UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
under the Securities Exchange Act of 1934

Date of Report: December 13, 2022

Commission File Number: 001-36891

Cellectis S.A.
(Exact Name of registrant as specified in its charter)

8, rue de la Croix Jarry
75013 Paris, France
+33 1 81 69 16 00
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F: Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

This report on Form 6-K, including Exhibit 99.1 (which is incorporated here by reference) but excluding Exhibit 99.2, shall be deemed to be incorporated by reference in the registration statements of Cellectis S.A. on Form F-3 (No. 333-265826) and Form S-8 (Nos. 333-267760, 333-204205, 333-214884, 333-222482, 333-227717 and 333-258514), to the extent not superseded by documents or reports subsequently filed.

Cellectis Announces Positive Preliminary Clinical Data for UCART22 in ALL and UCART123 in AML

On December 13, 2022, Cellectis S.A. (the "Company" or "Cellectis") issued a press release and conducted a webinar using a related presentation to review updated clinical data on its Phase 1/2a BALLI-01 clinical trial (evaluating UCART22) and on its Phase 1 AMELI-01 clinical trial (evaluating UCART123) that were presented in an oral session on December 12, 2022 at the 64th Annual Meeting of the American Society of Hematology (ASH).

Preliminary Data from the BALLI-01 Clinical Study

BALLI-01 is a Phase 1/2a open-label dose-escalation trial evaluating the safety and clinical activity of UCART22 given at escalating dose levels after lymphodepletion (LD) with either fludarabine and cyclophosphamide (FC) or FC with alemtuzumab (FCA) in patients with relapsed or refractory acute lymphoblastic leukemia (r/r ALL). Alemtuzumab was added to the LD regimen to sustain host T-cell and Natural Killer (NK) cell depletion and to promote UCART22 cell expansion and persistence.

Compared to the last clinical update on BALLI-01 at ASH 2021, the Company is presenting data from five additional patients who received UCART22 at dose level 3 (DL3) 5x106 cells/kg after lymphodepletion with FCA. No dose limiting toxicities (DLTs), Grade 2 or higher cytokine release syndrome (CRS), immune effector cell-associated neurotoxicity syndrome (ICANS) or adverse events of special interest (AESI) were observed.

Evidence of UCART22 anti-tumor activity was observed in 60% (n=3) of the five patients at DL3 after lymphodepletion with FCA:

- A patient experienced a durable minimal residual disease (MRD) negative complete response with incomplete count recovery (CRi) that continues beyond 6 months.
- A patient experienced an MRD negative complete response (CR) that continues beyond Day 56.
- A patient experienced a morphologic leukemia-free state (MLFS) that continues beyond Day 84 (MRD-negative until Day 84; MRD-positive at Day 117).

All three of the responders failed multiple lines of prior therapy, including 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).

Next Steps

Overall, these preliminary data support the continued administration of UCART22 after FCA lymphodepletion in patients with r/r ALL. The Company is now enrolling patients in BALLI-01 with product candidate manufactured fully in-house at DL2 after FCA lymphodepletion. The first patient has been dosed at dose level 2 (DL2) $1x10^6$ cells/kg. The next data set is expected to be released in 2023.

Preliminary Clinical Data from the AMELI-01 Study Presented at ASH 2022

AMELI-01 is a Phase 1 open-label dose-escalation trial evaluating the safety, tolerability, expansion and preliminary activity of UCART123 given at escalating dose levels after lymphodepletion (LD) with either fludarabine and cyclophosphamide (FC) or FC with alemtuzumab (FCA) in patients with relapsed or refractory acute myeloid leukemia (r/r AML).

The oral presentation reviewed preliminary data from patients who received UCART123 at one of the following dose levels: dose level 1 (DL1) 2.5x105 cells/kg; dose level 2 (DL2) 6.25x105 cells/kg; intermediate dose level 2 (DL2i) 1.5x106 cells/kg; or dose level 3 (DL3) 3.30x106 cells/kg after lymphodepletion with FC ([n=8], DL1 – DL3) or FCA ([n=9], DL2 & DL2i).

Preliminary Safety Data

The FCA LD 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/mg DNA, an almost nine-fold increase compared with FC LD, and a significant increase in area under the curve $(AUC)_{(0\text{-}28\ days)}$ (p=0.04; FC 10.2±15.7 vs. FCA 34.9±28.4).

Cytokine release syndrome (CRS) occurred in eight patients in the FC arm and nine patients in the FCA 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.

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:

- A 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 continues beyond one year.
- A patient with stable disease achieved greater than 90% bone marrow blast reduction (60% to 5%) at Day 28.

In particular, exemplary activity was seen in a 64-year-old female with AML who had relapsed after allogeneic stem cell transplantation (allo-SCT) and has maintained a durable MRD-negative complete response for over one year without salvage donor lymphocyte infusion or second allo-SCT.

