

Commitment to a Cure

Corporate Presentation

March 2025

NASDAQ: CLLS

EURONEXT GROWTH: ALCLS.PA



Forward-Looking Statements

This presentation contains "forward-looking" statements within the meaning of applicable securities laws, including the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by words such as "designed to," "anticipate," "expected," "on track," "plan," "scheduled," "should," and "will," "would," or the negative of these and similar expressions.

These forward-looking statements, which are based on our management's current expectations and assumptions and on information currently available to management, including information provided or otherwise publicly reported by our licensed partners. Forward-looking statements advancement, timing and progress of clinical trials (including with respect to patient enrollment and follow-up), the timing of our presentation of data and submission of regulatory filings, the adequacy of our supply of clinical vials, the operational capabilities at our manufacturing facilities, the sufficiency of cash to fund operations, the potential benefit of our product candidates and technologies, the potential payments for which Cellectis is eligible under the agreements signed between Cellectis and each of its partners, including AstraZeneca, Servier, Allogene and Iovance and the financial position of Cellectis.

These forward-looking statements are made in light of information currently available to us and are subject to numerous risks and uncertainties, including with respect to the numerous risks associated with biopharmaceutical product candidate development.

With respect to our cash runway, our operating plans, including product development plans, may change as a result of various factors, including factors currently unknown to us. Furthermore, many other important factors, including those described in our Annual Report on Form 20-F and the financial report (including the management report) for the year ended December 31, 2024 and subsequent filings Cellectis makes with the Securities Exchange Commission from time to time, as well as other known and unknown risks and uncertainties may adversely affect such forward-looking statements and cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.



Cellectis at a Glance



2 Clinical Trials*

75+ patients dosed in Cellectis-sponsored trials***



Global GMP Facilities

End-to-end manufacturing autonomy



Near-Term Clinical Catalysts

Multiple near-term UCART clinical data updates



Diversified Partnerships with Industry Leaders



- Revenues > \$6B in milestones + royalties
- 3 clinical trials sponsored by Cellectis' licensed partners













- * On November 4, 2024, Cellectis decided to focus its current development efforts on the BALLI-01 and NATHALI-01 studies and therefore to deprioritize the development of UCART123.
- ** Cash position includes cash, cash equivalents, restricted cash and fixed term deposits classified as current financial assets. Restricted cash was \$4.6 million as of December 31, 2024. Fixed-term deposits classified as current financial assets was \$115.8 million as of December 31, 2024.
- *** Number of patients dosed in the Cellectis-sponsored trials BALLI-01, NATHALI-01 and AMELI-01.

Strategic Partnership with AstraZeneca



Cell & Gene Therapy R&D Collaboration



- Develop up to 10 novel products in oncology, immunology and rare diseases
- \$25M upfront
- Milestones from \$70M to \$220M per product with tiered royalties
- AstraZeneca to cover Cellectis' research costs

Investment Agreements



- \$220M equity investment (subscribed for 16 million ordinary shares and 28 million convertible preferred shares at \$5.0 per share)
- AstraZeneca's shares represent 44% of the share capital and 29% of the voting rights of the Company as of February 28, 2025



A Highly-Experienced Executive Committee



André Choulika, Ph.D. Founder & CEO



Steven Doares, Ph.D. SVP, US Manufacturing & Site Head



Phillippe Duchateau, Ph.D. Chief Scientific Officer



Adrian Kilcoyne M.D., MPH, MBA Chief Medical Officer



Kyung Nam-Wortman EVP, Chief Human Resources Officer



Stephan Reynier Chief Regulatory & Pharmaceutical Compliance Officer



David Sourdive, Ph.D. EVP CMC & Manufacturing & Co-Founder



Arthur Stril
Chief Financial Officer
& Chief Business Officer



Marie-Bleuenn Terrier General Counsel



Integrated and Controlled Manufacturing

Discover, Develop, Manufacture, Test and Release









Cellectis' End-to-End Cell & Gene Therapy Platform



New York, NY

Platform Innovation & Clinical Development

25,000 sq ft. facility

- ✓ Gene editing platform TALEN® and Base Editors
- ✓ CAR T discovery
- ✓ In vivo gene therapy discovery
- Clinical development



