Technical equipment	Fixtures, fittings and other equipment \$ in thousands	Assets under construction	Total
Net book value as of January 1, 2020	3,330	3,160	2,435	14,787	23,712
Additions to tangible assets	5,248	2,034	854	41,946	50,082
Disposal of tangible assets	4	(122)	_	_	(118)
Reclassification	8,258	692	670	(9,696)	(76)
Depreciation expense	(817)	(1,464)	(861)	_	(3,141)
Translation adjustments	742	136	73	264	1,215
Net book value as of December 31, 2020	16,765	4,436	3,171	47,301	71,673
Gross value at end of period	22,518	17,381	5,843	47,301	93,043
Accumulated depreciation and impairment at end of period	(5,752)	(12,946)	(2,672)	(0)	(21,370)
Net book value as of January 1, 2021	16,765	4,436	3,171	47,301	71,673
Additions to tangible assets	2,956	5,352	1,339	6,035	15,682
Disposal of tangible assets	_	_	_	(2)	(2)
Reclassification	(1,694)	52,577	(612)	(50,208)	63
Depreciation expense	(2,442)	(4,065)	(767)		(7,275)
Translation adjustments	(852)	(228)	(75)	(141)	(1,296)
Net book value as of December 31, 2021	14,733	58,072	3,056	2,985	78,846
Gross value at end of period	22,426	75,511	5,043	2,985	105,965
Accumulated depreciation and impairment at end of period	(7,693)	(17,440)	(1,987)	(0)	(27,119)
Net book value as of January 1, 2022	14,733	58,072	3,056	2,985	78,846
Additions to tangible assets	56	311	364	2,113	2,844
Disposal of tangible assets	(3)	(193)	(453)	(1,057)	(1,706)
Reclassification	(1,359)	4,211	28	(2,973)	(93)
Depreciation expense	(1,944)	(8,516)	(711)	0	(11,171)
Translation adjustments	(646)	(220)	(7)	(116)	(989)
Assets held for sale (Note 4)	(1,517)	(2,593)		<u> </u>	(4,110)
Net book value as of December 31, 2022	9,321	51,072	2,277	952	63,621
Gross value at end of period	17,742	72,847	4,914	952	96,454
Accumulated depreciation and impairment at end of period	(8,421)	(21,775)	(2,637)	_	(32,832)

For the year ended December 31, 2022, we continued our investments in research and development equipment in both the United States of America and France.

Assets under construction as of December 31, 2022 primarily relates to Cellectis' raw and starting materials manufacturing facility and offices in Paris (\$1.3 million). The assets put into service in 2022 in technical equipment mainly concern Calyxt's pilot BioFactory for \$1.7 million and Paris Buildings for \$1.3 million. Calyxt's property, plant and equipment are reclassified as assets held for sale as of December 31, 2022.

The reclassification from Buildings to Technical equipment relates to our facilities in New York.

Entity-wide disclosures:

In 2022, approximately \$14 million of our PP&E related to France, while approximately \$50 million related to the United States.

In 2021, approximately \$17 million of our PP&E relate to France, while approximately \$62 million relate to the United States.

In 2020, approximately \$16 million of our PP&E related to France, while approximately \$56 million related to the United States.

Note 9. Financial assets and liabilities

9.1 Accounting principles

IFRS 9 comprises three phases: classification and measurement of financial assets and liabilities, impairment of financial assets and hedge accounting. Cellectis was not affected by the new classification required by the standard to determine the way financial assets are recognized and measured.

Financial assets

Under IFRS 9, Cellectis holds either:

- financial assets measured at amortized cost or;
- financial assets measured at fair value through profit or loss.

Non-current financial assets are recorded at the amortized cost and correspond to security deposits mainly relating to our facilities rents.

Current financial assets correspond to restricted cash.

Trade and other receivables are recorded at fair value, which is the nominal value of invoices unless payment terms require a material adjustment for the time value discounting effect at market interest rates. Trade receivables are subsequently measured at amortized cost. A provision for expected credit losses for trade and other receivables is recognized if their recoverable amount is less than their carrying amount. Cellectis trade and other receivables are impaired according to the expected loss model.

Receivables are classified as current assets, except for those with a maturity exceeding 12 months after the reporting date.

Government grants to Cellectis related to research and development expenses for research programs are recognized as subsidies receivables in the period in which the expenses subject to the subsidy have been incurred, provided there is a reasonable assurance that we will comply with conditions attached to the subsidy and that the subsidy will be received.

Financial liabilities

Financial liabilities include trade and other payables, finance leases, State Guaranteed loan « PGE » and a tenant improvement loan related to our headquarters in New-York.

We initially recognize financial liabilities on the transaction date, which is the date that we become a party to the contractual provisions of the instrument.

We derecognize financial liabilities when our contractual obligations are discharged, canceled or expire.

Financial liabilities are valued at amortized cost. The amount of interest recognized in financial expenses is calculated by applying the financial liability's effective interest rate to its carrying amount. Any difference between the expense calculated using the effective interest rate and the actual interest payment impacts the value at which the financial liability is recognized.

Liabilities for short term employee benefits are included in financial liabilities. They are recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if we have a present legal or constructive obligation to pay the amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

9.2 Detail of financial assets and liabilities

The following table shows the carrying amounts and fair values of financial assets and financial liabilities.

	Accounting of Fair value through	category	Book value on the statement of financial	
<u>2021</u>	profit and loss	Amortized cost	position position	Fair Value
		\$ in tho	ısands	
Financial assets				
Non-current financial assets	_	6,524	6,524	6,524
Trade receivables	_	20,361	20,361	20,361
Subsidies receivables	_	9,268	9,268	9,268
Current financial assets	_	499	499	499
Cash and cash equivalents	185,636		185,636	185,636
Total financial assets	185,636	36,652	222,288	222,288
Financial liabilities				
Non-current lease debts	_	71,526	71,526	71,526
Non-current financial liabilities	_	20,030	20,030	20,030
Current lease debts	_	8,329	8,329	8,329
Current financial liabilities	_	2,354	2,354	2,354
Trade payables	_	23,762	23,762	23,762
Other current liabilities		13,731	13,731	13,731
Total financial liabilities		139,731	139,731	139,731

	Accounting	g category		
<u>2022</u>	Fair value through profit and loss	Amortized cost \$ in th	Book value on the statement of financial position nousands	Fair Value
Financial assets				
Non-current financial assets	_	8,791	8,791	8,791
Trade receivables	-	772	772	772
Subsidies receivables	_	14,496	14,496	14,496
Current financial assets	_	7,907	7,907	7,907
Cash and cash equivalents	89,789	_	89,789	89,789
Total financial assets	89,789	31,967	121,756	121,756
Financial liabilities				
Non-current lease debts	-	49,358	49,358	49,358
Non-current financial liabilities	_	20,531	20,531	20,531
Current lease debts	_	7,872	7,872	7,872
Current financial liabilities	_	5,088	5,088	5,088
Trade payables	-	21,456	21,456	21,456
Other current liabilities		13,179	13,179	13,179
Total financial liabilities		117,484	117,484	117,484

Entity-wide disclosures:

In 2022, approximately \$0.7 million of our non-current financial assets related to France, while approximately \$8.1 million related to the United States.

In 2021, approximately \$1 million of our non-current financial assets relate to France, while approximately \$6 million relate to the United States.

In 2020, approximately \$1 million of our non-current financial assets related to France, while approximately \$6 million related to the United States.

9.3. Financial risks management

We have exposure to the following risks arising from financial instruments:

Foreign exchange risk

A portion of our revenue is generated in currencies other than euro. Although our strategy is to favor the euro as our transaction currency when signing contracts, some agreements have been signed in US dollars (primarily agreements entered into by Calyxt, our agreements with Allogene Therapeutics, Inc. and Cytovia Therapeutics, Inc.).

As of December 31, 2021, 57% of our cash and cash equivalents were denominated in US dollars. As of December 31, 2022, 59% of our cash and cash equivalents were denominated in US dollars.

As of December 31, 2021 and 2022, we did not hold derivative financial instruments to hedge foreign currency exchange risks.

Liquidity risk

As of December 31, 2022, our financial debt (which excludes Calyxt) primarily consists of lease debts for \$57.2 million, a loan from a bank syndicate formed with HSBC, Société Générale, Banque Palatine and Bpifrance in the form of a state-guaranteed loan (Prêt Garanti par l'Etat) (the "PGE") for \$18.5 million (interests included), the Research Tax Credit financing with BPI for \$5.8 million and a \$1.3 million loan to finance leasehold improvements at our location in New-York.

We have incurred losses and cumulative negative cash flows from operations since our inception in 2000, and we anticipate that we will continue to incur losses for at least the next several years. As of December 31, 2022, we held \$89.8 million in cash and cash equivalents.

On December 28, 2022, Cellectis announced that it has entered into a €40 million credit facility agreement with the European Investment Bank ("EIB"). The €40 million facility is divided into three tranches: €20 million for the first tranche ("Tranche A"), €15 million for the second tranche ("Tranche B") and €5 million for the third tranche ("Tranche C"). The disbursement of each tranche, including the first disbursement of Tranche A, is subject to certain conditions which, as of the date of this press release, remain to be satisfied. The three tranches will be available within 36 months following the signature of the Finance Contract. The credit will carry a decreasing fixed payment-in-kind (PIK) interest rate per tranche, with 8% for Tranche A, 7% for Tranche B and 6% for Tranche C, and with a maturity of six years for each tranche. Such PIK interest shall be capitalized annually, payable at maturity and added to the outstanding principal amount of the credit and therefore bear interest. Related warrants of tranche A are expected to be issued in the first quarter of 2023. Related warrants of tranche B are expected to be issued in the second or third quarter of 2023.

As of December 31, 2022, Cellectis, excluding Calyxt, had cash and cash equivalents of \$89.8 million. Based on the current operating plan and financial projections, we believe our cash and cash equivalents, together with current financial assets, cash flow from operations (including payments we expect to receive pursuant to our strategic licensing agreements), government funding of research programs, and our borrowing of €35.0 million under Tranche A and B of the €40.0 million finance contract (the "Finance Contract") that we entered into with the European Investment Bank, or EIB, on December 28, 2022, will be sufficient to fund Cellectis' Therapeutics' operations into the third quarter of 2024.

Interest rate risk

We seek to engage in prudent management of our cash and cash equivalents, mainly cash on hand and common financial instruments (typically short- and mid-term deposits). Furthermore, the interest rate risk related to cash, cash equivalents and common financial instruments is not significant based on the quality of the financial institutions with which we work.

Credit risk

Credit risk is the risk of our financial loss if a customer or counterparty to a financial instrument default on its contract commitments. We are exposed to credit risk due to our trade receivables, subsidies receivables and cash equivalents.

Our policy is to manage our risk by dealing with third parties with good credit standards.

Note 10. Inventories

Accounting policy

Inventories are measured at the lower of cost and net realizable value. Cost is determined using the first in first out cost method. They include all costs of seed production and grain Calyxt purchases as well as costs to store, transport and process the grain into finished products. Consideration Calyxt receives from growers when they purchase seed is recorded as a reduction of inventory. Calyxt evaluates inventory balances for obsolescence on a regular basis using projected selling prices for our products, market prices for the underlying agricultural markets, the age of products and other factors that take into consideration our limited operating history.

Description of inventories

As of December 31, 2020, inventories amounted to \$1.6 million, \$1.4 million of which related to Calyxt's grain and seed costs, and \$0.2 million to raw materials and laboratory consumables (representing pharmaceutical and chemical products).

Note 11. Trade receivables and other current assets

Accounting policies for trade receivables and other current assets are described in Note 9.1.

11.1 Trade receivables

As of December 31, 2021	As of December 31, 2022
\$ in thou	sands
20,390	772
(29)	
20,361	772
	2021 \$ in thou 20,390 (29)

All trade receivables have payment terms of less than one year. The trade receivables in 2022 are mainly due to a change of control provision of a licensee pursuant to the terms of its license agreement with Cellectis and amendment to such license agreement (extension of its option term) for \$0.5 million.

The trade receivables in 2021 were mainly due to an agreement with Cytovia Therapeutics, Inc. ("the Cytovia agreement") that Cellectis entered into on February 12, 2021. The consideration to Cellectis included a trade receivable of \$20 million issued by Cytovia to Cellectis.

On April 26, 2022, we signed a second amendment of the Cytovia Agreement so that the right for Cellectis to receive an upfront cash payment or equity stake in Cytovia of \$20 million is exchanged for a convertible note for a nominal amount of \$20 million and a warrant, which is exercisable in connection with Cytovia's combination with a special purpose acquisition company ("the convertible note"). This note was extended on December 22, 2022 with a maturity date on June 30, 2023.

The amended convertible note bears 10% interest and converts (i) automatically in connection with certain fundamental transactions by which Cytovia becomes a publicly traded company, and (ii) at our option in connection with a company sale, certain financing transactions and at maturity, in each case, into a number of shares of Cytovia equity securities that varies depending on such scenario. In certain scenarios (e.g., in connection with certain financing transactions), we may elect for the note to be paid in cash before its maturity date on June 30, 2023. On April 26, 2022, the Cytovia convertible note was reclassified from receivables to a current financial asset (refer to note 12.1).

11.2 Subsidies receivables

	As of December 31, A 2021		As of December 31, 2022
		\$ in thousands	<u> </u>
Research tax credit	9,268		14,496
Total subsidies receivables	9,268		14,496

Research tax credit receivables as of December 31, 2022 include the accrual for a French research tax credit related to 2022 for \$6.7 million and to previous periods for \$7.2 million. The remaining amount relates to refundable tax credits in the United States. During December 2018, the French Tax Authority initiated an audit related to the 2014, 2015, 2016 and 2017 French research tax credits. In January 2022, a legal court confirmed that Cellectis was entitled to receive the amounts related to 2017 and 2018 tax credits. \$0.8 million were collected in February 2022. On March 15, 2022, the French tax authorities appealed this decision to the Paris Administrative Court of Appeal and requested that the decision be reversed. On May 18, 2022, the Company filed its observations in defense, so that the litigation is pending before the Court.

Research tax credit receivables as of December 31, 2021 include the accrual for a French research tax credit related to 2021 for \$7.9 million and to previous periods for \$1.2 million. The remaining amount relates to refundable tax credits in the United States.

11.3 Other current assets

	As of December 31, 2021	As of December 31, 2022
	\$ in the	ousands
VAT receivables	1,398	1,140
Prepaid expenses and other prepayments	8,171	6,233
Tax and social receivables	46	1,166
Deferred expenses and other current assets	50	538
Total other current assets	9,665	9,078

Prepaid expenses and other prepayments primarily include advances to our sub-contractors on research and development activities. They mainly relate to advance payments to suppliers of biological raw materials and to third parties participating in product manufacturing.

During the years ended December 31, 2022 and December 31, 2021, we prepaid certain manufacturing and clinical costs related to our product candidates UCART123, UCART20x22 and UCARTCS1 of which the delivery of products or services is expected in the coming months.

As of December 31, 2021, deferred expenses and other current assets are immaterial. All equipment at our Raleigh facility has been received. As of December 31, 2022, deferred expenses and other current assets of \$0.5 million are mainly related to our product candidates UCART123, UCART22, UCART20x22 and UCARTCS1 of which the delivery of products or services is expected in the coming months.

As of December 31, 2021, tax and social receivables are immaterial. As of December 31, 2022 tax and social receivables relate mainly to the favorable outcome of a claim with the French social tax authorities regarding tax on stock options for \$1.0 million.

Note 12. Current financial assets and Cash and cash equivalents

As of December 31, 2021	Carrying amount	<u>Unrealized Gains/(Losses)</u> \$ in thousands	Estimated fair value
Current financial assets	499		499
Cash and cash equivalents	185,636		185,636
Current financial assets and cash and cash			
equivalents	186,135	_	186,135
As of December 31, 2022	Carrying amount	Unrealized Gains/(Losses) \$ in thousands	Estimated fair value
As of December 31, 2022 Current financial assets	<u>Carrying amount</u> 7,907		Estimated fair value 7,907
ŕ			
Current financial assets	7,907		7,907

12.1 Current financial assets

As of December 31, 2022, current financial assets correspond to Cytovia's convertible note, measured at its fair value of \$7.9 million. There is no short-term restricted cash included in the current financial assets, the only short-term restricted cash being deposits to secure a Calyxt furniture and equipment sale-leaseback for \$0.2 million which are included in the assets held for sale.

As of December 31, 2021, current financial assets of \$0.5 million corresponded to short-term restricted cash in the form of deposits to secure a Calyxt furniture and equipment sale-leaseback.

For the year ended December 31, 2022, we recognized a \$12.1 million financial loss related to the fair value remeasurement of the convertible note.

The decline in fair value is the result of declining market conditions for possible conversion events (i.e. qualifying IPO, direct listing, SPAC transaction, private placement, or company sale) and the related probability of assumed exit scenarios. At the inception of the convertible note, scenarios involving conversion into preferred shares or common shares as a result of a transaction event were more highly weighted than at December 31, 2022. At December 31, 2022, the exit scenario involving conversion at maturity through the receipt of cash was deemed more highly weighted and, as a result, influences the calculated fair value to a greater degree.

On February 12, 2021, we entered into a research collaboration and non-exclusive license agreement with Cytovia Therapeutics, Inc., or Cytovia to develop induced Pluripotent Stem Cell (iPSC) iPSC-derived Natural Killer (NK) and CAR-NK cells edited with our TALEN (the "Cytovia Agreement").

Pursuant to the Cytovia Agreement, as expanded in November 2021 to include a new CAR target and development in China by Cytovia' joint venture entity, CytoLynkx Therapeutics, Cellectis is eligible to receive an upfront cash payment or equity stake in Cytovia of \$20 million, if certain conditions (the "Cytovia Conditions") were met by December 31, 2021 as well as aggregate additional payment of up to \$805 million of development, regulatory and sales milestones from Cytovia. Cellectis is also eligible to receive single-digit royalty payments on the net sales of the partnered products commercialized by Cytovia. Cellectis also received an option to participate in certain future financing rounds by Cytovia.

The Cytovia Agreement initially provided for an upfront cash payment or equity stake in Cytovia of \$20 million (the "Upfront Collaboration Consideration"), if certain conditions were met by December 31, 2021. Upon execution of the Cytovia Agreement, the Company recorded a note receivable and related license revenue of \$20 million. Because the Cytovia Conditions were not met by December 31, 2021, the note receivable was converted to an accounts receivable as of December 31, 2021. In April 2022, in connection with Cytovia's entering into a definitive business combination agreement with a publicly traded Special Purpose Acquisition Company ("SPAC"), we entered into an amendment to the Cytovia Agreement, pursuant to which we received a \$20 million convertible note in payment of the Upfront Collaboration Consideration. The terms of the note provided for (i) conversion into common stock of the combined company upon completion of the business combination or, (ii) in certain circumstances, our ability to elect to be paid in cash on or before December 31, 2022. In connection with this amendment, Cellectis also received a warrant to purchase additional shares of the combined company representing up to 35% of the shares issued upon conversion of the note at a predetermined exercise price, with the number of shares issuable upon exercise and the exercise subject to certain adjustments (the "SPAC Warrant").

Because the SPAC business combination was abandoned and the conditions of the note were not met, we and Cytovia entered into an amended and restated note which became effective as of December 22, 2022. Although the SPAC Warrant remains outstanding, it only applies in connection with Cytovia's business combination with a SPAC.

The amended and restated note provides for automatic conversion into common stock of Cytovia in the case of certain fundamental transactions pursuant to which Cytovia becomes a public reporting company and for conversion at Cellectis' option in connection with certain financing transactions, upon a company sale and at final maturity. In each case such conversion is subject to a 9.9% ownership cap, with the balance issuable in the form of pre-funded warrants. Among other changes, the amended and restated note increases the applicable interest rate of the note to 10% per annum, subject to a 10% step up upon the occurrence and continuation of an event of default, provides for the repayment of 50% of the outstanding amount on April 30, 2023 and extends the final maturity date for the repayment of the remaining outstanding amount to June 30, 2023.

Estimate of the fair value of the convertible note

The convertible note is convertible into a number of ordinary or preferred shares of Cytovia or payable in cash, which outcomes varied depending on several scenarios. In certain scenarios (e.g., in connection with certain financing transactions), we could have elected for the convertible note to be paid in cash before its initial maturity date on December 31, 2022. There were six different scenarios under which the note could have been converted and the probability of these was taken into account in the initial valuation.

Fair value measurement as of December 31, 2022 was determined based on consideration of two probable conversion scenarios based upon the latest information available from Cytovia and condition of the market as follows: (1) conversion at maturity with a probability of 90%, and (2) conversion upon a qualified IPO with a probability of 10%.

Under the conversion at maturity option, the estimation of Cytovia value and the assessment of the liquidity consider Cytovia credit worthiness. Considering the maturity of Cytovia's business and its financial resources at December 31, 2022, a default probability of 95% within one year along with a recovery rate of 0% have been assumed in estimating the discount of the expected cash flow from the convertible note.

The valuation under the IPO scenario depends on the IPO gross proceeds. The gross proceeds are calculated as the difference between the value of Cytovia total shares at the date the IPO occurs and the valuation date. The value of Cytovia total shares amounted to \$110.9 million. The impact on the valuation of Cytovia's share price is limited to the output of the conversion of the note depending on the assumed proceeds of the IPO as follows:

- 75% in equity and 25% in cash if the proceeds do not exceed \$50 million
- 50% in equity and 50% in cash if the proceeds exceed \$50 million.

The main inputs for the December 31, 2022, valuation are as follows:

Date	December 31, 2022
Scenario	Conversion at maturity on June 30, 2023 (90%)
	Conversion upon IPO before April 30, 2023
	(10%)
Risk free rate	Reuters USD 3 months curves
Stock volatility	73.6% (common shares)
Default probability (1Y)	95%
Recovery rate	0%
Estimated enterprise value (M\$)	110.9

Below is the sensitivity analysis of the most impactful parameters, i.e. the probability of the IPO scenario and the probability of default:

Sensitivity of the convertible note with regards to Cytovia default probability:

	Note
	value (\$)
Default probability 100%	1,857,325
Default probability 95%	7,907,331
Default probability 90%	9,726,000

Sensitivity of the convertible note with regards to IPO probability:

	Note
	value (\$)
IPO probability 5%	7,175,623
IPO probability 10%	7,907,331
IPO probability 15%	8,639,039

The sensitivity of the estimated fair value of the convertible note to other parameters, including volatility, recovery rate and share value, is not material.

12.2 Cash and cash equivalents

Accounting policy

Cash and cash equivalents are held for the purpose of meeting short-term cash commitments rather than for the purpose of investment or for other purposes. They are readily convertible into a known amount of cash and are subject to an insignificant risk of changes in value. Cash and cash equivalents include cash, bank accounts, money market funds and fixed bank deposits that meet the definition of a cash equivalent. Cash equivalents are fair valued at the end of each reporting period.

Details of cash and cash equivalents

	As of December 31, 2021	As of December 31, 2022
	\$ in thous	ands
Cash and bank accounts	137,725	65,012
Money market funds	13,933	13,578
Fixed bank deposits	33,978	11,200
Total cash and cash equivalents	185,636	89,789

Money market funds earn interest and are refundable overnight. Fixed bank deposits have fixed original terms that are less than three months or are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Note 13. Financial liabilities

13.1 Detail of financial liabilities

	As of December 31, 2021	As of December 31, 2022
	\$	in thousands
Lease debts	71,526	49,358
State Guaranteed loan « PGE »	18,770	13,569
Non-current financial liabilities	1,259	6,962
Total non-current financial liabilities and non-current		
lease debts	91,555	69,889
Lease debts	8,329	7,872
State Guaranteed loan « PGE »	2,246	4,972
Current financial liabilities	108	116
Total current financial liabilities and current lease debts	10,683	12,960
Trade payables	23,762	21,456
Other current liabilities	13,731	13,179
Total Financial liabilities	139,731	117,484

As of December 31, 2022, the other non-current financial liabilities are composed of a \$1.1 million loan to finance leasehold improvement at its location in New York and a Research Tax Credit financing with BPI that was finalized in June 2022 with ϵ 5.5 million received representing a non-current financial liability of \$5.8 million.

State Guaranteed loan (or "Prêt Garanti par l'Etat", or "PGE") corresponds to Cellectis' obtention of an €18.5 million loan from a bank syndicate formed with HSBC, Société Générale, Banque Palatine and Bpifrance in the form of a PGE. Initiated by the French Government to support companies during the COVID-19 crisis, the PGE is a bank loan with a fixed interest rate ranging from 0.31% to 3.35%. After an initial interest-only term of two years, the loan will be amortized over or up to four years at the option of the Company. The French government guarantees 90% of the borrowed amount. As of December 31, 2022, the current liability related to the State Guaranteed loan amounts to \$5.0 million and the non-current liability amounts to \$13,6 million.

13.2 Due dates of the financial liabilities

Balance as of December 31, 2022	Book Value	Less than One Year	One to Five Years	More than Five Years
		\$ in th	ousands	
Lease debts	57,230	7,872	26,412	22,946
Financial liabilities	25,619	5,088	19,947	584
Financial liabilities	82,849	12,960	46,359	23,530
Trade payables	21,456	21,456		
Other current liabilities	13,179	13,179	_	_
Total financial liabilities	117,484	47,595	46,359	23,530

Note 14. Other current liabilities

	As of December 31, 2021	As of December 31, 2022
	\$ in thous	ands
VAT Payables	71	3,058
Accruals for personnel related expenses	12,483	9,421
Other	1,177	700
Total other current liabilities	13,731	13,179

Accruals for personnel are related to annual bonuses, PTO accruals and social expenses on stock options.

Other current liabilities decreased by \$0.5 million between December 31, 2021 and December 31, 2022, the decrease of year-end bonuses accrual and the decrease of payables to assets suppliers (which is due to a significantly lower volume of assets addition within the period compared to last year) being partially offset by the increase of VAT payables due to the collected VAT on the Servier milestone invoice in December 2022.

Note 15. Deferred revenues and contract liabilities

Details of deferred revenues and contract liabilities

	As of December 31, 2021		As of December 31, 2022
		\$ in thousands	
Deferred revenues and contract liabilities	301		59
Total Deferred revenue and contract			
liabilities	301		59

Note 16. Capital

16.1 Share capital issued

Accounting policy

In general, each shareholder is entitled to one vote per share at any general shareholders' meeting. However, our By-Laws provide that all shares held in registered form (actions nominatives) for more than two years will be granted double voting rights. Costs directly attributable to the issue of ordinary shares or share options are recognized as a reduction in equity. Repurchased own shares are classified as treasury shares and deducted from equity.

Nature of the Transactions	Share Capital	Share premium \$ in thousands	Number of shares	Nominal value in \$
Balance as of January 1, 2020	2,767	851,700	42,465,669	0.05
Exercise of share warrants, employee warrants and stock options	18	6,101	314,517	_
Non-cash stock-based compensation expense	_	14,365	_	_
Other movements		(32)	_	_
Balance as of December 31, 2020	2,785	872,134	42,780,186	0.05
Capital increase (ATM)	143	46,811	2,415,630	
Exercise of share warrants, employee warrants and stock options	17	5,597	288,494	_
Non-cash stock-based compensation expense		12,497	_	_
Transaction costs	_	(2,316)	_	_
Other movements		(27)	_	_
Balance as of December 31, 2021	2,945	934,696	45,484,310	0.05
Exercise of share warrants, employee warrants and stock options	10		191,658	
Non-cash stock-based compensation expense	_	8,071	_	_
Transaction costs		(570)		
Other movements		(359,076)		
Balance as of December 31, 2022	2,955	583,122	45,675,968	0.05

Capital evolution in 2022

- During the year ended December 2022, 191,658 free shares of Cellectis were converted to 191,658 ordinary shares of Cellectis.
- During the Cellectis annual shareholders meeting of June 28, 2022, the shareholders, in accordance with French Law, approved the
 absorption of \$359.1 million of retain earnings into share premium. This transaction has no impact on the total equity, comprehensive
 income (loss), assets (including cash) nor liabilities.
- Transactions costs correspond to the issuance costs related to the Cellectis At-The-Market ("ATM") program and the Cellectis follow-on offering and were recorded as a reduction of share premium, in anticipation of share issuances in 2023.

Capital evolution in 2021

• During the full year ended December 31, 2022, 2,415,630 ordinary shares were issued through Cellectis' At-The-Market ("ATM") financing program and 256,494 ordinary shares were issued as a result of the exercise of stock options and non-employee warrants, \$2.3 million of issuance costs related to the Cellectis ATM financing program were recorded as a reduction of share premium, in conjunction with share issuances that occurred in April 2022 and 32,000 free shares of Cellectis were converted to 32,000 ordinary shares of Cellectis.

Capital evolution in 2020

During the full year ended December 31, 2021, 20,464 ordinary shares were issued upon the exercise of 19,702 employee warrants ("bons
de souscription de parts de créateurs d'entreprise") for total proceeds of €163,134; 291,053 ordinary shares were issued upon the exercise
of 291,053 stock options for total proceeds of €5,197,970; and 3,000 free shares of Cellectis were converted to 3,000 ordinary shares of
Cellectis.

BSA 2011:

On October 28, 2011, using the delegation of authority granted by the General Assembly held the same day, we issued 12,195,113 warrants (Bon de Souscription d'Actions or "BSA") to the existing shareholders with a ratio of one BSA for one share. October 28, 2014 was the closing date for the exercise of the "BSA 2011." Pursuant to the terms of the plan, we issued 1,470,836 ordinary shares for gross proceeds of \$16.4 million.

Voting rights:

After a shareholder continuously holds ordinary shares for two years, each ordinary share held by such shareholder is entitled to two votes.

- At December 31, 2022, we had 45,675,968 ordinary shares outstanding of which 6,067,096 had a double voting right
- At December 31, 2021, we had 45,484,310 ordinary shares outstanding of which 5,601,472 had a double voting right.
- At December 31, 2020, we had 42,780,186 ordinary shares outstanding of which 6,067,389 had a double voting right.

Otherwise, our ordinary shares are not entitled to any preferential voting right or restriction.

16.2 Share warrants and non-employee warrants

Share warrants and non-employee warrants consist of Bon de Souscription d'Action ("BSAs") which are granted to our board members and consultants.

Holders of vested stock options and warrants are entitled to subscribe to a capital increase of Cellectis at predetermined exercise price.

Date	Туре	Number of warrants/shares outstanding as of 01/01/2022	Number of warrants/shares granted	Number of warrants/shares vested/exercised	Number of warrants/shares voided	Number of warrants/shares outstanding as of 12/31/2022	Maximum of shares to be issued	Number of warrants/shares exercisable as of 12/31/2022	Strike price per share in euros
02/28/2008	BSPCE	_	_	_	_	_	_	_	6.16
07/27/2010	BSPCE		_	_	_				7.97
05/18/2015	Free shares	_	_	_	_	_	_	_	28.17
03/24/2015	Stock Options	1,410,332	_		58,428	1,351,904	1,351,904	1,351,904	38.45
03/27/2015	BSA	130,000	_			130,000	130,000	130,000	38.45
05/18/2015	BSA	50,000	_			50,000	50,000	50,000	29.58
09/08/2015	BSA	224,200	_			224,200	224,200	224,200	28.01
09/08/2015	Stock Options	1,411,800	_		94,500	1,317,300	1,317,300	1,317,300	27.55
03/14/2016	BSA	147,025	_			147,025	147,025	147,025	27.37
03/14/2016	Stock Options	1,446,602			181,735	1,264,867	1,264,867	1,264,867	22.44
10/28/2016	BSA	145,000	_			145,000	145,000	145,000	18.68
10/28/2016	Stock Options	1,608,134	_		163,432	1,444,702	1,444,702	1,444,702	17.90
10/11/2017	_	200,000	_			200,000	200,000	200,000	24.34
	Stock Options	772,000	_		107,000	665,000	665,000	665,000	22.57
10/08/2018	Free shares	_	_			_	_	_	23.84
10/08/2018	Stock Options	5,000	_			5,000	5,000	5,000	24.80
12/17/2018	Free shares	_	_			_	_	_	16.00
12/17/2018	Stock Options	_	_			_	_		18.37
03/07/2019	Free shares	_	_			_	_	_	16.00
03/07/2019	Stock Options	_	_			_	_		15.69
04/24/2019	Stock Options	1,074,916	_		148,625	926,291	926,291	864,044	18.25
04/24/2019	Free shares	_	_			_	_	_	18.01
07/16/2019	Free shares	_	_			_	_	_	14.01
11/06/2019	Stock Options	30,000	_			30,000	30,000	22,500	11.06
11/06/2019	Free shares	_	_			_	_	_	11.32

11/18/2019 Stock Options — — — — 12.33 11/18/2019 Free shares — — — — — — 12.16 33/04/2020 Free shares 6,500 — 6,500 — — — — 14.54 04/14/2020 Stock Options 160,000 — 160,000 — — — 9.14 04/14/2020 Stock Options 160,000 — 160,000 — — — 14.76 06/19/2020 Free shares 10,000 — 17,000 — — 15.84 07/20/2020 Stock Options 17,000 — 17,000 — — 07/20/2020 Free shares 10,000 — 10,000 — — — 07/20/2020 Free shares 10,000 — 10,000 — — — 08/05/2020 Free shares 34,000 — 32,000 2,000 — — — 08/05/2020 Stock Options 187,750 —
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03/05/2021 Free shares 16,500 — 14,44 03/05/2021 Free shares 281,521 — 50,954 230,567 230,567 — 12.69 04/13/2021 Stock Options 27,465 — 27,465 27,465 11,729 16.07 05/12/2021 Free shares 2,000 — 2,000 2,000 — 12.70 05/12/2021 Stock Options 3,500 — 3,500 3,500 1,312 14.36
03/05/2021 Free shares 281,521 — 50,954 230,567 230,567 — 12.69 04/13/2021 Stock Options 27,465 — 27,465 27,465 11,729 16.07 05/12/2021 Free shares 2,000 — 2,000 2,000 — 12.70 05/12/2021 Stock Options 3,500 — 3,500 3,500 1,312 14.36
04/13/2021 Stock Options 27,465 — 27,465 27,465 11,729 16.07 05/12/2021 Free shares 2,000 — 2,000 2,000 — 12.70 05/12/2021 Stock Options 3,500 — 3,500 3,500 1,312 14.36
05/12/2021 Free shares 2,000 — 12.70 05/12/2021 Stock Options 3,500 — 3,500 3,500 1,312 14.36
05/12/2021 Stock Options 3,500 — 3,500 3,500 1,312 14.36
05/28/2021 Free shares 148,225 — 6,900 141,325 141,325 — 12.38
05/28/2021 Stock Options 35,000 — 10,000 25,000 25,000 9,375 12.69
09/30/2021 Free shares 12,425 — 6,900 5,525 5,525 — 11.22
09/30/2021 Stock Options 24,850 — 10,050 14,800 14,800 6,927 11.51
10/13/2021 Free shares 4,500 — 4,500 — 8.29

12/19/2022 Stock Options 12/19/2022 Free shares 12/19/2022 Stock Options	_	2,960 2,065		2,960 2,065	2,960 2,065		1.91
11/08/2022 Free shares 11/08/2022 Stock Options		30,000 70,000		30,000 70,000	30,000 70,000		2.37 2.34
05/24/2022 Stock Options	_	42,580	5,000	37,580	37,580		3.48
05/24/2022 Stock Options 05/24/2022 Free shares		44,659	4,600	40,059	40,059		3.27
03/29/2022 Free shares 03/29/2022 Stock Options		1,900 3,400		1,900 3,400	1,900 3,400		4.09 3.96
03/03/2022 Stock Options	_	709,204	42,662	666,542	666,542		4.41
03/03/2022 Free shares	_	274,551	31,292	243,259	243,259		2.74
01/06/2022 Stock Options	_	1,300	1,300	_	_		7.22
01/06/2022 Free shares	_	700	700	_	_	_	6.74
11/30/2021 Stock Options	1,300	_	1,300	_	_		8.54
11/30/2021 Free shares	700	_	700				7.42
11/25/2021 Tree shares 11/25/2021 Stock Options	4,500	_		4,500	4,500	1,125	8.81
11/25/2021 Stock Options 11/25/2021 Free shares	2,100			2,100	2,100	2,230	7.84
10/13/2021 Stock Options	9,000	_		9,000	9,000	2,250	10.29

- In 2022, our subsidiary Calyxt granted stock options, restricted stock unit and performance stock unit in Calyxt representing as of December 31, 2022 a 6.6% interest of that subsidiary if fully exercised to a group of its employees, directors, executive officers and consultants. The compensation expense for 2022, which is included in the result from discontinued operations in the statements of consolidated operations, amounted to \$4.1 million (see Note 17).
- In 2021, our subsidiary Calyxt granted stock options, restricted stock unit and performance stock unit in Calyxt representing as of December 31, 2021 a 4.6% interest of that subsidiary if fully exercised to a group of its employees, directors, executive officers and consultants. The compensation expense for 2021, which is included in the result from discontinued operations in the statements of consolidated operations, amounted to \$1.6 million (see Note 17).
- In 2020, our subsidiary Calyxt granted stock options, restricted stock unit and performance stock unit in Calyxt representing as of December 31, 2020 a 2.7% interest of that subsidiary if fully exercised to a group of its employees, directors, executive officers and consultants. The compensation expense for 2020, which is included in the result from discontinued operations in the statements of consolidated operations, amounted to \$6.7 million (see Note 17).

16.3 Non-controlling interests

On July 25, 2017, Calyxt closed its IPO with \$64.4 million in gross proceeds to Calyxt from the sale of 8,050,000 shares at \$8 per share, including the full exercise of the underwriter's over-allotment option and Cellectis' purchase of \$20.0 million of shares in the IPO.

On May 22, 2018, Calyxt completed a follow-on offering of its common stock. Calyxt sold an aggregate of 4,057,500 shares of common stock at a price of \$15.00 per share. In the aggregate, Calyxt received net proceeds of approximately \$57.0 million, after deducting underwriting discounts and commissions of \$3.2 million and offering expenses totaling approximately \$0.7 million. As part of the follow-on offering, Cellectis SA purchased 550,000 shares of common stock for a value of \$8.3 million, the proceeds of which are included in the net proceeds of approximately \$57.0 million.

On October 20, 2020, Calyxt entered into definitive agreements with institutional investors for the purchase and sale of 3,750,000 shares of Calyxt's common stock, at a purchase price of \$4.00 per share, in an SEC-registered, direct offering. The financing resulted in gross proceeds of \$15.0 million before payment of all related fees and expenses. Cellectis purchased 1,250,000 shares in the offering for a value of \$5.0 million, the proceeds of which are included in the net proceeds of approximately \$14 million.

On September 21, 2021, Calyxt entered into an ATM program. Under the terms of the ATM program, Calyxt may, from time-to-time, issue common stock having an aggregate offering value of up to \$50.0 million. At its discretion, Calyxt determines the timing and number of shares to be issued under the ATM program.

As of December 31, 2021, Calyxt had issued approximately 1.4 million shares of common stock under the Program for proceeds of \$3.9 million, net of commissions and payments for other share issuance costs. An additional \$0.2 million of proceeds were received in early 2022 upon settlement of those transactions.

On February 23, 2022, Calyxt completed the placement to an institutional investor in an SEC-registered underwritten offering of (i) 3,880,000 shares of Calyxt common stock, (ii) pre-funded warrants to purchase up to 3,880,000 shares of its common stock, and (iii) common warrants to purchase up to 7,760,000 shares of its common stock (the "Offering"). The shares of common stock and the pre-funded warrants were each sold in combination with corresponding common warrants, with one common warrant to purchase one share of common stock for each share of common stock or each pre-funded warrant sold. The pre-funded warrants were exercisable for an exercise price of \$0.0001 per share of Calyxt common stock and the common warrants are exercisable for an exercise price of \$1.41 per share of Calyxt common stock. The pre-funded warrants were immediately exercisable, while the common warrants became exercisable on August 23, 2022 and expire on August 23, 2027. The aggregate offering price for each share of common stock and an accompanying common warrant was \$1.41. The aggregate offering price for each pre-funded warrant and an accompanying common warrant was \$1.4099. On May 5, 2022, all of Calyxt's outstanding pre-funded warrants were exercised by their holder.