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

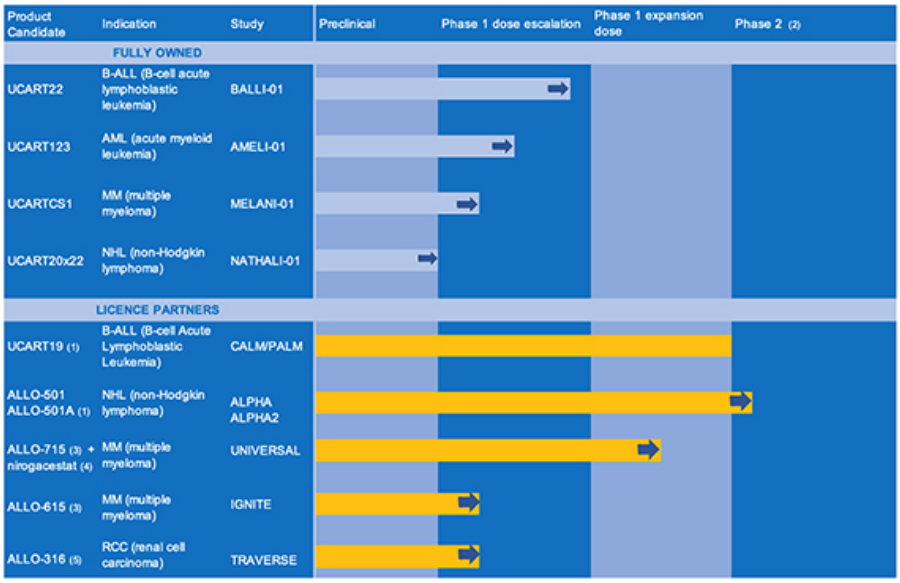
Next Steps: 2-Dose Regimen

Overall, these preliminary data support the continued administration of UCART123 after FCA lymphodepletion in patients with r/r AML. Based on observed UCART123 expansion patterns and cytokine profiles, pursuant to an amended protocol (as described below), a second dose of UCART123 will be given after 10-14 days to allow for additional UCART123 expansion and clinical activity without the use of additional lymphodepletion. The second expansion phase in the setting of reduced disease burden is expected to be safe and allow for clearance of residual disease.

After a protocol-based pause in patient recruitment following a Grade 5 event related to CRS, the protocol treatment strategy has been modified and AMELI-01 has now commenced enrolling patients in the FCA 2-dose regimen arm at DL2, a dose that has already been administered and cleared for safety as a single dose. The arm incorporates the use of prophylactic tocilizumab, which is associated with reduced incidence of CRS.

Pipeline Overview

The following chart highlights Cellectis' and Cellectis' licensee's key product candidates:



(1) ALLO-501 and ALLO-501A are exclusively licensed to Servier and under a joint clinical development program between Servier and Allogene. The ALPHA and ALPHA2 studies targets Diffuse Large B-Cell Lymphoma (DLBCL) and Follicular Lymphoma (FL) indications, which are subtypes of NHL.

(2) Phase 3 may not be required if Phase 2 is registrational.

(3) ALLO-715 and ALLO-605 target BCMA which is a licensed target from Cellectis. Allogene has an exclusive license to the Cellectis technology for allogeneic products directed at the BCMA target. Allogne holds global development and commercial rights for this investigational candidate.

(4) Allogene is promoting this clinical trial in combination with SpringWorks Therapeutics.

(5) ALLO-316 targets CD70 which is a licensed target from Cellectis. Allogene has an exclusive license to the Cellectis technology for allogeneic products directed at the CD70 target. Allogene holds global development and commercial rights for this investigational candidate.

As of September 21, 2022, Servier has notified Allogene that Servier was discontinuing involvement in the development of CD-19-targeting allogeneic CAR T-cell products.

NATHALI-01 Study (evaluating UCART20x22):

Cellectis is enrolling patients at dose level 1 (50x106 cells) with a fludarabine, cyclophosphamide, and alemtuzumab lymphodepletion regimen in the NATHALI-01 Phase 1 dose-escalation clinical study of UCART20x22. UCART20x22 is Cellectis' first allogeneic dual CAR T-cell product candidate being developed for patients with relapsed or refractory non-Hodgkin lymphoma and fully designed, developed and manufactured in-house.

MELANI-01 Study (evaluating UCARTCS1):

Cellectis is enrolling patients at dose level 1 (1.0x106 cells/kg) with a fludarabine and cyclophosphamide (FC) lymphodepletion regimen in the MELANI-01 Phase 1 dose-escalation clinical study of UCARTCS1 for patients with relapsed or refractory multiple myeloma (MM).

Initial Preclincial Data for UCARTCS1

On December 10, 2022, the Amsterdam University Medical Center (VUmc location), in collaboration with Cellectis, presented preclinical data in a poster session showcasing Cellectis' UCARTCS1 product candidate. These initial preclinical data demonstrated anti-tumor activity in vitro and in vivo, supporting the potential benefit of Cellectis' UCARTCS1 first in-human study MELANI-01.