Paris, France

CMC Development, Starting Materials

55,000 sq ft. facility

- ✓ Process & analytical development
- Starting materials (plasmids, mRNA, viral vectors) manufacturing and QC testing site
- ✓ Cryogenic storage rooms



Raleigh, NC

UCART – Clinical & Intended Commercial Site

82,000 sq ft. facility

- ✓ UCART GMP manufacturing and QC labs
- ✓ Cryogenic storage rooms





Allogeneic In Vivo Gene CAR-T Therapy







Scalable Manufacturing

1 batch = 100s doses



Off-The-Shelf

Ensure immediate supply to meet patient demands



Differentiated Targets & Near-Term Catalysts

	Target	Indication	Study	Preclinical	Phase 1	Phase 2 ¹	Upcoming expected milestone	
ruily Owling	UCART22 CD22	ALL	BALLI-01 NCT04150497		•		Phase 1 dataset & late-stage development strategy expected in Q3 2025	
	UCART20x22 Dual Target CD20, CD22	NHL	NatHaLi-01 NCT05607420		•		Phase 1 ongoing with readout expected late 2025	
	Cema-cel (ALLO-501A) CD19 ²	LBCL	ALPHA3 NTC06500273			•	SERVIER Allogene Allogene	
Licensed Parmers	ALLO-316 ³ CD70	RCC	TRAVERSE NCT04696731		•		Allogene	
	Allogeneic CAR T	Hematological malignancies		-				
	Allogeneic CAR T	Solid tumors		-			AstraZeneca	
	In vivo gene therapy	Genetic disorder		•				
	IOV-4001	Melanoma, NSCLC	IOV-GM1-201 NCT05361174			•	IOVANCE	

ds

^{1.} Phase 3 may not be required if Phase 2 is pivotal. According to Allogene, ALPHA3 is a pivotal Phase 2 trial.

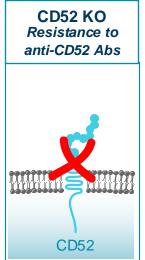
^{2.} cemacabtagene ansegedleucel has been developed under a collaboration agreement between Servier and Allogene based on an exclusive license granted by Cellectis to Servier. Servier grants to Allogene exclusive rights to cemacabtagene ansegedleucel in the U.S., EU and UK. The ALPHA3 study targets Large B-Cell Lymphoma (LBCL).

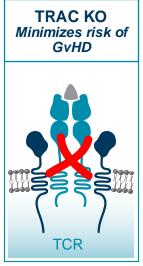
^{3.} ALLO-316 utilizes TALE N® gene-editing technology pioneered and owned by Cellectis. Allogene has an exclusive license to the Cellectis technologies for allogeneic products directed at the CD70 target. Allogene holds global development and commercial rights for this investigational candidate.

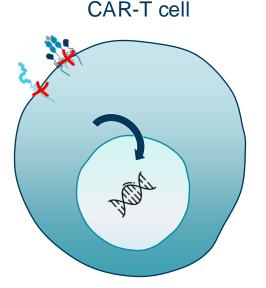
Cellectis' UCART Platform



UCART are Designed with Cellectis' Differentiated Gene Editing Platform







TALEN® Powered Gene Editing:

PRECISE

Targets desired site with a maximum range of 7 base pairs

SAFE

Protein/DNA interaction with 32 base pairs recognition

EFFICIENT

High rates of gene editing for knock-outs and knock-ins



UCART22 and UCART20x22 Positioning

Post-CD19 CAR-T autologous treatments



LCAR-AIO CD19/CD20/CD22



KITE-363/ KITE-753 CD19/CD20



C-CARO39 CD19/CD20

Post-CD19 CAR-T allogeneic treatments



P-CD19CD20-ALLO1 CD19/CD20



SC62 CD22



- CD20 & CD22: Key targets validated in oncology and autoimmune diseases
- UCART22: First-in-class allogeneic CD22 CAR-T for ALL. Plan to advance into potential pivotal Phase 2 study
- UCART20x22: Unique allogeneic dual CAR-T product targeting CD20 & CD22
- High unmet need persists for effective r/r ALL and NHL treatments



UCART22 Study Design

Key inclusion criteria:

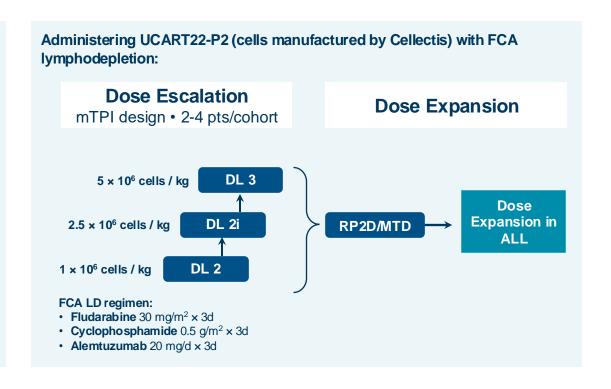
- Age 15–70 years, adequate organ function, ECOG PS ≤1
- B-ALL blast CD22 expression ≥70%
- Received ≥1 standard chemotherapy regimen and 1 salvage regimen

Primary objective:

Safety, tolerability, & MTD of UCART22

Additional objectives:

- Investigator-assessed response
- UCART22 expansion in PB and BM
- Immune reconstitution





Outcomes of UCART22 Patients Treated at DL2

3 patients were enrolled into the first UCART22 cohort at DL2:

Patient 1

MRD negative MLFS

17-year old

- Ph-negative B-ALL
- Hypodiploid karyotype
- *TP53* mutation
- 40% Blasts
- Previous Treatments:
 - Multiagent chemotherapy
 - Blinatumomab
 - Inotuzumab
 - Venetoclax
 - ASCT
 - Autologous CD19 CAR-T x 2

Patient 2

MRD negative CR

68-year old

- Ph-negative B-ALL
- CD19 Low disease
- 80% Blasts
- Previous Treatments:
 - Multiagent chemotherapy
 - Blinatumomab
 - Inotuzumab

Patient 3

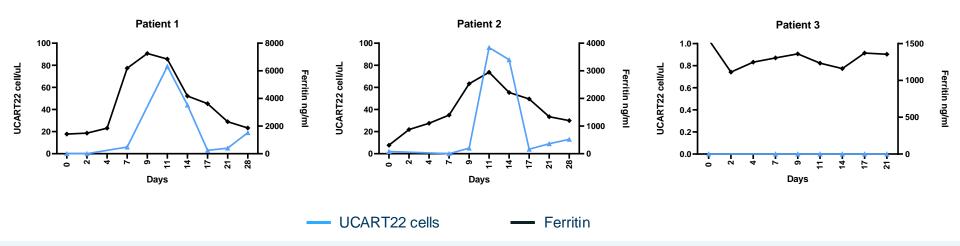
Refractory

27-year old

- B-ALL with ABL2 fusion
- 84% Blasts
- Previous Treatments:
 - Multiagent chemotherapy
 - Blinatumomab
 - Inotuzumab
 - TKI
 - Autologous CD19 CAR-T



Expansion of UCART22 Cells in Peripheral Blood Correlates with an Increase in Serum Ferritin Levels



UCART22 expansion was observed by flow cytometry in the peripheral blood in patients 1 and 2, both at D11:

- ~80 cells/µL in patient 1
- ~100 cells/µL in patient 2

No UCART22 expansion in patient 3, and ferritin levels mostly unchanged during the 21 days following UCART22 administration



Summary of UCART22 Patients Treated at DL2

Safety

- No dose-limiting toxicities (DLT)
- No immune effector cell-associated neurotoxicity syndrome (ICANS)
- No GvHD
- CRS in 2/3 (67%) patients with one G1 that resolved without treatment and one G2 that resolved after tocilizumab x1
- Patient 1 had a G5 sepsis SAE at D40 considered related to UCART22 and FCALD

Efficacy

- Responses were assessed beginning on D28
- 2/3 patients (67%) treated at DL2 with UCART22 responded:
 - Patient 1 had 40% BM blasts at screening and achieved an MRD negative MLFS (by flow cytometry and clonoSEQ at 10⁻⁴) up to D40
 - Patient 2 had 80% BM blasts at screening and achieved an MRD negative CR (by clonoSEQ at 10⁻⁴) lasting over 84 days after UCART22 infusion
 - o Patient 3 had 84% BM blasts at screening and was refractory to treatment



UCART20x22 Study Design

Key inclusion criteria:

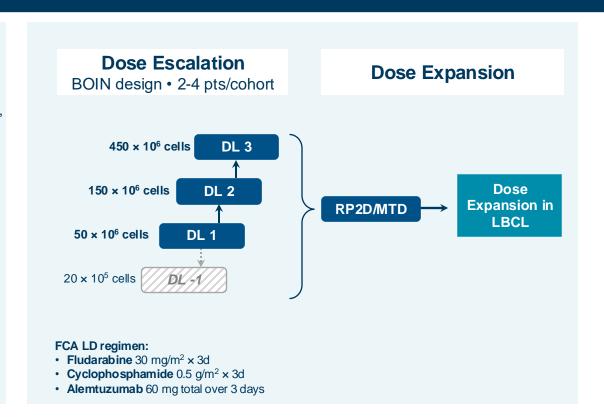
- Age 18–80 years
- Mature B-cell NHL except CLL/SLL, Richter's from CLL/SLL, Burkitt's lymphoma, or Waldenstrom's macroglobulinemia
- Tumor positive for CD20 and/or CD22
- Received ≥2 prior lines including CD19 CART if eligible

Primary objective:

 Safety, tolerability, & MTD/RP2D of UCART20x22

Additional objectives:

- Investigator-assessed response by Lugano
- UCART20x22 expansion in PB
- Immune reconstitution





UCART20x22 Baseline Characteristics

As of 28 July 2023, 3 patients received LD and were treated with UCART20x22 at Dose Level 1 (50 x 10⁶ cells)

	Pt 1	Pt 2	Pt 3	
Age	76	65	18	
NHL Subtype	DLBCL	Transformed FL	Transformed MZL	
Genetic/Molecular	Double expressor (BCL2, MYC)	Triple-hit	NOTCH1, PLCG2, CCND3, XBP1	
Antigen Present	CD20+/CD22 unknown	CD20+/CD22 unknown	CD20-/CD22+	
Stage at Screening	IV	IV	IV	
Number of Prior Therapies	2	4	8	
Prior CD19 CART	None	Lisocabtagene maraleucel x2	Axicabtagene ciloleucel	
ECOG	0	0	1	
Baseline Deauville Score	4	5	5	
Disease Status at Screening	Relapsed	Relapsed	Refractory	



UCART20x22 Safety Summary

- No UCART20x22-related DLTs
- No ICANS or GVHD was observed
- One CLLS52-related DLT of bone marrow aplasia after Day 42 thought to be due to cumulative chemotherapy exposure in a patient with baseline Grade 1/2 cytopenias and bone marrow hypocellularity at screening
- All patients experienced Grade 1 or 2 CRS that resolved with treatment
 - Pt 1 had Grade 1 CRS for 4 days managed with tocilizumab and dexamethasone
 - Pt 2 had Grade 2 CRS for 2 days managed with tocilizumab and dexamethasone
 - Pt 3 had Grade 1 CRS for 8 days managed with tocilizumab



Outcomes of UCART20x22 Patients Treated at DL1

3 patients were treated at dose level 1 (50 \times 10⁶ cells) and were evaluable for response:

Patient 1

Partial metabolic response

76-year old

- Double-expressor DLBCL
- Previous treatments:
 - R-CHOP
 - Radiation therapy
 - Polatuzumab vedotin with bendamustine/ rituximab

Patient 2

Complete metabolic response

65-year-old

- Triple-hit transformed follicular lymphoma
- · Previous treatments:
 - Radiation therapy
 - Bendamustine/ rituximab
 - Dose-adjusted R-EPOCH
 - Liso-cel x 2

Patient 3

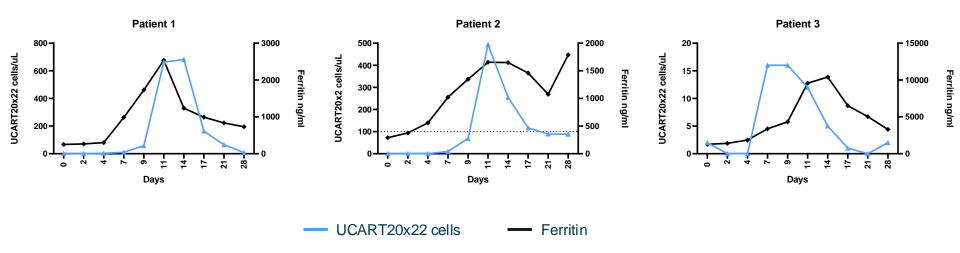
Complete metabolic response

18-year-old

- Relapsed/refractory transformed marginal zone lymphoma
- Previous treatments:
 - Chemo-immunotherapy
 - Venetoclax
 - Ibrutinib
 - Bendamustine /rituximab
 - Axi-cel
 - Obinutuzumab
 - Glofitamab
 - Tafasitamab/ lenalidomide
 - Experimental epigenetic modifier