On October 3, 2022, Calyxt entered into an amendment to the Open Market Sale Agreement with Jefferies for the Calyxt ATM facility that enables it, subject to the applicable baby shelf rules described below, to offer and sell up to 15,661,000 shares of its common stock. At its discretion, Calyxt determines the timing and number of shares to be issued under the ATM facility. In the period from September 30, 2022 through October 3, 2022, Calyxt did not issue any shares under the ATM facility. From October 3, 2022 through November 3, 2022, Calyxt issued 2.0 million shares under its Market Sale Agreement.

As of December 31, 2022, non-controlling interests represent 50.9% of Calyxt shares.

The following table summarizes the information relating to each of our subsidiaries that reported non-controlling interest ("NCI"):

	CALYXT	
	2021* \$ in tho	2022 usands
Income (loss) from discontinued operations	(28,358)	(15,345)
Net income (loss) attributable to NCI	(10,910)	(7,894)
Other comprehensive income from discontinued operations	6,220	5,831
Total comprehensive income attributable to NCI	(12,216)	(8,250)
Current assets	15,180	
Non-current assets	19,656	
Assets held for sale		21,768
Current liabilities	4,933	
Non-current liabilities	14,495	
Liabilities related to asset held for sale		14,864
Net assets	15,408	6,903
Net assets attributable to NCI	5,886	3,517

^{*} These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4).

Note 17. Share-based payments

17.1 Detail of Cellectis equity awards

Holders of vested Cellectis stock options and warrants are entitled to exercise such options and warrants to purchase Cellectis Ordinary shares at a fixed exercise price established at the time of such options and warrants are granted during their useful life.

For stock options and warrants, we estimate the fair value of each option on the grant date or other measurement date if applicable using a Black-Scholes option-pricing model, which requires us to make predictive assumptions regarding future stock price volatility, employee exercise behavior, dividend yield, and the forfeiture rate. We estimate our future stock price volatility based on Cellectis historical closing share prices over the expected term period. Our expected term represents the period of time that options granted are expected to be outstanding determined using the simplified method. The risk-free interest rate for periods during the expected term of the options is based on the French government securities with maturities similar to the expected term of the options in effect at the time of grant. We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we used an expected dividend yield of zero. Options may be priced at 100 percent or more of the fair market value on the date of grant, and generally vest over four years after the date of grant. Options generally expire within ten years after the date of grant.

Stock Options

The weighted-average fair values of stock options granted and the assumptions used for the Black-Scholes option pricing model were as follows:

	2021	2022
Weighted-Average fair values of stock options granted	5.76€	1.31€
Assumptions:		
Risk-free interest rate	0.00%	0.00% - 2.49%
Share entitlement per options	1	1
Exercise price	8.54€ - 19.44€	2.09€ - 7.22€
Grant date share fair value	7.42€ - 16.54€	1.91€ - 6.74€
Expected volatility	58.4% - 60.1%	58.7% - 62.5%
Expected term (in years)	6.15	6.03 - 6.15
Vesting conditions	Service	Service
Vesting period	Graded	Graded

Information on stock option activity follows:

	Options Exercisable	Weighted- Average Exercise Price Per Share	Options Outstanding	Weighted- Average Exercise Price Per Share	Remaining Average Useful Life
Balance as of December 31, 2020	8,002,398	25.28 €	9,486,657	23.97 €	5.9y
Granted	_		1,031,235	18.76 €	
Exercised	_	_	(253,494)	18.49 €	
Forfeited or Expired			(1,104,604)	24.27 €	
Balance as of December 31, 2021	7,566,679	24.78 €	9,159,794	23.50 €	5.3y
Granted			828,549	4.18 €	
Exercised		_	_	_	
Forfeited or Expired		_	(1,201,079)	18.85 €	
Balance as of December 31, 2022	7,400,519	24.58 €	8,787,264	22.31 €	4.6y

Share-based compensation expense related to stock option awards was \$2.6 million in 2022, \$5.1 million in 2021 and \$8.9 million in 2020.

Warrants

The weighted-average fair values of warrants granted and the assumptions used for the Black-Scholes option pricing model were as follows:

	2016	2017
Weighted-Average fair values of warrants granted	9.33€	13.20€
Assumptions:		
Risk-free interest rate	0.00% - 0.04%	0.12%
Share entitlement per options	1	1
Exercise price	18.68€ - 27.37€	24.34€
Grant date share fair value	16.42€ - 22.48€	24.95€
Expected volatility	62.8% - 63.1%	64.7%
Expected term (in years)	6.00	6.00
Vesting conditions	Service	Service
Vesting period	Graded	Graded

Information on warrants activity follows:

	Warrants Exercisable	Weighted- Average Exercise Price Per Share	Warrants Outstanding	Weighted- Average Exercise Price Per Share	Remaining Average Useful Life
Balance as of December 31, 2020	899,225	27.15 €	899,225	27.15 €	5.3y
Granted					
Exercised			(3,000)	18.68 €	
Forfeited or Expired					
Balance as of December 31, 2021	896,225	27.18 €	896,225	27.18 €	4.3y
Granted					
Exercised					
Forfeited or Expired					
Balance as of December 31, 2022	896,225	27.18 €	896,225	27.18 €	3.3y

There was no share-based compensation expense related to non-employee warrants in 2022 and 2021, while share-based compensation expense related to warrants awards amounted to 0.3 million in 2020.

Free shares

The free shares granted prior to 2018 are subject to a two-year vesting period and additional two-year holding period for French residents and four-years vesting period for foreign residents.

The free shares granted in 2018 and until 2021 are subject to at least one-year vesting and additional one-year vesting period for French residents and two-years vesting period for foreign residents. The vesting of free shares granted to executive officers of the Company in October 2020 are subject to performance conditions with a minimum vesting of a 3-year period.

The free shares granted in 2021 and after are subject to a three-year vesting period for all employees, provided that the free shares granted to executive officers are subject to performance conditions with a minimum vesting of a 3-year period.

Information on free shares activity follows:

	Number of Free shares Outstanding	Weighted- Average Grant Date Fair Value
Unvested balance at December 31, 2020	629,650	19.59 €
Granted	510,316	8.31 €
Vested	(32,000)	14.39 €
Cancelled	(185,265)	16.49 €
Unvested balance at December 31, 2021	922,701	14.15 €
Granted	354,770	2.79 €
Vested	(191,658)	17.96 €
Cancelled	(176,700)	13.99 €
Unvested balance at December 31, 2022	909,113	11.18 €

We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we used an expected dividend yield of zero in determining fair value.

On March 3, 2022, the Board of Directors granted 274,551 free shares to executive members and to other employees. For executive members, free shares vesting period is three years and based on performance criteria. For all other beneficiaries, the vesting period for free shares is three years and without performance criteria.

Share-based compensation expense related to free shares awards was \$3.5 million in 2022, \$6.4 million in 2021 and \$0.9 million in 2020.

17.2 Detail of Calyxt equity awards

Share-based compensation expenses presented in this note are included in the result from discontinued operations and not in the operating expenses in the statements of consolidated operations.

Stock Options

The estimated fair values of stock options granted, and the assumptions used for the Black-Scholes option pricing model were as follows:

	2021	2022
Weighted-Average fair values of stock options granted	\$3.93	\$0.86
Assumptions:		
Risk-free interest rate	0.6% - 1.1%	1.9% - 3.5%
Share entitlement per options	1	1
Expected volatility	80.1% - 82.0%	89.7% - 92.8%
Expected term (in years)	5.5 - 6.5	5.50 - 6.89
Vesting conditions	Service	Service
Vesting period	Graded	Graded

Calyxt estimates the fair value of each option on the grant date or other measurement date if applicable using a Black-Scholes option-pricing model, which requires Calyxt to make predictive assumptions regarding future stock price volatility, employee exercise behavior, dividend yield, and the forfeiture rate. Calyxt estimates its future stock price volatility using the historical volatility of comparable public companies over the expected term of the option.

Calyxt's expected term represents the period of time that options granted are expected to be outstanding determined using the simplified method.

The risk-free interest rate for periods during the expected term of the options is based on the U.S. Treasury zero-coupon yield curve in effect at the time of grant.

Calyxt has not paid and does not expect to pay dividends for the foreseeable future.

Options may be priced at 100 percent or more of the fair market value on the date of grant, and generally vest over six years after the date of grant. Options generally expire within ten years after the date of grant. Certain awards granted before Calyxt's IPO contained accelerated vesting provisions if certain events occurred as defined in the option agreement.

Information on stock option activity follows:

	Options Exercisable	A Exe	eighted- werage rcise Price er Share	Options Outstanding	A E Pi	eighted- werage xercise rice Per Share	Remaining Average Useful Life
Balance as of December 31, 2020	2,347,665	\$	10.15	4,621,173	\$	10.30	6.2y
Granted				774,959	\$	5.20	
Exercised				(61,372)	\$	3.70	
Forfeited or Expired				(676,355)	\$	10.75	
Balance as of December 31, 2021	2,789,110	\$	10.23	4,658,405	\$	9.47	5.6y
Granted				1,609,000	\$	1.12	
Exercised							
Forfeited or Expired				(425,952)	\$	7.02	
Balance as of December 31, 2022	3,396,624	\$	9.94	5,841,453	\$	7.35	5.0y

Stock-based compensation expense related to stock option awards was \$2.1 million in 2022, \$1.7 million in 2021 and \$4.0 million in 2020. The options granted under the plans were originally only exercisable upon a triggering event or initial public offering as defined by the plans.

Restricted Stock Units

Units settled in stock subject to a restricted period may be granted to key employees under the 2017 Omnibus Plan. Restricted stock units generally vest and become unrestricted over five years after the date of grant.

Information on restricted stock unit activity follows:

	Number of Restricted Stock Units Outstanding	Gran	ed-Average Date Fair Value
Unvested balance at December 31, 2020	547,807	\$	9.49
Granted	406,981	\$	4.59
Vested	(193,857)	\$	7.68
Cancelled	(189,628)	\$	10.91
Unvested balance at December 31, 2021	571,303	\$	6.15
Granted	1,077,600	\$	1.26
Vested	(303,728)	\$	6.39
Cancelled	(115,969)	\$	4.14
Unvested balance at December 31, 2022	1,229,206	\$	1.99

The fair value of restricted stock units corresponds to the grant date share fair value.

Calyxt has not paid and does not expect to pay dividends for the foreseeable future.

Share-based compensation expense related to restricted stock units awards was \$1.4 million for the year ended December 31, 2022, compared to a favorable impact \$0.1 million in 2021 due to options forfeiture in 2021 and an expense of \$2.3 million in 2020.

Performance Stock Unit

In June 2019, Calyxt granted performance stock units, which carry a market condition based on Calyxt share price. These awards contain a continuous service period of three years, the performance period, from the date of grant, followed by a restricted period of two years if the shares are issued following the performance period during which the grantee is required to provide continuous service and the awarded shares must be held by the grantee until the end of the period. The number of shares of common stock delivered following the performance period depends upon the change in Calyxt share price during the performance period. Calyxt granted a targeted 311,667 performance stock units, the performance criteria allow for the actual payout to be between zero and 120 percent of target. The fair value of the performance stock units and the assumptions used for the Monte Carlo simulation were as follows:

Date of grant	06/2	28/2019
Estimated fair values of performance stock units granted	\$	7.06
Assumptions:		
Risk-free interest rate		1.71%
Expected volatility		75.0%
Expected term (in years)	3.0	0 years

During 2021, Calyxt recognized a benefit from the forfeiture of 166,667 performance stock units held by Mr. Blome, its former Chief Executive Officer.

In July 2021, Calyxt granted 600,000 performance stock units under the Inducement Plan to Mr. Carr. The performance stock units will vest if Calyxt's stock remains above three specified price levels for thirty calendar days over the three-year performance period. The performance stock units will be settled in unrestricted shares of Calyxt's common stock on the vesting date.

In March 2022, Calyxt granted 530,000 performance stock units under the 2017 Plan to five employees including four executive officers. The performance stock units include three annual performance periods (2022, 2023, and 2024) and target performance levels for each of those periods linked to the achievement of Calyxt's objectives as determined annually for the respective period by the Compensation Committee of Calyxt's Board of Directors (the Compensation Committee). Earned awards will be settled in shares of Calyxt's stock no later than March 15 of the following year. The grant date for the tranche of awards linked to 2022 performance, which triggers the determination of the aggregate amount of expense for each tranche of performance stock units awarded, has been determined by the Compensation Committee. The grant date for the tranche of awards linked to 2022 performance is May 4, 2022. Determination of expense for the 2023 and 2024 tranches of PSUs will be made when the associated business objectives are determined.

Information on performance stock unit activity follows:

Date of grant	07/6	01/2021
Estimated fair values of performance stock units granted:	_	
At least \$12 per share	\$	2.16
At least \$15 per share	\$	1.89
At least \$20 per share	\$	1.55
Assumptions:		
Expected term (in years)		3
Expected volatility		90.0%
Risk-free interest rate		0.4%

Information on performance stock unit activity follows:

	Number of Performance Stock Units Outstanding
Unvested balance at December 31, 2020	311,667
Granted	600,000
Vested	_
Cancelled	(166,667)
Unvested balance at December 31, 2021	745,000
Granted	530,000
Vested	_
Cancelled	(145,000)
Unvested balance at December 31, 2022	1,130,000

Share-based compensation expense related to performance stock unit awards was amounted to \$0.6 million 2022, immaterial 2021, and amounted to \$0.4 million in 2020.

Note 18. Earnings per share

Accounting policy

Basic earnings per share are calculated by dividing profit attributable to our ordinary shareholders by the weighted average number of ordinary shares outstanding during the period, adjusted to take into account the impact of treasury shares.

Diluted earnings per share is calculated by adjusting profit attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding, for the effects of all potentially dilutive ordinary shares (stock-options, free shares, share warrants, employee warrants).

Detail of earnings per share

	For the year ended December 31,		
	2020	2021	2022
Net income (loss) attributable to shareholders of Cellectis (\$ in thousands)	(81,074)	(114,197)	(106,139)
Adjusted weighted average number of outstanding shares, used to calculate both			
basic and diluted net result per share	42,503,447	44,820,279	45,547,359
Basic / Diluted net income (loss) per share attributable to shareholders of			
Cellectis			
Basic net income (loss) attributable to shareholders of Cellectis per share (\$			
/share)	(1.91)	(2.55)	(2.33)
Basic earnings from discontinued operations per share (\$ /share) (1)	(0.65)	(0.39)	(0.16)
Diluted net income (loss) attributable to shareholders of Cellectis per share (\$			
/share)	(1.91)	(2.55)	(2.33)
Diluted earnings from discontinued operations per share (\$/share)(1)	(0.65)	(0.39)	(0.16)

⁽¹⁾ These amounts reflect adjustments made in connection with the presentation of the discontinued operation (Note 4)

Note 19. Provisions

Accounting policy

A provision is recognized if, as a result of a past event, we have a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the reporting date.

The IFRS IC was asked to consider the method for calculating obligations relating to defined benefit plans in which the attribution of benefit is determined by an employee's presence within the Group at the time he/she retires and whose benefits are capped at a certain length of service. In its decision, the IFRS IC concluded that no benefit is earned if the employee leaves before reaching retirement age and that the obligation must only be recognized over the final years of the employee's career. As a result, the Company revised its actuarial calculation method. As the table used for calculation was capped at 45 years of service, the impact on the financial statements was not material.

Provisions for retirement and other benefits

Our defined benefit obligations, and their cost, are determined using the projected unit credit method.

The method consists in measuring the obligation based on a projected end-of-career salary and vested rights at the measurement date.

Actuarial assumptions used to determine the benefit obligations are specific to each country and each benefit plan. The discount rate used is the yield at the reporting date on AA credit-rated bonds with maturity dates that approximate the expected payments for our obligations.

Actuarial gains or losses are recognized in the statement of comprehensive loss for the year in which they occur.

Other long-term employee benefits

Our net obligation for long-term employee benefits other than retirement plans is equal to the value of employees' future benefits vested in exchange for services rendered in the current and prior periods. The benefits are discounted and the fair value of any plan assets is deducted.

The obligation is measured using the projected unit credit method. The discount rate is the same as the one used for the provisions for retirement and other benefits. Actuarial gains or losses are recognized in profit or loss for the year in which they occur.

Termination benefits

Termination benefits are recognized as a liability and expense at the earlier of the following dates:

- When the entity can no longer withdraw the offer of those benefits; and
- When the entity recognizes costs for a restructuring that is within the scope of IAS 37 Provisions and involves the payment of termination benefits.

Details of provisions

Current provisions

	01/01/2021 as <u>adjusted</u>	Additions	Amounts used during the period \$\) in thous	<u>Reversals</u> ands	OCI	12/31/2021
Pension	4,010	628	—	<u> </u>	(565)	4,073
Loss on contract	_	_	_	_	_	_
Employee litigation and severance	560	172	(99)	(82)	(43)	508
Commercial litigation	571	261	(191)	(241)	(37)	363
Total	5,141	1,061	(290)	(324)	(645)	4,944
Non-current provisions	4,010	628			(565)	4,073
Current provisions	1,131	433	(290)	(324)	(79)	871
	01/01/2022	Additions	Amounts used during the period	<u>Reversals</u> sands	OCI	12/31/2022
Pension	4,073	555	_	_	(2,238)	2,390
Employee litigation and severance	508	_	(169)	(73)	(33)	234
Commercial litigation	363			(97)	(22)	243
Total	4,944	555	(169)	(171)	(2,293)	2,867
Non-current provisions	4,073	555			(2,238)	2,390

During the year ended December 31, 2022, additions mainly relate to pension service cost of the period for \$0.6 million. The amounts used and reversed during the period mainly relate to (i) the settlement of employee litigation for \$0.2 million and (ii) the settlement of a commercial litigation for \$0.1 million.

871

(169)

(171)

(55)

477

During the year ended December 31, 2021, additions mainly relate to (i) pension service cost of the period for \$0.6 million, (ii) employee litigation for \$0.2 million and (iii) commercial litigations with suppliers for \$0.3 million. The amounts used and reversed during the period mainly relate to (i) the settlement of employee litigation for \$0.2 million and (ii) the settlement of a commercial litigation for \$0.4 million.

Commitments for compensation payable to employees upon their retirement

France

In France, pension funds are generally financed by employer and employee contributions and are accounted for as defined contribution plans, with the employer contributions recognized as expense as incurred. There are no actuarial liabilities in connection with these plans. Expenses recorded in the years ended December 31, 2020, 2021 and 2022 amounted to \$1.5 million, \$0.6 million and \$0.6 million, respectively.

French law also requires payment of a lump sum retirement indemnity to employees based on years of service and annual compensation at retirement. Benefits do not vest prior to retirement. We are paying this defined benefit plan. It is calculated as the present value of estimated future benefits to be paid, applying the projected unit credit method whereby each period of service is seen as giving rise to an additional unit of benefit entitlement, each unit being measured separately to build up the final.

The calculation of legal compensation for termination has changed in 2017 following the publication of a new French law.

The two important changes are:

- · Seniority conditions: the employee must be entitled to an indemnity of 8 working months against one year before.
- Calculation of the allowance: 1/4 of a month of salary per year of seniority up to 10 years, against 1/5 before, and no change beyond the 11th year.

As part of the estimation of the retirement indemnity to employee based on the employer initiative, the following assumptions were used for all categories of employees:

	2020	2021	2022		
% social security contributions	45.00%	45.00%	45.00%		
Salary increases	3.50%	3.50%	2.50%		
Discount rate	0.68%	1.13%	3.72%		
Terms of retirement	vo	voluntary retirement			
Retirement age	65 years old	65 years old	65 years old		

The discount rates are based on the market yield at the end of the reporting period on high quality corporate bonds.

A 0.5% increase of the discount rate would result in a \$0.2 million decrease of the net defined benefit liability, whereas a 0.5% decrease of the discount rate would result in a \$0.2 million increase of the net defined benefit liability.

Salary increase rate is based on salary increase approval by the compensation committee.

A 0.5% increase of the salary increase rate would result in a \$0.2 million increase of the net defined benefit liability, whereas a 0.5% decrease of the salary increase rate would result in a \$0.2 million decrease of the net defined benefit liability.

The following table shows reconciliation from the opening balances to the closing balances for net defined benefit liability and its components.

	\$ in thousands
As of January 1, 2020	(2,855)
Current service cost	(381)
Interest cost	(29)
Benefit paid	_
Actuarial gains and losses	(411)
Reclassification/CTA	(334)
As of December 31, 2020	(4,010)
Current service cost	(602)
Interest cost	(26)
Benefit paid	_
Actuarial gains and losses	231
Reclassification/CTA	334
As of December 31, 2021	(4,073)
Current service cost	(512)
Interest cost	(43)
Benefit paid	
Actuarial gains and losses	2,227
Reclassification/CTA	11
As of December 31, 2022	(2,390)

United States of America

There is no defined benefit plan for Cellectis S.A.'s subsidiaries located in the United States.

Note 20. Commitments

Accounting policy

The commitment amounts are associated with contracts that are enforceable and legally binding and that specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. They do not include obligations under agreements that we can cancel without a significant penalty.

Details of commitments

As of December 31, 2022	Total	Less than 1 year	1 - 3 <u>years</u> in thousand	3 - 5 years s	More than 5 years
License and collaboration agreements	15,330	1,450	2,900	2,900	8,080
Clinical & Research and Development agreements	344	344	_	_	_
IT licensing agreements	618	485	133	_	_
Total commitments	16,291	2,278	3,033	2,900	8,080

Obligations under the terms of license and collaboration agreements

We have entered into various license agreements with third parties that subject us to certain fixed license fees, as well as fees based on future events, such as research and sales milestones.

We also have collaboration agreements whereby we are obligated to pay royalties and milestone payments based on future events that are uncertain and therefore they are not included in the table above.

Obligations under the terms of Clinical & Research agreements

We have entered into clinical and research agreements where we are obligated to pay for services to be provided in the next years regarding our research collaboration agreements, clinical trials and translational research projects.

Obligations under the terms of IT licensing agreements

We have entered into an IT licensing agreement and have related obligations to pay licensing fees.

Note 21. Related parties

Key management personnel remuneration

Key management personnel include members of the Board of Directors and the CODM as of December 31, 2022, as described in Note 3.5.

Short-term employee benefits paid to key management personnel totaled to \$6.3 million in the fiscal year 2020, \$6.0 million in the fiscal year 2021 and \$4.8 million in the fiscal year 2022.

On September 4, 2014, the Board of Directors adopted a change of control plan which applies to the members of the CODM. This plan defines the conditions under which a severance package will be paid after a change of control of our company. Key management personnel employment agreements include a termination indemnity or additional post-employment compensation.

Key management personnel received an aggregate of 929,765 securities in share-based remuneration (free shares and stock options) over the year ended December 31, 2022. The associated non-cash stock-based compensation expense of \$0.4 million was recognized for 2022.

Other transactions with related parties

Mr. Godard, a member of the Board of Directors, entered into two service agreements with us and provided consultancy services in the area of (i) global development strategy and (ii) specific development of agricultural biotechnology activities. These agreements were no longer in service in 2022.

Compensation paid for those services in the years ended December 31, 2020, 2021 amounted to \$58 thousand, \$71 thousand respectively.

Note 22. Subsequent events

On January 4, 2023, Cellectis established an At-The-Market (ATM) Program on Nasdaq. Cellectis has filed a prospectus supplement with the Securities and Exchange Commission ("SEC"), pursuant to which it may offer and sell to eligible investors a maximum gross amount of up to \$60.0 million of American Depositary Shares ("ADS"), each representing one ordinary share of Cellectis, nominal value €0.05 per share, from time to time in sales deemed to be an "at the market offering" pursuant to the terms of a sales agreement with Jefferies LLC ("Jefferies"), acting as sales agent. The timing of any sales will depend on a variety of factors. The at-the-market ("ATM") program is presently intended to be effective through the expiration of the existing registration statement, i.e. July 6, 2025, unless terminated prior to such date in accordance with the sales agreement or the maximum amount of the program has been reached. The ADSs and the underlying ordinary shares will be issued through a capital increase without shareholders' preferential subscription rights under the provisions of Article L. 225-138 of the French Commercial Code (Code de commerce) as decided by the board of directors (the "Board") of Cellectis on December 15, 2022 pursuant to the 11th and/or 13th resolutions adopted by the Combined General Meeting of Shareholders held on June 28, 2022 (or any substitute resolutions, adopted from time to time), within the limit of a maximum number of 13,645,293 ordinary shares (being the maximum authorized by the shareholders for each such resolution), representing a maximum potential dilution of approximately 23.04% based on the share capital of the Company as of September, 2022. As a consequence of the follow-on offering and the upcoming issuance of EIB warrants for tranche A, we do not expect to issue additional shares from the ATM before the next Shareholders meeting.

On January 13, 2023, Calyxt, and Cibus, and the other parties thereto entered into the definitive Merger Agreement under which Calyxt and Cibus will merge in an all-stock transaction. Under the terms of the Merger Agreement, Calyxt will issue shares of its common stock to Cibus shareholders in an exchange ratio such that upon completion of the merger, Calyxt shareholders are expected to own approximately 5% of the combined company, subject to adjustments permitted by the Merger Agreement. The Boards of Directors of both companies unanimously approved the Calyxt Merger. Concurrent with the execution of the merger agreement, certain officers of Calyxt, all of Calyxt's directors, and Cellectis executed support agreements in favor of the Calyxt Merger.

On February 7, 2023, Cellectis has announced launch of a follow-on offering of \$22 million of its ADS. Jefferies LLC and Barclays Capital Inc. (the "Underwriters") acted as joint book-running managers for the Global Offering. Pricing occured on February 2, 2023, at \$2.50 per ADS for 8,800,800 ADSs to be issued. Bpifrance Participations, Baillie Gifford & Co. and Long Focus Capital Management LLC, existing shareholders of the Company, were allocated in the aggregate more than half of the ADS sold in the global offering. On February 7, 2023, Cellectis has announced the exercise by the underwriters, Jefferies LLC and Barclays Capital Inc., of their option (the "Option") to purchase an additional 1,107,800 ordinary shares (the "Additional Ordinary Shares") of the Company to be delivered in the form of an aggregate of 1,107,800 ADSs (the "Additional ADSs"). As a consequence, the total number of ordinary shares issued in the form of ADSs amounted to 9,907,800 for the base offering plus the Option exercise bringing the gross proceed to \$24.8 million. The aggregate net proceeds to the Company, after deducting underwriting commissions and estimated offering expenses, amounted to approximately \$22.8 million.

On March 1, 2023, as stated in the Merger Agreement, Calyxy's Board of Directors authorized the grant of 3,487,503 RSUs to all employees. These awards will vest upon completion of the Transactions, and accordingly, the expense associated with these awards will be recognized over the period from the date of grant to the estimated closing date of the Transactions. Consequently, after the completion of the Transaction, and subject to the issuance of some or all of such RSUs, Cellectis will own approximately 2.4% of Calyxt.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

CELLECTIS S.A.

/s/ André Choulika

By: André Choulika

Title: Chief Executive Officer

Date: March 14, 2023

CELLECTIS

French *société anonyme* (corporation) with share capital of € 2,779,188.40

Registered office: 8 rue de la Croix Jarry, 75013 Paris

Paris Trade and Companies Registry no. 428 859 052

BYLAWS

Updated as of February 8, 2023

Copy certified as true to the original by the Chief Executive Officer

André Choulika

ARTICLE 1 - FORM

The Company is a corporation (société anonyme), governed by Book II of the French commercial code (code de commerce) and by the present bylaws.

ARTICLE 2 - NAME

The name of the Company is:

CELLECTIS

In all deeds and documents emanating from the Company and addressed to third parties, this name must always be immediately preceded or followed by the words "société anonyme" or the initials "S.A." and by the mention of the amount of the share capital.

ARTICLE 3 - PURPOSES

The Company's purposes, both in France and abroad, are all activities relating to genetics and more particularly to genome engineering and, notably, research, development and invention, filing and use of patents and trademarks, valorization, sale and marketing, advice and assistance in any field, and more particularly in the fields of agrifood, pharmaceuticals, textile and environment; and generally, all industrial, commercial, financial, civil, and personal or real property operations that may be directly or indirectly related to the purposes above or any similar or connected purposes.

ARTICLE 4 - REGISTERED OFFICE

The registered office of the Company is located at 8 rue de la Croix Jarry, 75013 Paris.

It may be transferred anywhere else in French territory by a decision of the Board of Directors, subject to the ratification of such decision by the next ordinary general meeting, and elsewhere by virtue of a resolution of the extraordinary general meeting.

If a transfer is decided by the Board of Directors, the Board is authorized to amend the bylaws and perform the publication and filing formalities required as a result, provided it is stated that the transfer is subject to the aforementioned ratification.

ARTICLE 5 - DURATION

The term of the Company shall be ninety-nine (99) years starting from the date of its registration with the Trade and Companies Registry, except in the event it is dissolved before the expiration of its term or if said term is extended by an extraordinary general shareholders' meeting.

ARTICLE 6 - SHARE CAPITAL

The Company has a share capital of € 2,779,188.40. It is divided into 55?583,768 shares with a par value of € 0.05 each, all fully paid-up.

It may be increased or reduced as provided by the French commercial code (code de commerce).

On October 28, 2011, the shareholders' general meeting approved the contribution to the Company of 11,111,089 shares of Cellartis, a Swedish Company with a share capital of SEK 2,222,217.80, which registered office is located at Arvid Wallgrens Backe 20, SE-41346 Göteborg (Sweden). This contribution, valued at \in 17,399,997, resulted in a share capital increase of a nominal amount of \in 96,666.65 and the issuance of 1,933,333 shares at a price of \in 9 each (share premium included), with a par value of \in 0.05 each, allocated to Cellartis shareholders in exchange for their respective contributions.

ARTICLE 7 - LEGAL FORM

Fully paid-up shares are either held in registered or bearer form at the option of each shareholder, subject to the applicable legal provisions regarding the form of shares held by certain natural or legal persons. Non fully paid-up shares must be held in registered form.

Shares are registered in an account under the conditions and in the manner prescribed by applicable laws and regulations.

Ownership of the shares delivered in registered form results from their registration in a registered account.

ARTICLE 8 - SHARE TRANSFERS - IDENTIFYING THE SHAREHOLDERS

8.1 Shares registered in accounts are freely transferable from one account to another through a wire, in accordance with applicable laws and regulations.

8.2 The Company may also, subject to applicable laws and regulations, at its own expense, request from an authorized agency at any time, the name, or, in the case of a legal entity, the corporate name, nationality, and address of holders of securities granting an immediate or future right to vote at its shareholders' meetings, and the number of securities held by each of them and, if applicable, any restrictions to which these securities may be subject.

ARTICLE 9 - RIGHTS AND OBLIGATIONS PERTAINING TO SHARES

The rights and obligations attached to a share follow the share to any transferee to whom it may be transferred and the transfer includes all unpaid dividends due and dividends to be paid, as well as, as the case may be, the pro-rata portion of the reserve funds and provisions.

The ownership of a share implies ipso facto the owner's approval of the present bylaws and the decisions adopted by general shareholders' meetings.

In addition to the voting right attached to shares in accordance with applicable law, each share gives right to a pro-rata portion of corporate assets, profits, and of liquidation surplus, proportional to the portion of the share capital it represents.

Whenever it is necessary to hold several shares to exercise any right, shareholders or securities' holders shall take it upon themselves to pool the number of shares or securities required.

In accordance with the provisions of the French commercial code (*code de commerce*), all fully paid-up shares which have been held in registered form for at least two years by the same shareholder will be granted double voting rights in comparison to the voting right attached to other shares which shall be equal to amount of share capital it represents.

ARTICLE 10 - PAYING UP OF THE SHARES

Amounts to be paid as payment for shares subscribed pursuant to a share capital increase shall represent not less than one-fourth of their par value and the entire amount of the premium (as the case may be).

The Board of Directors shall make calls for payment of the balance, in one or more installments, within a period of five years from the date the capital increase is completed.

Each shareholder shall be notified of the amounts called and the date on which the corresponding sums are to be paid at least fifteen days before the due date.

Shareholders who do not pay amounts owed on the shares they hold by the due date shall automatically and without the need for a formal demand for payment owe the Company late payment interest calculated on a daily basis, on the basis of a 360 day year, starting as of the due date at the legal rate in commercial matters, plus three points, without prejudice to the Company's personal action against such defaulting shareholder and the enforcement measures authorized by law.

ARTICLE 11 - BOARD OF DIRECTORS

11.1. Composition

The Company is managed by a Board of Directors composed of individuals or legal entities, the number of which is determined by the ordinary general shareholders' meeting within the limits of law.

At the time they are appointed, legal entities shall designate an individual as their permanent representative to the Board of Directors. The term of office of the permanent representative shall be the same as the term of office of the legal entity it represents. If a legal entity removes its permanent representative from office, it shall immediately appoint a replacement. The same provision shall also apply in the event of the death or resignation of the permanent representative.

The term of directors' office shall be three years (3), with a year being defined as the period between two consecutive ordinary general shareholders' meetings. Directors' term of office shall occur at the end of the ordinary general shareholders' meeting which voted on the financial statements for the past fiscal year and held in the year during which said directors' term of office occurs.

Directors are always eligible for reappointment. They may be removed from office at any time by a decision of a general shareholders' meeting.

In the event of one or more vacancies on the Board of Directors due to death or resignation, the Board may make temporary appointments between two general shareholders' meetings.

Appointments made by the Board pursuant to the preceding paragraph shall be submitted for ratification by the next ordinary general shareholders' meeting.

If such appointments are not ratified, decisions adopted and acts performed by the Board shall nevertheless remain valid.

If the number of directors falls below the statutory minimum, the remaining directors shall immediately convene an ordinary general shareholders' meeting in order to supplement the Board.

A director appointed to replace another director if the term of the latter's office has not yet expired shall serve only for the remaining portion of his predecessor's term of office.

Company's employees may be appointed as directors. However, their employment contracts must correspond to actual employment. In such case, employees do not lose the benefit of their employment contracts.

The number of directors who have employment contracts with the Company shall not exceed one-third of the directors in office.

The number of directors over the age of 75 shall not exceed one-third of the directors in office. If this limit is exceeded during the directors' terms of office, the oldest director shall automatically be deemed to have resigned at the end of the next ordinary general shareholders' meeting.

11.2 Chairman

The Board of Directors shall elect a Chairman from among its members, who shall be an individual. The Board shall determine its term of office, which shall not exceed its term of office as director, and may remove him from office at any time. The Board shall set his compensation.

The Chairman shall organize and manage the work of the Board and report it to the general shareholders' meetings. The Chairman is responsible for the good functioning of the Company's corporate bodies and, notably, sees that the directors are able to carry out their functions.

The Chairman of the Board cannot be more than 75 years old. If the Chairman reaches this age limit during his term of office as Chairman, he shall automatically be deemed to have resigned at the end of the current office. Subject to this provision, the Chairman of the Board is always eligible for reappointment.

11.3 Observers

The ordinary shareholders' meeting may, upon suggestion from the Board of Directors, appoint one or several observers. The Board of Directors may also directly appoint the members, subject to ratification by the following general meeting.

The number of observers may not exceed five. They are freely chosen in light of their abilities.

They are appointed for a term of three (3) years.

The observers review questions that the Board of Directors or its Chairman submit for their opinion. The observers attend the Board of Directors meetings and participate in the discussions only with a consultative voice. Their absence shall have no effect on the validity of the vote.

They are convened to Board meetings under the same conditions as the Board members.

The Board of Directors may compensate the observers and take such compensation from the amount of attendance fees (*jetons de présence*) if any, authorized by the general shareholders' meeting for the purposes of compensating directors.

ARTICLE 12 MEETING OF THE BOARD

- 12.1. The Board of Directors shall meet as often as required for the interest of the Company.
- 12.2. Directors are convened to the Board meetings by the Chairman of the Board. The Chairman convenes meetings of the Board of Directors by any means, in oral or written form.

The Chief Executive Officer may also ask the Chairman to convene the Board on a specific agenda.

When a works council (*comité d'entreprise*) has been formed, the representatives of such committee, appointed in accordance with the provisions of the French labor code (*code du travail*), shall be convened to all the Board meetings.

The Board meetings are held either at the registered office or at any other place, in France or abroad as indicated at the time of the convening.

12.3. The Board can only validly take decisions if half of its members are present.

The Board's decisions are taken at the majority of votes of its members present or represented by proxy; in the case of deadlock; the Chairman shall have the casting vote.

- 12.4. Internal regulations may be adopted by the Board of Directors providing, among others, that for the calculation of the quorum and of the majority, the directors participating in the meeting of the board by means of visioconference consistent with applicable regulations, shall be considered as having attended the meeting in person. This provision is not applicable for the adoption of a resolution relating to L. 232-1 and L. 232-16 of French commercial code (code de commerce).
- 12.5. Each director receives the information necessary to perform its duties and office and may ask to be provided with any other documents it deems necessary.
- 12.6. Any director may give to another director, by letter, cable, email or telex, a proxy to be represented at a meeting of the board. However, each director can only represent one director during each meeting.
- 12.7. The Board of Directors may also take the following decisions within the scope of the Board's own powers by written consultation with the directors:
- provisional appointment of members of the Board as provided for in Article L. 225-24 of the French Commercial Code,
- authorization of sureties, endorsements and guarantees provided for in the last paragraph of Article L. 225-35 of the French Commercial Code,
- decision taken on the basis of the delegation granted by the Extraordinary General Meeting in accordance with the second paragraph of Article L. 225-36 of the French Commercial Code, to amend the Articles of Association to bring them into compliance with the legal and regulatory provisions,
- convening shareholders' general meetings, and
- transfer of the head office in the same department.

When the decision is taken by written consultation, the text of the proposed resolutions accompanied by a voting form is sent by the Chairman to each member of the Board of Directors by electronic means (with acknowledgement of receipt).

The directors have a period of 3 working days following receipt of the text of the proposed resolutions and the voting form to complete and send the voting form, dated and signed, to the chairman by electronic means (with acknowledgement of receipt), ticking a single box for each resolution corresponding to the meaning of its vote.

If no or more than one box has been ticked for the same resolution, the vote will be null and void and will not be taken into account for the calculation of the majority.

Any Director who has not sent his answer within the above-mentioned time limit will be considered absent and his vote will therefore not be taken into account for the calculation of the quorum and the majority.

During the time limit for reply, any director may require any additional explanations from the initiator of the consultation.

Within five (5) working days following receipt of the last ballot paper, the Chairman shall draw up and date the minutes of the deliberations, to which the ballot papers shall be appended and which shall be signed by the Chairman and a director who participated in the written consultation. »

12.8. The copies or abstracts of the minutes are certified by the Chairman of the Board of Directors, the Chief Executive Officer and the director temporarily delegated in the duties of Chairman or by a representative duly authorized for that purpose.

ARTICLE 13 - POWERS OF THE BOARD OF DIRECTORS

The Board of Directors shall establish the Company's business policies and ensure that they are carried out. Subject to the powers expressly granted to shareholders' meetings, and within the limits of the corporate purpose, the Board of Directors may consider any issue relating to the proper operation of the Company and shall resolve on matters that relate to the Company.

With regards to third parties, the Company shall be bound by the acts of the Board of Directors that exceed the scope of the corporate purpose, unless the Company proves that the third party was aware, or that in light of the circumstances could not have been unaware, that the act was not within the corporate purpose; however, the mere publication of the bylaws is not sufficient to constitute such proof.