Collectively, the preclinical data demonstrated that UCARTCS1 has potent anti-MM activity against MM cell lines and primary MM cells, as well as in a MM xenograft model. These preclinical data support the ongoing Phase 1 clinical trial with UCARTCS1 in heavily pretreated multiple myeloma patients.

Forward-looking Statements and Legal Notices

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.

This report (and Cellectis' presentation) contain "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 "anticipate," "believe," "can," "could," "expect," "intend," "is designed to," "may," "might," "plan," "potential," "predict," "objective," "scheduled," "should," and "will," or the negative of these and similar expressions. These forward-looking statements, which are based on Cellectis' management's current expectations and assumptions and on information currently available to management. Forward-looking statements include statements about the preliminary results for the AMELI-01 and BALLI-01 trials and the objectives of such trials, which remain ongoing; the ability to progress Cellectis' clinical trials and to present any additional data from these trials; clinical outcomes from Cellectis' trials, which may materially change as more patient data becomes available, potential benefits of Cellectis' UCART product candidates; and Cellectis' manufacturing capabilities. 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 risk that initial, interim and preliminary data from clinical trials may change as more data becomes available, and that subsequent data may not confirm any early result; the risk of disruptions or delays in Cellectis' clinical trials as a result of failures by third-parties on whom Cellectis relies or arising out of regulatory inquiries or delays; the risk of manufacturing delays or problems; the risk associated with increased competition and/or adequate enrollment to support Cellectis' clinical trials; and the numerous other risks associated with biopharmaceutical product candidate development. Furthermore, many other important factors, including those described in Cellectis' Annual Report on Form 20-F and the financial report (including the management report) for the year ended December 31, 2021 and subsequent filings Cellectis makes with the Securities Exchange Commission from time to time, which are available on the SEC's website at www.sec.gov, as well as other known and unknown risks and uncertainties may adversely affect such forward-looking statements and cause Cellectis' actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. Except as required by law, Cellectis assumes 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.

EXHIBIT INDEX

Exhibit	Title
99.1	Cellectis Clinical Update Presentation (December 2022)
99.2	Press Release dated December 13, 2022

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CELLECTIS S.A.
(Registrant)

December 13, 2022

By: /s/ André Choulika
André Choulika
Chief Executive Officer

Exhibit 99.1

EDITING LIFE

Commitment to a Cure

Cellectis Clinical Update

December 2022

NASDAQ: CLLS
EURONEXT GROWTH: ALCLS.PA

Legal Notices

This presentation (together with the corresponding webcast, this "Presentation") contains "forward-looking" statements within the meaning of applicable securities laws, including the Private Securities Litigation Reform Act of 1995. This Presentation shall not constitute an offer to sell, or the solicitation of an offer to buy, securities of Cellectis S.A. ("Cellectis," "we," "us," or "our") .

All statements other than statements of present and historical facts regarding Cellectis contained in this Presentation are forward-looking statements. You can identify certain forward-looking statements by words such as "anticipate," "believe," "can," "could," "estimate," "expect," "intend," "is designed to," "may," "might," "plan," "potential," "predict," "objective," "scheduled," "should," and "will," or similar expressions (or the negative of these). Such forward-looking statements include, but are not limited to, statements regarding: the preliminary results for the AMELI-01 and BALLI-01 trials and the objectives of such trials, which remain ongoing; Cellectis' manufacturing capabilities and the scalability and cost thereof; the potential for profitable market access; Cellectis' expected cash runway and the projections taken into account therein; Cellectis' near term milestones and ability to achieve such expectations.

These forward-looking statements are subject to numerous risks and uncertainties, including with respect to the risk that initial, interim and preliminary data from clinical trials may change as more data becomes available, and that subsequent data may not bear out promising early results; the risk of disruptions or delays in our clinical trials as a result of failures by third-parties on whom we rely or arising out of regulatory inquiries or delays; the risk of manufacturing delays or problems; the risk associated with increased competition and/or adequate enrollment to support our clinical trials; and the various other risks associated with biopharmaceutical product candidate development, including those described under "Risk Factors" and "Special Note Regarding Forward-Looking Statements" in our Annual Report on Form 20-F filed with the Securities and Exchange Commission (the "SEC") on March 3, 2022 and under "Risk Factors" in the subsequent reports that we file with the SEC. Actual results, performance or events may differ materially from those projected in any forward-looking statement. Except as required by law, we assume no obligation to update these forward-looking statements.

Legal Notices

References in this Presentation to Cellectis' product candidates as "off-the-shelf" refers to the fact that our CAR T-cells are allogeneic, meaning they are derived from healthy donors rather than the patients themselves, which we believe allows for the development of cost-effective product candidates capable of being stored and distributed worldwide.

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.