Robust Expansion of UCART20x22 Cells in Peripheral Blood Correlates with an Increase in Serum Ferritin Levels

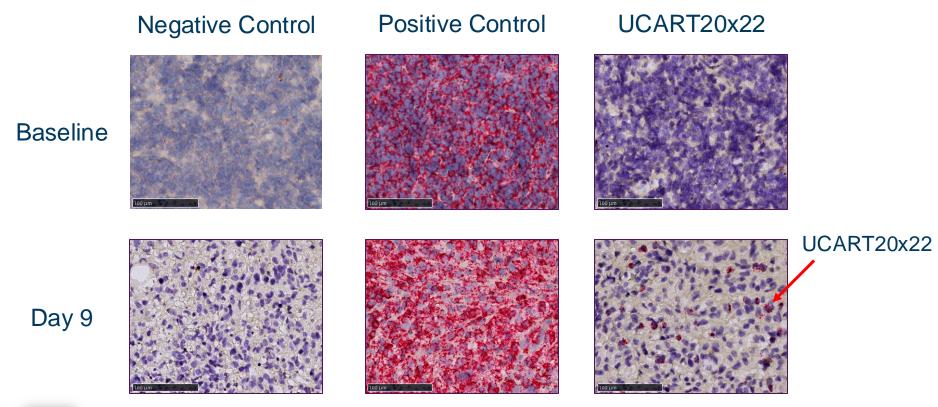


UCART20x22 expansion was observed in all patients by flow cytometry in the peripheral blood:

- ~600 cells/µL in Patient 1 at Day 14
- ~400 cells/µL in Patient 2 at Day 11
- ~16 cells/ µL in Patient 3 at Day 9



UCART20x22 Cells Detected in Day 9 Post-Treatment Biopsy for Patient 3





Key Takeaways – Why Cellectis?



Innovative Allogeneic CAR T

Breaking Paradigms with Life-Saving Therapies



End-to-End In-House Manufacturing

Owning Manufacturing is Owning the Product



Best-In-Class Gene Editing Platform

Designed to be Safe, Precise & Efficient, Backed by Strong IP



Strong Partnerships

Anticipated Milestones, Diversified Financial Upsides



Why TALEN®?

	Maturity	Genome Outreach	Recognition Site # base pairs	Chromotrypsis	Precision	Vectorization	IP •
TALEN®	In clinic since 2015	Euchromatin & heterochromatin	32	Not reported	Every 7 base pairs	mRNA	Strong for CLLS
CRISPR	In clinic since 2018	Euchromatin only	~20	Yes	Every 64 base pairs	RNP	Scattered



Diversified Partnerships with Industry Leaders















CAR-T **CD19**

CAR-T BCMA, CD70 + 13 targets

TILs

Mitochondrial **DNA** editing

Cell and gene therapies

Exclusive worldwide license to CD19directed allogeneic CAR T-cells

U.S. rights sublicensed to Allogene by Servier¹

Exclusive worldwide license to 15 allogeneic CAR Tcell targets1

Research collaboration and exclusive worldwide license agreement to develop gene-edited TII s

Collaboration agreement to develop mtDNA gene editing for mitochondrial diseases + option for exclusive worldwide license agreement on up to 5 product

candidates

on Sales

Joint Research and Collaboration agreement to develop up to 10 novel products in oncology, immunology and rare diseases and investment agreement

Up to \$410M in Development & Sales Milestones

+ Low Double-Digit Royalties on Sales

Up to \$2.8B in Development & Sales Milestones

+ High Single-Digit Royalties on Sales

Undisclosed Financials

19% equity upfront Option for up to \$750M in Development & Sales Milestones + High Single-Digit Royalties

Milestones from \$70M to \$220M per product and tiered royalties. \$220M equity investment.

\$25M upfront.

2014

2015

2014

2020

2022

2023



Thank You

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