The Board of Directors can carry out all controls and verifications it deems necessary.

Furthermore, the Board of Directors shall exercise the special powers conferred by law.

ARTICLE 14 – GENERAL MANAGEMENT

14.1.1. The Company's executive management functions shall be performed, under its responsibility, by the Chairman of the Board of Directors or another individual appointed by the Board of Directors, who shall hold the title of Chief Executive Officer.

The Chief Executive Officer is vested with the most extensive powers to act under all circumstances on behalf of the Company. The Chief Executive Officer performs his powers within the limits of the purpose of the Company, except for those powers expressly granted by law to the meetings of shareholders and to the Board of Directors.

The Chief Executive Officer shall represent the Company in its relations with third parties. The Company shall be bound by acts of the Chief Executive Officer that exceed the scope of the corporate purpose, unless the Company is able to prove that the third party was aware, or that in light of the circumstances could not have been unaware, that the act was not within the corporate purpose; however, the mere publication of the bylaws is not sufficient to constitute such proof.

- 14.1.2. The Chief Executive Officer cannot be more than 75 years old. If the Chief Executive Officer reaches this age limit, he shall automatically be deemed to have resigned. However, the Chief Executive Officer's term of office shall be prolonged until the next Board of Directors meeting, at which a new Chief Executive Officer shall be appointed.
- 14.1.3. If the Chief Executive Officer is a director, the term of his office shall not exceed his term of office as director.

The Board of Directors may remove the Chief Executive Officer from office at any time. If the removal from office is decided without fair cause, the Chief Executive Officer removed from office may claim damages unless the Chief Executive Officer is also Chairman of the Board of Directors.

14.1.4. By a decision adopted by a majority vote of the directors present or represented by proxy, the Board of Directors shall choose between the two options of exercise of the general management described in Article 14.1.1, paragraph 1. The shareholders and third parties shall be informed of such choice in the manner prescribed by applicable laws and regulations.

The choice made by the Board of Directors shall remain in effect until a contrary decision of the Board or, at the Board's discretion, for the duration of the Chief Executive Officer's term of office.

If the Company's executive management functions are carried out by the Chairman of the Board of Directors, the provisions concerning the Chief Executive Officer shall apply to him.

In accordance with the provisions of Article L. 706-43 of the French code of criminal procedure (*code de procédure pénale*), the Chief Executive Officer may validly delegate to any individual of his choice the power to represent the Company in connection with criminal proceedings that may be filed against the Company.

14.2.1. Upon proposal of the Chief Executive Officer, the Board of Directors may authorize one or more individuals to assist the Chief Executive Officer in the capacity of Deputy Chief Executive Officer.

In accordance with the Chief Executive Officer, the Board of Directors shall determine the scope and duration of the powers granted to the Deputy Chief Executive Officers. The Board of Directors shall set their compensation. If a Deputy Chief Executive Officer is also a director, the term of his office shall not exceed his term of office as director.

No more than five Deputy Chief Executive Officers shall be appointed.

Pursuant to a proposal of the Chief Executive Officer, the Deputy Chief Executive Officer(s) may be removed from office by the Board of Directors at any time. If the removal from office is decided without fair cause, a Deputy Chief Executive Officer removed from office may claim damages.

Deputy Chief Executive Officers cannot be more than 75 years old. If a Deputy Chief Executive Officer in office reaches this age limit, he shall automatically be deemed to have resigned. The Deputy Chief Executive Officer's term of office shall be prolonged until the next Board of Directors' meeting, at which a new Deputy Chief Executive Officer may be appointed.

If the Chief Executive Officer ceases its office or is unable to perform its duties, unless otherwise decided by the Board of Directors, the Deputy Chief Executive Officer(s) shall remain in office and retain their powers until the appointment of a new Chief Executive Officer.

Vis-à-vis third parties, the Deputy Chief Executive Officers shall have the same powers as the Chief Executive Officer.

ARTICLE 15 - AGREEMENTS SUBJECT TO AUTHORIZATION

15.1. Any sureties, endorsements and guarantees granted by the Company shall be authorized by the Board of Directors in accordance with the requirements prescribed by law.

15.2. Any agreement to be entered into, whether directly or indirectly or through an intermediary, between the Company and its Chief Executive Officer, one of its Deputy Chief Executive Officer(s), one of its directors, one of its shareholders holding more that 10 % of the voting rights or, in the case of a Company being a shareholder, the Company controlling it within the meaning of article L 233-3 of the commercial code, must be submitted for the prior authorization of the Board of Directors.

The same applies for agreements in which one of the persons referred to in the above paragraph is indirectly interested.

Such prior authorization is also required for agreements between the Company and another Company, should the general manager, one of the Deputy Chief Executive Officer or one of the directors of the Company be owner, partner with unlimited liability, manager, director, member of the supervisory board or, in general, manager of said Company.

The prior authorization of the Board of Directors shall be delivered in accordance with the requirements prescribed by law.

The above provisions do not apply to agreements relating to current transactions entered into under ordinary conditions or to agreements entered into between two companies, one of which holds, directly or indirectly, all of the capital of the other, minus, if applicable, the minimum number of shares required to satisfy the requirements of article 1832 of the French civil code or articles L. 225-1 and L. 226-1 of the French commercial code.

ARTICLE 16 - PROHIBITED AGREEMENTS

Directors, other than legal entities, are forbidden to contract loans from the Company in any form whatsoever, to secure an overdraft from it, as a current account or otherwise, and to have the Company guarantee or secure their commitments toward third parties.

The same prohibition applies to the Chief Executive Officer, the Deputy Chief Executive Officers and to the permanent representatives of directors that are legal entities. The foregoing provision also applies to the spouses, ascendants and descendants of the persons referred to in this article, as well as to all intermediaries.

ARTICLE 17 - STATUTORY AUDITORS

Audits of the Company shall be carried out, as provided by law, by one or more statutory auditors legally entitled to be elected as such. When the conditions provided by law are met, the Company must appoint at least two supervisory auditors.

The statutory auditor(s) shall be appointed by the ordinary general meeting.

The ordinary general meeting shall appoint, in the cases provided for by law, one or more alternate statutory auditors, which shall be called upon to replace the primary statutory auditors in the event of refusal, impediment, resignation or death.

Should the general ordinary meeting of the shareholders fail to elect a statutory auditor, any shareholder can claim in court that one be appointed, provided that the President of the Board of Directors be duly informed. The term of office of the statutory auditor appointed in court will end upon the appointment of the statutory auditor(s) by the general ordinary meeting of the shareholders.

ARTICLE 18 - GENERAL SHAREHOLDERS' MEETING QUORUM - VOTE - NUMBER OF VOTES

General shareholders' meetings shall be convened and held as provided by law.

If the Company wishes to convene the meeting by electronic means in lieu and place of the postal mail, it has to obtain the prior approval of the interested shareholders which will indicate their electronic address.

Meetings shall be held at the registered office or at any other location specified in the convening notice.

The right to participate in general shareholders' meetings is determined by the applicable laws and regulations and is conditioned upon the registration of shares under the shareholder's name or under an intermediary's name acting on its behalf, on the second business day prior to the general shareholders' meeting at midnight (Paris time), either in the registered shares accounts held by the Company or in the bearer shares accounts held by the authorized intermediary.

If a shareholder does not attend the meeting in person, it can grant a proxy to another shareholder, to its spouse or partner of French *pacte civil de solidarité* (PACS) or any other individual or legal entity. It can also send vote by correspondence or send a proxy to the Company without indicating the beneficiary, in accordance with applicable laws.

In accordance with the requirements prescribed by the laws and regulations in force, the Board of Directors may arrange for shareholders to participate and vote by videoconference or means of telecommunication, including internet, that allow them to be identified. If the Board of Directors decides to exercise this right for a particular shareholders' meeting, such decision shall be mentioned in the meeting notice (avis de réunion) and/or convening notice (avis de convocation) of the meeting. Shareholders who participate in shareholders' meetings be videoconference or any of the other means of telecommunication referred to above, as selected by the Board of Directors, shall be deemed present for the purposes of calculating the quorum and majority. Shareholders who use the electronic voting form provided on the website set up by the meeting's centralizing agent are deemed to be present. The electronic form can be entered and signed directly on this site by means of an identification code and a password. The proxy or the vote thus expressed before the meeting by this electronic means, as well as the acknowledgement of receipt which is given, will be considered as non-revocable writings and opposable to all.

Shareholders' meetings shall be chaired by the Chairman of the Board of Directors or, in its absence, by the Chief Executive Officer or by a Deputy Chief Executive Officer if he is a director, or by a director specifically appointed for such purposes by the Board. If no president has been appointed, the shareholders' meeting shall elect its own chairman.

The duties of scrutineers shall be performed by the two members of the shareholders' meeting who are present and hold the greatest number of votes, and who agree to perform such duties. The officers shall appoint a secretary, who may but need not be a shareholder.

An attendance sheet is drawn up, in accordance with the requirements prescribed by law.

Upon first notice, an ordinary general shareholders' meeting may validly deliberate only if the shareholders present or represented by proxy own at least one-fifth of the shares entitled to vote. Upon second notice, no quorum is required.

Resolutions of the ordinary general meeting shall be passed by a majority of the votes cast by the shareholders present or represented. The votes cast do not include those attached to shares for which the shareholder did not take part in the vote, abstained from voting or voted blank or null and void.

Upon first notice, an extraordinary general shareholders' meeting may validly deliberate only if the shareholders present or represented by proxy own at least one-fourth of the shares entitled to vote. Upon second notice, an extraordinary general shareholders' meeting may validly deliberate only if the shareholders present or represented by proxy own at least one-fifth of the shares entitled to vote.

Resolutions of the Extraordinary General Meeting shall be passed by a two-thirds majority of the votes cast by the shareholders present or represented. The votes cast do not include those attached to shares for which the shareholder did not take part in the vote, abstained or voted blank or null and void".

Copies or extracts of shareholder meeting minutes may be validly certified by the Chairman of the Board of Directors, a director who holds the position of Chief Executive Officer or Deputy Chief Executive Officer or by the secretary of the meeting.

Ordinary and extraordinary general shareholders' meetings shall exercise their respective powers in accordance with the requirements prescribed by law.

ARTICLE - 19 - FISCAL YEAR

Each fiscal year shall last one year, starting on January 1 and ending on December 31.

ARTICLE 20 - PROFITS - STATUTORY RESERVE FUND

Out of the profit of a fiscal year, reduced by prior losses if any, an amount equal to at least 5 % thereof is first deducted in order to form the legal reserve fund provided by law. This deduction is no longer required when the legal reserve fund amounts to one tenth of the capital of the Company.

Distributable profit is the profit of a fiscal year, reduced by prior losses and by the deduction provided for in the preceding paragraph and increased by the profits carried forward.

ARTICLE 21- DIVIDENDS

If there results a distributable profit from the accounts of the fiscal year, as approved by the general meeting, the general meeting may decide to allocate it to one or several reserve funds, the appropriation or use of which it shall determine, or to carry it forward or to distribute it as dividends.

Furthermore, after having established the existence of reserves which it may dispose of, the general meeting may decide the distribution of amounts paid out of such reserves. In such case, the payments shall be made. However, the dividends shall be set off by priority on the distributable profit of the fiscal year.

The general meeting shall determine the terms of payment of dividends; failing such determination, these terms shall be determined by the Board of Directors.

However, the dividends must be declared payable no more than nine months following the close of the fiscal year.

The general meeting deciding upon the accounts of a fiscal year will be entitled to grant to each shareholder, for all or part of the distributed dividends, an option between payment in cash or in shares.

Similarly, should the ordinary general meeting resolve the distribution of interim dividends pursuant to article L. 232-12 of the French commercial code (*code de commerce*), it will be entitled to grant to each shareholder an interim dividend and, for whole or part of the said interim dividend, an option between payment in cash or in shares.

The offer of payment in shares, the price and the conditions as to the issuing of such shares, together with the request for payment in shares and the conditions of the completion of the capital increase will be governed by the law and regulations.

When a balance sheet, drawn up during, or at the end of the fiscal year, and certified by the statutory auditor, shows that the Company, since the close of the preceding fiscal year, after having made the necessary depreciations and provisions and after deduction of the prior losses, if any, as well as of the amounts which are to be allocated to the reserve fund provided by law or by the by-laws and taking into account the profits carrying forward, has made profits, the Board of Directors may resolve the distribution of interim dividends prior to the approval of the accounts of the fiscal year, and may determine the amount thereof and the date of such distribution. The amount of such interim dividends cannot exceed the amount of the profits as defined in this paragraph. In this case, the option described in the preceding paragraph shall not be available.

ARTICLE 22 - EARLY DISSOLUTION

An extraordinary general shareholders' meeting may, at any time, decide to dissolve the Company before the expiration of its term.

ARTICLE 23 - LOSS OF ONE HALF OF SHARE CAPITAL

If, as a consequence of losses showed by the Company's accounts, the net assets (*capitaux propres*) of the Company are reduced below one half of the capital of the Company, the Board of Directors must, within four months from the approval of the accounts showing this loss, convene an extraordinary general meeting of shareholders in order to decide whether the Company ought to be dissolved before its statutory term.

If the dissolution is not declared, the capital must, at the latest at the end of the second fiscal year following the fiscal year during which the losses were established and subject to the legal provisions concerning the minimum capital of *sociétés anonymes*, be reduced by an amount at least equal to the losses which could not be charged on reserves, if during that period the net assets have not been restored up to an amount at least equal to one half of the capital.

In the absence of a meeting of shareholders, or in the case where the Company has not been able to validly act, any interested party may institute legal proceedings to dissolve the Company.

ARTICLE 24 - EFFECT OF THE DISSOLUTION

The Company is in liquidation as soon as it is dissolved for any reason whatsoever. It continues to exist as a legal entity for the needs of this liquidation until the liquidation is completed.

During the period of the liquidation, the general meeting shall retain the same powers it exercised during the life of the Company.

The shares shall remain transferable until the completion of the liquidation proceedings.

The dissolution of the Company is only valid vis-à-vis third parties as from the date at which it is published at the Trade and Companies Registry.

ARTICLE 25 - APPOINTMENT OF LIQUIDATORS - POWERS

When the Company's term expires or if the Company is dissolved before the expiration of its term, a general shareholders' meeting shall decide the method of liquidation, appoint one or more liquidators and determine their powers. The liquidators will exercise their duties in accordance with the law. The appointment of liquidators shall cause the duties of the directors, Chairman, Chief Executive Officer and Deputy Chief Executive Officers to end.

ARTICLE 26 - LIQUIDATION - CLOSING

After payment of the liabilities, the remaining assets shall be used first for the payment to the shareholders of the amount paid for their shares and not amortized.

The balance, if any, shall be divided among all the shareholders.

The shareholders shall be convened at the end of the liquidation in order to decide on the final accounts, to discharge the liquidator from liability for his acts of management and the performance of his office, and to take notice of the closing of the liquidation.

The closing of the liquidation is published as provided by law.

ARTICLE 27 - NOTIFICATIONS

All notifications provided for in the present bylaws shall be made either by registered mail with acknowledgment of receipt or by process server. Simultaneously a copy of the notification shall be sent to the recipient by ordinary mail.



DESCRIPTION OF SECURITIES REGISTERED UNDER SECTION 12 OF THE EXCHANGE ACT

As of December 31, 2022, Cellectis S.A. (the "Company," "we," "us," and "our") had the following series of securities registered pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	Trading Symbol	Name of each exchange on which registered
American Depositary Shares, each representing 1	CLLS	NASDAQ Global Market
share, nominal value €0.05 per share		

Ordinary Shares, nominal value €0.05 per share*

* Not for trading, but only in connection with the registration of American Depositary Shares.

American Depositary Shares ("ADSs"), each representing one ordinary share, nominal value €0.05 per share of Cellectis S.A. (the "shares"), have been available in the United States through an American Depositary Receipt ("ADR") program. This program was established pursuant to the deposit agreement that we entered into with Citibank, N.A. ("Citibank"), as depositary ("Deposit Agreement") in 2015 in connection with our initial public offering. Each ADS represents one ordinary share deposited with Citibank Europe plc, located at 388 Greenwich Street, New York, New York 10013, or any successor, as custodian for the depositary (the "Custodian").

Our ADSs have been listed on the NASDAQ Global Market ("NASDAQ") since March 2015 and are traded under the symbol CLLS. In connection with this NASDAQ listing (but not for trading), the shares are registered under Section 12(b) of the Exchange Act. Our ordinary shares have been trading on Euronext Growth market of Euronext Paris under the symbol "ALCLS" since February 7, 2007. Prior to that date, there was no public trading market for our ordinary shares. The transfer agent and registrar for our ordinary shares is Société Générale Securities Services.

This exhibit contains a description of the rights of (i) the holders of shares and (ii) ADR holders. Shares underlying the ADSs are held by Citibank, the depositary, and holders of ADSs will not be treated as holders of the shares.

The following summaries are not intended to be exhaustive and, in the case of our ordinary shares, such summary is subject to, and qualified in its entirety by, Cellectis' By-Laws and by French law and in the case of our ADSs, such summary is subject to, and qualified in its entirety by, the terms of the Deposit Agreement. Such summaries do not address all of the provisions of the By-laws or French law or of the Deposit Agreement, and do not purport to be complete. Our By-laws and the Deposit Agreement are each attached as exhibits to our Annual Report.

Capitalized terms not otherwise defined in this exhibit have the meanings given to them in Cellectis' annual report on Form 20-F for which this exhibit is provided (the "Annual Report").

ORDINARY SHARES

The description below reflects certain terms of our By-laws, and summarizes the material rights of holders of our ordinary shares under French law.

General

As of December 31, 2022, our outstanding share capital consisted of a total of 45,675,968 issued and outstanding ordinary shares, with nominal value €0.05 per share. We have no preferred shares outstanding.

Rights, Preferences and Restrictions Attaching to Ordinary Shares

Dividends. We may only distribute dividends out of our "distributable profits," plus any amounts held in our reserves that the shareholders decide to make available for distribution, other than those reserves that are specifically required to be maintained by law. "Distributable profits" consist of our unconsolidated net profit in each fiscal year, as increased or reduced by any profit or loss carried forward from prior years, less any contributions to the reserve accounts pursuant to French law (see below under "—Legal Reserve").

Legal Reserve. Pursuant to French law, we must allocate at least 5% of our unconsolidated net profit for each year to our legal reserve fund before dividends may be paid with respect to that year. Such allocation is compulsory until the amount in the legal reserve is equal to 10% of the aggregate par value of our issued and outstanding share capital. This restriction on the payment of dividends also applies to our French subsidiaries on an unconsolidated basis.

Approval of Dividends. Pursuant to French law, our board of directors may propose a dividend and/or reserve distribution for approval by the shareholders at the annual ordinary general meeting.

Upon recommendation of our board of directors, our shareholders may decide to allocate all or part of any distributable profits to special or general reserves, to carry them forward to the next fiscal year as retained earnings or to allocate them to the shareholders as dividends. However, dividends may not be distributed when as a result of such distribution our net assets are or would become lower than the amount of the share capital plus the amount of the legal reserves which, under French law, may not be distributed to shareholders.

Our board of directors may distribute interim dividends after the end of the fiscal year but before the approval of the financial statements for the relevant fiscal year when the interim balance sheet, established during such year and examined by an auditor, reflects that we have earned distributable profits since the close of the last financial year, after recognizing the necessary depreciation and provisions and after deducting prior losses, if any, and the sums to be allocated to reserves, as required by law or the By-laws, and including any retained earnings. The amount of such interim dividends may not exceed the amount of the profit so defined.

Distribution of Dividends. Dividends are distributed to shareholders proportionally to their shareholding interests. In the case of interim dividends, distributions are made to shareholders on the date set by our board of directors during the meeting in which the distribution of interim dividends is approved. The actual dividend payment date is decided by the shareholders at an ordinary general shareholders' meeting or by our board of directors in the absence of such a decision by the shareholders. Shareholders that own shares on the actual payment date are entitled to the dividend.

Dividends may be paid in cash or, if the shareholders' meeting so decides, in kind, provided that all the shareholders receive a whole number of assets of the same nature paid in lieu of cash. Our By-laws provide that, subject to a decision of the shareholders' meeting taken by ordinary resolution, each shareholder may be given the choice to receive such shareholder's dividend in cash or in shares.

Timing of Payment. Pursuant to French law, dividends must be paid within a maximum period of nine months following the end of the relevant fiscal year. An extension of such timeframe may be granted by court order. Dividends that are not claimed within a period of five years after the payment date will be deemed to expire and revert to the French state.

Voting Rights. Each of our ordinary shares entitles its holder to vote and be represented in the shareholders' meetings in accordance with the provisions of French law and of our By-laws. The ownership of a share implies the acceptance of our By-laws and any decision of our shareholders.

In general, each shareholder is entitled to one vote per share at any general shareholders' meeting. However, our By-Laws provide that all shares held in registered form (*actions nominatives*) for more than two years will be granted double voting rights.

Under French law, treasury shares or shares held by entities controlled by us are not entitled to voting rights and are not taken into account for purposes of quorum calculation.

Under French law, directors are elected at the ordinary general shareholders' meeting by a simple majority vote, and may be removed from office, with or without cause, at any shareholders' meeting without notice or justification, by a simple majority vote. Our By-laws provide that members of our board of directors are elected for a tenure of three years, with terms beginning upon the year of a director's initial appointment. Pursuant to French law, the sections of the By-laws relating to the number of directors and election and removal of a director from office may only be modified by a resolution adopted by a two-thirds majority of the votes cast by our shareholders present, represented by a proxy or voting by mail at the meeting. The votes cast do not include votes attached to shares held by shareholders who did not take part in the vote, abstained or voted blank or null.

Rights to Share in Our Profit. Under French law, each ordinary share entitles its holder to a portion of the corporate profits and assets proportional to the amount of share capital represented thereby.

Rights to Share in the Surplus in the Event of Liquidation. If we are liquidated, any assets remaining after payment of our debts, liquidation expenses and all of our remaining obligations will first be used to repay in full the par value of our outstanding shares. Any surplus will then be distributed among shareholders proportionally to their shareholding in our company.

Repurchase and Redemption of Shares. Under French law, we may acquire our own shares. Such acquisition may be challenged on the ground of market abuse regulations. However, Market Abuse Regulation (UE) No. 596/2014 of April 16, 2014 and its related delegated regulations (MAR) provides for safe harbor exemptions when the acquisition is made (i) under a buy-back program to be authorized by the shareholders in accordance with the provisions of Article L. 22-10-62 of the French Commercial Code and with the General Regulations of the French Financial Markets Authority (Autorité des marchés financiers or "AMF") and (ii) for one of the following purposes which shall be provided for in the buy-back program:

- to decrease our share capital, provided that such a decision is not driven by losses and that a purchase offer is made to all shareholders on a pro rata basis, with the approval of the shareholders at an extraordinary general meeting; in this case, the shares repurchased must be cancelled within one month from their repurchase date;
- to meet our obligations arising from debt financial instruments issued by us that are exchangeable into shares;
- to meet our obligations arising from share option programs, or other allocations of shares, to our employees or to our managers or the employees or managers of our affiliate. In this case the shares repurchased must be distributed within 12 months from their repurchase, after which they must be cancelled.

In addition, we benefit from a simple exemption when the acquisition is made under a liquidity contract complying with the general regulations of, and market practices accepted by, the AMF. All other purposes, and especially share buy-backs made for external growth operations in pursuance of Article L. 22-10-62 of the French Commercial Code, while not forbidden, must be pursued in strict compliance of market manipulation and insider dealing rules.

Under MAR and in accordance with the General Regulations of the AMF, a corporation shall report to the AMF, no later than by the end of the seventh daily market session following the date of the execution of the transaction, all transactions relating to the buy-back program, in a detailed form and in an aggregated form. In addition, we shall provide to the AMF, on a monthly basis, and to the public, on a quarterly basis, a summary report of any transactions made under a liquidity contract.

The decision to repurchase shares in order to decrease our share capital shall not be driven by losses and a purchase offer shall be made to all shareholders on a pro rata basis, with the approval of the shareholders at the extraordinary general meeting deciding the capital reduction; in this case, the shares repurchased must be cancelled within one month from their repurchase date.

In any case, no such repurchase of shares may result in us holding, directly or through a person acting on our behalf, more than (i) 10% of our issued share capital, or (ii) 5% of our issued share capital in case of repurchase of shares to be used in payment or in exchange in the context of a merger, division or transfer of assets. Shares repurchased by us continue to be deemed "issued" under French law but are not entitled to dividends and/or voting rights so long as we hold them directly or indirectly, and we may not exercise the preemptive rights attached to them.

Sinking Fund Provisions. Our By-laws do not provide for any sinking fund provisions.

Liability to Further Capital Calls. Shareholders are liable for corporate liabilities only up to the par value of the shares they hold; they are not liable to further capital calls.

Requirements for Holdings Exceeding Certain Percentages. There are no such requirements, except as described under "—Form, Holding and Transfer of Shares—Ownership of Shares and ADSs by Non-French Persons."

Actions Necessary to Modify Shareholders' Rights

Shareholders' rights may be modified as allowed by French law. Only the extraordinary shareholders' meeting is authorized to amend any and all provisions of our By-laws. It may not, however, increase any of the shareholders' commitments without the prior approval of each shareholder.

Special Voting Rights of Warrant Holders

Under French law, the holders of warrants of the same class (*i.e.*, warrants that were issued at the same time and with the same rights), including warrants (BSA), are entitled to vote as a separate class at a general meeting of that class of warrant holders under certain circumstances, principally in connection with any proposed modification of the terms and conditions of the class of warrants or any proposed issuance of preferred shares or any modification of the rights of any outstanding class or series of preferred shares.

Rules for Admission to and Calling Annual Shareholders' Meetings and Extraordinary Shareholders' Meetings

Access to, Participation in and Voting Rights at Shareholders' Meetings. The right to participate in a shareholders' meeting is granted to all the shareholders, regardless of the number of shares they hold, whose shares are fully paid up and for whom a right to attend shareholders' meetings has been established by registration of their shares in the names or names of the authorized intermediary acting on their behalf on the second business day prior to the shareholders' meeting at midnight (Paris time), either in the registered shares accounts held by the Company or in the bearer shares accounts held by the authorized intermediary.

Each shareholder may attend the meetings and vote (1) in person, or (2) by granting a proxy to any person, or (3) by sending a proxy to us without indication of the beneficiary (in which case such proxy shall be cast in favor of the resolutions supported by the board of directors), or (4) by correspondence, or (5) by videoconference or another means of telecommunication organized by the board of directors and allowing identification of the relevant shareholder in accordance with applicable laws.

Shareholders may, in accordance with legal and regulatory requirements, send their vote or proxy, either by hard copy or via telecommunications means. Such vote or proxy must be received (1) at least three days prior to the meeting, in the case of hard copies, (2) by 3:00 p.m. (Paris time) on the day before the meeting, in the case of, electronic votes by email, (3) by the date of the meeting, in the case of a proxy granted to a designated person, and (4) by 3:00 p.m. (Paris time) on the day before the meeting, in the case of proxies without a designated attorney and therefore granted to the chairman of the meeting.

Shareholders sending their vote within the applicable time limit, using the form provided to them by us for this purpose, are deemed present or represented at the shareholders' meeting for purposes of quorum and majority calculation.

The voting by correspondence form addressed by a shareholder is only valid for a single meeting or for successive meetings convened with the same agenda. To better understand the voting rights of the ADSs, see "Description of American Depositary Shares" below.

Notice of Annual Shareholders' Meetings. Shareholders' meetings are convened by our board of directors, or, failing that, by our statutory auditors, or by a court appointed agent or liquidator in certain circumstances, or by the majority shareholder in capital or voting rights following a public tender offer or exchange offer or the transfer of a controlling block on the date decided by the board of directors or the relevant person. Meetings are held at our registered offices or at any other location indicated in the convening notice. A meeting notice (avis de réunion) is published in the French Journal of Mandatory Statutory Notices (BALO) at least 35 days prior to the date of the shareholders' meeting.

Additionally, a convening notice (*avis de convocation*) is published at least fifteen days prior to the date of the meeting in a legal gazette of the department in which the registered office of the company is located and in the French Journal of Mandatory Statutory Notices (BALO). Further, shareholders having held registered shares (*actions nominatives*) for at least one month at the time of the convening notice must be convened individually, by regular letter (or by registered letter if requested by the relevant shareholder) sent to their last known address.

When the shareholders' meeting cannot deliberate due to the lack of the required quorum, the second meeting must be called at least ten days in advance in the same manner as used for the first notice.

All notices to the shareholders must further specify the conditions under which the shareholders may vote by correspondence.

Agenda and Conduct of Annual Shareholders' Meetings. The agenda of the shareholders' meeting shall appear in the notice to convene the meeting. The shareholders' meeting may only deliberate on the items on the agenda except for the removal of directors and the appointment of their successors, which may be put to vote by any shareholder during any shareholders' meeting. One or more shareholders representing the percentage of share capital required by French law (currently 5%), and acting in accordance with legal requirements and within applicable time limits, may request the inclusion of items or proposed resolutions on the agenda.

Shareholders' meetings shall be chaired by the Chairman of the board of directors or, in his or her absence, by a director appointed for this purpose by the board of directors; failing which, the meeting itself shall elect a Chairman. Vote counting shall be performed by the two members of the meeting who are present and accept such duties, who represent, either on their own behalf or as proxies, the greatest number of votes.

Ordinary Shareholders' Meeting. Ordinary shareholders' meetings are those meetings called to make any and all decisions that do not result in a modification of our By-laws. An ordinary shareholders' meeting shall be convened at least once a year within six months of the end of each fiscal year in order to approve the annual and consolidated accounts for the relevant fiscal year or, in case of postponement, within the period established by court order. Upon first notice, the meeting may validly deliberate only if the shareholders present or represented by proxy or voting by mail represent at least one-fifth of the shares entitled to vote. Upon second notice, no quorum is required. Decisions are made by a majority of the votes cast by the shareholders present, represented by proxy, or voting by mail. The votes cast do not include votes attached to shares held by shareholders who did not take part in the vote, abstained or voted blank or null.

Extraordinary Shareholders' Meeting. Only an extraordinary shareholders' meeting is authorized to amend our By-laws. It may not, however, increase shareholders' commitments without the approval of each shareholder. Subject to the legal provisions governing share capital increases from reserves, profits or share premiums, the resolutions of the extraordinary meeting will be valid only if the shareholders present, represented by proxy or voting by mail represent at least one-fourth of all shares entitled to vote upon first notice, or one-fifth upon second notice. If the latter quorum is not reached, the second meeting may be postponed to a date no later than two months after the date for which it was initially called. Decisions are made by a two-thirds majority of the votes cast by the shareholders present, represented by proxy, or voting by mail. The votes cast do not include votes attached to shares held by shareholders who did not take part in the vote, abstained or voted blank or null.

In addition to the right to obtain certain information regarding us at any time, any shareholder may, from the date on which a shareholders' meeting is convened until the fourth business day preceding the date of the shareholders' meeting, submit written questions relating to the agenda for the meeting to our board of directors.

Our board of directors is required to respond to these questions during the meeting, except if the answers of the board are posted on the website of the Company at the latest at the end of the shareholders' meeting. The board of directors may delegate one of its members, the chief executive officer or a deputy chief executive officer, as the case may be, to respond.

Provisions Having the Effect of Delaying, Deferring or Preventing a Change in Control of the Company

Provisions contained in our By-laws and the corporate laws of France, the country in which we are incorporated, could make it more difficult for a third-party to acquire us, even if doing so might be beneficial to our shareholders. In addition, provisions of French law and our By-laws impose various procedural and other requirements which could make it more difficult for shareholders to effect certain corporate actions. These provisions include the following:

- provisions of French law allowing the owner of 90% of the share capital or voting rights of a public company to force out the minority shareholders following a tender offer made to all shareholders are only applicable to companies listed on a regulated market or a multilateral trading facility in a Member State of the EU or in a state party of the European Economic Area Agreement, including the main French stock exchange, and will therefore be applicable to us only if we continue to dual-list in France;
- a merger (i.e., in a French law context, a stock-for-stock exchange after which our company would be dissolved without being liquidated into the acquiring entity and our shareholders would become shareholders of the acquiring entity) of our company into a company incorporated in the European Union would require the approval of our board of directors as well as a two-thirds majority of the votes cast by the shareholders present, represented by proxy or voting by mail at the relevant meeting. The votes cast do not include votes attached to shares held by shareholders who did not take part in the vote, abstained or voted blank or null;
- a merger of our company into a company incorporated outside of the European Union would require the unanimous approval of our shareholders;
- in a French law context, a cash merger is treated as a share purchase and would require the consent of each participating shareholder;
- our shareholders have granted and may grant in the future our board of directors broad authorizations to increase our share capital or to issue additional ordinary shares or other securities (for example, warrants) to our shareholders, the public or qualified investors, including as a possible defense following the launching of a tender offer for our shares;

- our shareholders have preferential subscription rights proportional to their shareholding in our company on the issuance by us of any
 additional shares or securities giving the right, immediately or in the future, to new shares for cash or a set-off of cash debts, which rights
 may only be waived by the extraordinary general meeting (by a two-thirds majority vote) of our shareholders or on an individual basis by
 each shareholder:
- our board of directors has the right to appoint directors to fill a vacancy created by the resignation or death of a director, subject to ratification by the shareholders of such appointment at the next shareholders' meeting, which prevents shareholders from having the sole right to fill vacancies on our board of directors;
- our board of directors can only be convened by our chairman (and our managing director, if different from the chairman, may request the chairman to convene the board), or, when no board meeting has been held for more than two consecutive months, by directors representing at least one third of the total number of directors;
- our board of directors' meetings can only be regularly held if at least half of the directors attend either physically or by way of
 videoconference or teleconference enabling the directors' identification and ensuring their effective participation in the board of directors'
 decisions;
- our shares take the form of bearer securities or registered securities, if applicable legislation so permits, according to the shareholder's choice. Issued shares are registered in individual accounts opened by us or any authorized intermediary (depending on the form of such shares), in the name of each shareholder and kept according to the terms and conditions laid down by the legal and regulatory provisions;
- under French law, a non-French resident as well as any French entity controlled by non-French residents may have to file a declaration for statistical purposes with the Bank of France (Banque de France) following the date of certain foreign investments in us. Additionally, certain investments in a French company relating to certain strategic industries by individual or entities not residents in a member State of the European Union are subject to the prior authorization of the French Ministry of Economy see "Ownership of Shares and ADSs by Non-French Persons";
- approval of at least a majority of the votes cast by the shareholders present, represented by a proxy, or voting by mail at the relevant ordinary shareholders' general meeting is required to remove directors with or without cause;
- advance notice is required for nominations to the board of directors or for proposing matters to be acted upon at a shareholders' meeting, except that a vote to remove and replace a director can be proposed at any shareholders' meeting without notice;
- in the event where certain ownership thresholds would be crossed, a number of disclosures should be made by the relevant shareholder in addition to certain obligations; see "—Declaration of Crossing of Ownership Thresholds";
- transfers of shares must comply with applicable insider trading rules;
- pursuant to French law, the sections of the By-laws relating to the number of directors and election and removal of a director from office may only be modified by a resolution adopted by a two-thirds majority of the votes cast by our shareholders present, represented by a proxy or voting by mail at the meeting. The votes cast do not include votes attached to shares held by shareholders who did not take part in the vote, abstained or voted blank or null.

Declaration of Crossing of Ownership Thresholds

Subject to requirements of French law, our By-laws do not require any specified disclosure by shareholders that cross ownership thresholds with respect to our share capital, except as described under "—Form, Holding and Transfer of Shares—Ownership of Shares and ADSs by Non-French Persons."

The absence of specific requirement in our By-laws is without prejudice to the following disclosures which are applicable to us according to French legal and regulatory provisions, it being provided that the following is a summary which is therefore not intended to be a complete description of applicable rules under French law:

- Shareholders must make a declaration to us no later than the fourth trading day after such shareholder crosses the following thresholds: 5%, 10%, 15%, 20%, 25%, 30%, 33.33%, 50%, 66.66%, 90% and 95%.
- Shareholders must make a declaration to the AMF no later than the fourth trading day after such shareholder crosses the following thresholds: 50% and 95%.

The above obligations of declaration apply when crossing each of the above-mentioned thresholds in an upward or downward direction.

In case of failure to declare shares or voting rights exceeding the fraction that should have been declared, such shares shall be deprived of voting rights at shareholders' meetings for any meeting that would be held until the expiry of a period of two years from the date of regularization of the notification in accordance with Article L. 233-14 of the French Commercial Code. Additional sanctions may apply pursuant to Article L. 621-15 of the French Monetary and Financial Code.

Subject to certain exemptions, any shareholder crossing, alone or acting in concert, the 50% threshold must file a mandatory public tender offer.

Changes in Share Capital

Increases in Share Capital. Pursuant to French law, our share capital may be increased only with shareholders' approval at an extraordinary general shareholders' meeting following the recommendation of our board of directors. The shareholders may delegate to our board of directors either the authority (délégation de compétence) or the power (délégation de pouvoir) to carry out any increase in share capital in accordance with applicable laws.

Increases in our share capital may be effected by:

- issuing additional shares;
- · increasing the par value of existing shares;
- · creating a new class of equity securities; and
- exercising the rights attached to securities giving access to the share capital.

Increases in share capital by issuing additional securities may be effected through one or a combination of the following:

- issuances in consideration for cash;
- issuances in consideration for assets contributed in kind;
- · issuances through an exchange offer;
- issuances by conversion of previously issued debt instruments;
- issuances by capitalization of profits, reserves or share premium; and
- · subject to certain conditions, issuances by way of offset against debt incurred by us.

Decisions to increase the share capital through the capitalization of reserves, profits and/or share premium require shareholders' approval at an extraordinary general shareholders' meeting, acting under the quorum and majority requirements applicable to ordinary shareholders' meetings. Increases in share capital effected by an increase in the par value of shares require unanimous approval of the shareholders, unless effected by capitalization of reserves, profits or share premium. All other capital increases require shareholders' approval at an extraordinary general shareholders' meeting acting under the regular quorum and majority requirements for such meetings.

Reduction in Share Capital. Pursuant to French law, any reduction in our share capital requires shareholders' approval at an extraordinary general shareholders' meeting. The share capital may be reduced either by decreasing the par value of the outstanding shares or by reducing the number of outstanding shares. The number of outstanding shares may be reduced by the repurchase and cancellation of shares. Holders of each class of shares must be treated equally unless each affected shareholder agrees otherwise.

Preferential Subscription Rights (Preemptive Rights). According to French law, if we issue additional shares or securities giving right, immediately or in the future, to new shares for cash, current shareholders will have preferential subscription rights to these securities on a pro rata basis. Preferential subscription rights entitle the individual or entity that holds them to subscribe proportionally to the number of shares held by them to the issuance of any securities increasing, or that may result in an increase of, our share capital by means of a cash payment or a set-off of cash debts. The preferential subscription rights may be transferred and/or sold during the subscription period relating to a particular offering. Pursuant to French law, the preferential subscription rights will be transferable during a period starting two working days prior to the opening of the subscription period and ending two working days prior to the closing of the subscription period.

The preferential subscription rights with respect to any particular offering may be waived at an extraordinary general meeting by a two-thirds majority of the votes cast by our shareholders, or individually by each shareholder. Our board of directors and our independent auditors are required by French law to present reports to the shareholders' meeting that specifically address any proposal to waive the preferential subscription rights.

Further, to the extent permitted under French law, we may seek, during an extraordinary general shareholders' meeting, the approval of the shareholders to waive their preferential subscription rights in order to authorize the board of directors to issue additional shares and/or other securities convertible or exchangeable into shares.

Form, Holding and Transfer of Shares—Ownership of Shares and ADSs by Non-French Persons

Form of Shares. Pursuant to our By-laws, shares may be held in registered or bearer form, at each shareholder's discretion.