Cellectis at a Glance

4 Ongoing Clinical Trials

40+ patients dosed in Cellectis-sponsored trials

Global GMP Facilities

- Operational since 2021
- End-to-end manufacturing autonomy

Near-Term Clinical Catalyst

- UCART clinical data updates

$103M

as of Sept 30, 2022

Expected Cash Runway into 2024*

Diversified Partnerships with Industry Leaders

200+ patients dosed to date

- Potential revenues > **$4B** in milestones + royalties
- **6 trials** sponsored by Cellectis' licensed partners

SERVIER

Allogene THERAPEUTICS

IOVANCE

Cytovia therapeutics

- Cash position, includes cash, cash equivalent, financial assets and restricted cash
- Cash runway takes into account projected cash flow from operations, including payments Cellectis expects to receive pursuant to strategic licensing agreements

UCARTs are “Off-The-Shelf”

Scalable Manufacturing

Reduced cost
Scalable manufacturing:
1 batch = 100s of doses

Robustness

The goal is to provide potency and consistency to each patient

Market Access

Immediately available to eligible patients

Cellectis' UCART Candidate Platform

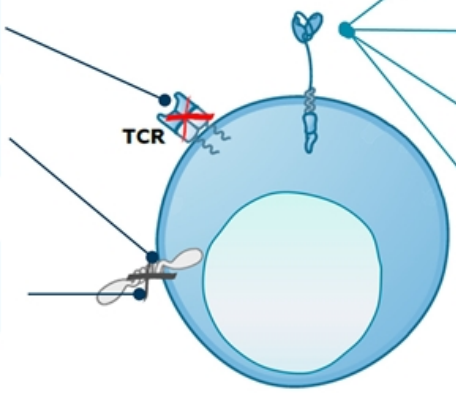
TALEN® Powered

TRAC KO
Reduces risk of GvHD

CD52 KO
Resistance to alemtuzumab

or

CS1 KO
Self-lymphodepleting



CAR20 + CAR22 — Targeting CD20 & CD22 For B-cell Malignancies

CAR22 — Targeting CD22 For B-cell ALL

CAR123 — Targeting CD123 For AML

CARCS1 — Targeting CS1/SLAMF7 For MM

AMELI-01: UCART123

AMELI-01:Preliminary Results from A Phase I Trial of UCART123v1.2, an Anti-CD123 Allogeneic CAR-T Cell Product, in Adult Patients with Relapsed or Refractory (R/R) CD123+ Acute Myeloid Leukemia

David A. Sallman[1], Daniel J. DeAngelo[2], Naveen Pemmaraju[3], Shira Dinner[4], Saar Gill[5], Rebecca Olin[6], Eunice S. Wang[7], Marina Konopleva[3], Eileen Stark[8], Ana Korngold[8], Asifa Haider[8], Kate Backhouse[8], Carolyn Figliola[8], Daniel J. Lee[8], Kathryn Newhall[8], Mark G. Frattini[8], Carrie Brownstein[8], Gail J. Roboz[9]

[1]H. Lee Moffitt Cancer Center, [2]Dana-Farber Cancer Institute, [3]MD Anderson Cancer Center, [4]Northwestern Medical Center, [5]University of Pennsylvania Perelman School of Medicine, [6]University of California San Francisco, [7]Roswell Park Comprehensive Cancer Center, [8]Cellectis, Inc., and [9]Weill Cornell Medical College

Publication Number 981 ASH 2022

Background and Introduction

- It is estimated that 20,050 new cases and 11,540 deaths related to AML will occur in the US in 2022[1]

- Outcomes for patients with R/R AML remain poor, with response rates <30% and an expected 5-year overall survival of <15%[2,3]

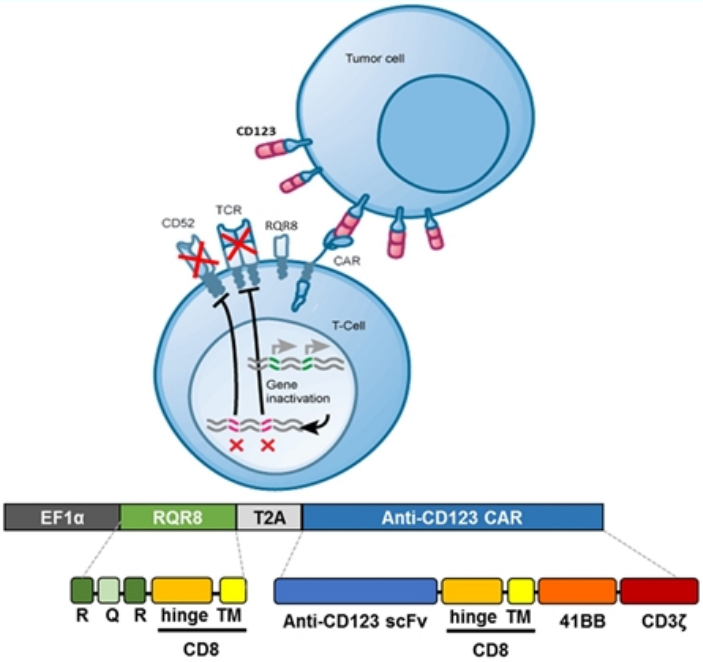
- AMELI-01 (NCT03190278) is a phase I, open-label, dose-escalation trial evaluating the safety, tolerability, expansion, and preliminary activity of UCART123v1.2 given at escalating doses after LD with fludarabine and cyclophosphamide (FC) or FC with alemtuzumab (FCA) in patients with R/R CD123+ AML

[1] https://www.cancer.org/cancer/acute-myeloid-leukemia/about/key-statistics.html; [2]Ganzel, C, et al. *Am J Hematol*. 2018; 93: 1074-1081; [3]Döhner, H, et al. Blood 2017; 129 (4): 424–447.

UCART123v1.2: Allogeneic “Off-the-Shelf” T-cell Product

UCART123v1.2 (anti-CD123 scFv-41BB-CD3ζ):

- CD123 is a validated therapeutic target in AML
- Genetically modified allogeneic T-cell product manufactured from non-HLA–matched healthy donor cells
- *TRAC* disrupted using TALEN® to eliminate TCRαβ from the cell surface and reduce risk of GvHD
- *CD52* disrupted using TALEN® to eliminate sensitivity to LD with alemtuzumab



AML, acute myeloid leukemia; CAR, chimeric antigen receptor; GvHD, graft-vs-host disease; HLA, human leukocyte antigen; LD, lymphodepletion; pts, patients; scFv, single-chain variable fragment; TCR, T-cell receptor; TRAC, T-cell receptor alpha constant; TALEN ®, Transcription Activator-Like Effector Nuclease.

AMELI-01 Study Design

Key inclusion criteria

- Relapsed or primary refractory AML (≥5% bone marrow blasts)
- Blasts expressing CD123
- PS of ≤1 and adequate organ function

Primary objective

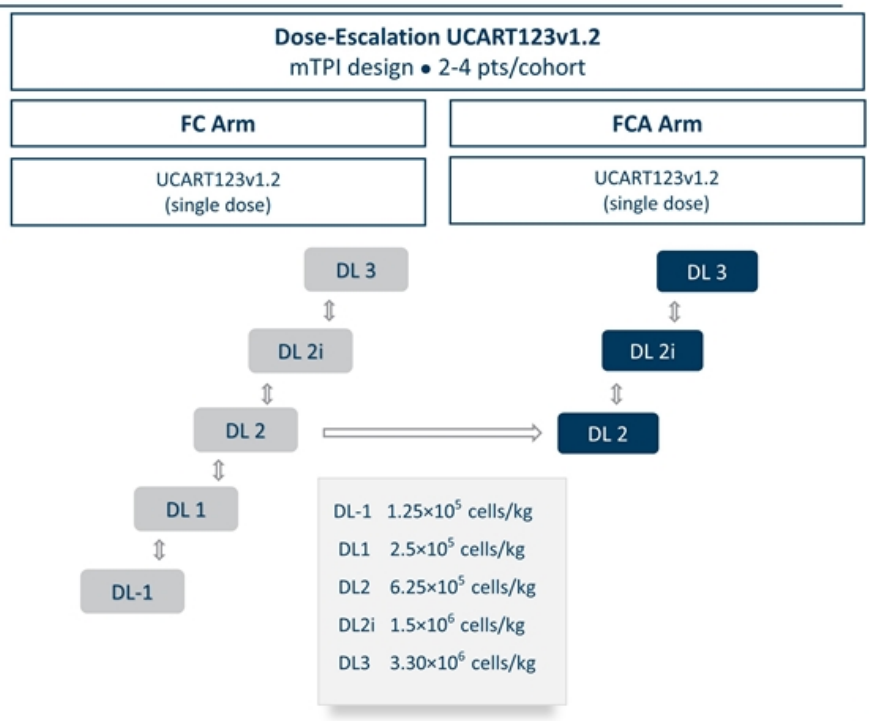
- Safety, tolerability, & MTD/RP2D of UCART123v1.2

Additional objectives

- Investigator-assessed response
- UCART123v1.2 expansion, trafficking, persistence in PB and BM
- Immune reconstitution

LD regimens:

- **FC:** Fludarabine 30 mg/m²x 4d + Cyclophosphamide 750 mg/m² x 3d
- **FCA:** Fludarabine 30 mg/m²x 4d + Cyclophosphamide 750 mg/m² x 3d + Alemtuzumab 12 mg/day x 4d



Baseline Characteristics

Characteristic	Total (N = 18*)
Age, median (range), years	57 (18-64)
Female, n (%)	8 (44)
ECOG PS 1, n (%)	17 (94)
ELN 2017 Classification, n (%)	
Adverse risk	14 (78)
Intermediate risk	3 (17)
Median baseline bone marrow blasts % (range)	37 (0-88)
Number of prior treatments, median (range)	4 (3-9)
Prior HSCT, n (%)	9 (50)
Cytogenetic and Molecular Abnormalities, n (%)	
TP53	6 (33)
FLT3-ITD	2 (11)
ASXL1	3 (17)
RUNX1	2 (11)
MECOM (EVI1)	2 (11)
MLL/KMT2A	1 (6)
Monosomal karyotype	3 (17)

*17 of the 18 pts who received LD with FC or FCA were treated with UCART123v1.2.
ECOG PS, Eastern Cooperative Oncology Group performance status; ELN, European Leukemia Net; FC, fludarabine + cyclophosphamide; FCA, FC + alemtuzumab; HSCT, hematopoietic stem cell transplantation; LD, lymphodepletion.