Further, in accordance with applicable legal and regulatory provisions, we may request at any time from the authorized intermediary responsible for holding our shares the name or, in the case of a legal entity, the corporate name, nationality and address of holders of securities, giving immediate or future access to voting rights at our shareholders' meetings, the number of securities they own and, where applicable, the restrictions attaching to such securities.

Holding of Shares. In accordance with French law concerning the "dematerialization" of securities, the ownership rights of shareholders are represented by book entries instead of share certificates. Shares are registered in individual accounts opened by us or any authorized intermediary, in the name of each shareholder and kept according to applicable legal and regulatory provisions.

Ownership of Shares and ADSs by Non-French Persons. Neither the French Commercial Code nor our By-laws presently impose any restrictions on the right of non-French residents or non-French shareholders to own and vote shares.

However, (a) any non-French citizen, (b) any French citizen not residing in France, (c) any non-French entity or (d) any French entity controlled by one of the aforementioned persons or entities may have to file a declaration for statistical purposes with the Bank of France (*Banque de France*) within twenty working days following the date of certain direct foreign investments in us, including any purchase of our ADSs. In particular, such filings are required in connection with investments exceeding €15,000,000 that lead to the acquisition of at least 10% of our Company's share capital or voting rights or cross such 10% threshold. Violation of this filing requirement may be sanctioned by five years of imprisonment and a fine of up to twice the amount of the relevant investment. This amount may be increased fivefold if the violation is made by a legal entity.

Further, any investment:

- by (i) any non-French citizen, (ii) any French citizen not residing in France, (iii) any non-French entity or (iv) any French entity controlled by one of the aforementioned persons or entities;
- that will result in the relevant investor (i) acquiring control of an entity registered in France, (ii) acquiring all or part of a business line of an entity registered in France, (or (iii) for non-EU or non-EEA investors crossing, directly or indirectly, alone or in concert, a 25% threshold of voting rights in an entity registered in France; and
- developing activities in certain strategic industries related to (i) activity likely to prejudice national defense interests, participating in the exercise of official authority or are likely to prejudice public policy and public security (including weapons, double-use items, IT systems, cryptology, date capturing devices, gambling, toxic agents or storage of data), (ii) activities relating to essential infrastructure, goods or services (including energy, water, transportation, space, telecom, public health, farm products or media), and (iii) research and development activity related to critical technologies (including biotechnology, cybersecurity, artificial intelligence, robotics, additive manufacturing, semiconductors, quantum technologies, energy storage, and renewable energy technologies) or dual-use items, is subject to the prior authorization of the French Ministry of Economy, which authorization may be conditioned on certain undertakings. For the purposes of (i) in the second bullet above, ownership of at least 40% of our share capital or voting rights is regarded as a controlling interest, but a lower percentage might be held to be a controlling interest in certain circumstances depending upon factors such as the acquiring party's intention, the acquiring party's ability to elect directors, and financial reliance by the company on the acquiring party.

Assignment and Transfer of Shares. Shares are freely negotiable, subject to applicable legal and regulatory provisions (including, in particular, the prohibition on insider trading).

Differences in Corporate Law

The laws applicable to French *sociétés anonymes* differ from laws applicable to U.S. corporations and their shareholders. Set forth below is a summary of certain differences between the provisions of the French Commercial Code applicable to us and the Delaware General Corporation Law relating to shareholders' rights and protections. This summary is not intended to be a complete discussion of the respective rights and it is qualified in its entirety by reference to Delaware law and French law.

Number	of Directors	

France

Under French law, a *société anonyme* must have at least three and may have up to 18 directors. The number of directors is fixed by or in the manner provided in the by-laws.

Delaware

Under Delaware law, a corporation must have at least one director and the number of directors shall be fixed by or in the manner provided in the by- laws (unless fixed by the certificate of incorporation).

Director Qualifications

Under French law, a corporation may prescribe qualifications for directors under its by-laws. In addition, under French law, members of a board of directors of a corporation may be legal entities, and such legal entities may designate an individual to represent them and to act on their behalf at meetings of the board of directors.

Under Delaware law, a corporation may prescribe qualifications for directors under its certificate of incorporation or by-laws. Under Delaware law, only individuals may be members of a corporation's board of directors.

Removal of Directors

Under French law, directors may be removed from office, with or without cause, at any shareholders' meeting without notice or justification, by a simple majority vote.

Under Delaware law, directors may be removed from office, with or without cause, by a majority stockholder vote, except (1) unless otherwise provided in the certificate of incorporation, in the case of a corporation whose board is classified, stockholders may effect such removal only for cause, or (2) in the case of a company that has cumulative voting, if less than the entire board is to be removed, no director may be removed without cause if the votes cast against such director's removal would be sufficient to elect such director if then cumulatively voted at an election of the entire board of directors, or, if there are classes of directors, at an election of the class of directors of which such director is a part.

Vacancies on the Board of Directors

Under French law, vacancies on the board of directors resulting from death or a resignation, provided that at least three directors remain in office, may be filled by a majority of the remaining directors pending ratification by the next shareholders' meeting.

Under Delaware law, unless provided otherwise by the certificate of incorporation or bylaws, vacancies on a corporation's board of directors, including those caused by an increase in the number of directors, may be filled by a majority of the directors then in office, provided that the court may order an annual meeting upon the application of a director or stockholder if a corporation has not held a meeting within 13 months after the latest of the company's organization, the last annual meeting or the last action by written consent to elect directors.

Annual General Meeting

Under French law, the annual general meeting of shareholders shall be held at such place, on such date and at such time as decided each year by the board of directors and notified to the shareholders in the convening notice of the annual meeting, within six months after the close of the relevant fiscal year unless such period is extended by court order.

Under Delaware law, the annual meeting of stockholders shall be held at such place as may be designated from time to time by the board of directors or as provided in the certificate of incorporation or by the by-laws and on such date and at such time as provided in the by-laws.

General Meeting

Under French law, general meetings of the shareholders may be called by the board of directors or, failing that, by the statutory auditors, or by a court appointed agent or liquidator in certain circumstances, or by the majority shareholder in capital or voting rights following a public tender offer or exchange offer or the transfer of a controlling block on the date decided by the board of directors or the relevant person.

Under Delaware law, special meetings of the stockholders may be called by the board of directors or by such person or persons as may be authorized by the certificate of incorporation or by the by-laws.

Notice of General Meetings

A meeting notice (avis de réunion) is published in the French Journal of Mandatory Statutory Notices (BALO) at least 35 days prior to the date of the shareholders' meeting. Additionally, a convening notice (avis de convocation) is published at least fifteen days prior to the date of the meeting in a legal gazette of the department in which the registered office of the company is located and in the French Journal of Mandatory Statutory Notices (BALO). Further, shareholders having held registered shares (actions nominatives) for at least one month at the time of the convening notice must be convened individually, by regular letter (or by registered letter if requested by the relevant shareholder) sent to their last known address.

Under Delaware law, written notice of any meeting of the stockholders must be given to each stockholder entitled to vote at the meeting not less than 10 nor more than 60 days before the date of the meeting and shall specify the place, date, hour, and purpose or purposes of the meeting.

The meeting notice must indicate the conditions under which the shareholders may vote by correspondence and the places and conditions in which they can obtain voting forms by mail.

Under Delaware law, at any meeting of stockholders, a stockholder may designate another person to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period.

Each shareholder may attend the meetings and vote (1) in person, or (2) by granting proxy to any person, or (3) by sending a proxy to us without indication of the beneficiary (in which case such proxy shall be cast in favor of the resolutions supported by the board of directors), or (4) by correspondence, or (5) by videoconference or another means of telecommunication allowing identification of the relevant shareholder in accordance with applicable laws. The proxy is only valid for a single meeting or successive meetings convened with the same agenda. It can also be granted for two meetings, one ordinary, the other extraordinary, held within a period of fifteen days.

Shareholder action by written consent

Proxy

Under French law, shareholders' action by written consent is not permitted in a *société anonyme*.

Under Delaware law, unless otherwise provided in a corporation's certificate of incorporation, stockholders may act by written consent signed by stockholders having the minimum number of votes that would be necessary to take such action at a meeting.

Preemptive Rights

Under French law, in case of issuance of additional shares Under Delaware law, unless otherwise provided in a or securities giving right, immediately or in the future, to new shares for cash or set-off against cash debts, the existing shareholders have preferential subscription rights possess preemptive rights to subscribe to to these securities on a pro rata basis unless such rights are waived by a two-thirds majority of the votes cast by the shareholders present, represented by proxy or voting by mail at the extraordinary meeting deciding or authorizing the capital increase. In case such rights are not waived by the extraordinary general meeting, each shareholder may individually either exercise, assign or not exercise its preferential rights. Preferential subscription rights may only be exercised during the subscription period. In accordance with French law, the exercise period shall not be less than five trading days. Thus, the preferential subscription rights are transferable during a period equivalent to the subscription period but starting two business days prior to the opening of the subscription period and ending two business days prior to the closing

corporation's certificate of incorporation, a stockholder does not, by operation of law, additional issuances of the corporation's stock.

Sources of Dividends

Under French law, dividends may only be paid by a French société anonyme out of "distributable profits," plus any distributable reserves and "distributable premium" that the shareholders decide to make available for distribution, other than those reserves that are specifically required by law.

of the subscription period.

"Distributable profits" consist of the unconsolidated net profits of the relevant corporation for each fiscal year, as increased or reduced by any profit or loss carried forward from prior years.

"Distributable premium" refers to the contribution paid by the shareholders in addition to the par value of their shares for their subscription that the shareholders decide to make available for distribution.

Except in the case of a share capital reduction, no distribution can be made to the shareholders when the net equity is, or would become, lower than the amount of the share capital plus the reserves which cannot be distributed in accordance with the law or the by-laws.

Under Delaware law, subject to any restrictions under a corporation's certificate of incorporation, dividends may be declared by the board of directors and paid by a Delaware corporation either out of (1) surplus or (2) in case there is no surplus, out of its net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year, except when the capital is diminished by depreciation in the value of its property, or by losses, or otherwise, to an amount less than the aggregate amount of capital represented by issued and outstanding stock having a preference on the distribution of assets.

Repurchase of Shares

Under French law, a corporation may acquire its own shares for the following purposes only:

- to decrease its share capital, provided that such decision is not driven by losses and that a purchase offer is made to all shareholders on a pro rata basis, with the approval of the shareholders at the extraordinary general meeting deciding the capital reduction;
- with a view to distributing within one year of their repurchase the relevant shares to employees or managers under a profit-sharing, free share or share option plan; or
- under a buy-back program to be authorized by the shareholders in accordance with the provisions of Article L. 22-10-62 of the French Commercial Code and with the general regulations of the AMF.

No such repurchase of shares may result in the company holding, directly or through a person acting on its behalf, more than 10% of its issued share capital.

Under French law, the By-laws may not include any provisions limiting the liability of directors.

Under Delaware law, a corporation may generally redeem or repurchase shares of its stock except under certain circumstances, including where the capital of the corporation is impaired or such redemption or repurchase would impair the capital of the corporation (other than certain preference shares or certain shares to be retired).

Liability of Directors and Officers

Under Delaware law, a corporation's certificate of incorporation may generally include a provision eliminating or limiting the personal liability of a director to the corporation and its stockholders for monetary damages arising from a breach of fiduciary duty as a director. However, no provision can limit the liability of a director for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- intentional or negligent payment of unlawful dividends or stock purchases or redemptions;
- claims with respect to unlawful payment of dividends and unlawful stock purchases and redemptions; or
- any transaction from which the director derives an improper personal benefit

Voting Rights

Shareholder Vote on Certain Transactions French law provides that, unless otherwise provided in the by-laws, each shareholder is entitled to one vote for each share of capital stock held by such shareholder.

Generally, under French law, completion of a merger, dissolution, sale, lease or exchange of all or substantially all of a corporation's assets requires: approval by a two-thirds majority of the votes cast by the shareholders present, represented by proxy or voting by mail at the relevant meeting, or in the case of a merger with a non-EU company, approval of all the shareholders of the corporation.

Delaware law provides that, unless otherwise provided in the certificate of incorporation, each stockholder is entitled to one vote for each share of capital stock held by such stockholder.

Generally, under Delaware law, unless the certificate of incorporation provides for the vote of a larger portion of the stock or under other certain circumstances, completion of a merger, consolidation, sale, lease or exchange of all or substantially all of a corporation's assets or dissolution requires:

- the approval of the board of directors; and
- approval by the vote of the holders of a majority of the outstanding stock or, if the certificate of incorporation provides for more or less than one vote per share, a majority of the votes of the outstanding stock of a corporation entitled to vote on the matter.

Dissent or Dissenters' Apparaisal Rights

French law does not provide for any such right but provides that a merger is subject to shareholders' approval by a two-thirds majority of the votes cast as stated above.

Under Delaware law, a holder of shares of any class or series has the right, in specified circumstances, to dissent from a merger or consolidation by demanding payment in cash for the stockholder's shares equal to the fair value of those shares, as determined by the Delaware Chancery Court in an action timely brought by the dissenting stockholder. Delaware law grants these appraisal rights only in the case of mergers or consolidations and not in the case of a sale or transfer of assets or a purchase of assets for stock. Further, no appraisal rights are available for shares of any class or series that is listed on a national securities exchange or held of record by more than 2,000 stockholders, unless the agreement of merger or consolidation requires the holders to accept for their shares anything other than:

- shares of stock of the surviving corporation;
- shares of stock of another corporation that are either listed on a national securities exchange or held of record by more than 2,000 stockholders;
- cash in lieu of fractional shares of the stock described in the two preceding bullet points; or
- any combination of the above.

In addition, appraisal rights are not available to holders of shares of the surviving corporation in specified mergers that do not require the vote of the stockholders of the surviving corporation.

Standard of Conduct for Directors French law does not contain specific provisions setting forth the standard of conduct of a director. However, directors have a duty to act without self- interest, on a well-informed basis and they cannot make any decision against a corporation's corporate interest (*intérêt social*).

Delaware law does not contain specific provisions setting forth the standard of conduct of a director. The scope of the fiduciary duties of directors is generally determined by the courts of the State of Delaware. In general, directors have a duty to act without self-interest, on a well-informed basis and in a manner they reasonably believe to be in the best interest of the stockholders.

Shareholder Suits

French law provides that a shareholder, or a group of shareholders, may initiate a legal action to seek indemnification from the directors of a corporation in the corporation's interest if it fails to bring such legal action itself. If so, any damages awarded by the court are paid to the corporation and any legal fees relating to such action are borne by the relevant shareholder or the group of shareholders. The plaintiff must remain a shareholder throughout the duration of the legal action. There is no other case where shareholders may initiate a derivative action to enforce a right of a corporation. A shareholder may alternatively or cumulatively bring an individual legal action against the directors, provided he has suffered distinct damages from those suffered by the corporation. In this case, any damages awarded by the court are paid to the relevant shareholder.

Amendment of Certificate of Incorporation

Unlike companies incorporated under Delaware law, the organizational documents of which comprise both a certificate of incorporation and by- laws, companies incorporated under French law only have by-laws (*statuts*) as organizational documents. As indicated in the paragraph below, only the extraordinary shareholders' meeting is authorized to adopt or amend the by-laws under French law.

Amendment of By-laws

Under French law, only the extraordinary shareholders' meeting is authorized to adopt or amend the by-laws.

Under Delaware law, a stockholder may initiate a derivative action to enforce a right of a corporation if the corporation fails to enforce the right itself. The complaint must: state that the plaintiff was a stockholder at the time of the transaction of which the plaintiff complains or that the plaintiff's shares thereafter devolved on the plaintiff by operation of law; and allege with particularity the efforts made by the plaintiff to obtain the action the plaintiff desires from the directors and the reasons for the plaintiff's failure to obtain the action; or state the reasons for not making the effort. Additionally, the plaintiff must remain a stockholder through the duration of the derivative suit. The action will not be dismissed or compromised without the approval of the Delaware Court of Chancery.

Under Delaware law, generally a corporation may amend its certificate of incorporation if: its board of directors has adopted a resolution setting forth the amendment proposed and declared its advisability, and the amendment is adopted by the affirmative votes of a majority (or greater percentage as may be specified by the certificate of incorporation) of the outstanding shares entitled to vote on the amendment and a majority (or greater percentage as may be specified by the certificate of incorporation) of the outstanding shares of each class or series of stock, if any, entitled to vote on the amendment as a class or series.

Under Delaware law, the stockholders entitled to vote have the power to adopt, amend or repeal by-laws. A corporation may also confer, in its certificate of incorporation, that power upon the board of directors.

AMERICAN DEPOSITARY SHARES

The description below reflects certain terms of the Deposit Agreement, and summarizes the material rights of holders of our ADSs.

General

Each ADS represents the right to receive, and to exercise the beneficial interests in one ordinary share that are on deposit with the depositary and/or Custodian. An ADS also represents the right to receive, and to exercise the beneficial interests in, any other property received by the depositary bank or the Custodian on behalf of the owner of the ADS but that has not been distributed to the owners of ADSs because of legal restrictions or practical considerations. The Custodian, the depositary and their respective nominees will hold all deposited property for the benefit of the holders and beneficial owners of ADSs. The deposited property does not constitute the proprietary assets of the depositary, the Custodian or their nominees.

Beneficial ownership in the deposited property will under the terms of the deposit agreement be vested in the beneficial owners of the ADSs. The depositary, the Custodian and their respective nominees will be the record holders of the deposited property represented by the ADSs for the benefit of the holders and beneficial owners of the corresponding ADSs. A beneficial owner of ADSs may or may not be the holder of such ADSs. Beneficial owners of ADSs will be able to receive, and to exercise beneficial ownership interests, in the deposited property only through the registered holders of the ADSs, the registered holders of the ADSs (on behalf of the applicable ADS owners) only through the depositary, and the depositary (on behalf of the owners of the corresponding ADSs) directly, or indirectly, through the Custodian or their respective nominees, in each case upon the terms of the deposit agreement.

An owner of ADSs will not be treated as one of our shareholders and will not have direct shareholder rights. The depositary will hold on such owner's behalf the shareholder rights attached to the ordinary shares underlying such owner's ADSs. Accordingly, an owner of ADSs will be able to exercise the shareholder's rights for the ordinary shares represented by such owner's ADSs through the depositary only to the extent contemplated in the deposit agreement. To exercise any shareholder rights not contemplated in the deposit agreement, an ADS owner will need to arrange for the cancellation of such owner's ADSs and become a direct shareholder.

This summary description assumes ADSs are owned directly by means of an ADS registered in the owner's name and, as such, such owner is referred to as the "holder." ADSs may also be held by means of an ADR registered in an owner's name, through a brokerage or safekeeping account, or through an account established by the depositary in such owner's name reflecting the registration of uncertificated ADSs directly on the books of the depositary, commonly referred to as the direct registration system, or DRS.

Dividends and Distributions

A holder of ADSs generally has the right to receive the distributions we make on the securities deposited with the Custodian. A holder's receipt of these distributions may be limited, however, by practical considerations and legal limitations. Holders of ADSs will receive such distributions under the terms of the deposit agreement in proportion to the number of ADSs held as of a specified record date, after deduction of the applicable fees, taxes and expenses.

Distributions of Cash

Whenever we make a cash distribution for the securities on deposit with the Custodian, we will deposit the funds with the Custodian. Upon receipt of confirmation of the deposit of the requisite funds, the depositary will arrange for the funds to be converted into U.S. dollars and for the distribution of the U.S. dollars to the holders, subject to French laws and regulations.

The conversion into U.S. dollars will take place only if practicable and if the U.S. dollars are transferable to the United States. The depositary will apply the same method for distributing the proceeds of the sale of any property (such as undistributed rights) held by the Custodian in respect of securities on deposit.

The distribution of cash will be made net of the fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. The depositary will hold any cash amounts it is unable to distribute in a non-interest bearing account for the benefit of the applicable holders and beneficial owners of ADSs until the distribution can be effected or the funds that the depositary holds must be escheated as unclaimed property in accordance with the laws of the relevant states of the United States.

Distributions of Shares

Whenever we make a free distribution of ordinary shares for the securities on deposit with the Custodian, we will deposit the applicable number of ordinary shares with the Custodian. Upon receipt of confirmation of such deposit, the depositary will either distribute to holders new ADSs representing the ordinary shares deposited or modify the ADS-to-ordinary share ratio, in which case each ADS a holder holds will represent rights and interests in the additional ordinary shares so deposited. Only whole new ADSs will be distributed; fractional entitlements will be sold and the proceeds of such sale will be distributed as in the case of a cash distribution.

The distribution of new ADSs or the modification of the ADS-to-ordinary share ratio upon a distribution of ordinary shares will be made net of the fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. In order to pay such taxes or governmental charges, the depositary may sell all or a portion of the new ordinary shares so distributed.

No such distribution of new ADSs will be made if it would violate a law (e.g., the U.S. securities laws) or if it is not operationally practicable. If the depositary does not distribute new ADSs as described above, it may sell the ordinary shares received upon the terms described in the deposit agreement and will distribute the proceeds of the sale as in the case of a distribution of cash.

Distributions of Rights

Whenever we intend to distribute rights to purchase additional ordinary shares, we will give prior notice to the depositary and we will assist the depositary in determining whether it is lawful and practicable to distribute rights to purchase additional ADSs to holders.

The depositary will establish procedures to distribute rights to purchase additional ADSs to holders and to enable such holders to exercise such rights if it is lawful and practicable to make the rights available to holders of ADSs, and if we provide all of the documentation contemplated in the deposit agreement (such as opinions to address the lawfulness of the transaction). A holder may have to pay fees, expenses, taxes and other governmental charges to subscribe for the new ADSs upon the exercise of such holder's rights. The depositary is not obligated to establish procedures to facilitate the distribution and exercise by holders of rights to purchase new ordinary shares other than in the form of ADSs.

The depositary will not distribute the rights to a holder if:

- we do not timely request that the rights be distributed to holders or we request that the rights not be distributed to holders; or
- · we fail to deliver satisfactory documents to the depositary; or
- it is not practicable to distribute the rights.

The depositary will sell the rights that are not exercised or not distributed if such sale is lawful and practicable. The proceeds of such sale will be distributed to holders as in the case of a cash distribution. If the depositary is unable to sell the rights, it will allow the rights to lapse.

Elective Distributions

Whenever we intend to distribute a dividend payable at the election of shareholders either in cash or in additional shares, we will give prior notice thereof to the depositary and will indicate whether we wish the elective distribution to be made available to holders. In such case, we will assist the depositary in determining whether such distribution is lawful and practicable.

The depositary will make the election available to holders only if it is practicable and if we have provided all of the documentation contemplated in the deposit agreement. In such case, the depositary will establish procedures to enable holders to elect to receive either cash or additional ADSs, in each case as described in the deposit agreement.

If the election is not made available to holders, such holders will receive either cash or additional ADSs, depending on what a shareholder in France would receive upon failing to make an election, as more fully described in the deposit agreement.

Other Distributions

Whenever we intend to distribute property other than cash, ordinary shares or rights to purchase additional ordinary shares, we will notify the depositary in advance and will indicate whether we wish such distribution to be made to holders. If so, we will assist the depositary in determining whether such distribution to holders is lawful and practicable.

If it is practicable to distribute such property to holders and if we provide all of the documentation contemplated in the deposit agreement, the depositary will distribute the property to the holders in a manner it deems practicable.

The distribution will be made net of fees, expenses, taxes and governmental charges payable by holders under the terms of the deposit agreement. In order to pay such taxes and governmental charges, the depositary bank may sell all or a portion of the property received.

The depositary will not distribute the property to holders and will sell the property if:

- · we do not request that the property be distributed to holders or if we ask that the property not be distributed to holders; or
- we do not deliver satisfactory documents to the depositary bank; or
- the depositary determines that all or a portion of the distribution to holders is not practicable.

The proceeds of such a sale will be distributed to holders as in the case of a cash distribution.

Redemption

Whenever we decide to redeem any of the securities on deposit with the Custodian, we will notify the depositary in advance. If it is practicable and if we provide all of the documentation contemplated in the deposit agreement, the depositary will provide notice of the redemption to the holders.

The Custodian will be instructed to surrender the shares being redeemed against payment of the applicable redemption price. The depositary will convert the redemption funds received into U.S. dollars upon the terms of the deposit agreement and will establish procedures to enable holders to receive the net proceeds from the redemption upon surrender of their ADSs to the depositary. Holders may have to pay fees, expenses, taxes and other governmental charges upon the redemption of their ADSs. If less than all ADSs are being redeemed, the ADSs to be retired will be selected by lot or on a pro rata basis, as the depositary may determine.

Changes Affecting Ordinary Shares

The ordinary shares held on deposit for a holder's ADSs may change from time to time. For example, there may be a change in nominal or par value, a split-up, cancellation, consolidation or reclassification of such ordinary shares or a recapitalization, reorganization, merger, consolidation or sale of assets.

If any such change were to occur, such holder's ADSs would, to the extent permitted by law, represent the right to receive the property received or exchanged in respect of the ordinary shares held on deposit. The depositary may in such circumstances deliver new ADSs to such holder, amend the deposit agreement, the ADRs and the applicable registration statement(s) on Form F-6, call for the exchange of such holder's existing ADRs for new ADRs and take any other actions that are appropriate to reflect as to the ADSs the change affecting the ordinary shares held in deposit for such holder's ADSs. If the depositary bank may not lawfully distribute such property to such holder, the depositary may sell such property and distribute the net proceeds to such holder as in the case of a cash distribution.

Issuance of ADSs upon Deposit of Ordinary Shares

The depositary may create ADSs on a holder's behalf if such holder or such holder's broker deposits ordinary shares with the Custodian. The depositary will deliver these ADSs to the person such holder indicates only after such holder pays any applicable issuance fees and any charges and taxes payable for the transfer of the ordinary shares to the Custodian. A holder's ability to deposit ordinary shares and receive ADSs may be limited by U.S. and French legal considerations applicable at the time of deposit.

The issuance of ADSs may be delayed until the depositary or the Custodian receives confirmation that all required approvals have been given and that the ordinary shares have been duly transferred to the Custodian.

The depositary will only issue ADSs in whole numbers.

When a holder makes a deposit of ordinary shares, such holder will be responsible for transferring good and valid title to the depositary. Accordingly, such holder will be deemed to represent and warrant that:

- The ordinary shares are duly authorized, validly issued, fully paid, non-assessable and legally obtained.
- · All preemptive (and similar) rights, if any, with respect to such ordinary shares have been validly waived or exercised.
- Such holder is duly authorized to deposit the ordinary shares.
- The ordinary shares presented for deposit are free and clear of any lien, encumbrance, security interest, charge, mortgage or adverse claim, and are not, and the ADSs issuable upon such deposit will not be, "restricted securities" (as defined in the deposit agreement).
- The ordinary shares presented for deposit have not been stripped of any rights or entitlements.

If any of the representations or warranties are incorrect in any way, we and the depositary may, at such holder's cost and expense, take any and all actions necessary to correct the consequences of the misrepresentations.

Transfer, Combination and Split Up of ADRs

An ADR holder will be entitled to transfer, combine or split up such holder's ADRs and the ADSs evidenced thereby. For transfers of ADRs, a holder will have to surrender the ADRs to be transferred to the depositary and also must:

- ensure that the surrendered ADR is properly endorsed or otherwise in proper form for transfer;
- provide such proof of identity and genuineness of signatures as the depositary deems appropriate;
- · provide any transfer stamps required by the State of New York or the United States; and
- pay all applicable fees, charges, expenses, taxes and other government charges payable by ADR holders pursuant to the terms of the deposit agreement, upon the transfer of ADRs.

To have ADRs either combined or split up, a holder must surrender the ADRs in question to the depositary with such holder's request to have them combined or split up, and such holder must pay all applicable fees, charges and expenses payable by ADR holders, pursuant to the terms of the deposit agreement, upon a combination or split up of ADRs.

Withdrawal of Ordinary Shares Upon Cancellation of ADSs

A holder will be entitled to present such holder's ADSs to the depositary for cancellation and then receive the corresponding number of underlying ordinary shares at the Custodian's offices. A holder's ability to withdraw the ordinary shares held in respect of the ADSs may be limited by U.S. and French legal considerations applicable at the time of withdrawal. In order to withdraw the ordinary shares represented by a holder's ADSs, such holder will be required to pay to the depositary the fees for cancellation of ADSs and any charges and taxes payable upon the transfer of the ordinary shares being withdrawn. Holders assume the risk for delivery of all funds and securities upon withdrawal. Once canceled, the ADSs will not have any rights under the deposit agreement.

If a holder holds ADSs registered in such holder's name, the depositary may ask such holder to provide proof of identity and genuineness of any signature and such other documents as the depositary may deem appropriate before it will cancel such holder's ADSs. The withdrawal of the ordinary shares represented by a holder's ADSs may be delayed until the depositary receives satisfactory evidence of compliance with all applicable laws and regulations. The depositary will only accept ADSs for cancellation that represent a whole number of securities on deposit.

A holder will have the right to withdraw the securities represented by such holder's ADSs at any time except for:

- temporary delays that may arise because (1) the transfer books for the ordinary shares or ADSs are closed, or (2) ordinary shares are immobilized on account of a shareholders' meeting or a payment of dividends;
- · obligations to pay fees, taxes and similar charges; or
- restrictions imposed because of laws or regulations applicable to ADSs or the withdrawal of securities on deposit.

The deposit agreement may not be modified to impair a holder's right to withdraw the securities represented by such holder's ADSs except to comply with mandatory provisions of law.

Voting Rights

A holder generally has the right under the deposit agreement to instruct the depositary to exercise the voting rights for the ordinary shares represented by such holder's ADSs.

At our request, the depositary will distribute to holders any notice of shareholders' meeting received from us together with information explaining how to instruct the depositary to exercise the voting rights of the securities represented by ADSs.

If the depositary timely receives voting instructions from a holder of ADSs, it will endeavor to vote the securities (in person or by proxy) represented by the holder's ADSs in accordance with such voting instructions.

The ability of the depositary to carry out voting instructions may be limited by practical and legal limitations and the terms of the securities on deposit.

If the depositary receives voting instructions from a holder of ADSs that fail to specify the manner in which the depositary is to vote, the depositary will deem such holder (unless otherwise specified in the notice distributed to holders) to have instructed the depositary to vote in favor of all resolutions endorsed by our board of directors. With respect to securities represented by ADSs for which no timely voting instructions are received by the depositary from the holder, the depositary will (unless otherwise specified in the notice distributed to holders) deem such holder to have instructed the depositary to give a discretionary proxy to a person designated by us to vote the securities. However, no such discretionary proxy will be given by the depositary with respect to any matter to be voted upon as to which we inform the depositary that we do not wish such proxy to be given, substantial opposition exists, or the rights of holders of securities may be materially adversely affected.

Fees and Charges

Holders will be required to pay certain fees under the terms of the depositary agreement. Holders will be notified in advance of all applicable fees by us or the depositary.

Holders will also be responsible to pay certain fees and expenses incurred by the depositary and certain taxes and governmental charges such as:

- taxes (including applicable interest and penalties) and other governmental charges;
- the registration fees as may from time to time be in effect for the registration of ordinary shares on the share register and applicable to
 transfers of ordinary shares to or from the name of the Custodian, the depositary or any nominees upon the making of deposits and
 withdrawals, respectively;
- certain cable, telex and facsimile transmission and delivery expenses;
- the expenses and charges incurred by the depositary in the conversion of foreign currency;
- the fees and expenses incurred by the depositary in connection with the compliance with exchange control regulations and other regulatory requirements applicable to ordinary shares, ADSs and ADRs; and
- the fees and expenses incurred by the depositary, the Custodian, or any nominee in connection with the servicing or delivery of deposited property.

ADS fees and charges payable upon (1) deposit of ordinary shares against issuance of ADSs and (2) surrender of ADSs for cancellation and withdrawal of ordinary shares are charged to the person to whom the ADSs are delivered (in the case of ADS issuances) and to the person who delivers the ADS, for cancellation (in the case of ADS cancellations). In the case of ADSs issued by the depositary into DTC or presented to the depositary via DTC, the ADS issuance and cancellation fees and charges may be deducted from distributions made through DTC, and may be charged to the DTC participant(s) receiving the ADSs or the DTC participant(s) surrendering the ADSs for cancellation, as the case may be, on behalf of the beneficial owner(s) and will be charged by the DTC participant(s) to the account(s) of the applicable beneficial owner(s) in accordance with the procedures and practices of the DTC participant(s) as in effect at the time. ADS fees and charges in respect of distributions and the ADS service fee are charged to the holders as of the applicable ADS record date. In the case of distributions of cash, the amount of the applicable ADS fees and charges is deducted from the funds being distributed. In the case of (1) distributions other than cash and (2) the ADS service fee, holders as of the ADS record date will be invoiced for the amount of the ADS fees and charges and such ADS fees and charges may be deducted from distributions made to holders of ADSs. For ADSs held through DTC, the ADS fees and charges for distributions other than cash and the ADS service fee may be deducted from distributions made through DTC, and may be charged to the DTC participants in accordance with the procedures and practices prescribed by DTC and the DTC participants in turn charge the amount of such ADS fees and charges to the beneficial owners for whom they hold ADSs.

In the event of refusal to pay the depositary fees, the depositary may, under the terms of the deposit agreement, refuse the requested service until payment is received or may set off the amount of the depositary fees from any distribution to be made to the holder.

The depositary may reimburse us for certain expenses incurred by us in respect of the ADR program, by making available a portion of the ADS fees charged in respect of the ADR program or otherwise, upon such terms and conditions as we and the depositary agree from time to time.

Amendments and Termination

We may agree with the depositary to modify the deposit agreement at any time without holders' consent. We undertake to give holders 30 days' prior notice of any modifications that would materially prejudice any of their substantial rights under the deposit agreement. We will not consider to be materially prejudicial to holders' substantial rights any modifications or supplements that are reasonably necessary for the ADSs to be registered under the Securities Act or to be eligible for book-entry settlement, in each case without imposing or increasing the fees and charges holders are required to pay. In addition, we may not be able to provide holders with prior notice of any modifications or supplements that are required to accommodate compliance with applicable provisions of law.

Holders will be bound by the modifications to the deposit agreement if they continue to hold ADSs after the modifications to the deposit agreement become effective. The deposit agreement cannot be amended to prevent holders from withdrawing the ordinary shares represented by their ADSs (except as permitted by law).

We have the right to direct the depositary to terminate the deposit agreement. Similarly, the depositary may in certain circumstances on its own initiative terminate the deposit agreement. In either case, the depositary must give notice to the holders at least 30 days before termination. Until termination, holders' rights under the deposit agreement will be unaffected.

After termination, the depositary will continue to collect distributions received (but will not distribute any such property until a holder requests the cancellation of such holder's ADSs) and may sell the securities held on deposit. After the sale, the depositary will hold the proceeds from such sale and any other funds then held for the holders of ADSs in a non-interest bearing account. At that point, the depositary will have no further obligations to holders other than to account for the funds then held for the holders of ADSs still outstanding (after deduction of applicable fees, taxes and expenses).

Books of Depositary

The depositary will maintain holder records at its depositary office. A holder may inspect such records at such office during regular business hours but solely for the purpose of communicating with other holders in the interest of business matters relating to the ADSs and the deposit agreement.

The depositary will maintain in New York facilities to record and process the issuance, cancellation, combination, split-up and transfer of ADSs. These facilities may be closed from time to time, to the extent not prohibited by law.

Limitations on Obligations and Liabilities

The deposit agreement limits our obligations and the depositary's obligations to holders. Note the following:

- We and the depositary are obligated only to take the actions specifically stated in the deposit agreement without negligence or bad faith.
- The depositary disclaims any liability for any failure to carry out voting instructions, for any manner in which a vote is cast or for the effect of any vote, provided it acts in good faith and in accordance with the terms of the deposit agreement.
- The depositary disclaims any liability for any failure to determine the lawfulness or practicality of any action, for the content of any document forwarded to holders on our behalf or for the accuracy of any translation of such a document, for the investment risks associated with investing in ordinary shares, for the validity or worth of the ordinary shares, for any tax consequences that result from the ownership of ADSs, for the credit-worthiness of any third party, for allowing any rights to lapse under the terms of the deposit agreement, for the timeliness of any of our notices or for our failure to give notice.
- We and the depositary will not be obligated to perform any act that is inconsistent with the terms of the deposit agreement.
- We and the depositary disclaim any liability if we or the depositary are prevented or forbidden from or subject to any civil or criminal penalty or restraint on account of, or delayed in, doing or performing any act or thing required by the terms of the deposit agreement, by reason of any provision, present or future of any law or regulation, or by reason of present or future provision of any provision of our By-laws, or any provision of or governing the securities on deposit, or by reason of any act of God or war or other circumstances beyond our control.
- We and the depositary disclaim any liability by reason of any exercise of, or failure to exercise, any discretion provided for in the deposit agreement or in our By-laws or in any provisions of or governing the securities on deposit.
- We and the depositary further disclaim any liability for any action or inaction in reliance on the advice or information received from legal counsel, accountants, any person presenting ordinary shares for deposit, any holder of ADSs or authorized representatives thereof, or any other person believed by either of us in good faith to be competent to give such advice or information.
- We and the depositary also disclaim liability for the inability by a holder to benefit from any distribution, offering, right or other benefit that is made available to holders of ordinary shares but is not, under the terms of the deposit agreement, made available to holders.
- We and the depositary may rely without any liability upon any written notice, request or other document believed to be genuine and to have been signed or presented by the proper parties.
- We and the depositary also disclaim liability for any consequential or punitive damages for any breach of the terms of the deposit agreement.
- No disclaimer of any Securities Act liability is intended by any provision of the deposit agreement.

Pre-Release Transactions

Subject to the terms and conditions of the deposit agreement, the depositary may issue to broker/dealers ADSs before receiving a deposit of ordinary shares or release ordinary shares to broker/dealers before receiving ADSs for cancellation. These transactions are commonly referred to as "pre-release transactions," and are entered into between the depositary and the applicable broker/dealer. The deposit agreement limits the aggregate size of pre-release transactions (not to exceed 30% of the ordinary shares on deposit in the aggregate) and imposes a number of conditions on such transactions (e.g., the need to receive collateral, the type of collateral required and the representations required from brokers). The depositary may retain the compensation received from the pre-release transactions.

Taxes

A holder will be responsible for the taxes and other governmental charges payable on the ADSs and the securities represented by the ADSs. We, the depositary and the Custodian may deduct from any distribution the taxes and governmental charges payable by holders and may sell any and all property on deposit to pay the taxes and governmental charges payable by holders. A holder will be liable for any deficiency if the sale proceeds do not cover the taxes that are due.

The depositary may refuse to issue ADSs, to deliver, transfer, split and combine ADRs or to release securities on deposit until all taxes and charges are paid by the applicable holder. The depositary and the Custodian may take reasonable administrative actions to obtain tax refunds and reduced tax withholding for any distributions on holders' behalf. However, a holder may be required to provide to the depositary and to the Custodian proof of taxpayer status and residence and such other information as the depositary and the Custodian may require to fulfill legal obligations. A holder is required to indemnify us, the depositary and the Custodian for any claims with respect to taxes based on any tax benefit obtained for such holder.

Foreign Currency Conversion

The depositary will arrange for the conversion of all foreign currency received into U.S. dollars if such conversion is practical, and it will distribute the U.S. dollars in accordance with the terms of the deposit agreement. A holder may have to pay fees and expenses incurred in converting foreign currency, such as fees and expenses incurred in complying with currency exchange controls and other governmental requirements.

If the conversion of foreign currency is not practical or lawful, or if any required approvals are denied or not obtainable at a reasonable cost or within a reasonable period, the depositary may take the following actions in its discretion:

- convert the foreign currency to the extent practical and lawful and distribute the U.S. dollars to the holders for whom the conversion and distribution is lawful and practical;
- · distribute the foreign currency to holders for whom the distribution is lawful and practical; and
- hold the foreign currency (without liability for interest) for the applicable holders.