UCART123v1.2 - Related TEAEs (FC + FCA)

TEAE, n	FC		FCA		FC + FCA	
	FC Total [n=8] DL1=2; DL2=3; DL2i=2; DL3=1		FCA Total [n=9] DL2=8; DL2i=1		All patients N=17*	
	Any grade	Gr ≥3	Any grade	Gr ≥3	Any grade	Gr ≥3
CRS	8	2	9	2 °	**17**	**4**
HLH	1	1	1	0	**2**	**1**
ICANS	1	1	1	0	**2**	**1**
ALT increased	4	1	1	1	**5**	**2**
AST increased	4	1	1	1	**5**	**1**
Blood fibrinogen decreased	0	0	2	0	**2**	**0**
DIC	0	0	1	0	**1**	**0**
Confused state	1	0	1	0	**2**	**0**
Fatigue	2	0	0	0	**2**	**0**
Acute kidney injury	0	0	1	1	**1**	**1**
Bacterial infection	0	0	1	1	**1**	**1**
INR increased	0	0	1	1	**1**	**1**
Lymphocyte count decreased	0	0	1	1	**1**	**1**
Pulmonary edema	0	0	1	1	**1**	**1**
Sinus bradycardia	1	1	0	0	**1**	**1**
Vasogenic cerebral edema	1	1	0	0	**1**	**1**

DL, dose level; FC, fludarabine + cyclophosphamide; FCA, FC + alemtuzumab; GvHD, graft-vs-host disease; TEAE, treatment-emergent adverse event.; CRS, cytokine release syndrome; ALT, alanine aminotransferase; AST, aspartate aminotransferase; HLH, hemophagocytic lymphohistiocytosis; ICANS, immune effector cell associated neurotoxicity syndrome; DIS, disseminated intravascular coagulopathy; INR, international normalized ratio

*As of Oct. 10, 2022, 18 patients received LD, 17 received UCART123v1.2

° 2 Grade 5 events (death) related to CRS

UCART123v1.2 - Serious TEAEs (All Cause – FC + FCA)

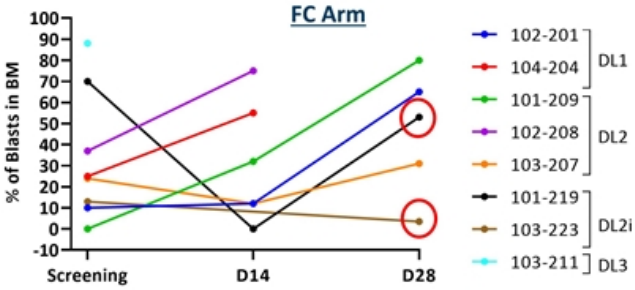
Serious TEAE, n (%)	FC		FCA		FC + FCA	
	FC Total [n=8] DL1=2; DL2=3; DL2i=2; DL3=1		FCA Total [n=9] DL2=8; DL2i=1		Total patients N=17*	
	Any grade	Gr ≥3	Any grade	Gr ≥3	Any grade	Gr ≥3
CRS	3	2	2	2 [o]	**5**	**4**
ICANS	1	1	0	0	**1**	**1**
Pneumonia	1	1	1	1	**2**	**2**
Pneumonia fungal	2	2	0	0	**2**	**2**
Febrile neutropenia	0	0	1	1	**1**	**1**
Fungemia	0	0	1	1	**1**	**1**
Hemorrhage intracranial	0	0	1	1	**1**	**1**
Large intestinal hemorrhage	1	1	0	0	**1**	**1**
Pericardial effusion	1	1	0	0	**1**	**1**
Septic shock	1	1	0	0	**1**	**1**

DL, dose level; FC, fludarabine + cyclophosphamide; FCA, FC + alemtuzumab; TEAE, treatment-emergent adverse event; CRS, cytokine release syndrome; ICANS, immune effector cell associated neurotoxicity syndrome

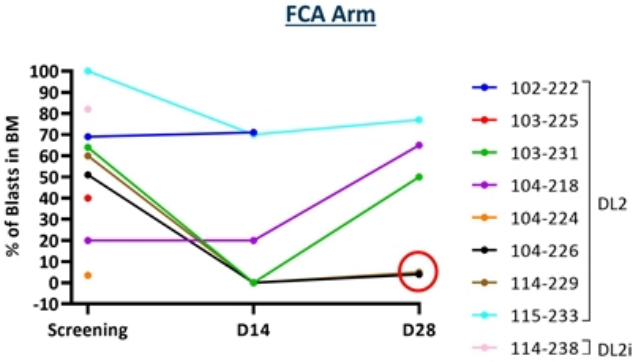
* As of Oct. 10, 2022, 18 patients received LD, 17 received UCART123v1.2
[o] 2 Grade 5 events (death) related to CRS

No Difference In Infectious Complications With Alemtuzumab

Anti-Leukemic Activity Observed in 4/17 Patients



- FC arm
  - Patient **101-219** (DL2i): SD
  - Patient **103-223** (DL2i): MLFS

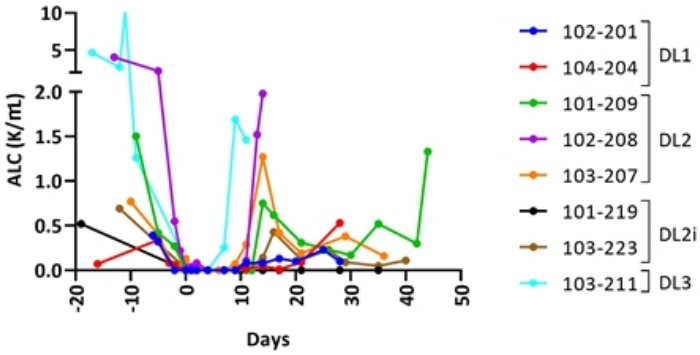


- FCA arm
  - Patient **114-229** (DL2): SD
    - ➢ Achieved greater than 90% BM blast reduction (60% to 5%) at D28
  - Patient **104-226** (DL2): MRD negative CR
    - ➢ Achieved CRi at D28 followed by MRD negative CR at D56

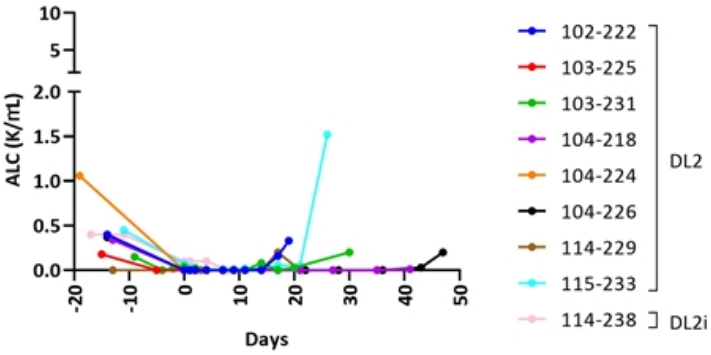
Addition of Alemtuzumab Results in Prolonged Lymphodepletion