Governing Law/Waiver of Jury Trial

The deposit agreement and the ADRs will be interpreted in accordance with the laws of the State of New York. The rights of holders of ordinary shares (including ordinary shares represented by ADSs) are governed by the laws of France.

Certain information has been excluded from this agreement (indicated by "[***]") because such information (i) is not material and (ii) is the type that the registrant treats as private and confidential.



OTC Agreement Number: [***]

Case Number: [***]
Cellectis Ref.: [***]

FOURTH AMENDMENT TO EXCLUSIVE PATENT LICENSE AGREEMENT

THIS FOURTH AMENDMENT TO EXCLUSIVE PATENT LICENSE AGREEMENT (the "Fourth Amendment") is made and entered effective as of the date of the last signature (the "Third Amendment Effective Date"), by and between **Regents of the University of Minnesota** (the "University"), a Minnesota constitutional corporation under the laws of the state of Minnesota, and **Cellectis S.A**, a Corporation under the laws of the France having a place of business at 8, rue de la Croix Jarry, 75013 Paris, France (the "Licensee" or "Cellectis") each a "Party" and collectively, the "Parties").

BACKGROUND

The Parties entered into an Exclusive Patent License Agreement (the "EPLA") made effective as of January 10, 2011 as amended by a first amendment made effective as of May 24, 2012, by a second amendment made effective as of April 1, 2014 and by a third amendment made effective as of December 16, 2022 (the "Agreement"). The Parties wish to further amend the EPLA as indicated below.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

- 1. **Termination.** Section 8.1.2 of the EPLA is hereby deleted in its entirety and replaced with the following:
- 8.1.2. The University may terminate this Agreement by delivering to Cellectis a written notice of termination at least ten (10) days before the date of termination if Cellectis (i) becomes insolvent; (ii) voluntarily files or has filed against it a petition under applicable bankruptcy or insolvency laws that Cellectis fails to have released within thurty (30) days after filing; (iii) proposes any dissolution, composition, or financial reorganization with creditors or if a receiver, trustee, custodian, or similar agent is appointed, ot (iv) makes a general assignment for the benfit of creditors.
- 2. Except as provided in this Fourth Amendment, the terms of the Agreement remain unchanged. Capitalized terms used in this Fourth Amendment that are not otherwise defined herein have the meanings ascribed to them in the Agreement.

Certain information has been excluded from this agreement (indicated by "[***]") because such information (i) is not material and (ii) is the type that the registrant treats as private and confidential.

OTC Agreement Number: [***]
Case Number: [***]

Case Number: [***]
Cellectis Ref.: [***]

3. The Agreement, as amended by this Fourth Amendment, constitutes the entire agreement between the Parties with repect to the subject matter hereof.

4. For convenience, this Fourth Amendment may be signed electronically and/or electronically transmitted in Portable Document Format (PDF), in one or more copies, each of which shall be deemed to be an original and all of which shall constitute one and the same instrument. The Parties acknowledge that the exchange of the Fourth Amendment signed electronically or signed manually by one or both Parties but transmitted in PDF format shall have the same legal value and probative force as the exchange of original signatures, and that in the event of any dispute, controversy or claim arising from the Agreement, each of the Parties hereby waives the right to invoke any defense and/or claim for exemption based on the signature and/or transmission of an original of the Fourth Amendment in electronic form.

IN WITNESS WHEREOF, acting through their respective duly authorized representatives, the University and Cellectis have duly executed, delivered and entered into this Fourth Amendment as of the Fourth Amendment Effective Date.

Regents of the University of Minnesota		Cellectis S.A.		
By:	/s/	By:	/s/	
	[INSERT] [INSERT]		[INSERT] [INSERT]	
Date:	[INSERT]	Date:	[INSERT]	

FORM OF

[FIRST AMENDMENT TO THE] CHANGE IN CONTROL AGREEMENT

[This First Amendment to the Change in Control Agreement (the "Amendment")] / [This Change in Control Agreement (the "Agreement")] is made as of _____, 2022, by and between [EXECUTIVE NAME] (the "Executive") and [INSERT] (the "Company").

RECITALS

- A. [The Company and Executive are parties to that certain Change in Control Agreement dated [•••] (the "Agreement"). desire to enter into this Agreement effective as of [INSERT], 2022.]
- B. In compliance with the decision of the board of directors of Cellectis S.A., dated September 15, 2022, the parties agree to [amend and restate in its entirety the Agreement with] the following:
- 1. <u>Benefits Upon an Involuntary Termination Following a Change in Control</u>. If a Change in Control (as defined in Section 4(e) below) occurs during the term of this Agreement, and an Involuntary Termination of Executive's employment occurs on or after the date of such Change in Control but before the date that is twenty-four (24) months following such Change in Control (the "Change in Control Protection Period"), then:
- (a) <u>Compensation.</u> On the sixtieth (60th) day following the Termination Date (as defined in Section 4(d) below), the Company shall pay Executive a lump sum payment equal to the Compensation.
- (b) <u>Medical Insurance</u>. If the Executive is eligible for, and timely elects to continue receiving group medical and/or dental insurance under the continuation coverage rules known as COBRA (or similar), the Company will continue to pay the share of the premium for such coverage that it pays for active and similarly-situated employees who receive the same type of coverage (single, family, or other) until the earlier of (i) the end of the 12th month after the Termination Date, or (ii) the date the covered individual's COBRA continuation coverage expires, unless, as a result of a change in legal requirements, the Company's provision of payments for COBRA will violate the nondiscriminitration requirements of applicable laws, in which case this benefit will not apply.
- 2. <u>Equity Treatment Upon a Change in Control</u>. Subject to any contrary provisions set forth in the Company's Stock Options Plans and Free Shares Plans, and to the extent permitted by, the applicable shareholders' authorization, equity plan, and award letters:
- (a) the right for the Executive to exercise any outstanding options to purchase ordinary shares of the Company will be accelerated so that the Executive may exercise all, or any portion, of them with effect immediately prior to the completion of the Change in Control (i.e., on the date of the Change in Control) until such date as set forth in the applicable Plan or award letter; and;
- (b) the vesting of the free shares of the Company held by the Executive will be accelerated so that the Executive will receive the full benefit of all of the shares underlying any unvested free shares with effect upon the later of (a) immediately prior to the Change in Control (i.e., on the date of the Change in Control) and (b) the second anniversary of the grant date of the relevant free shares (in accordance with mandatory French law).
- 3. <u>Limitations</u>. No Change in Control benefits as described in Sections 1 and 2 of this Agreement will apply if the Change in Control or Involuntary Termination, as applicable, occurs after the Executive has (i) given notice of Voluntary Resignation or (ii) been given notice of termination for Cause by the Company, unless that notice of termination for Cause is subsequently withdrawn (in writing) by the Company and Executive's employment does not terminate as a result of such notice of termination for Cause.

- 4. <u>Definition of Terms</u>. The following terms referred to in this Agreement shall have the following meanings:
- (a) Cause. "Cause" shall mean gross misconduct (faute lourde) within the meaning of French labour law.
- (b) Compensation. "Compensation" shall mean:
 - (i) 24 months of the Executive's gross fixed salary in effect on the month preceding the Termination Date, and
- (ii) the amount corresponding to [1.5][2]¹ times the annual performance bonus which the Executive is entitled for the calendar year of the Termination Date
- (c) <u>Involuntary Termination</u>. "Involuntary Termination" shall mean:
 - (i) a material reduction of the Executive's duties, responsibilities or cash compensation;
- (ii) a relocation of the principal place of employment of the Executive to a place that increases his/her one-way commute by more than 50 miles as compared to his/her inital place of employment; or
 - (iii) any termination of the Executive's employment by or at the request of the Company other than for Cause;

subject to the following: (A) None of the foregoing actions shall constitute Involuntary Termination if the Executive has agreed thereto. (B) With respect to an event described in Section 4(c)(i) or (ii), the foregoing actions shall constitute Involuntary Termination only if and to the extent that (x) within 90 days of the occurrence of the events giving rise to an Involuntary Termination, the Executive provides written notice to the Company setting forth in reasonable detail such facts which Executive believes constitute Involuntary Termination, (y) any circumstances constituting Involuntary Termination remain uncured for a period of thirty (30) days following the Company's receipt of such written notice, and (z) the Termination Date occurs within one hundred and eighty (180) days following the initial existence of the event giving rise to an Involuntary Termination.

- (d) <u>Termination Date</u>. "Termination Date" shall mean the last day of any notice period required due to Section 4(c) above, although the Company may pay to the Executive the compensation Executive would have otherwise received during such period in lieu of such notice, in which case the earlier date at which the Company waives notice and pays the Executive in lieu of such notice shall be the Termination Date. All payments under this Agreement will be calculated as of the applicable Termination Date unless otherwise agreed to in writing by the Company.
- (e) <u>Change in Control</u>. "Change in Control" shall mean a change in control of Cellectis S.A. and have the meaning as defined in article L. 233-3 of the French Commercial Code.
- (f) <u>Voluntary Resignation</u>. "Voluntary Resignation" shall mean Executive's termination of Executive's employment at any time, for any reason, by the Executive, other than by reason of Involuntary Termination.

Included only in the version for André Choulika.

5. Successors.

- (a) <u>Company's Successors</u>. The Company shall require a successor to the Company (whether direct or indirect and whether by purchase, lease, merger, consolidation, liquidation or otherwise) or to all or substantially all of the Company's business and/or assets (each a "Successor Company") to assume the Company's obligations under this Agreement and agree expressly to perform such obligations in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any Successor Company which executes and delivers the assumption agreement described in this subsection (a) or which becomes bound by the terms of this Agreement by operation of law.
- (b) <u>Executive's Successors</u>. The terms of this Agreement and all rights of the Executive hereunder shall inure to the benefit of, and be enforceable by, the Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

6. Notice.

- (a) <u>General</u>. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered or when mailed by Federal Express or a comparable air courier company. In the case of the Executive, notices sent by courier shall be addressed to him or her at the home address that Executive most recently communicated to the Company in writing. In the case of the Company, notices sent by courier shall be addressed to: Cellectis, Inc., c/o Cellectis S.A., 8, rue de la Croix Jarry, 75013 Paris, France, Attn: Marie-Bleuenn Terrier, General Counsel of Cellectis S.A., or as otherwise notified to Executive from time to time.
- (b) <u>Notice of Termination</u>. Any termination by (i) the Company or (ii) the Executive as a result of any Involuntary Termination, shall in each case be communicated by a notice of termination to the other party hereto given in accordance with Section 6(a) of this Agreement. If given by the Company, such notice shall indicate whether or not the termination is "for Cause." Such notice shall indicate, if applicable, the specific provision(s) in this Agreement relied upon, shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination under the provision(s) so indicated, and shall specify the Termination Date.
- 7. Excise Tax on Payments. Notwithstanding anything to the contrary contained herein, in the event that any payment by the Company to or for the benefit of the Executive, whether paid or payable, would be subject to the excise tax imposed by Section 4999 of the Code or any comparable federal, state, or local excise tax (such excise tax, together with any interest and penalties, are hereinafter collectively referred to as the "Excise Tax"), then the Executive shall receive either the full severance amount or a lesser amount that does not trigger an excise tax, whichever produces a greater after-tax benefit to the Executive, as determined by the Company.

8. Miscellaneous Provisions.

- (a) No Duty to Mitigate. The Executive shall not be required to mitigate the amount of any payment contemplated by this Agreement, nor shall any such payment be reduced by any earnings that the Executive may receive from any other source.
- (b) <u>Waiver</u>. No provisions of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by the Executive and by an authorized officer of the Company (other than the Executive). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

- (c) Whole Agreement; Amendment. This Agreement and the documents expressly referred to herein represent the entire agreement of the parties with respect to the matters set forth herein. This Agreement may not be altered, modified, or amended except by written instrument signed by the parties hereto. Any benefit amounts referenced as payable to the Executive pursuant to this Agreement are the sole and exclusive amounts payable to the Executive for the category of benefit addressed by such amounts; *provided*, however, that this Agreement shall not limit any right of Executive to receive any payments or benefits under an employee benefit or employee compensation plan of the Company, initially adopted prior to or after the date hereof, which are expressly contingent thereunder upon the occurrence of a Change in Control (including, but not limited to, the acceleration of any rights or benefits thereunder). Notwithstanding the foregoing, in no event shall Executive be entitled to any payment or benefit under this Agreement which duplicates a payment or benefit received or receivable by Executive under any severance or similar plan or policy of Company, and in any such case Executive shall only be entitled to receive the greater of the two payments.
- (d) <u>Choice of Law</u>. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the state of Delaware, without regard to conflicts of law provisions thereof.
- (e) <u>Severability</u>. If any provision of this Agreement is determined to be invalid or unenforceable, the Agreement shall remain in full force and effect as to the remaining provisions, and the parties shall replace the invalid or unenforceable provision with one which reflects the parties' original intent in agreeing to the invalid/unenforceable one.
- (f) No Assignment of Benefits. Except as otherwise provided herein, the rights of any person to payments or benefits under this Agreement shall not be made subject to option or assignment, either by voluntary or involuntary assignment or by operation of law, including (without limitation) bankruptcy, garnishment, attachment or other creditor's process, and any action in violation of this subsection shall be void.
- (g) <u>Withholding Taxes</u>. The Company may withhold from any amounts payable under this Agreement such Federal, state and local taxes as may be required to be withheld pursuant to any applicable law or regulation.
- (h) Section 409A of the Code. Notwithstanding anything herein to the contrary, if at the time of the Executive's termination of employment with the Company, the Company has determined that the Executive is a "specified employee" as defined in Section 409A of the Code and any severance payments and benefits to Executive are considered a "deferral of compensation" under Section 409A of the Code (the "Deferred Payments"), such Deferred Payments that are otherwise payable within the first six months following the Termination Date will become payable on the first business day of the seventh month following the Executive's Termination Date, or if earlier the date of the Executive's death. In the event that payments under this Agreement are deferred pursuant to this Section 8(h), then such payments shall be paid at the time specified in this Section 8(h) without interest. The Company shall consult with the Executive in good faith regarding the implementation of the provisions of this Section 8(h), provided, that neither the Company nor any of its employees or representatives shall have any liability to the Executive with respect thereto. Any amount under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes of this Agreement. Any amounts scheduled for payment hereunder when they are ordinarily paid out or when they are made to other executive officers, will nonetheless be paid to Executive on or before March 15th of the year following the year when the payment is no longer subject to a substantial risk of forfeiture. For purposes of Section 409A of the Code, the right to a series of installment payments under this Agreement shall be treated as a right to a series of separate payments, and references herein to the Executive's termination of employment shall refer to Executive's "separation of services" with the Company within the meaning of Section 409A of the Code. Notwithstandi

"deferral of compensation" within the meaning of Section 409A of the Code: (x) the amount of expenses eligible for reimbursement or in-kind benefits provided to the Executive during any calendar year will not affect the amount of expenses eligible for reimbursement or in-kind benefits provided to the Executive in any other calendar year, (y) the reimbursements for expenses for which the Executive is entitled to be reimbursed shall be made on or before the last day of the calendar year following the calendar year in which the applicable expense is incurred, and (z) the right to payment or reimbursement or in-kind benefits hereunder may not be liquidated or exchanged for any other benefit.

- (i) <u>Counterparts</u>. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.
- (j) <u>Term</u>. This Agreement shall expire on the earlier to occur of (i) December 31, 2025, unless prior to such date, the Company enters an agreement that, upon performance in accordance with its terms would give rise to a Change in Control, in which case this Agreement shall remain in effect in connection with such Change in Control, and (ii) a change in control of Cellectis Inc. within the meaning as defined in article L. 233-3 of the French Commercial Code that is not a Change in Control under this Agreement.
- (k) <u>Company Release</u>. As a condition to the Company's obligations pursuant to this Agreement, the Executive agrees to execute a release of claims against the Company and its affiliates (including, without limitation, Cellectis S.A.) in the form designated by the Company (the "Release") by the fifty-third (53rd) day following the Executive's Termination Date. If the Company has not received an irrevocable Release by the sixtieth (60th) day following the Termination Date, the Company shall be under no obligation to make payments or provide benefits under this Agreement. In the event one or more of the provisions of the Release should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of the Release, and the Release shall be construed as if such invalid, illegal or unenforceable provision had never been contained therein.
- (l) Whistleblower Laws and Governmental Investigations. Nothing in this Agreement prevents the Executive from providing, without prior notice to the Company, information to governmental authorities regarding possible legal violations or otherwise testifying or participating in any investigation or proceeding by any governmental authorities regarding possible legal violations.

IN WITNESS WHEREOF, the parties have executed this Agreement.

[INSERT]	
By:	
	André Choulika
	Chief Executive Officer
By:	
	[Name of Executive]
DATED:	, 20

Certain information has been excluded from this agreement (indicated by "[***]") because such information (i) is not material and (ii) is the type that the registrant treats as private and confidential.

EIB Internal Classification Corporate Use

[***

CELLECTIS (IEU TI)

Finance Contract

between the

European Investment Bank

and

CELLECTIS

28 December 2022

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THIS CONTRACT IS MADE ON 28 DECEMBER 2022 BETWEEN:

The European Investment Bank having its seat at 100 blvd Konrad Adenauer, (the "**Bank**") Luxembourg, L-2950 Luxembourg, duly represented for the purposes hereof

and

CELLECTIS, a public limited liability company (*société anonyme*) (the "**Borrower**") incorporated in France under number 428 859 052 RCS Paris, having its registered office at 8 rue de la Croix Jarry, 75013, Paris, France, duly represented for the purposes hereof

The Bank and the Borrower together are referred to as the "Parties" and any of them is a "Party".

WHEREAS:

- (A) The Borrower has stated that it is undertaking a research and development project relating to allogeneic CAR T therapies for oncology indications in France as more particularly described in the technical description (the "**Technical Description**") set out in Schedule A (*Investment Specification and Reporting*) (the "**Investment**"). The total cost of the Investment, as estimated by the Bank, is [***].
- (B) The Bank, considering that the financing of the Investment falls within the scope of its functions, agreed to provide the Borrower with a credit in an amount of EUR 40,000,000.00 (forty million euro) under this Finance Contract (the "Contract") to finance the Investment; provided that the amount of the loan hereunder and any loan provided by another implementing partner under the InvestEU Fund (as defined below) shall not, in any case, together exceed 50% (fifty per cent.) of the cost of the Investment.
- (C) This operation benefits from support from the European Union under the InvestEU Fund.
- (D) The statute of the Bank provides that the Bank shall ensure that its funds are used as rationally as possible in the interests of the European Union; and, accordingly, the terms and conditions of the Bank's loan operations must be consistent with relevant policies of the European Union.
- (E) The Bank considers that access to information plays an essential role in the reduction of environmental and social risks, including human rights violations, linked to the projects it finances and has therefore established its transparency policy, the purpose of which is to enhance the accountability of the Bank's group towards its stakeholders and the citizens of the European Union in general.
- (F) The processing of personal data shall be carried out by the Bank in accordance with applicable European Union legislation on the protection of individuals with regard to the processing of personal data by the European Union institutions and bodies and on the free movement of such data.
- (G) The Bank supports the implementation of international and European Union standards in the field of anti-money laundering and countering the financing of terrorism and promotes tax good governance-standards. It has-established policies and procedures to avoid the risk of misuse of its funds for purposes which are illegal or abusive in relation to applicable laws. The Bank's group statement on tax fraud, tax evasion, tax avoidance, aggressive tax planning, money laundering and financing of terrorism is available on the Bank's website and offers further guidance to the Bank's contracting counterparties.
- (H) Under current law, the Bank is exempt from withholding under FATCA pursuant to the Intergovernmental Agreement entered into between Luxembourg and the United States signed on 28 March 2014, ratified in Luxembourg on 25 July 2015 and in full force and effect from 29 July 2015, implementing the Foreign Account Tax Compliance provisions of the U.S. Hiring Incentives to Restore Employment Act of 2010.

ARTICLE 1

Interpretation and definitions

1.1 Interpretation

In this Contract:

- (a) references to Articles, Recitals, Schedules and (Sub-)Paragraphs are, save if explicitly stipulated otherwise, references respectively to articles of, and recitals, schedules and (sub-)paragraphs of schedules to, this Contract. All Recitals and Schedules form part of this Contract:
- (b) references to "law" or "laws" mean (a) any applicable law and any applicable treaty, constitution, statute, legislation, decree, normative act, rule, regulation, judgement, order, writ, injunction, determination, award or other legislative or administrative measure or judicial or arbitral decision in any jurisdiction which is binding or applicable case law, and (b) EU Law;
- (c) references to applicable law, applicable laws or applicable jurisdiction means (a) a law or jurisdiction applicable to the Borrower and/or any other Obligor (as the context requires), its rights and/or obligations (in each case arising out of or in connection with the Finance Documents), its capacity and/or assets and/or the Investment; and/or, as applicable, (b) a law or jurisdiction (including in each case the Bank's Statute) applicable to the Bank, its rights, obligations, capacity and/or assets;
- (d) references to a provision of law are references to that provision as amended or re-enacted;
- (e) references to any Finance Document or other agreement or instrument are references to that Finance Document or other agreement or instrument as amended, novated, supplemented, extended or restated;
- (f) words and expressions in plural shall include singular and vice versa;
- (g) a Default (other than an Event of Default) is "continuing" if it has not been remedied or waived and an Event of Default is "continuing" if it has not been waived; and
- (h) terms defined in the GDPR (as defined below), including the terms "data subject", "personal data" and "processing", have the same meanings when used in Paragraph 25 (*Data Protection*) of Schedule H (*General Undertakings*) of this Contract.
- (i) references to "month" mean a period starting on one day in a calendar month and ending on the numerically corresponding day in the next calendar month, except that and subject to Article 6.1 (*Day count convention*) and Schedule B (*Definition of EURIBOR*) and unless provided otherwise in this Contract:
 - (i) if the numerically corresponding day is not a Business Day, that period shall end on the next Business Day in that calendar month in which that period is to end if there is one, or if there is not, on the immediately preceding Business Day; and
 - (ii) if there is no numerically corresponding day in the calendar month in which that period is to end, that period shall end on the last Business Day in that calendar month.

Definitions

In this Contract:

"4th and 5th AML Directives" means Directive 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing (the "4th AML Directive"), as amended by Directive 2018/843 of the European Parliament and of the Council of 19 June 2018, and as further amended, supplemented or restated.

- "Accepted Tranche" means a Tranche in respect of a Disbursement Offer which has been duly accepted by the Borrower in accordance with its terms on or before the Disbursement Acceptance Deadline
- "acting in concert" means acting together pursuant to an agreement or understanding (whether formal or informal).

[***

- "AML Criminal Law Directive" means Directive (EU) 2018/1673 of the European Parliament and of the Council of 23 October 2018 on combating money laundering by criminal law, as amended, supplemented or restated.
- "AML Directives" means the 4th and the 5th AML Directives and the AML Criminal Law Directive.
- "Authorisation" means an authorisation, permit, consent, approval, resolution, licence, exemption, filing, notarisation or registration.
- "Authorised Signatory" means a person authorised to sign individually or jointly (as the case may be) Disbursement Acceptances on behalf of the Borrower and named in the most recent List of Authorised Signatories and Accounts received by the Bank prior to the receipt of the relevant Disbursement Acceptance.
- "Business Day" means a day (other than a Saturday or Sunday) on which the Bank and commercial banks are open for general business in Luxembourg and in Paris.
- "Cancellation Fee" means, in relation to the cancellation of an Accepted Tranche by the Borrower, under sub-paragraph (a) of Article 2.7 (*Fee for cancellation of an Accepted Tranche*), or in relation to an amount cancelled by the Bank under sub-paragraphs (b) or (c) of Article 2.7 (*Fee for cancellation of an Accepted Tranche*), a fee of [***] of the cancelled amount.
- "Cash Injection" means bona fide investments in the Borrower that occurs in the form of subscription of new shares or other securities, including convertible bonds fully subordinated to the Credit.
- "Cellectis, Inc." means Cellectis, Inc., a corporation organized and existing under the laws of the state of Delaware and having a principal place of business at 430 East 29th Street, New York, NY 10016, United States of America, which is at the date of this Contract fully owned by the Borrower.
- "Cellectis Biologics, Inc." means Cellectis Biologics, Inc., a corporation organized and existing under the laws of the state of Delaware and having a principal place of business at 2500-2540 Sumner Blvd., Raleigh, NC 27616, United States of America, which is at the Effective Date fully owned by Cellectis, Inc.
- "Change in the Beneficial Ownership" means a change in the ultimate ownership or control of an entity according to the definition of "beneficial owner" set out in article 3(6) of the 4th AML Directive it being specified that, for the purposes of this Contract the threshold of beneficial ownership is set at 10% (ten per cent.).

"Change-of-Control Event" means:

- (a) any person or group of persons acting in concert (other than the Key Shareholders) gains Control of the Borrower or of any entity directly or ultimately Controlling the Borrower; or
- (b) any person or group of persons acting in concert (other than the Key Shareholders) directly or indirectly through wholly owned subsidiaries owns more than 33% (thirty-three per cent.) of the issued share capital of the Borrower; or
- (c) the Borrower is delisted from both Euronext Paris and Nasdaq.
- "Change-of-Law Event" means the enactment, promulgation, execution or ratification of or any change in or amendment to any law, rule or regulation (or in the application or official interpretation of any law, rule or regulation) that occurs after the date of this Contract and which, in the opinion of the Bank, would materially impair an Obligor's ability to perform its obligations under the Finance Documents.

- "Compliance Certificate" means a certificate substantially in the form set out in Schedule E (Form of Compliance Certificate).
- "Contract Number" means the Bank generated number identifying this Contract and indicated on the cover page of this Contract after the letters "FI No"
- "Control" means the power to direct the management and policies of an entity, whether through the ownership of voting capital, by contract or otherwise and, for the avoidance of doubt, owning more than 50% (fifty per cent.) of the shares of an entity would constitute Control, and "Controlling" has corresponding meaning.
- "Credit" has the meaning given to it in Article 2.1 (Amount of Credit).
- "Declaration of Honour" means the "Declaration of Honour under InvestEU operations" signed by the Borrower on 13 December 2022.
- "Default" means an Event of Default or any event or circumstance specified in Article 9 (*Events of Default*) which would (with the expiry of a grace period, the giving of notice, the making of any determination under this Contract or any combination of any of the foregoing) be an Event of Default.
- "Disbursement Acceptance" means a copy of the Disbursement Offer duly countersigned by the Borrower in accordance with the List of Authorised Signatories and Accounts.
- "Disbursement Acceptance Deadline" means the date and time of expiry of a Disbursement Offer as specified therein.
- "Disbursement Account" means, in respect of each Tranche, the bank account to which disbursements may be made under this Contract, as set out in the most recent List of Authorised Signatories and Accounts.
- "Disbursement Date" means the date on which disbursement of a Tranche is made by the Bank.
- "Disbursement Offer" means a letter substantially in the form set out in Schedule C (Form of Disbursement Offer/Acceptance).
- "Dispute" has the meaning given to it in Article 10.2 (Jurisdiction).
- "Disruption Event" means either or both of:
- (a) a material disruption to those payment or communications systems or to those financial markets which are, in each case, required to operate in order for payments to be made in connection with this Contract; or
- (b) the occurrence of any other event which results in a disruption (of a technical or systems-related nature) to the treasury or payments operations of either the Bank or the Borrower, preventing that Party from:
 - (i) performing its payment obligations under this Contract; or
 - (ii) communicating with other Party in accordance with the terms of this Contract,
 - and which disruption (in either such case as per paragraphs (a) or (b) above) is not caused by, and is beyond the control of, the Party whose operations are disrupted.
- "Drop Dead Fee" has the meaning given to such term in Article 2.9 (Drop Dead Fee).
- "EBITDA" means, in respect of any Relevant Period, the consolidated operating profit of the Group before taxation (excluding the results from discontinued operations):
- (a) before deducting any interest, commission, fees, discounts, prepayment fees, premiums or charges and other finance payments whether paid, payable or capitalised by any Group Company (calculated on a consolidated basis) in respect of that Relevant Period;
- (b) not including any accrued interest owing to any Group Company;
- (c) after adding back any amount attributable to the amortisation or depreciation of assets of members of the Group;

- (d) before taking into account any Exceptional Items;
- (e) after deducting the amount of any profit (or adding back the amount of any loss) of any Group Company which is attributable to minority interests:
- (f) plus or minus the Group's share of the profits or losses (after finance costs and tax) of entities which are not Group Companies;
- (g) before taking into account any unrealised gains or losses on any financial instrument (other than any derivative instrument which is accounted for on a hedge accounting basis); and
- (h) before taking into account any gain arising from an upward revaluation of any other asset,

in each case, to the extent added, deducted or taken into account, as the case may be, for the purposes of determining operating profits of the Group before taxation.

"Environment" means the following, insofar as they affect human health or social well-being:

- (a) fauna and flora;
- (b) soil, water, air, climate and the landscape; and
- (c) cultural heritage and the built environment,

and includes, without limitation, occupational and community health and safety.

"Environmental Approval" means any Authorisation required by Environmental Law.

"Environmental Claim" means any claim, proceeding, formal notice or investigation by any person in respect of any Environmental Law.

"Environmental Law" means EU Law including:

- (a) principles and standards;
- (b) national laws and regulations;
- (c) applicable international treaties,

in each case of which a principal objective is the preservation, protection or improvement of the Environment and includes without limitation, the applicable environmental, social and labour law obligations established by EU law, national law, collective agreements or the international social and environmental conventions listed in Annex X to Directive 2014/24/EU26.

"EU Directives" means the directives of the European Union.

"EU Law" means the acquis communautaire of the European Union as expressed through the Treaties of the European Union, the regulations, the EU Directives, delegated acts, implementing acts, and the case law of the Court of Justice of the European Union.

"EUR" or "euro" means the lawful currency of the Member States of the European Union which adopt or have adopted it as their currency in accordance with the relevant provisions of the Treaty on European Union and the Treaty on the Functioning of the European Union or their succeeding treaties.

"EURIBOR" has the meaning given to it in Schedule B (Definition of EURIBOR).

"Event of Default" means any of the circumstances, events or occurrences specified in Article 9 (Events of Default).

"Exceptional Items" means any material items of an unusual or non-recurring nature which represent gains or losses including those arising on:

- (a) the restructuring of the activities of an entity and reversals of any provisions for the cost of restructuring;
- (b) disposals, revaluations, write downs or impairment of non-current assets or any reversal of any write down or impairment;
- (c) disposals of assets associated with discontinued operations; and

- (d) any other examples of "exceptional items" (as such term has the meaning attributed to it in IFRS).
- "Exclusion Policy" means the European Investment Bank Exclusion Policy as published on the Bank's website.
- "Existing Indebtedness" means any Indebtedness of the Group as at the signing date of this Contract that is referred into Schedule K (Existing Indebtedness).

"FATCA" means:

- (a) Sections 1471 to 1474 of the Code or any associated regulations or other official guidance;
- (b) any treaty, law, regulation or other official guidance enacted in any other jurisdiction, or relating to an intergovernmental agreement between the United States and any other jurisdiction, which (in either case) facilitates the implementation of paragraph (a) above; or
- (c) any agreement pursuant to the implementation of paragraphs (a) or (b) above with the U.S. Internal Revenue Service, the U.S. government or any governmental or taxation authority in any other jurisdiction.
- "FACTA Deduction" means a deduction or withholding from a payment under any Finance Documents required by FATCA.
- "Fee Letter" means the letter from the Bank to the Borrower dated 28 November 2022.
- "Final Availability Date" means the day falling 36 months after the date of this Contract.
- "Finance Documents" means this Contract, any Guarantee Agreement the Warrant Agreement, the Fee Letter, the MAR Letter, the TEG Letter and any other document designated a "Finance Document" by the Borrower and the Bank.
- "Finance Lease" means any lease or hire purchase contract which would, in accordance with IFRS in force prior to 1 January 2019, be treated as a finance or capital lease.
- "GAAP" means generally accepted accounting principles in France, including IFRS.
- "GDPR" means General Data Protection Regulation (EU) 2016/679.
- "Group" means the Group Companies, taken together as a whole.
- "Group Company" means the Borrower and its Subsidiaries (in any case other than Calyxt, Inc).
- "Guarantee Agreement" means any French law first demand autonomous guarantee (*garantie autonome à première demande*) in form and substance satisfactory to the Bank to be entered into by a Guarantor as guarantor and the Bank as beneficiary.
- "Guarantor" means each Material Subsidiary which enters into a Guarantee Agreement in accordance with sub-paragraph (b) of Paragraph 16 (*Guarantees*) of Schedule H (*General Undertakings*).
- "IFRS" means international accounting standards within the meaning of IAS Regulation 1606/2002 to the extent applicable to the relevant financial statements.
- "Illegal Activities" means any of the following illegal activities or activities carried out for illegal purposes according to applicable laws in any of the following areas: (i) fraud, corruption, coercion, collusion or obstruction, (ii) money laundering, financing of terrorism or tax crimes each as defined in the AML Directives, and (iii) fraud and other illegal activity against the financial interests of the European Union as defined in the PIF
- "Illegality Event" has the meaning given to it in Article 5.3.4 (Illegality Event).
- "Indebtedness" means any:
- (a) obligations for borrowed money;
- (b) indebtedness under any acceptance credit;
- (c) indebtedness under any bond, debenture, note or similar instrument;

- (d) instrument under any bill of exchange;
- (e) indebtedness in respect of any interest rate or currency swap or forward currency sale or purchase or other form of interest or currency hedging transaction (including without limit caps, collars and floors);
- (f) indebtedness under any Finance Lease;
- (g) indebtedness (actual or contingent) under any guarantee, bond security, indemnity or other agreement;
- (h) indebtedness (actual or contingent) under any instrument entered into for the purpose of raising finance;
- (i) indebtedness in respect of a liability to reimburse a purchaser of any receivables sold or discounted in the event that any amount of those receivables is not paid;
- (j) indebtedness arising under a securitisation; or
- (k) other transaction which has the commercial effect of borrowing.
- "Inside Information" has the meaning ascribed to it in MAR with reference to the Borrower or its financial instruments,
- "Intellectual Property Rights" means intellectual property of every designation (including, without limitation, patents, utility patents, copyrights, design rights, trademarks, service marks and know how) whether capable of registration or not.
- "Intercompany Loan" means a loan between 2 (two) Group Companies.
- "InvestEU Fund" means the InvestEU Fund as established, inter alia, under the InvestEU Regulation.
- "InvestEU Fund MSS Declaration" means the "InvestEU Minimum Social Safeguards (MSS) Declaration signed by the Borrower on 13 December 2022.
- "InvestEU Regulation" means the regulation (EU) of the European Parliament and of the Council of 24 March 2021 establishing the InvestEU Programme and amending regulation (EU) 2015/1017 (OJ L 107, 26.3.2021, p. 30).
- "Investment" has the meaning given to that term in Recital (A).
- "Investment Cost Reduction Event" has the meaning given to it in Article 5.3.1 (Investment Cost Reduction Event)
- "Key Shareholders" means the following key shareholders of the Borrower:
- (a) André Choulika, a French citizen born on 23 January 1965 at Mousseithh Beyrouth (Lebanon), residing professionally at 6, impasse Dombasle, 75015 Paris (France); and
- (b) David Sourdive, a French citizen born on 26 December 1966 at Paris (XIe) (France), residing professionally at 19, rue Louise Michel, 92300 Levallois-Perret (France).
- "Lead Organisation" means the European Union, the United Nations and international standard setting organisations including the International Monetary Fund, the Financial Stability Board, the Financial Action Task Force, the Organisation for Economic Cooperation and Development and the Global Forum on Transparency and Exchange of Information for Tax Purposes and any successor organisations.
- "List of Authorised Signatories and Accounts" means a list, in form and substance satisfactory to the Bank, setting out: (i) the Authorised Signatories, accompanied by evidence of signing authority of the persons named on the list and specifying if they have individual or joint signing authority, (ii) the specimen signatures of such persons, (iii) the bank account(s) to which disbursements may be made under this Contract (specified by IBAN code if the country is included in the IBAN Registry published by SWIFT, or in the appropriate account format in line with the local banking practice), BIC/SWIFT code of the bank and the name of the bank account(s) beneficiary, together with evidence that such account(s) have been opened in the name of the beneficiary; and (iv) the bank account(s) from which payments under this Contract will be made by the Borrower (specified by IBAN code if the country is

included in the IBAN Registry published by SWIFT, or in the appropriate account format in line with the local banking practice), BIC/SWIFT code of the bank and the name of the bank account(s) beneficiary, together with evidence that such account(s) have been opened in the name of the beneficiary.

- "Loan" means the aggregate of the amounts disbursed from time to time by the Bank under this Contract.
- "Loan Outstanding" means the aggregate of the amounts disbursed from time to time by the Bank under this Contract that remains outstanding.
- "MAR" means Regulation (EU) no 596/2014 of the European Parliament and the Council of 16 April 2014 on market abuse (market abuse regulation).
- "MAR Letter" means the letter sent by the Bank to the Borrower and acknowledged by the Borrower on or about the date hereof relating to the Borrower's obligation in respect of MAR and in relation disclosures relating to "Inside Information".
- "Material Adverse Change" means, any event or change of condition, which, in the reasonable opinion of the Bank, has a material adverse effect on or would be reasonably likely to materially and adversely affect:
- (a) the ability of any Obligor to perform its obligations under the Finance Documents;
- (b) the business, operations, property, condition (financial or otherwise) of any Obligor or the Group as a whole; or
- (c) the legality, validity or enforceability of, or the effectiveness or ranking of, or the value of any Security granted to the Bank, or the rights or remedies of the Bank under the Finance Documents.
- "Material Subsidiary" means any Subsidiary from time to time, whose gross revenues, total assets or EBITDA represents not less than 10% (ten per cent.) of (i) the consolidated gross revenues of the Group or, (ii) the Total Assets, or, (iii) as the case may be, the consolidated EBITDA of the Group, as calculated based on the then latest consolidated audited accounts of the Group and in any case other than Calyxt, Inc.
- "Maturity Date" means, for each Tranche, the sole repayment date of that Tranche as specified in the relevant Disbursement Offer, being 6 (six) years from the Disbursement Date of the relevant Tranche; save that, in case any such date is not a Relevant Business Day, it means the preceding Relevant Business Day, with adjustment to the interest due under Article 4.1 (*Payment in Kind (PIK) Interest*) that accrued over the last interest period.
- "Milestones" means any payment or other consideration that the Borrower receives in connection with a Partnership, including development, regulatory, or commercial milestones.
- "Non-EIB Financing" includes any loan (save for the Loan and any other direct loans from the Bank to the Borrower ((or any other Group Company) or any Guarantor), credit bond or other form of Indebtedness or any obligation for the payment or repayment of money originally granted to the Borrower ((or any other Group Company) or any Guarantor).
- "Obligor" means the Borrower and any Guarantor.
- "Partnership" means any agreement entered into by the Borrower to or with any third party with respect to or permitting any use of the Borrower's or its affiliates' technology.
- **"Payment Account"** means the bank account from which payments under this Contract will be made by the Borrower, as set out in the most recent List of Authorised Signatories and Accounts.
- "Permitted Guarantees" means each and every guarantee permitted in accordance with Paragraph 16 (*Guarantees*) of Schedule H (*General Undertakings*).
- "Permitted Hedging" has the meaning given to such term in Paragraph 17 (Hedging) of Schedule H (General Undertakings).
- "**Permitted Indebtedness**" means Indebtedness of the Borrower and/or any Group Company which is permitted in accordance with Paragraph 15 (*Indebtedness*) of Schedule H (*General Undertakings*).

"**Permitted Security**" means Security of the Borrower and/or any Group Company which is permitted in accordance with sub-paragraph (c) of Paragraph 23 (*Negative pledge*) of Schedule H (*General Undertakings*).

[***]

- "PIF Directive" means Directive (EU) 2017/1371 of the European Parliament and of the Council of 5 July 2017 on the fight against fraud to the European Union's financial interests by means of criminal law as amended, supplemented or restated.
- "PIK Interest Rate" means, for Tranche A, 8% (eight hundred basis points) per annum, for Tranche B, 7% (seven hundred basis points) per annum and for Tranche C, 6% (six hundred basis points) per annum.
- "**Prepayment Amount**" means the amount of a Tranche to be prepaid by the Borrower in accordance with Articles 5.2 (*Voluntary prepayment*) or 5.3 (*Compulsory prepayment*).
- "**Prepayment Date**" means the date as requested by the Borrower and agreed by the Bank or indicated by the Bank, as applicable, on which the Borrower shall effect prepayment of a Prepayment Amount.
- "Prepayment Event" means any of the events described in Article 5.3 (Compulsory Prepayment).
- "**Prepayment Fee**" means, in relation to a Prepayment Amount (other than pursuant to Articles 5.3.3 (*Change Events*), 5.3.4 (*Illegality Event*) and 9.1 (*Right to demand repayment*)) in respect of a Tranche, a fee as follows:
- (a) [***] of the Prepayment Amount if the Prepayment Date is after the relevant Disbursement Date but before or on the 1st (first) anniversary of such Disbursement Date;
- (b) [***] of the Prepayment Amount if the Prepayment Date is after the 1st (first) anniversary of such Disbursement Date but before or on the 2nd (second) anniversary of such Disbursement Date:
- (c) [***] of the Prepayment Amount if the Prepayment Date is after the 2nd (second) anniversary of such Disbursement Date but before or on the 3rd (third) anniversary of such Disbursement Date;
- (d) no fee if the Prepayment Date is after the 3rd (third) anniversary of such Disbursement Date but before the Maturity Date, with such fee being payable on the applicable Prepayment Date.
- "Prepayment Notice" means a written notice from the Bank to the Borrower in accordance with Article 5.2.3 (Prepayment mechanics).
- "Prepayment Request" means a written request from the Borrower to the Bank to prepay all or part of the Loan Outstanding, in accordance with Article 5.2.1 (*Prepayment option*).
- "Quarter Date" means each 31 March, 30 June, 30 September and 31 December from the the date of this Contract until the Maturity Date.
- "**Register**" means the share transfer register and shareholders' individual accounts (*registre de mouvement de titres et comptes individuels d'actionnaires*) of the Borrower and held by Société Générale Securities Services.
- "Relevant Business Day" means a day on which the Trans-European Automated Real-time Gross Settlement Express Transfer payment system which utilises a single shared platform and which was launched on 19 November 2007 (TARGET2) is open for the settlement of payments in EUR.
- "Relevant Party" has the meaning given to it in Schedule I (Information and Visits).
- "Relevant Period" means each period of 12 (twelve) months ending on or about the last day of the financial year.
- "Relevant Person" means, with respect to any Obligor, any member of its management bodies; or any of its employees or any other person acting on its behalf or under its control.

- "**Repeating Representations**" means each of the representations set out in Schedule G (*Representations and Warranties*) other than those Paragraphs thereof which are identified with the words "(*Non-repeating*)" at the end of the Paragraphs.
- "Sanctioned Person" means any individual or entity (for the avoidance of doubt, the term entity includes, but is not limited to, any government, group or terrorist organisation) who is a designated target of, or who is otherwise a subject of, Sanctions (including, without limitation, as a result of being owned or otherwise controlled, directly or indirectly, by any individual or entity, who is a designated target of, or who is otherwise a subject of, Sanctions).
- "Sanctions" means the economic or financial sanctions laws, regulations, trade embargoes or other restrictive measures (including, in particular, but not limited to, measures in relation to the financing of terrorism) enacted, administered, implemented and/or enforced from time to time by any of the following:
- (a) the United Nations, and any agency or person which is duly appointed, empowered or authorised by the United Nations to enact, administer, implement and/or enforce such measures;
- (b) the European Union, and any agency or person which is duly appointed, empowered or authorised by the European Union to enact, administer, implement and/or enforce such measures; and
- (c) the United States Government, and any department, division, agency, or office thereof, including the Office of Foreign Asset Control (OFAC) of the United States Department of the Treasury, the United States Department of State and/or the United States Department of Commerce
- "Security" means any mortgage, pledge, lien, charge, assignment, hypothecation, or other security interest securing any obligation of any person or any other agreement or arrangement having a similar effect.
- "Senior Management Change" means that any Senior Management Personnel has ceased to be actively involved in the management of the Borrower in the capacity mentioned in the definition of Senior Management Personnel without the Bank having given its prior written consent to such a change.

"Senior Management Personnel" means each of:

- (a) André Choulika, a French citizen born on 23 January 1965 at Mousseithh Beyrouth (Lebanon), residing professionally at 6, impasse Dombasle, 75015 Paris (France), as Chief Executive Officer; and
- (b) David Sourdive, a French citizen born on 26 December 1966 at Paris (XIe) (France), residing professionally at 19, rue Louise Michel, 92300 Levallois-Perret (France), as EVP CMC and Manufacturing (Executive Vice President Chemistry, Manufacturing and Controls and Manufacturing).
- "Subsidiary" means an entity of which the Borrower has direct or indirect control or owns directly or indirectly more than 50% (fifty per cent) of the voting capital or similar right of ownership and 'control' for this purpose means the power to direct the management and the policies of the entity, whether through the ownership of voting capital, by contract or otherwise (in any case other than Calyxt, Inc).
- "Tax" means any tax, levy, impost, duty or other charge or withholding of a similar nature (including any penalty or interest payable in connection with any failure to pay or any delay in paying any of the same).
- "Technical Description" has the meaning given to it in Recital (A).
- "TEG Letter" means the letter from the Bank provided from time to time to the Borrower pursuant to Article 4.4 (Effective Global Rate (Taux Effectif Global)).
- "Total Assets" means the total consolidated assets of the Group, as shown in the Borrower's latest consolidated financial statements, as at the end of any Relevant Period.
- "**Tranche**" means each disbursement made or to be made under this Contract consisting of Tranche A, Tranche B and Tranche C. In the event that no Disbursement Acceptance has been received, Tranche shall mean a Tranche as offered under Article 2.2.2 (*Disbursement Offer*).

- "Tranche A" means the first Tranche in the amount set out in paragraph (a) of Article 2.2.1 (*Tranches*), in relation to which the Tranche A Warrants are granted to the Bank in accordance with the Warrant Agreement and a PIK Interest Rate shall be paid in accordance with Article 4.1 (*Payment in Kind (PIK) Interest*).
- "Tranche B" means the second Tranche in the amount set out in paragraph (b) of Article 2.2.1 (*Tranches*), in relation to which the Tranche B Warrants are granted to the Bank in accordance with the Warrant Agreement and a PIK Interest Rate shall be paid in accordance with Article 4.1 (*Payment in Kind (PIK) Interest*).
- "Tranche C" means the third Tranche in the amount set out in paragraph (c) of Article 2.2.1 (*Tranches*), in relation to which the Tranche C Warrants are granted to the Bank in accordance with the Warrant Agreement and a PIK Interest Rate shall be paid in accordance with Article 4.1 (*Payment in Kind (PIK) Interest*).
- "Tranche A Warrants" means the warrants (*bons de souscription d'actions*) to be issued by the Borrower and subscribed by the Bank in the context of the disbursement of Tranche A and entitling the Bank to subscribe shares of the Borrower, as further defined in the Warrant Agreement.
- "Tranche B Warrants" means the warrants (bons de souscription d'actions) to be issued by the Borrower and subscribed by the Bank in the context of the disbursement of Tranche B and entitling the Bank to subscribe shares of the Borrower, as further defined in the Warrant Agreement.
- "Tranche C Warrants" means the warrants (*bons de souscription d'actions*) to be issued by the Borrower and subscribed by the Bank in the context of the disbursement of Tranche C and entitling the Bank to subscribe shares of the Borrower, as further defined in the Warrant Agreement.
- "Voluntary Non EIB Prepayment" means a voluntary prepayment by any Group Company, including any Guarantor (for the avoidance of doubt, prepayment shall include a repurchase, redemption or cancellation where applicable), of a part or the whole of any Non-EIB Financing.
- "Warrants" means, upon their issuance, the Tranche A Warrants, the Tranche B Warrants and the Tranche C Warrants.
- "Warrant Agreement" means the agreement relating to the issuance by the Borrower of Warrants to be entered into between the Bank and the Borrower in a form and substance satisfactory to the Bank; being specified that certains terms of the Warrants (non exhaustive) are attached in Schedule L (*Certains terms of the Warrants (non exhaustive)*).

ARTICLE 2

Credit and Disbursements

2.1 Amount of Credit

By this Contract, the Bank establishes in favour of the Borrower, and the Borrower accepts, a credit in an aggregate amount of up to EUR 40,000,000 (forty million euro) for the financing of the Investment (the "**Credit**").

2.2 <u>Disbursement procedure</u>

2.2.1 Tranches

The Bank shall disburse the Credit in Euros in 3 (three) Tranches, as set out below:

- (a) Tranche A, in an amount of EUR 20,000,000 (twenty million euro);
- (b) Tranche B, in an amount of EUR 15,000,000 (fifteen million euro); and
- (c) Tranche C, in an amount of EUR 5,000,000 (five million euro).

Each Tranche may only be disbursed in full.

2.2.2 Disbursement Offer

Upon request by the Borrower and subject to Article 2.5 (*Conditions of Disbursement*), provided that no event mentioned in sub-paragraph (b) of Article 2.6 (*Cancellation*) has occurred and is continuing, the Bank shall send to the Borrower a Disbursement Offer for the disbursement of a Tranche. The latest time for receipt by the Borrower of a Disbursement Offer is 6 (six) Business Days before the Final Availability Date. The Disbursement Offer shall specify:

- (a) the concerned Tranche;
- (b) the amount of the Tranche;
- (c) the Disbursement Date, which shall be a Relevant Business Day, falling at least 6 (six) Business Days after the date of the Disbursement Acceptance and on or before the Final Availability Date;
- (d) the PIK Interest Rate applicable to such Tranche;
- (e) the interest periods;
- (f) the terms for repayment of principal in accordance with Article 5.1;
- (g) the Maturity Date;
- (h) the Disbursement Acceptance Deadline; and
- (i) the relevant number of Warrants to be issued in relation to the Tranche.

2.2.3 Disbursement Acceptance

- (a) The Borrower may accept a Disbursement Offer by delivering a Disbursement Acceptance to the Bank no later than the Disbursement Acceptance Deadline, which shall in any case be at least 6 (six) Business Days before the Disbursement Date. The Disbursement Acceptance shall be signed by an Authorised Signatory with individual representation rights or 2 (two) or more Authorised Signatories with joint representation right and shall specify the Disbursement Account to which disbursement of the relevant Tranche should be made in accordance with Article 2.3 (*Disbursement Account*).
- (b) If a Disbursement Offer is duly accepted by the Borrower in accordance with its terms on or before the Disbursement Acceptance Deadline, and provided the conditions in Article 2.5.3 (*All Tranches Other Conditions*) are met, the Bank shall make the Accepted Tranche available to the Borrower in accordance with the relevant Disbursement Offer and subject to the terms and conditions of this Contract.
- (c) The Borrower shall be deemed to have refused any Disbursement Offer which has not been duly accepted in accordance with its terms on or before the Disbursement Acceptance Deadline, in which case the Tranche shall not be made available to the Borrower by the Bank, and the Credit shall not be affected.
- (d) The Bank may rely on the information set out in the most recent List of Authorised Signatories and Accounts provided to the Bank by the Borrower. If a Disbursement Acceptance is signed by a person defined as Authorised Signatory under the most recent List of Authorised Signatories and Accounts provided to the Bank by the Borrower, the Bank may assume that such person has the power to sign and deliver in the name and on behalf of the Borrower such Disbursement Acceptance.

2.3 Disbursement Account

- (a) Disbursement shall be made to the Disbursement Account specified in the relevant Disbursement Acceptance, provided that such Disbursement Account is acceptable to the Bank.
- (b) Only one Disbursement Account may be specified for each Tranche.

2.4 Currency of disbursement

The Bank shall disburse each Tranche in EUR.

2.5 Conditions of Disbursement

The conditions precedent provided for in Article 2.5 (Conditions of Disbursement) are stipulated for the sole benefit of the Bank.

2.5.1 Initial Documentary Conditions Precedent

No Disbursement Offer will be provided by the Bank under this Contract unless the Bank has confirmed that it has received in form and substance satisfactory to it and no later than the date falling 10 (ten) Business Days before the Disbursement Date all of the documents and other evidence listed in Part (A) (*Initial Documentary Conditions Precedent*) of Schedule F (*Conditions Precedent*).

2.5.2 All Tranches - Documentary Conditions Precedent

No Disbursement Offer, including the first Disbursement Offer, will be provided by the Bank under this Contract unless the Bank has confirmed that it has received no later than the date falling 10 (ten) Business Days before the Disbursement Date, in form and substance satisfactory to it:

- (a) a liquidity forecast for the next 12 (twelve) months of the Borrower which confirms that the Borrower has sufficient liquidity to pay its financial debts as they fall due for at least 12 (twelve) months from the Disbursement Date, which may take into account the disbursement of the proposed Tranche; and
- (b) all of the documents and other evidence applicable for such Tranche as listed in Part (B) (*All Tranches Conditions Precedent*) of Schedule F (*Conditions Precedent*).

2.5.3 All Tranches - Other Conditions

The Bank will only be obliged to make any Accepted Tranche available to the Borrower if on the Disbursement Date for the proposed Tranche:

- (a) the Repeating Representations are correct in all respects; and
- (b) no event or circumstance has occurred and is continuing which constitutes or would with the expiry of a grace period and/or the giving of notice under this Contract constitute:
 - (i) an Event of Default; or
 - (ii) a Prepayment Event other than pursuant to Article 5.3.1 (Investment Cost Reduction Event),

or would, in each case, result from the disbursement of the proposed Tranche.

2.5.4 Tranche A – Additional Conditions Precedent

Without prejudice to the generality of Articles 2.5.1 (*Initial Documentary Conditions Precedent*) to 2.5.3 (*All Tranches – Other Conditions*), no Disbursement Offer will be provided by the Bank under this Contract in respect of Tranche A unless the Bank has confirmed that it has received no later than the date falling 10 (ten) Business Days before the Disbursement Date in form and substance satisfactory to it, all of the documents and evidences listed in Part (C) (*Tranche A—Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*).

2.5.5 Tranche B - Additional Conditions Precedent

Without prejudice to the generality of Articles 2.5.1 (*Initial Documentary Conditions Precedent*) to 2.5.3 (All Tranches – Other Conditions), no Disbursement Offer will be provided by the Bank under this Contract in respect of Tranche B unless Tranche A has been disbursed in full and the Bank has confirmed that it has received no later than the date falling 10 (ten) Business Days before the Disbursement Date in form and substance satisfactory to it, all of the documents and evidences listed in Part (D) (*Tranche B – Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*).

2.5.6 Tranche C - Additional Conditions Precedent

Without prejudice to the generality of Articles 2.5.1 (*Initial Documentary Conditions Precedent*) to 2.5.3 (All Tranches – Other Conditions), no Disbursement Offer will be provided by the Bank under this Contract in respect of Tranche C unless Tranche A and Tranche B have been disbursed in full and the Bank has confirmed that it has received no later than the date falling 10 (ten) Business Days before the Disbursement Date in form and substance satisfactory to it, all of the documents and evidences listed in Part (E) (*Tranche C – Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*).

2.6 Cancellation

- (a) The Borrower may send a written notice to the Bank requesting a cancellation of the undisbursed Credit or a portion thereof. In its written notice the Borrower:
 - (i) must specify whether the Credit shall be cancelled in whole or in part and, if in part, the amount of the Credit to be cancelled; and
 - (ii) must not request any cancellation of an Accepted Tranche which has a Disbursement Date falling within 5 (five) Business Days of the date of such written notice.

Upon receipt of such written notice, the Bank shall cancel the requested portion of the Credit with immediate effect.

- (b) At any time upon the occurrence of the following events, the Bank may notify the Borrower in writing that the undisbursed portion of the Credit shall be cancelled in whole or in part:
 - (i) a Prepayment Event, which for the avoidance of doubt and only in case of an event pursuant to Article 5.3.1 (*Investment Cost Reduction Event*), by an amount equal to the amount by which it is entitled to cancel the Credit;
 - (ii) an Event of Default; or
 - (iii) an event or circumstance which would with the passage of time or giving of notice under this Contract constitute a Prepayment Event other than pursuant to Article 5.3.1 (*Investment Cost Reduction Event*) or an Event of Default.

On the date of such written notification from the Bank the relevant undisbursed portion of the Credit shall be cancelled with immediate effect.

2.7 Fee for cancellation of an Accepted Tranche

- (a) If pursuant to sub-paragraph (a) of Article 2.6 (*Cancellation*) the Borrower cancels an Accepted Tranche, the Borrower shall pay to the Bank the Cancellation Fee.
- (b) If pursuant to sub-paragraph (b) of Article 2.6 (*Cancellation*) the Bank cancels all or part of an Accepted Tranche, the Borrower shall pay to the Bank the Cancellation Fee.
- (c) If an Accepted Tranche is not disbursed on the Disbursement Date because the conditions precedent set out in Article 2.5.3 (*All Tranches Other Conditions*) are not satisfied on such date, such Tranche shall be cancelled and the Borrower shall pay to the Bank the relevant Cancellation Fee.

2.8 Cancellation after expiry of the Credit

On the day following the Final Availability Date, unless otherwise specifically notified in writing by the Bank to the Borrower, any part of the Credit in respect of which no Disbursement Acceptance has been received in accordance with Article 2.2.3 (*Disbursement Acceptance*) shall be automatically cancelled, without any further notice from the Bank to the Borrower.

2.9 Drop Dead Fee

- (a) If:
 - (i) no disbursement is made within [***] months from the date of this Contract or in case the Credit is cancelled in full under Article 2.6 (*Cancellation*) prior to the expiry of this term, the Borrower shall pay to the Bank a one-off contractual fee equal to [***] of the Tranche A; and
 - (ii) (x) in case Tranche B is not fully drawn on the Final Availability Date even though the conditions set out under paragraph (j) of Part D of Schedule F (*Tranche B Conditions Precedent*) have been fulfilled, or (y) in case Tranche B is cancelled in full under Article 2.6 (*Cancellation*) prior to the expiry of the Final Availability Date, the Borrower shall pay to the Bank a one-off contractual fee equal to [***] of the then available undrawn and uncancelled balance of the Tranche B on that date,

(each individually the "Drop Dead Fee" and together the "Drop Dead Fees"),

provided that no Drop Dead Fee shall be due in case no disbursement is made due to the failure by the Borrower to obtain the authorization (to the extent necessary) of its shareholders to issue the relevant Warrants.

- (b) The Drop Dead Fees shall be payable by the Borrower to the Bank within 15 (fifteen) days of the Borrower's receipt of the Bank's demand or within any longer period specified in the Bank's demand.
- (c) For the avoidance of doubt, any Drop Dead Fee payable under this Article 2.9 (*Drop Dead Fee*) is independent of any other fees stipulated in this Contract.

2.10 Sums due under Article 2

Sums due under Article 2.6 (*Cancellation*) shall be payable in EUR. Sums due under Article 2.6 (*Cancellation*) shall be payable within 15 (fifteen) days of the Borrower's receipt of the Bank's demand or within any longer period specified in the Bank's demand.

ARTICLE 3

The Loan

3.1 Amount of Loan

The Loan shall comprise the aggregate amount of Tranches disbursed by the Bank under the Credit.

3.2 Currency of repayment, interest and other charges

- (a) The Borrower shall pay interest, principal and other charges payable in respect of each Tranche in EUR.
- (b) Any other payment shall be made in the currency specified by the Bank having regard to the currency of the expenditure to be reimbursed by means of that payment.

ARTICLE 4

Interest

4.1 Payment in Kind (PIK) Interest

If a PIK Interest Rate is specified in the Disbursement Offer in relation to a Tranche, interest shall accrue on the outstanding balance of such Tranche at the PIK Interest Rate, and calculated on the basis of Article 6.1 (*Day count convention*). Such interest shall be capitalised annually starting on the 1st (first) anniversary of the Disbursement Date of the relevant Tranche

and added to the outstanding principal amount of the Loan. Any such accrued interest shall, after being so capitalised, be treated as part of the principal amount of that Loan, shall bear all interest in accordance with this Article 4 (*Interest*) and shall be payable on the Maturity Date of such Tranche or, where a Tranche is prepaid, on the Prepayment Date.

Interest to be paid at the PIK Interest Rate will be compounded only if, within the meaning of article 1343-2 of the French Code civil, such interest is due for a period of at least one year.

4.2 Warrants

In addition to the interest payable pursuant to Article 4.1 (*Payment in Kind (PIK) Interest*) above, the Bank shall receive Warrants as further detailed in the Warrant Agreement and be entitled to receive any amounts due in connection with the Warrants under the Warrant Agreement.

4.3 Interest on overdue sums

Without prejudice to Article 9 (*Events of default*) and by way of exception to Article 4.1 (*Payment in Kind (PIK) Interest*), if the Borrower fails to pay any amount payable by it under the Contract on its due date, interest shall accrue on any such overdue amount from the due date to the date of actual payment at an annual rate equal to:

- (a) for overdue sums related to a Tranche, the higher of (a) the applicable PIK Interest Rate plus 2% (two hundred basis points) or (b) EURIBOR (one month) plus 2% (two hundred basis points);
- (b) for overdue sums other than under sub-paragraph (a) of Article 4.3 (*Interest on overdue sums*) above, EURIBOR (one month) plus 2% (two hundred basis points),

and shall be payable in accordance with the demand of the Bank. For the purpose of determining EURIBOR in relation to this Article 4.3 (*Interest on overdue sums*), the relevant periods within the meaning of Schedule B (*Definition of EURIBOR*) shall be successive periods of one month commencing on the due date.

Notwithstanding Article 3.2 (b) above, if the overdue sum is in a currency other than the currency of the Loan, the relevant interbank rate, or as determined by the Bank, the relevant risk-free rate that is generally retained by the Bank for transactions in that currency, shall apply plus 2% (200 basis points), calculated in accordance with the market practice for such rate.

Without prejudice to the fact that they may be due and payable at any time, default interest (if unpaid) arising on an overdue amount will be compounded with the overdue amount at the request of the Bank, provided that, within the meaning of article 1343-2 of the French *Code civil*, such interest is due for a period of at least one year.

4.4 Effective Global Rate (Taux Effectif Global)

For the purpose of articles L.314-1 to L.314-5 and article R.314-1 *et seq.* of the French *Code de la consommation* and article L.313-4 of the French *Code monétaire et financier*, the Parties acknowledge that (i) the effective global rate calculated on the date of this contract, based on assumptions as to the period rate (*taux de période*) and the period term (*durée de période*) and on the assumption that the interest rate and all fees, costs or expenses payable under this Contract will be maintained at their original level throughout the term of the Finance Documents, is set out in a TEG Letter from the Bank to the Borrower in the form set out in Schedule J (*Form of TEG Letter*) and (ii) the TEG Letter forms part of this Contract. The Borrower acknowledges receipt of the TEG Letter.

ARTICLE 5

Repayment

5.1 Normal repayment

Single instalment

The Borrower shall repay each Tranche, together with all other amounts outstanding under this Contract in relation to that Tranche, in a single instalment on the Maturity Date of that Tranche.

5.2 Voluntary prepayment

5.2.1 Prepayment option

- (a) Subject to Articles 5.2.2 (*Prepayment Fee*) and 5.4 (*General*), the Borrower may prepay all or part of any Tranche, together with accrued interest (including any interest under Article 4.1 (*Payment in Kind (PIK) Interest*)), any Prepayment Fee and indemnities if any, and any amount due under any Finance Document in connection to such Tranche, upon giving a Prepayment Request with at least 30 (thirty) calendar days prior notice specifying:
 - (i) the Prepayment Amount;
 - (ii) the Prepayment Date; and
 - (iii) the Contract Number.
- (b) The Prepayment Request shall be irrevocable.

5.2.2 Prepayment Fee

If the Borrower prepays a Tranche, the Borrower shall pay the relevant Prepayment Fee on the Prepayment Date.

5.2.3 Prepayment mechanics

Upon presentation by the Borrower to the Bank of a Prepayment Request, the Bank shall issue a Prepayment Notice to the Borrower, not later than 30 (thirty) days prior to the Prepayment Date. The Prepayment Notice shall specify the Prepayment Amount, the accrued interest due thereon, and the Prepayment Fee. If the Prepayment Notice specifies Prepayment Fee, it shall also specify the deadline by which the Borrower may accept the Prepayment Notice, and the Borrower must accept the Prepayment Notice no later than such deadline as a condition to prepayment.

The Borrower shall make a prepayment in accordance with the Prepayment Notice and shall accompany the prepayment by the payment of accrued interest (including any interest under Article 4.1 (*Payment in Kind (PIK*) Interest)) and Prepayment Fee or indemnity, if any, due on the Prepayment Amount, as specified in the Prepayment Notice, and shall identify the Contract Number in the prepayment transfer.

5.3 Compulsory prepayment and cancellation

5.3.1 Investment Cost Reduction Event

(a) The Borrower shall promptly inform the Bank if an Investment Cost Reduction Event has occurred or is likely to occur. At any time after the occurrence of an Investment Cost Reduction Event the Bank may, by notice to the Borrower, cancel the undisbursed portion of the Credit and/or demand prepayment of the Loan Outstanding up to the amount by which the Credit exceeds the limits referred to in paragraph (b) below together with accrued interest and all other amounts accrued and outstanding under this Contract in relation to the proportion of the Loan Outstanding to be prepaid.

- (b) For the purpose of this Article, "**Investment Cost Reduction Event**" means that the total cost of the Investment at completion by the final date specified in the Technical Description falls below the figure stated in Recital (A) so that the amount of the Credit exceeds:
 - (i) 50% (fifty per cent);
 - (ii) when aggregated with the amount of any other funds from the European Union made available for the Investment, 70% (seventy per cent.); or
 - (iii) when aggregated with the principal amount of any loan provided by another implementing partner under the InvestEU Fund to finance the Investment, 50% (fifty per cent),

of such total cost of the Investment.

5.3.2 Non-EIB Financing

If:

- (a) a Voluntary Non-EIB Prepayment has occurred; or
- (b) (A) a Voluntary Non-EIB Prepayment is likely to occur and (B) the Bank has requested a consultation in respect of such Voluntary Non-EIB Prepayment and at least 30 (thirty) days have passed since the date of such request;

the Bank may, by notice to the Borrower, cancel the undisbursed portion of the Credit and demand prepayment of the Loan Outstanding (together with accrued interest). The proportion of the Loan Outstanding that the Bank may require to be prepaid shall be the same as the proportion that the prepaid amount of the Non-EIB Financing bears to the aggregate outstanding amount of all Non-EIB Financing.

5.3.3 Change Events

The Borrower shall promptly inform the Bank if:

- (a) a Change-of-Control Event has occurred or is likely to occur; or
- (b) there is or is likely to be an enactment, promulgation, execution or ratification of or any change in or amendment to any law, rule or regulation (or in the application or official interpretation of any law, rule or regulation) that occurs or will occur, as applicable, after the date of this Contract and which, in the opinion of the Borrower, would impair an Obligor's ability to perform its obligations under any of the Finance Documents.

In such case, or if the Bank has reasonable cause to believe that a Change-of-Control Event or a Change-of-Law Event has occurred or is likely to occur, the Borrower shall, on request of the Bank, consult with the Bank as to the impact of such event. If 30 (thirty) days have passed since the date of such request and the Bank is of the reasonable opinion that the effects of such event cannot be mitigated to its satisfaction, or in any event if a Change-of-Control Event or a Change-of-Law Event has actually occurred, the Bank may by notice to the Borrower, cancel the undisbursed portion of the Credit and/or demand prepayment of the Loan Outstanding, together with accrued interest and all other amounts accrued or outstanding under this Contract or any other Finance Document.

5.3.4 Illegality Event

- (a) Upon becoming aware of an Illegality Event:
 - (i) the Bank shall promptly notify the Borrower, and
 - (ii) the Bank may immediately (A) suspend or cancel the undisbursed portion of the Credit, and/or (B) demand prepayment of the Loan Outstanding, together with accrued interest and all other amounts accrued and outstanding under this Contract on the date indicated by the Bank in its notice to the Borrower.
- (b) For the purposes of this Article, "Illegality Event" means that it becomes unlawful in any applicable jurisdiction, or if it becomes contrary to any Sanctions, for the Bank to:
 - (i) perform any of its obligations as contemplated in this Contract; or

(ii) fund or maintain the Loan.

5.3.5 Disposals

If the Borrower disposes of assets forming part of the Investment or shares in subsidiaries holding assets forming part of the Investment, without the approval of the Bank, the Borrower shall apply all proceeds of such disposal to prepay the Loan Outstanding (in part or in whole), together with accrued interest, promptly following receipt of such proceeds in accordance with sub-paragraph (b) of Paragraph 7 (*Disposal of assets*) of Schedule H (*General Undertakings*).

5.3.6 Prepayment Fee

In the case of a Prepayment Event (other than pursuant to Article 5.3.3 (*Change Events*) and Article 5.3.4 (*Illegality Event*)) in relation to a Tranche, the Borrower shall pay the relevant Prepayment Fee.

5.3.7 Prepayment mechanics

Any sum demanded by the Bank pursuant to Articles 5.3.1 (*Investment Cost Reduction Event*) to 5.3.4. (*Illegality Event*) shall be paid on the date indicated by the Bank in its notice of demand, such date being a date falling not less than 30 (thirty) days from the date of the demand (or, if earlier, the last day of any applicable grace period permitted by law in respect of the event in Article 5.3.4. (*Illegality Event*)).

5.4 General

- (a) A repaid or prepaid amount may not be reborrowed.
- (b) If the Borrower prepays a Tranche, under Article 5.2 (*Voluntary prepayment*), or if the Bank exceptionally accepts, solely upon the Bank's discretion, a Prepayment Request with prior notice of less than 30 (thirty) calendar days, the Borrower shall pay to the Bank an administrative fee in such an amount as the Bank shall notify to the Borrower.

ARTICLE 6

Payments

6.1 Day count convention

Any amount due under this Contract and calculated in respect of a fraction of a year shall be determined based on a year of 360 (three hundred and sixty) days and a month of 30 (thirty) days.

6.2 Time and place of payment

- (a) If neither this Contract nor the Bank's demand specifies a due date, all sums other than sums of interest, indemnity and principal are payable within 15 (fifteen) days of the Borrower's receipt of the Bank's demand.
- (b) Each sum payable by the Borrower under this Contract shall be paid to the following account:

or such other account notified by the Bank to the Borrower.

(c) The Borrower shall provide the Contract Number as a reference for each payment made under this Contract.

(d) Any disbursements by and payments to the Bank under this Contract shall be made using the Disbursement Account (for disbursements by the Bank) and the Payment Account (for payments to the Bank).

6.3 No set-off by the Borrower

All payments to be made by the Borrower under this Contract shall be calculated and be made without (and free and clear of any deduction for) set-off or counterclaim.

6.4 Disruption to Payment Systems

If either the Bank determines (in its discretion) that a Disruption Event has occurred or the Bank is notified by the Borrower that a Disruption Event has occurred:

- (a) the Bank may, and shall if requested to do so by the Borrower, consult with the Borrower with a view to agreeing with the Borrower such changes to the operation or administration of the Contract as the Bank may deem necessary in the circumstances;
- (b) the Bank shall not be obliged to consult with the Borrower in relation to any changes mentioned in sub-paragraph (a) of Article 6.4 (*Disruption to Payment* Systems) above if, in its opinion, it is not practicable to do so in the circumstances and, in any event, shall have no obligation to agree to such changes; and
- (c) the Bank shall not be liable for any damages, costs or losses whatsoever arising as a result of a Disruption Event or for taking or not taking any action pursuant to or in connection with this Article 6.4 (*Disruption to Payment Systems*).

6.5 Application of sums received

6.5.1 General

Sums received from the Borrower shall only discharge its payment obligations if and when received in accordance with the terms of this Contract.

6.5.2 Partial payments

If the Bank receives a payment that is insufficient to discharge all the amounts then due and payable by the Borrower under this Contract, the Bank shall apply that payment in or towards payment of:

- (a) firstly, any unpaid fees, costs, indemnities and expenses due under this Contract;
- (b) secondly, any accrued interest due but unpaid under this Contract;
- (c) thirdly, any principal due but unpaid under this Contract; and
- (d) fourthly, any other sum due but unpaid under this Contract.

6.5.3 Allocation of sums related to Tranches

- (a) The Bank may apply any sums received following a demand under Article 9.1 (*Right to demand repayment*). between Tranches at its discretion.
- (b) In case of receipt of sums which cannot be identified as applicable to a specific Tranche, and on which there is no agreement between the Bank and the Borrower on their application, the Bank may apply these between Tranches at its discretion.

ARTICLE 7

Borrower undertakings and representations

(a) The Borrower makes the representations and warranties set out in Schedule G (*Representations and Warranties*) to the Bank on the date of this Contract in respect of itself and, where applicable, the other Group Companies (including the other Obligors).

- (b) The Repeating Representations are deemed to be made by the Borrower (in respect of itself and, where applicable, the other Group Companies (including the other Obligors) on the date of each Disbursement Acceptance, each Disbursement Date, each Quarter Date and each date on which a Guarantor accedes or enters into a Guarantee Agreement and on each Prepayment Date (if any) by reference to the facts and circumstances then existing.
- (c) The undertakings in Schedule H (*General Undertakings*) and Schedule I (*Information and Visits*) remain in force from the date of this Contract for so long as any amount is outstanding under this Contract or the Credit is available.

ARTICLE 8

Charges and expenses

8.1 Taxes, duties and fees

The Borrower shall pay all Taxes, duties, fees and other impositions of whatsoever nature, including stamp duty and registration fees, arising out of the execution or implementation of each Finance Document or any related document and in the creation, perfection, registration or enforcement of any security for the Loan to the extent applicable.

The Borrower shall pay all principal, interest, indemnities and other amounts due under this Contract gross without any withholding or deduction of any national or local impositions whatsoever, provided that if the Borrower is required by law or an agreement with a governmental authority or otherwise to make any such withholding or deduction, it will gross up the payment to the Bank so that after withholding or deduction, the net amount received by the Bank is equivalent to the sum due.

8.2 Other charges

The Borrower shall bear all charges and expenses, including professional, banking or exchange charges incurred in connection with the preparation, execution, implementation, enforcement and termination of the Finance Documents (including, but not limited to, any Guarantee Agreement entered into pursuant to Paragraph 16 (*Guarantees*) of Schedule H (*General Undertakings*)) or any related document, any amendment, supplement or waiver in respect of the Finance Documents or any related document, and in the amendment, creation, management, enforcement and realisation of any security for the Loan.

8.3 Increased costs, indemnity and set-off

- (a) The Borrower shall pay to the Bank any costs or expenses incurred or suffered by the Bank as a consequence of the introduction of or any change in (or in the interpretation, administration or application of) any law or regulation or compliance with any law or regulation which occurs after the date of this Contract, in accordance with or as a result of which (i) the Bank is obliged to incur additional costs in order to fund or perform its obligations under this Contract, or (ii) any amount owed to the Bank under this Contract or the financial income resulting from the granting of the Credit or the Loan by the Bank to the Borrower is reduced or eliminated.
- (b) Without prejudice to any other rights of the Bank under this Contract or under any applicable law, the Borrower shall indemnify and hold the Bank harmless from and against any loss incurred as a result of any full or partial discharge that takes place in a manner other than as expressly set out in this Contract.

(c) The Bank may set off any matured obligation due from the Borrower under each Finance Document (to the extent beneficially owned by the Bank) against any obligation (whether or not matured) owed by the Bank to the Borrower regardless of the place of payment, booking branch or currency of either obligation. If the obligations are in different currencies, the Bank may convert either obligation at a market rate of exchange in its usual course of business for the purpose of the set-off. If either obligation is unliquidated or unascertained, the Bank may set off in an amount estimated by it in good faith to be the amount of that obligation.

ARTICLE 9

Events of default

9.1 Right to demand repayment

The Bank may demand (in writing) without prior notice (*mise en demeure préalable*) or any judicial or extra judicial step, but subject to the mandatory provisions of articles L. 611-16 and L. 620-1 to L. 670-8 of the French *Code de commerce*, immediate repayment by the Borrower of all or part of the Loan Outstanding (as requested by the Bank), together with accrued interest and all other accrued or outstanding amounts under this Contract and/or cancel the Credit whereupon it shall immediately be cancelled, if:

- (a) any amount payable pursuant to any Finance Document is not paid on the due date at the place and in the currency in which it is expressed to be payable, unless (i) its failure to pay is caused by an administrative or technical error or a Disruption Event and (ii) payment is made within 3 (three) Business Days of its due date;
- (b) any information or document given to the Bank by or on behalf of any Obligor or any representation, warranty or statement made or deemed to be made by the Borrower in, pursuant to or for the purpose of entering into any Finance Document or in connection with the negotiation or performance of-any Finance Document is or proves to have been incorrect, incomplete or misleading in any material respect;
- (c) following any default of any Obligor in relation to any loan, or any obligation arising out of any financial transaction, other than the Loan
 - such Obligor is required or is capable of being required or will, following expiry of any applicable contractual grace period, be required or be capable of being required to prepay, discharge, close out or terminate ahead of maturity such other loan or obligation; or
 - (ii) any financial commitment for such other loan or obligation is cancelled or suspended;
- (d) any Obligor is unable to pay its debts as they fall due, or suspends its debts, or makes or seeks to make a composition with its creditors including a moratorium, or commences negotiations with one or more of its creditors with a view to rescheduling any of its Indebtedness;
- (e) if any Obligor is a state of *cessation des paiements* or is unable or admits inability to pay its debts as they fall due, or suspends making payments on any of its debts or, by reason of actual or anticipated financial difficulties, or commences negotiations with any class of its creditors with a view to general rescheduling any of its Indebtedness or without being in a state of *cessation des paiements*, is facing difficulties which it is not in a position to overcome within the meaning of article L. 620-1 of the French *Code de commerce* (or any equivalent under any applicable law);

- (f) any corporate action, legal proceedings or other procedure or step is taken in relation to the suspension of payments, a moratorium of any indebtedness, dissolution, administration or reorganisation (by way of voluntary arrangement, scheme of arrangement or otherwise) or an order is made or an effective resolution is passed for the winding up of any Obligor, or if any Obligor takes steps towards a substantial reduction in its capital, is declared insolvent or ceases or resolves to cease to carry on the whole or any substantial part of its business or activities or any situation similar to any of the above occurs under any applicable law including the following in relation to a French Obligor:
 - (i) the suspension of payments, a moratorium of any indebtedness, winding-up, dissolution, administration, the opening of proceedings for sauvegarde, sauvegarde accélérée, redressement judiciaire, liquidation judiciaire or a judgement for cession totale ou partielle de l'entreprise pursuant to article L.620-1 to L.670-8 of the French Code de commerce or reorganisation (in the context of a mandat ad hoc or of a conciliation or otherwise in accordance with articles L.611-3 to L.611-16 of the French Code de commerce) of the Borrower:
 - (ii) the appointment of a liquidator receiver, administrator, administrative receiver, provisional administrator, *mandataire ad hoc, conciliateur* or other similar officer in respect of the Borrower or any of its assets;
 - (iii) a judgment for *sauvegarde*, *sauvegarde* accélérée, redressement judiciaire, cession totale ou partielle de l'entreprise or liquidation judiciaire or any other measure, procedure or judgement referred to in book 6 (*Livre VI*) of the French *Code de commerce* is entered into in relation to the Borrower;
 - (iv) the enforcement by a third party of any Security over any assets of the Borrower;
 - (v) the Borrower applying for mandat ad hoc or conciliation in accordance with articles L.611-3 et seq. of the French Code de commerce; or
 - (vi) any procedure, judgement, or step is taken in any jurisdiction against the Borrower or any other Obligor, which has effects similar to those, above-mentioned;
- (g) an encumbrancer takes possession of, or a receiver, liquidator, administrator, administrative receiver or similar officer is appointed, whether by a court of competent jurisdiction or by any competent administrative authority or by any person, of or over, any part of the business or assets of any Obligor or any property forming part of the Investment;
- (h) any Obligor defaults in the performance of any obligation in respect of any other loan granted by the Bank or financial instrument entered into with the Bank;
- (i) any Obligor defaults in the performance of any obligation in respect of any other loan made to it from the resources of the Bank or the European Union;
- (j) any distress, execution, sequestration (including any of the enforcement proceedings provided for in the French *Code des procédures civiles d'exécution*) or other process is levied or enforced upon the property of any Obligor or any property forming part of the Investment following a payment default by an Obligor of any debts and is not discharged or stayed within 45 (forty-five) days;
- (k) a Material Adverse Change occurs, as compared with the position at the date of this Contract;
- (l) any of the Warrants are cancelled or otherwise cease to be in full force and effect for any reason whatsoever (except conversion into the Borrower's equity);
- (m) it is or becomes unlawful for any Obligor to perform any of its obligations under the Finance Documents, or the Finance Documents are not effective in accordance with its terms or is alleged by any Obligor to be ineffective in accordance with its terms; or

(n) any Obligor fails to comply with any other provision under the Finance Documents (including, without limitation, each of the undertakings in Schedule H (*General Undertakings*) and Schedule I (*Information and Visits*)) or a change has occurred as to the circumstances set out in the Recitals (A) to (D), unless the non-compliance or circumstance giving rise to the non-compliance is capable of remedy and is remedied within 20 (twenty) Business Days from the earlier of the Borrower becoming aware of the non-compliance and a notice served by the Bank on the Borrower.

9.2 Other rights at law

Article 9.1 (Right to demand repayment) shall not restrict any other right of the Bank at law to require prepayment of the Loan Outstanding.

9.3 Non-Waiver

No failure or delay or single or partial exercise by the Bank in exercising any of its rights or remedies under this Contract shall be construed as a waiver of such right or remedy. The rights and remedies provided in this Contract are cumulative and not exclusive of any rights or remedies provided by law.

9.4 No hardship

Each Party hereby acknowledges that the provisions of article 1195 of the French *Code civil* shall not apply to it with respect to its obligations under the Finance Documents and that it shall not be entitled to make any claim under article 1195 of the French *Code civil*.

ARTICLE 10

Law and jurisdiction, miscellaneous

10.1 Governing Law

This Contract and any non-contractual obligations arising out of or in connection with it shall be governed by French law.

10.2 Jurisdiction

- (a) The *Tribunal de commerce* of Paris has exclusive jurisdiction to settle any dispute (a "**Dispute**") arising out of or in connection with this Contract (including a dispute regarding the existence, validity or termination of this Contract or the consequences of its nullity) or any non-contractual obligation arising out of or in connection with this Contract.
- (b) The Parties agree that the *Tribunal de commerce* of Paris is the most appropriate and convenient courts to settle Disputes between them and, accordingly, that they will not argue to the contrary.

10.3 Place of performance

Unless otherwise specifically agreed by the Bank in writing, the place of performance under this Contract, shall be the seat of the Bank.

10.4 Evidence of sums due

In any legal action arising out of this Contract the certificate of the Bank as to any amount or rate due to the Bank under this Contract shall, in the absence of manifest error, be prima facie evidence of such amount or rate.

10.5 Entire Agreement

This Contract constitutes the entire agreement between the Bank and the Borrower in relation to the provision of the Credit hereunder, and supersedes any previous agreement, whether express or implied, on the same matter.

10.6 Invalidity

If at any time any term of this Contract is or becomes illegal, invalid or unenforceable in any respect, or this Contract is or becomes ineffective in any respect, under the laws of any jurisdiction, such illegality, invalidity, unenforceability or ineffectiveness shall not affect:

- (a) the legality, validity or enforceability in that jurisdiction of any other term of this Contract or the effectiveness in any other respect of this Contract in that jurisdiction; or
- (b) the legality, validity or enforceability in other jurisdictions of that or any other term of this Contract or the effectiveness of this Contract under the laws of such other jurisdictions.

10.7 Amendments

Any amendment to this Contract shall be made in writing and shall be signed by the Parties hereto.

10.8 Assignment and transfer by the Bank

- (a) Subject to sub-paragraph (b) of this Article 10.8 (*Assignment and transfer by the Bank*), the consent of the Borrower is required for an assignment or transfer (by way of novation, sub-participation or otherwise) by the Bank of all or part of its rights, benefits or obligations under the Finance Documents, unless the assignment or transfer:
 - (i) is to a Bank Affiliate; or
 - (ii) is made at a time when an Event of Default has occurred and is continuing; or
 - (iii) is made in respect of a sub-participation or securitisation (or similar transaction of broadly equivalent economic effect) where the Bank remains the lender of record of the Loan.
- (b) The consent of the Borrower to an assignment or transfer must not be unreasonably withheld or delayed. The Borrower will be deemed to have given its consent (5) five Business Days after the Bank has requested it unless consent is expressly refused by the Borrower within that time.
- (c) The Bank shall have the right to disclose all information relating to or concerning the Borrower, the Group, the Finance Documents and the Loan in connection with or in contemplation of any such assignment or transfer.

For the purpose of this Article 10.8 (Assignment and transfer by the Bank):

- "Affiliate" means any entity directly or indirectly Controlling, Controlled by or under common Control with the Bank.
- "Bank Affiliate" means an Affiliate of the Bank and any other entity or platform initiated, managed or advised by the Bank.
- "Control" means with respect to a given entity, the power to:
 - (a) cast, or control the casting of, votes corresponding to more than 50% of the issued voting share capital of that entity; or
 - (b) appoint or remove all, or the majority, of the directors or other equivalent officers of that entity; or
 - (c) give directions with respect to the operating and financial policies of that entity with which the directors or other equivalent officers of such entity are obliged to comply; and "Controlled" have corresponding meanings.

ARTICLE 11

Final Articles

11.1 Notices

11.1.1 Form of notice

- (a) Any notice or other communication given under this Contract must be in writing and, unless otherwise stated, may be made by letter or electronic mail
- (b) Notices and other communications for which fixed periods are laid down in this Contract or which themselves fix periods binding on the addressee, may be made by hand delivery, registered letter or by electronic mail. Such notices and communications shall be deemed to have been received by the other Party:
 - (i) on the date of delivery in relation to a hand-delivered or registered letter or
 - (ii) in the case of any electronic mail, only when actually received in readable form and only if it is addressed in such a manner as the other Party shall specify for this purpose.
- (c) Any notice provided by the Borrower or any Guarantor to the Bank by electronic mail shall:
 - (i) mention the Contract Number in the subject line; and
 - (ii) be in the form of a non-editable electronic image (pdf, tif or other common non-editable file format agreed between the Parties) of the notice signed by one or more Authorised Signatories of the Borrower as appropriate, attached to the electronic mail.
- (d) Notices issued by the Borrower pursuant to any provision of this Contract shall, where required by the Bank, be delivered to the Bank together with satisfactory evidence of the authority of the person or persons authorised to sign such notice on behalf of the Borrower and the authenticated specimen signature of such person or persons.
- (e) Without affecting the validity of electronic mail or communication made in accordance with this Article 11.1 (*Notices*), the following notices, communications and documents shall also be sent by registered letter to the relevant Party at the latest on the immediately following Business Day:
 - (i) Disbursement Acceptance;
 - any notices and communication in respect of the cancellation of a disbursement of any Tranche, Prepayment Request,
 Prepayment Notice, Event of Default, any demand for prepayment, and
 - (iii) any other notice, communication or document required by the Bank.
- (f) The Parties agree that any above communication (including via electronic mail) is an accepted form of communication, and shall constitute admissible evidence in court and shall have the same evidential value as an agreement under hand (*sous seing privé*).

11.1.2 Addresses

The address and electronic mail address (and the department for whose attention the communication is to be made) of each Party for any communication to be made or document to be delivered under or in connection with this Contract is:

For the Bank For the Borrower

[***]

Attention: General Counsel

8 rue de la croix jarry, 75013, Paris, France

France

Email address: [***]

11.1.3 Demand after notice to remedy

Each Party shall promptly notify the other Party in writing of any change in their respective communication details.

11.2 English language

- (a) Any notice or communication given under or in connection with the Finance Documents must be in English.
- (b) All other documents provided under or in connection with the Finance Documents must be:
 - (i) in English; or
 - (ii) if not in English, and if so required by the Bank, accompanied by a certified English translation and, in this case, the English translation will prevail.

Signature page

The Parties hereto execute this Contract in 3 (three) originals (2 (two) originals for the Bank and 1 (one) original for the Borrower) in the English language.

This 28 December 2022

Signed for and on behalf of **EUROPEAN INVESTMENT BANK**

/s/	/s/
Name: [INSERT]	Name: [INSERT]
Position: [INSERT]	Position: [INSERT]

On 28 December 2022.

Signed for and on behalf of CELLECTIS

/s/
Name(s): [INSERT]
Position(s): [INSERT]

Investment Specification and Reporting

A.1 Technical Description

Purpose, Location

The project finances the Borrower's research and development (R&D) activities to advance their pipeline of gene-edited cell therapy candidate products for oncology indications.

The project will be managed from the Borrower's headquarters in Paris, France.

Description

The project encompasses the Borrower's R&D activities related to the development of their pipeline in the field of allogeneic CAR T-cell medicinal products in several oncology indications, such as B-cell acute lymphoblastic leukaemia (UCART22), acute myeloid leukaemia (UCART123), multiple myeloma (UCARTCS1), and B-cell non-Hodgkin lymphoma (UCART20x22). The investments predominantly cover R&D costs including the conduct of clinical trials, the necessary chemistry, manufacturing and controls (CMC) activities including production of the Investigational Medicial Products, as well as regulatory, intellectual property and market access expenses. Project expenses will also encompass R&D costs for pre-clinical activities that are required to support the product's marketing authorisation applications.

Calendar

The project will be implemented from January 2023 to December 2026.

Budgeted project costs

[***]

A.2 Information Duties

1. <u>Dispatch of information: designation of the person responsible</u>

The information below has to be sent to the Bank under the responsibility of:

Financial and Technical Contact
Company
Contact person
[***]
Title
Address
8 rue de la Croix Jarry, 75013 Paris
[***]
Financial
Financial Contact
[***]
Financial Contact
[***]
Financial And Technical Contact
[***]
Financia

The above-mentioned contact person is the responsible contact at time of signature of this Contract. The Borrower shall inform the EIB without undue delay in case of any change.

2. <u>Information on the project's implementation</u>

The Borrower shall deliver to the Bank the following information on project progress during implementation at the latest by the deadline indicated below.

[***]

3. <u>Information on the end of works and first year of operation</u>

The Borrower shall deliver to the Bank the following information [***]. [***]

Language of reports

English

Definition of EURIBOR

"EURIBOR" means:

- (a) in respect of a relevant period of less than one month, the Screen Rate (as defined below) for a term of one month;
- (b) in respect of a relevant period of one or more months for which a Screen Rate is available, the applicable Screen Rate for a term for the corresponding number of months; and
- (c) in respect of a relevant period of more than one month for which a Screen Rate is not available, the rate resulting from a linear interpolation by reference to two Screen Rates, one of which is applicable for a period next shorter and the other for a period next longer than the length of the relevant period,

(the period for which the rate is taken or from which the rates are interpolated being the "Representative Period").

For the purposes of paragraphs (a) to (c) above,

- (i) "available" means the rates, for given maturities, that are calculated and published by Global Rate Set Systems Ltd (GRSS), or such other service provider selected by the European Money Markets Institute (EMMI), or any successor to that function of EMMI, as determined by the Bank; and
- (ii) "Screen Rate" means the rate of interest for deposits in EUR for the relevant period as published at 11:00 a.m., Brussels time, or at a later time acceptable to the Bank on the day (the "Reset Date") which falls 2 (two) Relevant Business Days prior to the first day of the relevant period, on Reuters page EURIBOR 01 or its successor page or, failing which, by any other means of publication chosen for this purpose by the Bank.

If such Screen Rate is not so published, the Bank shall request the principal offices of four major banks in the euro-zone, selected by the Bank, to quote the rate at which EUR deposits in a comparable amount are offered by each of them, as at approximately 11:00 a.m., Brussels time; on the Reset Date to prime banks in the euro-zone interbank market for a period equal to the Representative Period. If at least 2 (two) quotations are provided, the rate for that Reset Date will be the arithmetic mean of the quotations. If no sufficient quotations are provided as requested, the rate for that Reset Date will be the arithmetic mean of the rates quoted by major banks in the euro-zone, selected by the Bank, at approximately 11:00 a.m., Brussels time, on the day which falls 2 (two) Relevant Business Days after the Reset Date, for loans in EUR in a comparable amount to leading European banks for a period equal to the Representative Period.

The Bank shall inform the Borrower without delay of the quotations received by the Bank.

All percentages resulting from any calculations referred to in this Schedule will be rounded, if necessary, to the nearest one thousandth of a percentage point, with halves being rounded up.

If any of the foregoing provisions becomes inconsistent with provisions adopted under the aegis of EMMI (or any successor to that function of EMMI as determined by the Bank) in respect of EURIBOR, the Bank may by notice to the Borrower amend the provision to bring it into line with such other provisions.

If the Screen Rate becomes permanently unavailable, the EURIBOR replacement rate will be the rate (inclusive of any spreads or adjustments) formally recommended by (i) the working group on euro risk-free rates established by the European Central Bank (ECB), the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission, or (ii) the European Money Market Institute, as the administrator of EURIBOR, or (iii) the competent authority responsible under Regulation (EU) 2016/1011 for supervising the European Money Market Institute, as the administrator of the EURIBOR, (iv) the national competent authorities designated under Regulation (EU) 2016/1011, or (v) the European Central Bank.

If no Screen Rate and/or the EURIBOR replacement rate is available as provided above, EURIBOR shall be the rate (expressed as a percentage rate per annum) which is determined by the Bank to be the all-inclusive cost to the Bank for the funding of the relevant Tranche based upon the then applicable internally generated Bank reference rate or an alternative rate determination method reasonably determined by the Bank.

Form of Disbursement Offer/Acceptance

To: CELLECTIS

From: European Investment Bank

Date:

Subject: Disbursement Offer/Acceptance for the Finance Contract between European Investment Bank and CELLECTIS dated 28 December 2022 (the "Finance Contract")

[***] [***]

Dear Sirs,

We refer to the Finance Contract. Terms defined in the Finance Contract have the same meaning when used in this letter.

Following your request for a Disbursement Offer from the Bank, in accordance with Article 2.2.2 (*Disbursement Offer*) of the Finance Contract, we hereby offer to make available to you the following Tranche:

- (a) Tranche [A/B/C]
- (b) Amount to be disbursed:
- (c) Disbursement Date:
- (d) PIK Interest Rate:
- (e) interest periods:
- (f) Terms for repayment of principal: bullet;
- (g) Maturity Date:
- (h) Number of Warrants to be issued in relation to the Tranche:

To make the Tranche available subject to the terms and conditions of the Finance Contract, the Bank must receive a Disbursement Acceptance in the form of a copy of this Disbursement Offer duly signed on your behalf, to the following electronic mail [***] no later than the Disbursement Acceptance Deadline of [time], Luxembourg time, on [date].

The Disbursement Acceptance below must be signed by an Authorised Signatory and must be fully completed as indicated, to include the details of the Disbursement Account.

If not duly accepted by the above stated time, the offer contained in this document shall be deemed to have been refused and shall automatically lapse.

If you do accept the Tranche as described in this Disbursement Offer, all the related terms and conditions of the Finance Contract shall apply, in particular, the provisions of Article 2.5 (*Conditions of Disbursement*).

Yours faithfully,

EUROPEAN INVESTMENT BANK

We hereby accept the above Disbursement Offer for and on behalf of the Borrower:	
Date:	
Account to be credited ¹ :	
Account N°:	
Account Holder/Beneficiary:	
(please, provide IBAN format if the country is included in IBAN Registry published by SWIFT, otherwise an appropriate format in line with the local banking practice should be provided)	
Bank name, identification code (BIC) and address:	
Payment details to be provided:	
Please transmit information relevant to:	
Name(s) of the Borrower's Authorised Signatory(ies):	
Signature(s) of the Borrower's Authorised Signatory(ies):	

IMPORTANT NOTICE TO THE BORROWER:

BY COUNTERSIGNING ABOVE YOU CONFIRM THAT THE LIST OF AUTHORISED SIGNATORIES AND ACCOUNTS PROVIDED TO THE BANK WAS DULY UPDATED PRIOR TO THE PRESENTATION OF THE ABOVE DISBURSEMENT OFFER BY THE BANK.

IN THE EVENT THAT ANY SIGNATORIES OR ACCOUNTS APPEARING IN THIS DISBURSEMENT ACCEPTANCE ARE NOT INCLUDED IN THE LATEST LIST OF AUTHORISED SIGNATORIES AND ACCOUNTS RECEIVED BY THE BANK, THE ABOVE DISBURSEMENT OFFER SHALL BE DEEMED AS NOT HAVING BEEN MADE.

¹ The details concerning banking intermediary are also to be provided if such intermediary has to be used to make the transfer to the Beneficiary's Account.

Form of Drawdown Certificate

To: European Investment Bank

From: CELLECTIS

Date:

Subject: Finance Contract between European Investment Bank and CELLECTIS dated 28 December 2022 (the "Finance Contract")

[***]

Dear Sirs,

Terms defined in the Finance Contract have the same meaning when used in this letter.

For the purposes of Article 2.5 (Conditions of Disbursement) of the Finance Contract we hereby certify to you as follows:

- (a) no Prepayment Event has occurred and is continuing unremedied;
- (b) no security of the type prohibited under Paragraph 23 (Negative pledge) of Schedule H (General Undertakings) has been created or is in existence;
- (c) there has been no material change to any aspect of the Investment or in respect of which we are obliged to report under the Finance Contract, save as previously communicated by us;
- (d) no Default, Event of Default or a Prepayment Event other than pursuant to Article 5.3.1 (*Investment Cost Reduction Event*) of the Finance Contract has occurred or is continuing, or would, in each case, result from the disbursement of the proposed Tranche;
- (e) no litigation, arbitration administrative proceedings or investigation is current or to our knowledge is threatened or pending before any court, arbitral body or agency which has resulted or if adversely determined is reasonably likely to result in a Material Adverse Change, nor is there subsisting against us or any of our subsidiaries any unsatisfied judgement or award;
- (f) the Repeating Representations are correct in all respects;
- (g) no Material Adverse Change has occurred, as compared with the situation at the date of the Finance Contract;
- (h) the Borrower is not in a state of cessation of payments (cessation des paiements); and
- (i) the borrowing of the Credit, or any part thereof, by the Borrower is within the corporate powers of the Borrower.

Yours faithfully,

For and on behalf of CELLECTIS

Date:

Form of Compliance Certificate

To: European Investment Bank

From: CELLECTIS

Date:

Subject: Finance Contract between European Investment Bank and CELLECTIS dated 28 December 2022 (the "Finance Contract")

[***][***]

Dear Sirs,

We refer to the Finance Contract. This is a Compliance Certificate. Terms defined in the Finance Contract have the same meaning when used in this Compliance Certificate.

We hereby confirm:

- (a) [insert information regarding asset disposal];
- (b) [no security of the type prohibited under Paragraph 23 (*Negative pledge*) of Schedule H (*General Undertakings*) has been created or is in existence;]
- (c) [no Default, Event of Default or a Prepayment Event other than pursuant to Article 5.3.1 (*Investment Cost Reduction Event*) of the Finance Contract has occurred or is continuing.] [*If this statement cannot be made*, this certificate should identify any potential event of default that is continuing and the steps, if any, being taken to remedy it]; and
- (d) [there is no Material Subsidiary [other than: [***] for which a [Guarantee Agreement has been signed with the Bank]]]

Yours faithfully,

For and on behalf of CELLECTIS

[director] [director]

Part A—Initial Documentary Conditions Precedent

- (a) The duly executed Contract, the Guarantee Agreements by Cellectis, Inc. and Cellectis Biologics, Inc., the Warrant Agreement, the Fee Letter, the MAR Letter and the TEG Letter.
- (b) The constitutional documents of each Obligor (or any equivalent document in its jurisdiction of incorporation).
- (c) An original copy of (i) a certificate of incorporation (*extrait k-bis*), (ii) a solvency certificate (certificat de non-faillite) and (iii) a lien search (*état des privilèges et nantissements*) relating to each Obligor (or any equivalent document in its jurisdiction of incorporation) and which must not be dated more than 14 (fourteen) Business Days before the relevant Disbursement Date.
- (d) A copy of the resolution of the competent body (board of directors or general meeting of shareholders) of each Obligor duly authorising the execution and performance of the Finance Documents to which it is a party and duly authorising the relevant signatories.
- (e) The List of Authorised Signatories and Accounts.
- (f) A copy of the Existing Indebtedness agreements.
- (g) A legal opinion of Gide Loyrette Nouel A.A.R.P.I., addressed to the Bank on the legality, validity and enforceability of the Contract, the Guarantee Agreements and the Warrant Agreement.
- (h) a legal opinion of Jones Day, legal adviser to the Borrower, addressed to the Bank, and dated no earlier than the date falling 14 (fourteen) days before the Disbursement Date:
 - (i) which includes an insolvency search on the relevant Obligor conducted on the date of such legal opinion; and
 - (ii) on the due incorporation, valid existence of the Borrower, the authority and capacity of the Borrower to enter into the Finance Documents and perform its obligations thereunder, non-conflict with constitutional documents and on laws applicable to companies generally in France, no consents, registrations or filings are required and no stamp duty is to be paid in respect of the Finance Documents, all corporate and other action required to be taken has indeed been taken, the due execution of the Finance Documents and that the Borrower is not entitled to claim immunity.
- (i) a legal opinion of Jones Day, legal adviser to the Obligors (other than the Borrower), addressed to the Bank:
 - (i) which includes an insolvency search on the relevant Obligor conducted on the date of such legal opinion; and
 - (ii) on the due incorporation, valid existence of each Obligor, the authority and capacity of such Obligor to enter into the Finance Documents and perform its obligations thereunder, non-conflict with constitutional documents and on laws applicable to companies generally in its jurisdiction of incorporation, no consents, registrations or filings are required and no stamp duty is to be paid in respect of the Finance Documents, all corporate and other action required to be taken has indeed been taken, the due execution of the Finance Documents, choice of law and enforceability of judgments and that such Obligor is not entitled to claim immunity.
- (j) A structure chart showing the Group certified as being complete and correct by an authorised signatory of the Borrower provided such certification is dated no earlier than the date falling 14 (fourteen) Business Days before the Disbursement Date.
- (k) The latest audited financial statements of the Obligors.

- (l) A certificate of an authorised signatory of each Obligor certifying that each copy document relating to it specified in Part A (*Initial Documentary Conditions Precedent*) of Schedule F (*Conditions Precedent*) is correct, complete and in full force and effect as at a date no earlier than the date falling 14 (fourteen) Business Days before the Disbursement Date.
- (m) A copy of any other document, authorisation, opinion or assurance which the Bank has notified the Borrower is necessary or desirable in connection with the entry into and performance of, and the transactions contemplated by, the Finance Documents or the validity and enforceability of the same.

Part B - All Tranches—Conditions Precedent

- (a) A certificate from the Borrower in the form of Schedule D (*Form of Drawdown Certificate*), signed by an Authorised Signatory and dated no earlier than the date falling 14 (fourteen) Business Days before the Disbursement Date.
- (b) An original copy of (i) a certificate of incorporation (*extrait k-bis*), (ii) a solvency certificate (certificate de non-faillite) and (iii) a lien search (*état des privilèges et nantissements*) relating to the Borrower and which must not be dated more than 14 (fourteen) Business Days before the relevant Disbursement Date.
- (c) Evidence that the fees, costs and expenses payable in accordance with the Finance Documents then due by the Borrower have been paid or will be paid on the concerned Disbursement Date.
- (d) A copy of any other document, authorisation, opinion or assurance which the Bank has notified the Borrower is necessary or desirable in connection with the requested Tranche.

Part C - Tranche A-Additional Conditions Precedent

- (a) A copy of the resolution of the competent body (board of directors and/or general meeting of shareholders) of the Borrower:
 - (i) approving the issuance of the Tranche A Warrants by the Borrower; and
 - (ii) resolving to allot the Tranche A Warrants to the Bank.
- (b) A copy of each report issued by the Borrower's statutory auditors in relation to the Tranche A Warrants.
- (c) A copy of the Borrower's board of directors minutes acknowledging the amount of receivable held by the Bank as part of the Arrangement Fee (as defined in the Warrant Agreement).
- (d) A copy of the report issued by the Borrower's statutory auditors certifying the amount of receivable held by the Bank as part of the Arrangement Fee (as defined in the Warrant Agreement) and to be set off against the subscription price of the Tranche A Warrants.
- (e) A subscription form substantially in the form set out in the Warrant Agreement relating to the Tranche A Warrants duly signed by the Bank.
- (f) A copy of the depositary certificate (*certificat du dépositaire*) or any equivalent document evidencing the subscription to the Tranche A Warrants by the Bank.
- (g) A copy of the Borrower's board of directors minutes acknowledging the subscription to the Tranche A Warrants by the Bank.
- (h) Evidence that the Bank has been recorded as holder of the Warrants relating to the Tranche A Warrants in the Register.
- (i) A legal opinion from Jones Day, legal adviser to the Borrower, addressed to the Bank providing that (x) the issuance of the Tranche A Warrants has been duly authorised by the Borrower and (y) the Tranche A Warrants have been validly issued to the benefit of the Bank and subscribed by it and (z) the Bank is, as at the date of issuance of the Tranche A Warrants, the valid owner of the Tranche A Warrants which are duly registered in the Bank's name in the Register held by Société Générale Securities Services.
- (j) Evidence that [***] has initiated the [***], as demonstrated by first patient-in.
- (k) A certificate of an authorised signatory of each Obligor certifying that each copy document relating to it specified in Parts B (*All Tranches Documentary Conditions Precedent*) and C (*Tranche A Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*) is correct, complete and in full force and effect as at a date no earlier than the date falling falling 14 (fourteen) days before the Disbursement Date.

Part D—Tranche B—Additional Conditions Precedent

- (a) A copy of the resolution of the competent body (board of directors and/or general meeting of shareholders) of the Borrower:
 - (i) approving the Tranche B Warrants by the Borrower; and
 - (ii) resolving to allot the Tranche B Warrants to the Bank.
- (b) A copy of each report issued by the Borrower's statutory auditors in relation to the Tranche B Warrants.
- (c) A copy of the Borrower's board of directors minutes acknowledging the amount of receivable held by the Bank as part of the Arrangement Fee (as defined in the Warrant Agreement).
- (d) A copy of the report issued by the Borrower's statutory auditors certifying the amount of receivable held by the Bank as part of the Arrangement Fee (as defined in the Warrant Agreement) and to be set off against the subscription price of the Tranche B Warrants.
- (e) A subscription form substantially in the form set out in the Warrant Agreement relating to the Tranche B Warrants duly signed by the Bank.
- (f) A copy of the depositary certificate (*certificat du dépositaire*) or any equivalent document evidencing the subscription of the Tranche B Warrants by the Bank.
- (g) A copy of the Borrower's board of directors minutes acknowledging the subscription to the Tranche B Warrants by the Bank.
- (h) Evidence that the Bank has been recorded as holder of the Tranche B Warrants in the Register.
- (i) A legal opinion from Jones Day, legal adviser to the Borrower, addressed to the Bank providing that (x) the Tranche B Warrants have been duly authorised by the Borrower and (y) the Tranche B Warrants have been validly issued to the benefit of the Bank and subscribed by it and (z) the Bank is, as at the date of the issuance of the Tranche B Warrants, the valid owner of the Tranche B Warrants which are duly registered in the Bank's name in the Register held by Société Générale Securities Services.
- (j) Evidence, in form and substance satisfactory to the Bank, that the Borrower has successfully achieved Cash Injection for an aggregate amount of at least EUR 20,000,000 (twenty million euro) as from 31 October 2022.
- (k) Evidence, in form and substance satisfactory to the Bank, that the Borrower has received, as from 31 October 2022, an aggregate amount of upfront and Milestones payments in the context of existing or new Partnerships of at least EUR 15,000,000 (fifteen million euro).
- (l) Evidence that at least two clinical trials are actively recruiting.
- (m) Evidence that no more than one clinical trial is ongoing mandatory holds [***], as demonstrated by a compliance certificate signed by the CEO of the Borrower.
- (n) A certificate of an authorised signatory of each Obligor certifying that each copy document relating to it specified in Parts B (*All Tranches Documentary Conditions Precedent*) and D (*Tranche B Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*) is correct, complete and in full force and effect as at a date no earlier than the date falling falling 14 (fourteen) days before the Disbursement Date and confirming that there were no changes to the certificates provided pursuant to paragraphs (l) of Part A (*Initial Documentary Conditions Precedent*) of Schedule F (*Conditions Precedent*) and (k) of Part C (*Tranche A Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*) or otherwise outlining such changes and certifying that such copy document is correct, complete and in full force and effect as at a date no earlier than the date falling 14 (fourteen) days before the relevant Disbursement Date.

Part E—Tranche C—Additional Conditions Precedent

- (a) A copy of the resolution of the competent body (board of directors and/or general meeting of shareholders) of the Borrower:
 - (i) approving the Tranche C Warrants by the Borrower; and
 - (ii) resolving to allot the Tranche C Warrants to the Bank.
- (b) A copy of each report issued by the Borrower's statutory auditors in relation to the Tranche C Warrants.
- (c) A copy of the Borrower's board of directors minutes acknowledging the amount of receivable held by the Bank as part of the Arrangement Fee (as defined in the Warrant Agreement).
- (d) A copy of the report issued by the Borrower's statutory auditors certifying the amount of receivable held by the Bank as part of the Arrangement Fee (as defined in the Warrant Agreement) and to be set off against the subscription price of the Tranche C Warrants.
- (e) A subscription form substantially in the form set out in the Warrant Agreement relating to the Tranche C Warrants duly signed by the Bank.
- (f) A copy of the depositary certificate (*certificat du dépositaire*) or any equivalent document evidencing the subscription of the Tranche C Warrants by the Bank.
- (g) A copy of the Borrower's board of directors minutes acknowledging the subscription to the Tranche C Warrants by the Bank.
- (h) Evidence that the Bank has been recorded as holder of the Tranche C Warrants in the Register.
- (i) A legal opinion from Jones Day, legal adviser to the Borrower, addressed to the Bank providing that (x) the Tranche C Warrants have been duly authorised by the Borrower and (y) the Tranche C Warrants have been validly issued to the benefit of the Bank and subscribed by it and (z) the Bank is, as at the date of the issuance of the Tranche C Warrants, the valid owner of the Tranche C Warrants which are duly registered in the Bank's name in the Register held by Société Générale Securities Services.
- (j) Evidence, in form and substance satisfactory to the Bank, that the Borrower has successfully achieved Cash Injection for an aggregate amount of at least EUR 25,000,000 (twenty-five million euro) as from 31 October 2022.
- (k) Evidence, in form and substance satisfactory to the Bank, that the Borrower has received, as from 31 October 2022, an aggregate amount of upfront and Milestones payments in the context of existing or new Partnerships of at least EUR 25,000,000 (twenty-five million euro).
- (l) Evidence that at least two clinical trials are actively recruiting out of which one in the context of a pivotal study or evidence that at least two clinical trials are actively recruiting in the context of expansion phase studies.
- (m) Evidence that at least two clinical trials are not ongoing mandatory holds [***], as demonstrated by a compliance certificate signed by the CEO of the Borrower.
- (n) A certificate of an authorised signatory of each Obligor certifying that each copy document relating to it specified in Parts B (*All Tranches Documentary Conditions Precedent*) and E (*Tranche C Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*) is correct, complete and in full force and effect as at a date no earlier than the date falling falling 14 (fourteen) days before the Disbursement Date and confirming that there were no changes to the certificates provided pursuant to paragraphs (l) of Part A (*Initial Documentary Conditions Precedent*) of Schedule F (*Conditions Precedent*) and (n) of Part D (*Tranche B Additional Conditions Precedent*) of Schedule F (*Conditions Precedent*) or otherwise outlining such changes and certifying that such copy document is correct, complete and in full force and effect as at a date no earlier than the date falling 14 (fourteen) days before the relevant Disbursement Date.

Representations and Warranties

1. Authorisations and Binding Obligations

- (a) Each Obligor is duly incorporated and validly existing as a company with limited liability under the laws of its jurisdiction of incorporation. Except the Borrower, no Obligor's shares are publicly traded.
- (b) Each Obligor has the power to carry on its business as it is now being conducted and to own its property and other assets, and to execute, deliver and perform its obligations under the Finance Documents.
- (c) Each Obligor has obtained all necessary Authorisations in connection with the execution, delivery and performance of the Finance Documents and in order to lawfully comply with its obligations thereunder, and in respect of the Investment, and all such Authorisations are in full force and effect and admissible in evidence.
- (d) The execution and delivery of, the performance of each Obligor's obligations under and compliance with the provisions of the Finance Documents do not and will not contravene or conflict with:
 - (i) any applicable law, statute, rule or regulation, or any judgement, decree or permit to which it is subject;
 - (ii) any agreement or other instrument binding upon it which might reasonably be expected to have a material adverse effect on its ability to perform its obligations under the Finance Documents; or
 - (iii) any provision of its constitutional documents.
- (e) The obligations expressed to be assumed by each Obligor in each Finance Document to which it is a party are legal, valid, binding and enforceable obligations.

2. No default or other adverse event

- (a) There has been no Material Adverse Change since 23 September 2022. (Non-repeating)
- (b) No event or circumstance which constitutes an Event of Default has occurred and is continuing unremedied or unwaived.

3. No proceedings

- (a) No litigation, arbitration, administrative proceedings or investigation is current or to its knowledge is threatened or pending before any court, arbitral body or agency which has resulted or if adversely determined is reasonably likely to result in a Material Adverse Change, nor is there subsisting against it or any of its Subsidiaries any unsatisfied judgement or award.
- (b) To the best of its knowledge and belief (having made due and careful enquiry) no material Environmental Claim has been commenced or is threatened against any Obligor.
- (c) As at the date of this Contract, no Obligor has taken any action to commence proceedings for, nor have any other steps been taken or legal proceedings commenced or, so far as the Borrower is aware, threatened against any Obligor for its insolvency, winding up or dissolution, or for any Obligor to enter into any arrangement or compositions for the benefit of creditors, or for the appointment of an administrator, receiver, administrative receiver, examiner, trustee or similar officer.

- (d) The Borrower or any French Obligor has not taken any corporate action, legal proceedings or other procedure or step in relation to:
 - (i) the suspension of payments, a moratorium of any indebtedness or the opening of proceedings for sauvegarde, sauvegarde accélérée, redressement judiciaire, liquidation judiciaire or reorganisation (in the context of a mandat ad hoc or of a conciliation or otherwise) of the Borrower:
 - (ii) the appointment of a liquidator receiver, administrator, administrative receiver, provisional administrator, *mandataire ad hoc, conciliateur* or other similar officer in respect of the Borrower or any of its assets;
 - (iii) a judgment for sauvegarde, sauvegarde accélérée, redressement judiciaire, cession totale ou partielle de l'entreprise or liquidation judiciaire or any other measure, procedure or judgement referred to in book 6 of the French *Code de commerce* is entered into in relation to the Borrower;
 - (iv) the enforcement by a third party of any Security over any assets of the Borrower;
 - (v) the Borrower applying for mandat ad hoc or conciliation in accordance with articles L.611-3 et seq. of the French Code de commerce; or
 - (vi) any procedure, judgement, or step is taken in any jurisdiction, which has effects similar to those, above-mentioned.

4. Security

At the date of this Contract, no Security exists over the assets of any Group Company other than Permitted Security.

5. Ranking

- (a) Its payment obligations under this Contract rank not less than *pari passu* in right of payment with all other present and future unsecured and unsubordinated obligations under any of its debt instruments except for obligations mandatorily preferred by law applying to companies generally.
- (b) No financial covenants have been concluded with any other creditor of any Obligor.
- (c) No Voluntary Non EIB Prepayment has occurred.

6. Anti-Corruption

- (a) Each Obligor is in compliance with all applicable European Union and national legislation regarding Illegal Activities.
- (b) No Obligor is engaged in any Illegal Activities and to the best of the Borrower's knowledge no Illegal Activities have occurred in connection with the Loan and the Investment. (*Non-repeating*)

7. Accounting and Tax

- (a) The latest available consolidated and unconsolidated audited accounts of the Borrower and the other Obligors have been prepared on a basis consistent with previous years and have been approved by its auditors as representing a true and fair view of the results of its operations for that year and accurately disclose or reserve against all the liabilities (actual or contingent) of the Borrower and the other Obligors, as relevant.
- (b) The accounting reference date of the Borrower is 31 December.
- (c) No Obligor is required to make any deduction for or on account of any Tax from any payment it may make under the Finance Documents. (*Non-repeating*)
- (d) All Tax returns required to have been filed by each Obligor or on its behalf under any applicable law have been filed when due and contain the information required by applicable law to be contained in them.
- (e) Each Obligor has paid when due all Taxes payable by it under applicable law except to the extent that it is contesting payment in good faith and by appropriate means.

- (f) With respect to Taxes which have not fallen due or which it is contesting, each Obligor is maintaining reserves adequate for their payment and in accordance, where applicable, with GAAP.
- (g) Under the laws of the jurisdiction of incorporation of each Obligor, it is not necessary that the Finance Documents be filed, recorded or enrolled with any court or other authority or that any stamp, registration or similar tax be paid on or in relation to the Finance Documents, or the transactions contemplated by the Finance Documents. (*Non-repeating*)
- (h) The Borrower represents that it is exempted from FATCA and that it is therefore entitled to receive payments free from any FATCA Deduction.

8. Information provided

As at the date of this Contract:

- (a) the factual information provided by any Group Company for the purposes of entering into this Contract and any related documentation was true and accurate in all material respects as at the date it was provided or as at the date (if any) at which it is stated and continues to be true and accurate in all material respect as at the date of this Contract;
- (b) the Group structure chart is true, complete and accurate in all material respects and represents the complete corporate structure of the Group as at the date of this Contract, and other than as set out therein the Borrower owns no other equity and/or shares in any other business entity. (*Non-repeating*)
- (c) (i) the information provided by the Borrower under the Declaration of Honour and InvestEU Fund MSS Declaration is complete, accurate and true in all respects; and (ii) the Borrower (and the Group as a whole where relevant) complies with the eligibility and exclusion criteria to be the beneficiary of the Credit as such criteria are listed in the Declaration of Honour and InvestEU Fund MSS Declaration. (*Non-repeating*)

9. No indebtedness

No Obligor has Indebtedness outstanding other than Permitted Indebtedness. (Non-repeating).

10. No Immunity

No Obligor, nor any of its assets, is entitled to immunity from suit, execution, attachment or other legal process.

11. Pensions

The pension schemes for the time being operated by the Obligors (if any) are funded in accordance with their rules and to the extent required by law or otherwise comply with the requirements of any law applicable in the jurisdiction in which the relevant pension scheme is maintained.

12. Inside Information

The Borrower does not possess any Inside Information, save where and to the extent that it has, on its own responsibility, exercised its right to delay the disclosure to the public of the relevant information, pursuant to and in accordance with MAR, and any other applicable French laws and regulations.

13. Sanctions

No Group Company and/or any Relevant Person

- (a) is a Sanctioned Person; or
- (b) is in breach of any Sanctions.

It is acknowledged and agreed that the representations set out in this Paragraph 13 (*Sanctions*) are only sought by and given to the Bank to the extent that to do so would be permissible pursuant to any applicable anti-boycott rule of the EU such as Regulation (EC) 2271/96.

General Undertakings

1. Use of Loan

The Borrower shall use all amounts borrowed by it under the Loan to carry out the Investment. In any event, the Borrower shall ensure that the amount of the Credit together with any principal loan amount provided by another implementing partner under the InvestEU Fund shall not exceed 50% (fifty per cent) of the total cost of the Investment set out in Recital (A).

2. Completion of Investment

The Borrower shall or shall procure that the Investment is carried out in accordance with the Technical Description as may be modified from time to time with the approval of the Bank, and complete it by the final date specified therein.

3. Procurement procedure

- (a) The Borrower shall procure works, goods and services for the Investment:
 - (i) in accordance with EU Law in general and in particular with the relevant European Union procurement directives, if the latter are applicable;
 - (ii) in accordance with procurement procedures which, to the satisfaction of the Bank, respect the criteria of economy and efficiency and the principles of transparency, equal treatment and non-discrimination on the basis of nationality in case of public contracts not subject to the European Union procurement directives; or
 - (iii) in accordance with procurement procedures which, to the satisfaction of the Bank, respect the criteria of economy and efficiency in case of contracts other than public contracts not subject to the European Union procurement directives.
- (b) For cases (i) and (ii) of paragraph (a) above, the Borrower shall request in the tender documents or other reference documents for the procurement procedures referred to in sub-paragraph (a) above that the bidder declares whether or not it is subject to any exclusion decision or temporary suspension pursuant to the Exclusion Policy.
- (c) If a bidder declares to the Borrower prior to the contract award that it is subject to any exclusion decision or temporary suspension covered by the Exclusion Policy, the Borrower shall engage with the Bank in good faith and shall make best efforts in order to:
 - (i) achieve an exclusion of such a bidder under applicable law so that the bidder does not participate in the Investment or, should such an exclusion not be possible,
 - (ii) restructure the scope of the Investment so that no proceeds of the Loan be applied towards any works or services under any contract awarded to that bidder, unless otherwise agreed with the Bank.

4. Compliance with laws

Each Obligor shall comply in all respects with all laws and regulations to which it or the Investment is subject.

5. Environment

The Borrower shall:

(i) implement and operate the Investment in compliance with Environmental Law;

(ii) obtain, maintain and comply with requisite Environmental Approvals for the Investment,

and upon becoming aware of any breach of this Paragraph 5 (Environment):

- (i) the Borrower shall promptly notify the Bank;
- (ii) the Borrower and the Bank will consult for up to 15 (fifteen) Business Days from the date of notification with a view to agreeing the manner in which the breach should be rectified; and
- (iii) the Borrower shall remedy the breach within 30 (thirty) Business Days of the end of the consultation period.

6. Integrity

The Borrower shall not engage in (and shall not authorise or permit any person acting on its behalf or under its control) to engage in any conduct of Illegal Activity in connection with the Loan and the Investment.

7. Disposal of assets

- (a) Except as provided below, the Borrower shall not, and shall procure that no Group Company shall, either in a single transaction or in a series of transactions whether related or not and whether voluntarily or involuntarily dispose of all or any part of any Group Company's business, undertaking or assets (including any shares or security of any entity or a business or undertaking, or any interest in any of them).
- (b) Sub-paragraph (a) above does not apply to any such disposal:
 - (i) made with the prior written consent of the Bank;
 - (ii) made on arm's length terms in the ordinary course of business of a Group Company;
 - (iii) made on arm's length terms and at fair market value for cash, which is reinvested in assets of comparable or superior type, value and quality;
 - $(iv) \quad \text{made on arm's length terms in exchange for other assets comparable or superior as to type, value and quality;} \\$
 - (v) by one Obligor to another Obligor;
 - (vi) constituted by a licence of Intellectual Property Rights made on arm's length terms;
 - (vii) of [***] provided the Borrower continues to have full access to such [***] in the context of the Investment;
 - (viii) made in relation to non-material assets which have depreciated to less than [***] of their initial value or which are obsolete;
 - (ix) excluding any disposal otherwise permitted under (ii) to (vii) above, disposals where the higher of the market value or consideration receivable for such disposals does not exceed (x) [***] of Total Assets during any financial year, and (y) [***] of Total Assets during the term of the Credit; or
 - (x) arising as a result of Permitted Security,

provided that the disposal is not of assets forming part of the Investment or shares in subsidiaries holding assets forming part of the Investment, which may not be disposed of unless either (a) the Borrower consults the Bank in relation to such disposal, and the Bank approves the disposal, or (b) the proceeds of the disposal are applied to prepay the Bank in accordance with Article 5.3.5 (*Disposals*);

and further provided that in case the Bank denies its consent to a disposal envisaged by a Group Company that is not authorized by the Finance Contract, the Borrower may voluntarily prepay all sums due under the Finance Contract in accordance with paragraph 5.2 and in this case no Prepayment Fee will apply.

For the purposes of this Paragraph 7 (*Disposal of assets*), "dispose" and "disposal" includes any act effecting sale, transfer, lease or other disposal.

8. Maintenance of assets

The Borrower shall maintain, repair, overhaul and renew all assets required in relation to the Investment as required to keep such assets in good working order.

9. Insurances

The Borrower shall, and shall procure that each Group Company shall, maintain insurances on and in relation to its business and assets with reputable underwriters or insurance companies against those risks and to the extent as is usual for companies carrying on the same or substantially similar business.

10. Change in business

The Borrower shall procure that no substantial change is made to the general nature business of the Borrower or the Group as a whole from that carried on at the date of this Contract.

11. Merger

The Borrower shall not, and shall procure that no Group Company shall, enter into any amalgamation, demerger, merger or corporate reconstruction (which includes in relation to any company any contribution of any part of its business in consideration of shares (*apport partiel d'actifs*) and any demerger (*scission*) implemented in accordance with article L.236-1 to L.236-24 of the French *Code de commerce*) unless:

- (a) with the prior written consent of the Bank; or
- (b) such amalgamation, demerger, merger or corporate reconstruction does not result in a Material Adverse Change and is on a solvent basis, and provided that:
 - (i) only Group Companies are involved;
 - (ii) the resulting entity will not be incorporated or located in a country which is in a jurisdiction that is blacklisted by any Lead Organisation in connection with activities such as money laundering, financing of terrorism, tax fraud and tax evasion or harmful tax practices as such blacklist may be amended from time to time; and
 - (iii) if the Borrower is involved, (i) the rights and obligations of the Borrower under this Contract will remain with the Borrower, (ii) the surviving entity will be the Borrower and the statutory seat of the Borrower would not as a result of such merger be transferred to a different jurisdiction, (iii) the merger will not have an effect on the validity, legality or enforceability of the Borrower's obligations under this Contract; and (iv) all of the business and assets of the Borrower are retained by it,

provided that in case the Bank denies its consent to an amalgamation, demerger, merger or corporate reconstruction envisaged by a Group Company that is not authorized by the Finance Contract, the Borrower may voluntarily prepay all sums due under the Finance Contract in accordance with paragraph 5.2 and in this case no Prepayment Fee will apply.

12. Books and records

Each Obligor shall ensure that it has kept and will continue to keep proper books and records of account, in which full and correct entries shall be made of all financial transactions and its assets and business, including expenditures in connection with the Investment, in accordance with GAAP as in effect from time to time.

13. Ownership

- (a) The Borrower shall maintain not less than 51% (fifty-one per cent.) of the share capital, directly or indirectly, of each of its Material Subsidiaries, unless a prior written consent of the Bank is received by the Borrower.
- (b) The Borrower shall in aggregate maintain not less than 51% (fifty-one per cent.) of the share capital, directly or indirectly, of each Guarantor, unless prior written consent of the Bank is received by the Borrower.
- (c) The Borrower shall immediately notify the Bank in the event of a new entity becoming a Subsidiary of the Borrower through any means, including but not limited to acquisition, creation and spin-off.
- (d) The undertakings in sub-paragraphs (a), (b) and (c) above shall be calculated in accordance with GAAP as applied by the Borrower on the date of this Contract and as GAAP is amended from time to time and tested annually.

In case the Bank denies its consent to a disposal the shares of a Material Subsidiary or a Guarantor by virtue of paragraphs (a) or (b) above, the Borrower may voluntarily prepay all sums due under the Finance Contract in accordance with paragraph 5.2 and in this case no Prepayment Fee will apply.

14. Acquisitions

The Borrower shall not, and shall procure that no Group Company shall, invest in or acquire any entity or a business going concern or an undertaking (whether whole or substantially the whole of the assets or business), or any division or operating unit thereof, or any shares or securities of any entity or a business or undertaking (or in each case, any interest in any of them) (or agree to any of the foregoing), save for an acquisition or investment:

- (a) with the prior written consent of the Bank;
- (b) by one Obligor of an asset sold, leased, transferred or otherwise disposed of by another Obligor;
- (c) of shares or other ownership interests in any limited liability company or corporation, limited liability partnership or any equivalent company, the consideration for which does not exceed an aggregate amount of (x) EUR 2,500,000 (two million five hundred thousand euro) during any financial year, and (y) EUR 5,000,000 (five million euro) during the term of the Credit, provided that:
 - (i) no Event of Default is continuing on the date the relevant acquisition agreement is entered into or would occur as a result of the acquisition;
 - (ii) the acquired entity is engaged in a business similar or complementary to the business carried on by the Group as at the date of this Contract;
 - (iii) the acquired entity is not incorporated or located in a jurisdiction that is blacklisted by any Lead Organisation in connection with activities such as money laundering, financing of terrorism, tax fraud and tax evasion or harmful tax practices as such blacklist may be amended from time to time;
 - (iv) in respect of any acquisition where the consideration exceeds EUR 500,000 (five hundred thousand euro), legal and financial due diligence reports (including customary reliance letters in favour of the Bank) and a business plan (in the form of the most recent budget adjusted for the expected effects of the acquisition) in respect of the 3 (three) next following financial years and any other due diligence reports received in connection with the acquisition (if any) are provided to the Bank; and
 - (v) the Borrower provides a Compliance Certificate for the 2 (two) 12 (twelve) month financial periods immediately following the acquisition, updated on a pro forma basis as if the acquisition has occurred.

15. Indebtedness

The Borrower shall not, and shall procure that no other Group Company shall, incur any Indebtedness, save for Indebtedness incurred:

- (a) with the prior written consent of the Bank;
- (b) under this Contract;
- (c) under the Existing Indebtedness;
- (d) under any subordinated Indebtedness, to the extent that such subordinated Indebtedness is (i) fully subordinated to the Loan in terms of payment, repayment and prepayments pursuant to a subordination agreement satisfactory to the Bank, (ii) unsecured, (iii) subordinated in case of insolvency and (iv) in terms and conditions satisfactory to the Bank;
- (e) under any Finance Lease if the aggregate liability in respect of the equipment leased does not at any time exceed EUR 1,000,000 (one million euro) (or its equivalent in another currency or currencies) (in addition to the Existing Indebtedness);
- (f) under Permitted Hedging;
- (g) under any letters of credit provided that such Indebtedness does not, singularly or in aggregate, exceed EUR 500,000 (five hundred thousand euro) (or its equivalent in another currency or currencies);
- (h) under prefinancing or factoring of CIR (*crédit d'impôt recherche*) or CII (*crédit d'impôt innovation*) or equivalent tax credit;
- (i) under unsecured soft loan from BPI or any other financial entity affiliated or guaranteed by the French State and the outstanding amount of which does not exceed EUR 15,000,000 (fifteen million euro) (or its equivalent) in aggregate for the Group at any time in addition to the Existing Indebtedness);
- (j) in respect of a Permitted Guarantee; or
- (k) under loans made available by commercial banks not permitted by the preceding sub-paragraphs and the outstanding amount of which does not exceed EUR 5,000,000 (five million euro) (or its equivalent) in aggregate for the Group at any time.

16. Guarantees

- (a) The Borrower shall not, and shall procure that no other Group Company shall, issue or allow to remain outstanding any guarantees in respect of any liability or obligation of any person save for:
 - (i) with the prior written consent of the Bank; or
 - (ii) guarantees issued in the ordinary course of trade by any Group Company:
 - (1) under any Guarantee Agreement;
 - (2) under any negotiable instruments;
 - (3) in connection with any performance bond;
 - (4) in connection with the renting of premises in the ordinary course of business;
 - (5) in connection with any Permitted Indebtedness; or
 - (6) issued by one Obligor to another Obligor.

- (b) The Borrower shall procure that, as soon as any Group Company becomes a Material Subsidiary (as identified in any accounts delivered to the Bank from time to time pursuant to Paragraph 2 (*Information concerning the Borrower*) of Schedule I (*Information and Visits*)), that Group Company shall promptly notify the Bank and on the Bank's request enter into a Guarantee Agreement and provide the Bank with (subject to the conditions precedent to be fulfilled for Cellectis, Inc. and Cellectis Biologics, Inc. pursuant to Schedule F (*Conditions Precedent*)):
 - a certified copy of the resolution of the competent body (management board, supervisory board, board of directors and/or general meeting of shareholders) of such Material Subsidiary duly authorising the execution of such Guarantee Agreement and duly authorising the person or persons signing such Guarantee Agreement on behalf of such Material Subsidiary together with the specimen signature of each such person or persons;
 - (ii) evidence that such Material Subsidiary has obtained all necessary Authorisations required in connection with such Guarantee Agreement and, where applicable, any accession deed in respect of such Guarantee Agreement; and
 - (iii) a legal opinion of a reputable law firm in the jurisdiction of incorporation of such Material Subsidiary, addressed to the Bank on the valid existence of such Material Subsidiary, the authority and capacity of such Material Subsidiary to enter into the Guarantee Agreement and on the due execution and choice of law of the Guarantee Agreement and on the validity and enforceability of said guarantee under the Guarantee Agreement,

each in form and substance satisfactory to the Bank and subject always to the applicable general statutory limitations, corporate benefit, thin capitalisation rules or similar principles which may require under mandatory law in the jurisdiction of incorporation of such Material Subsidiary that the guarantee be limited in amount or scope provided that the Borrower shall use reasonable endeavours to mitigate or overcome any such impediment, provided further that in such case, the Bank may request the Borrower to grant a pledge over 100% of the shares of such Material Subsidiary instead of a Guarantee Agreement.

17. Hedging

The Borrower shall not, and shall procure that no other Group Company shall, enter into any derivative transaction other than Permitted Hedging, where "Permitted Hedging" means:

- (a) any derivative transaction by a Group Company to hedge actual or projected exposure arising in the ordinary course of trading and not for speculative purposes; and
- (b) any derivative instrument of a Group Company which is accounted for on a hedge accounting basis but is not entered into for speculative purposes.

18. Restrictions on distributions

The Borrower shall not, and shall procure that no other Group Company shall, declare or distribute dividends, or return or purchase shares, save for:

- (a) with the prior written consent of the Bank;
- (b) payments to a Group Company as a result of a solvent liquidation or reorganisation of a Group Company which is not an Obligor; and
- (c) any dividend payments made by any Subsidiary.

19. Restrictions on loans

The Borrower shall not, and shall ensure that no other member of the Group will, be a creditor in respect of any Indebtedness, save for:

- (a) any trade credit extended by any member of the Group to its customers on normal commercial terms and in the ordinary course of its trading activities;
- (b) any loan made by one member of the Group (other than an Obligor) to another member of the Group;
- (c) a loan made by one Obligor to another Obligor; or
- (d) any other Indebtedness or loan advanced to or made available by any member of the Group with the prior written consent of the Bank.

20. Restrictions on Intercompany Loans

The Borrower shall not, and shall procure that no other Group Company shall, make any payment in respect of any Intercompany Loan, save for:

- (a) with the prior written consent of the Bank;
- (b) where the lender of the Intercompany Loan is the Borrower or an Obligor; or
- (c) the payments to a Group Company as a result of a solvent liquidation or reorganisation of a Group Company which is not an Obligor.

21. Intellectual Property Rights

The Borrower shall, and shall procure that each other Group Company shall, (i) obtain, safeguard and maintain its rights with respect to the Intellectual Property Rights required for the implementation of the Investment in accordance with this Contract, including complying with all material contractual provisions and that the implementation of the Investment in accordance with this Contract will not result in the infringement of the rights of any person with regard to the Intellectual Property Rights and (ii) ensure that any Intellectual Property Rights required for the implementation of the Investment will be owned by or licensed to the Borrower, and where such Intellectual Property Rights which are owned by a Group Company are capable of registration, are registered to such party.

22. Maintenance of Status

The Borrower shall, and shall procure that each other Group Company shall, remain duly incorporated and validly existing as a corporate entity with limited liability under the jurisdiction in which it is incorporated and that it will have no centre of main interests, permanent establishment or place of business outside the jurisdiction in which it is incorporated, and that it will continue to have the power to carry on its business as it is now being conducted and continue to own its property and other assets.

23. Negative pledge

- (a) The Borrower shall not (and shall procure that no other Group Company shall) create or permit to subsist any Security over any of its assets
- (b) For the purposes of this Paragraph 23 (*Negative pledge*), the term Security shall also include any arrangement or transaction on assets or receivables or money (such as the sale, transfer or other disposal of assets on terms whereby they are or may be leased to or re-acquired by any Group Company, the sale, transfer or other disposal of any receivables on recourse terms or any arrangement under which money or the benefit of a bank account or other account may be applied or set off or any preferential arrangement having a similar effect) in circumstances where the arrangement or transaction is entered into primarily as a method of raising credit or of financing the acquisition of an asset.
- (c) Sub-paragraph (a) above does not apply to any Security, listed below:
 - (i) any Security listed in Paragraph 4 (Security) of Schedule G (Representation and Warranties) except to the extent the principal amount secured by that Security exceeds the amount stated;

- (ii) any netting or set-off arrangement entered into by any Group Company in the ordinary course of its banking arrangements for the purpose of netting debit and credit balances;
- (iii) any payment or close out netting or set-off arrangement pursuant to any Permitted Hedging, but excluding any Security under a credit support arrangement in relation to a hedging transaction;
- (iv) any lien arising by operation of law and in the ordinary course of trading;
- (v) any Security arising under any retention of title, hire purchase or conditional sale arrangement or arrangements having similar effect in respect of goods supplied to a Group Company in the ordinary course of trading and on the supplier's standard or usual terms and not arising as a result of any default or omission by any Group Company;
- (vi) any Security over or affecting any asset acquired by Group Company after the date of this Contract if:
 - (1) the Security was not created in contemplation of the acquisition of that asset by a Group Company;
 - (2) the principal amount secured has not been increased in contemplation of or since the acquisition of that asset by a Group Company; and
 - (3) the Security is removed or discharged within 3 (three) months of the date of acquisition of such asset; or
- (vii) any Security over or affecting any asset of any company which becomes a Group Company after the date of this Contract, where the Security is created prior to the date on which that company becomes a Group Company, if:
 - (1) the Security was not created in contemplation of the acquisition of that company;
 - (2) the principal amount secured has not increased in contemplation of or since the acquisition of that company; and
 - (3) the Security is removed or discharged within 3 (three) months of that company becoming a Group Company.

24. Other Undertakings

The Borrower shall take note of the Bank's group statement on tax fraud, tax evasion, tax avoidance, aggressive tax planning, money laundering and financing of terrorism (as published on the Bank's website and as may be amended from time to time).

25. Data Protection

- (a) When disclosing information (other than mere contact information relating to the Borrower's personnel involved in the management of this Contract ("Contact Data")) to the Bank in connection with this Contract, the Borrower shall redact or otherwise amend that information (as necessary) so that it does not contain any personal data, except where this Contract specifically requires, or the Bank specifically in writing requests, the disclosure of that information in the form of personal data.
- (b) Before disclosing any personal data (other than Contact Data) to the Bank in connection with this Contract, the Borrower shall ensure that each data subject of those personal data:
 - (i) has been informed of the disclosure (including the categories of personal data to be disclosed); and
 - (ii) has the information in (or has been provided with an appropriate link to) the Bank's privacy statement in relation to its lending and investment activities set out at the relevant time at https://www.eib.org/en/privacy/lending (or such other address as the Bank may notify to the Borrower in writing from time to time).

26. Sanctions

The Borrower shall not, and shall procure that no Group Company shall, directly or indirectly:

- (a) enter into a business relationship with, and/or make any funds and/or economic resources available to, or for the benefit of, any Sanctioned Person in connection with the Investment; or
- (b) use all or part of the proceeds of the Loan or lend, contribute or otherwise make available such proceeds to any person in any manner that would result in a breach by itself and/or by the Bank of any Sanctions; or
- (c) fund all or part of any payment under this Contract out of proceeds derived from activities or businesses with a Sanctioned Person, a person in breach of the Sanctions or in any manner that would result in a breach by itself and/or by the Bank of any Sanctions.

It is acknowledged and agreed that the undertakings set out in this Paragraph 26 (*Sanctions*) are only sought by and given to the Bank to the extent that to do so would be permissible pursuant to any applicable anti-boycott rule of the EU such as Regulation (EC) 2271/96.

27. Repayment of Loan under the InvestEU Fund

The Borrower shall ensure that the moneys to repay any Tranche under this Contract do not come from grants under an EU program.

28. Pari passu ranking

The Borrower shall ensure that its payment obligations under this Contract rank, and will rank, not less than *pari passu* in right of payment with all other present and future unsecured and unsubordinated obligations under any of its or any Group Company's debt instruments except for obligations mandatorily preferred by law applying to companies generally.

29. Clauses by inclusion

If the Borrower concludes with any other financial creditor a financing agreement (excluding for the avoidance of doubt any underwriting agreement to be concluded in relation with an Cash Injection) that includes any obligation, clause or undertaking, whether positive or negative, in particular (without limitation) events of default, mandatory prepayment events, a loss-of-rating clause or a covenant or other provision regarding its financial ratios, if applicable, that is not provided for in this Contract or is more favourable to the relevant financial creditor than any equivalent provision of this Contract is to the Bank, the Borrower shall promptly inform the Bank and shall provide a copy of the more favourable provision to the Bank. The Bank may request that the Borrower promptly executes an agreement to amend this Contract so as to provide for an equivalent provision in favour of the Bank.

30. Warrants

The Borrower will comply with, at any time, the terms of the Warrant Agreement, and shall not do anything that may affect the validity, enforceability or transferability of the Warrants or the rights granted to the Bank under the Warrant Agreement.

Information and Visits

1. Information concerning the Investment

- (a) The Borrower shall deliver to the Bank:
 - (i) the information in content and in form, and at the times, specified in Part A.2 (*Information Duties*) of Schedule A (*Investment Specification and Reporting*) or otherwise as agreed from time to time by the Parties to this Contract;
 - (ii) any such information or further document concerning the Investment as the Bank may require to comply with its obligations under the InvestEU Regulation; and
 - (iii) any such information or further document concerning the financing, procurement, implementation, operation and environmental matters of or for the Investment as the Bank may reasonably require within a reasonable time,

provided always that if such information or document is not delivered to the Bank on time, and the Borrower does not rectify the omission within a reasonable time set by the Bank in writing, the Bank may remedy the deficiency, to the extent feasible, by employing its own staff or a consultant or any other third party, at the Borrower's expense and the Borrower shall provide such persons with all assistance necessary for the purpose.

- (b) The Borrower shall submit for the approval of the Bank without delay any material changes to the Investment, also taking into account the disclosures made to the Bank in connection with the Investment prior to the signing of this Contract, in respect of, inter alia, the total cost, plans, timetable or to the expenditure programme or financing plan for the Investment.
- (c) The Borrower shall promptly inform the Bank of:
 - any action initiated or any objection raised by any third party or any genuine complaint received by the Borrower or any Environmental Claim that is to its knowledge commenced, pending or threatened against it with regard to environmental or other matters affecting the Investment;
 - (ii) any fact or event known to the Borrower, which may substantially prejudice or affect the Borrower's ability to execute the Investment;
 - (iii) a genuine allegation, complaint or information with regard to Illegal Activities or any Sanctions related to the Loan and/or the Investment;
 - (iv) any self-declared exclusion by a bidder that occurs prior to the contract award and is covered by the Exclusion Policy;
 - (v) any non-compliance by it with any applicable Environmental Law; and
 - (vi) any suspension, revocation or modification of any Environmental Approval,

and set out the action to be taken with respect to such matters;

- (d) If the total cost of the Investment exceeds the estimated figure set out in Recital (A), the Borrower shall notify the Bank without delay and shall inform the Bank of its plans to fund the increased costs.
- (e) The Borrower shall provide to the Bank, if so requested:
 - a certificate of its insurers showing that all assets required in order to carry out the Investment are insured with reputable underwriters or insurance companies against those risks and to the extent as is usual for companies carrying on the same or substantially similar business; and
 - (ii) annually, a list of insurance policies in force covering any aspect of the Investment, together with confirmation of payment of the current premiums.

2. Information concerning the Borrower

- (a) The Borrower shall deliver to the Bank:
 - (i) as soon as they become available but in any event within 180 (one hundred and eighty) days after the end of each of its financial years its audited consolidated and unconsolidated annual report, balance sheet, cash flow statement, profit and loss account and auditors report for that financial year together with a Compliance Certificate signed by a legal representative of the Borrower;
 - (ii) as soon as they become available but in any event within 120 (one hundred and twenty days) days after the end of each of the relevant accounting periods its interim consolidated and unconsolidated semi-annual report, balance sheet, profit and loss account and cash flow statement for the first half-year of each of its financial years together with a Compliance Certificate signed by a legal representative of the Borrower;
 - (iii) as soon as they become available but in any event within 45 (forty five) days after the end of each relevant period its liquidity forecast for the next 12 (twelve) months on a rolling basis, in form and substance satisfactory to the Bank;
 - (iv) such further information, evidence or document concerning its general financial situation or such certificates of compliance with the undertakings of Article 7 (Borrower undertakings and representations) as the Bank may deem necessary or may reasonably require to be provided within a reasonable time;
 - (v) any such further information, evidence or document concerning the compliance with the due diligence requirements of the Bank, including, but not limited to "know your customer" (KYC) or similar identification procedures, when requested and within a reasonable time; and
 - (vi) such further information, evidence or document concerning the factual information or documents provided to the Bank for the purposes of entering into this Contract, as the Bank may deem necessary or may require to be provided within a reasonable time.
- (b) The Borrower shall inform the Bank immediately of:
 - (i) any Default or Event of Default having occurred or being threatened or anticipated;
 - (ii) to the extent permitted by law, any material litigation, arbitration, administrative proceedings or investigation carried out by a court, administration or similar public authority, which, to the best of its knowledge and belief is current, threatened or pending:
 - against the Borrower or its Controlling entities or members of the Borrower's management bodies in connection with Illegal Activities related to the Loan or the Investment; or
 - (2) which might if adversely determined result in a Material Adverse Change;
 - (iii) any measure taken by the Borrower pursuant to Paragraph 6 (Integrity) of Schedule H (General Undertakings);
 - (iv) any Change in the Beneficial Ownership of the Borrower;
 - (v) any Voluntary Non EIB Prepayment that has occurred or is likely to occur; and
 - (vi) any claim, action, proceeding, formal notice or investigation relating to any Sanctions concerning a Group Company or any Relevant Person.

3. Visits by the Bank

- (a) Each Obligor shall allow the Bank and, when either required by the relevant mandatory provisions of EU law or pursuant to the InvestEU Regulation, the competent EU institutions including the European Court of Auditors, the European Commission, the European Anti-Fraud Office, the European Public Prosecutor's Office as well as persons designated by the foregoing (each a "Relevant Party"):
 - (i) to visit the sites, installations and works comprising the Investment;
 - (ii) to interview representatives of each Obligor, and not obstruct contacts with any other person involved in or affected by the Investment; and
 - (iii) to conduct such investigations, inspections, on the spot audits and checks as they may wish and review the Obligors' books and records in relation to the execution of the Investment and to be able to take copies of related documents to the extent not prohibited by the law.
- (b) Each Obligor shall provide the Bank and any Relevant Party, or ensure that the Bank and any Relevant Party is provided, with all necessary assistance for the purposes described in this Paragrah 3 (*Visits by the Bank*), including access to information, facilities and documentation for the purposes described in this paragraph.
- (c) In the case of a genuine allegation, complaint or information with regard to Illegal Activities related to the Loan and/or the Investment, the Borrower shall consult with the Bank in good faith regarding appropriate actions. In particular, if it is proven that a third party committed Illegal Activities in connection with the Loan and/or the Investment with the result that the Loan was misapplied, the Bank may, without prejudice to the other provisions of this Contract, inform the Borrower if, in its view, the Borrower should take appropriate recovery measures against such third party. In any such case, the Borrower shall in good faith consider the Bank's views and keep the Bank informed.

4. Disclosure and publication

The Borrower acknowledges and agrees that:

- (a) it will use the emblem of the European Union or a reference to the EU, as appropriate, in a visible way in all its press releases, communications materials, the social media, as well as in all contractual documentation directly related to the Investment;
- (b) the Bank may be obliged to communicate information relating to the Borrower and the Investment to any competent institution or body of the European Union in accordance with the relevant mandatory provisions of European Union law or pursuant to the InvestEU Regulation;
- (c) the Bank and/or the European Commission may showcase this Investment by way of, among other, audio visual material or print publications and including information on the name and address of the Borrower, the financing form and the sector of activity of the Investment;
- (d) the Bank may publish in its website or produce press releases containing information related to the financing provided pursuant to this Contract with support under the InvestEU Fund, including the name, address and country of establishment of the Borrower the purpose of the financing, and the type and amount of financial support received under this Contract.
- (e) unless the Borrower, prior to receiving financial support under the InvestEU Fund, declares in writing to the Bank (including by way of representation in this Contract) that the below publication by the Bank:
 - (i) risks harming its commercial interests or threatening the rights and freedoms of the persons or entities concerned as protected by the Charter of Fundamental Rights of the European Union; or
 - (ii) would be illegal under the laws and regulations applicable to the Borrower, the Bank shall annually publish on its website information on the Borrower, which shall include the name and address of the Borrower and the financing form of support under the InvestEU Fund.

(f) if requested by the Bank, the Borrower undertakes to refer to this financing and any other financing granted by the Bank or financial instrument entered into with the Bank up to and including the Final Availability Date.

5. Confidential information

Where the Borrower provides information to the Bank in connection with this Contract, it shall ensure that it complies with the MAR Letter.

Form of TEG Letter

[EIB's letterhead]

To: Cellectis

From: European Investment Bank

Date: [•]

Subject: TEG Letter in the context of the Finance Contract between European Investment Bank and Cellectis dated 28 December 2022 (the "Finance Contract")

Dear Sirs,

We refer to the Finance Contract. Terms defined in the Finance Contract have the same meaning when used in this letter.

We confirm that:

- (a) this is the letter referred to in article 4.4 (Effective Global Rate (Taux Effectif Global)) of the Finance Contract;
- (b) the effective global rates, calculated in order to comply with the provisions of articles L.314-1 to L.314-5, R.314-1 et seq. of the French *Code de la consommation*, and L.313-4 of the French *Code monétaire et financier* are indicated in this letter only as an indication; and
- (c) based on the assumptions described below, the effective global rate would be the following:
 - (i) [•]% per annum for Tranche A (which corresponds to a *taux de période* of [•]% for a *durée de période* of twelve (12) months);
 - (ii) [•]% per annum for Tranche B (which corresponds to a *taux de période* of [•]% for a *durée de période* of twelve (12) months); and
 - (iii) [•]% per annum for Tranche C (which corresponds to a *taux de période* of [•]% for a *durée de période* of twelve (12) months).

The above effective global rate is given on an indicative basis and on the following assumptions:

- (i) the drawdown for the full amount of the Credit has been made;
- (ii) each Tranche will be reimbursed on its Maturity Date and with the assumption that there is no prepayment;
- (iii) the PIK Interest Rate amounts to:
 - (1) in relation to Tranche A: 8% (800 basis points) per annum;
 - (2) in relation to Tranche B: 7% (700 basis points) per annum; and
 - (3) in relation to Tranche C: 6% (600 basis points) per annum;
- (iv) interest periods are of 12 (twelve) months for the lifetime of the Loan;
- (v) the effective global rate is calculated on the basis of a year of 365 (three hundred and sixty-five) days;

- (vi) all fees, commissions and expenses payable by you under the Finance Documents (including legal fees agreed separately between the Borrower and the Bank) will remain unchanged throughout the term of the Finance Documents; and
- (vii) the Put Option (as defined in Schedule L (Certains terms of the Warrants (non exhaustive))) has not been exercised by the Bank.

Under the assumption that the Put Option referred to in paragraph (vii) above is exercised and the Bank has received from the Put Option estimated at [***] Euro, based on the assumption that the Credit has been drawn for its full amount, be the following:

- (i) [•]% per annum for Tranche A (which corresponds to a *taux de période* of [•]% for a *durée de période* of twelve (12) months);
- (ii) [•]% per annum for Tranche B (which corresponds to a *taux de période* of [•]% for a *durée de période* of twelve (12) months); and
- (iii) [•]% per annum for Tranche C (which corresponds to a *taux de période* of [•]% for a *durée de période* of twelve (12) months).

We understand that you will make all appraisals you consider necessary to assess the global costs of the Credit and that you will request all necessary information from us in this respect.

This letter is a Finance Document.

This letter shall be governed and construed in accordance with the laws of France. Any claim in connection with this letter shall be subject to the jurisdiction of the *Tribunal de commerce de Paris*.

We should be grateful if you would confirm your acceptance of the terms of this letter by signing 3 (three) originals and returning to us 2 (two) originals.

Yours faithfully,

EUROPEAN INVESTMENT BANK

We hereby accept the above information relating to the effective global rate on behalf of the Borrower:	
Date:	
Jame:	
itle:	

Existing Indebtedness

PGE loan signed by the Borrower [***] with HSBC [***] with maturity July 2026;

PGE loan signed by the Borrower [***] with Société Générale [***] with maturity July 2026;

PGE loan signed by the Borrower [***] with Banque Palatine [***] with maturity July 2026;

PGE loan signed by the Borrower [***] with BPI France [***] with maturity June 2026;

Construction and equipment leases, being specified that leasing debt (IFRS 16) [***]:

[***]

Research Tax Credit financing entered into by the Borrower with BPI in June 2022 under which the Borrower received €5.5 million in cash which represents a financial liability of \$5.3 million as of September 30, 2022.

Certains terms of the Warrants (Non exhaustive)

1. Warrants entitlement:

• Tranche A: As part of the remuneration for the first tranche of the Loan, the Borrower shall issue to the benefit of the Bank a number of warrants representing a maximum of 5% of the shares outstanding at the time of issuance of the disbursement offer of Tranche A and calculated according to the following formula:

$$X = 20,000,000 / (SPa) \times 3.5$$

Where:

X: means the number of warrants to be issued to the benefit of the EIB; and

SPa: means the average price per share over the last 5 trading days before the issuance of the warrants related to tranche A by the EIB.

- <u>Tranche B:</u> As part of the remuneration for the second tranche of the Loan, the Borrower shall issue to the benefit of the Bank a number of warrants calculated according to the following formula:
 - Should the sum of (i) Cash Injection and (ii) Upfront and Milestones payments received before the issuance of the disbursement offer of Tranche B be in excess of EUR 42.5m (as from 31/10/2022):

$$X = 15,000,000 / (SPb) \times 4.00$$

· Otherwise:

$$X = 15,000,000 / (SPb) \times 3.75$$

Where:

X: means the number of warrants to be issued to the benefit of the EIB; and

SPb: means the average price per share over the last 5 trading days before the issuance of the warrants related to tranche B by the EIB.

- Tranche C: As part of the remuneration for the third tranche of the Loan, the Borrower shall issue to the benefit of the Bank a number of warrants calculated according to the following formula:
 - Should (i) Cash Injection and (ii) Upfront and Milestones payments received before the issuance of the disbursement offer of Tranche C be in excess of EUR 70m (as from 31/10/2022):

$$X = 5,000,000 / (SPc) \times 4.75$$

Otherwise:

$$X = 5,000,000 / (SPc) \times 4.25$$

Where:

X: means the number of warrants to be issued to the benefit of the EIB; and

SPc: means the average price per share over the last 5 trading days before the issuance of the warrants related to tranche C by the EIB.

- 2. Strike Price corresponds to 99% of the weighted average price per share over the last 5 trading days preceding the issuance of the warrants
- 3. The anti-dilution provision should not apply to:
- **■** [***]; and
- **■** [***].

4. Put Option:

The put option will be capped to 1 time the amount disbursed by the bank, being the cumulated amount of Tranches drawn down at the time of exercise of said Put Option.

Subsidiaries of Cellectis S.A.

State or Other Jurisdiction of Incorporation

Name of Subsidiary
Cellectis, Inc. Delaware Calyxt, Inc. Delaware Cellectis Biologics, Inc. Delaware

Certification by the Principal Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, André Choulika, certify that:

- 1. I have reviewed this annual report on Form 20-F of Cellectis S.A.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
- 4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation: and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
- 5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: March 14, 2023

/s/ André Choulika

Name: André Choulika

Title: Chief Executive Officer (Principal Executive Officer)

Certification by the Principal Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Bing Wang, certify that:

- 1. I have reviewed this annual report on Form 20-F of Cellectis S.A.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
- 4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles:
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
- 5. The Company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: March 14, 2023

/s/ Bing Wang

Name: Bing Wang

Title: Chief Financial Officer (Principal Financial Officer)

Certification by the Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Cellectis S.A. (the "Company") on Form 20-F for the fiscal year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, André Choulika, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2023

/s/ André Choulika

Name: André Choulika

Title: Chief Executive Officer (Principal Executive Officer)

A signed original of this written statement has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Certification by the Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Cellectis S.A. (the "Company") on Form 20-F for the fiscal year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Bing Wang, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 14, 2023

/s/ Bing Wang

Name: Bing Wang

Title: Chief Financial Officer (Principal Financial Officer)

A signed original of this written statement has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-204205) pertaining to the 2015 Stock Option Plan and the 2015 Free Share Plan of Cellectis S.A.;
- (2) Registration Statement (Form S-8 No 333-214884) pertaining to the 2016 Stock Option Plan of Cellectis S.A.; and
- (3) Registration Statement (Form S-8 No 333-222482) pertaining to the 2017 Stock Option Plan of Cellectis S.A., the Summary of BSA Plan and the Free Share 2018 Plan of Cellectis S.A.;
- (4) Registration Statement (Form S-8 No 333-227717) pertaining to the 2018 Stock Option Plan of Cellectis S.A., the Summary of BSA Plan and the Second Free Share 2018 Plan of Cellectis S.A.;
- (5) Registration Statement (Form S-8 No. 333-258514) pertaining to the 2021 Stock Option Plan of Cellectis S.A., and the 2021 Free Shares Plan of Cellectis S.A.;
- (6) Registration Statement (Form S-8 No. 333-267760) pertaining to the 2022 Stock Option Plan of Cellectis S.A., and the 2022 Free Shares Plan of Cellectis S.A.; and
- (7) Registration Statement (Form F-3 No. 333-265826) of Cellectis S.A.;

of our reports dated March 14, 2023, with respect to the consolidated financial statements of Cellectis S.A. and the effectiveness of internal control over financial reporting of Cellectis S.A., included in this annual report (Form 20-F) of Cellectis S.A. for the year ended December 31, 2022.

/s/ ERNST & YOUNG et Autres

Paris La Défense, France

March 14, 2023