Absolute Lymphocyte Counts

FC Arm

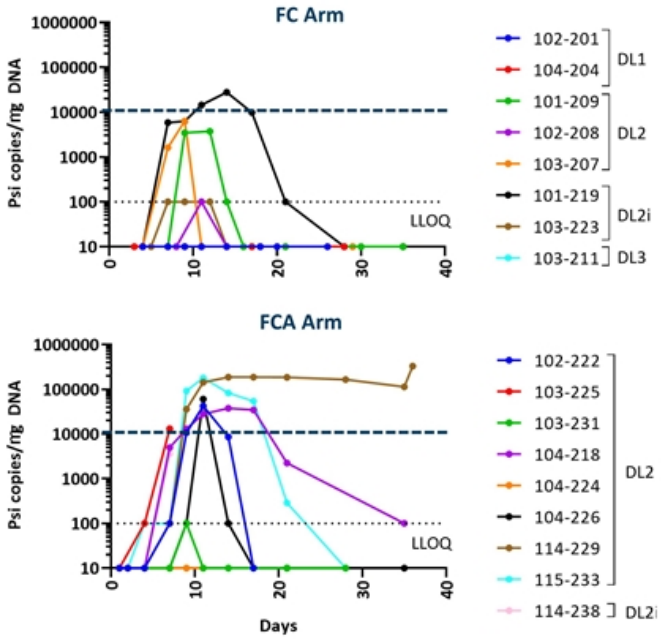


FCA Arm

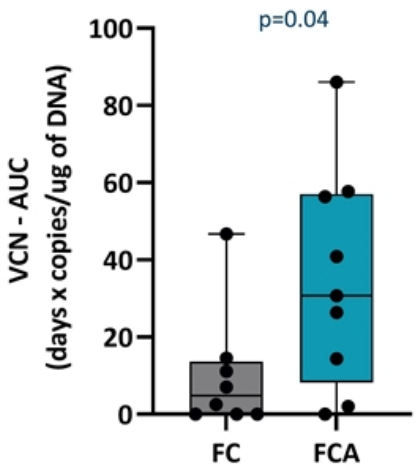


Addition of Alemtuzumab Results in Increased UCART123v1.2 Expansion

UCART123 Cell Expansion in WB by VCN

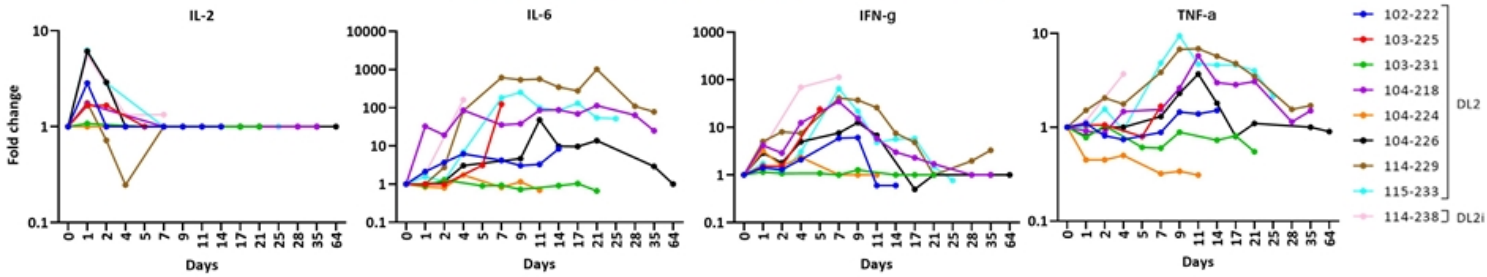


VCN AUC(0-28days)

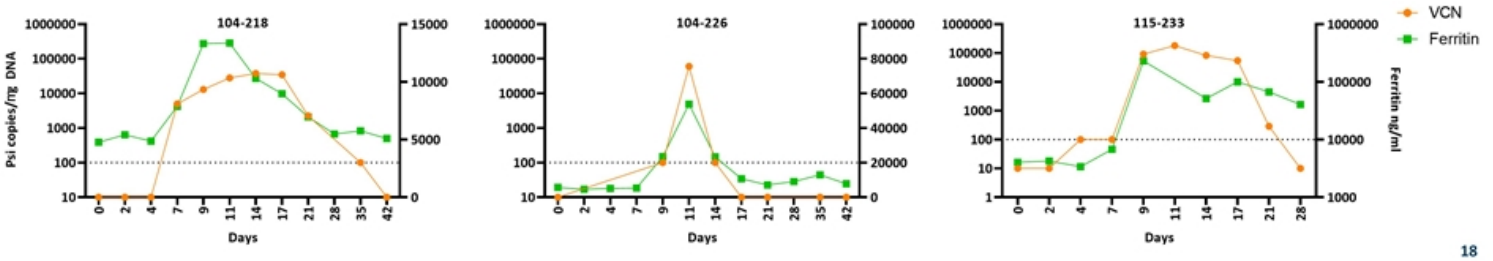


Cytokine Secretion and Ferritin Levels Correlated with UCART123v1.2 Cell Expansion

Cytokine Profile of All Patients from FCA Arm



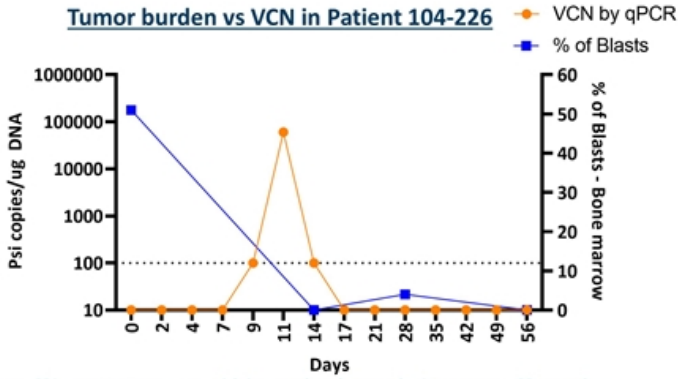
Ferritin vs VCN in Select Patients from FCA Arm



Patient 104-226 Achieved a Durable MRD Negative CR

Clinical Characteristics	
Age, Race, Sex	64 year old white female
ECOG PS	1
ELN 2017 Classification; WHO Classification	Adverse risk; AML with myelodysplasia-related changes
Cytogenetic and Molecular Abnormalities	45,XX,-7,t(10;12)(q24;p13)[5]; IDH1, EZH2
Number of prior treatments	5 - including allogeneic HSCT 2016
Past Medical History	MDS, 2011; Focal nodular hyperplasia of the liver, 2016

Response Summary	BM Biopsy Blast %	BM Aspirate Blast %	MRD	ELN Response
Screening Day -14	51%	Not done		
Day 14	0%	Not done		
Day 28	3.8%	4%	Pos 0.6%	CRi
Day 56	2.8%	0%	Neg	CR
Day 84	0%	0%	Neg	CR
FU 1, Day 181	2%	0%	Neg	CR
FU 2, Day 270	1%	0%	Neg	CR
FU 3, Day 365	0%	0%	Neg	CR

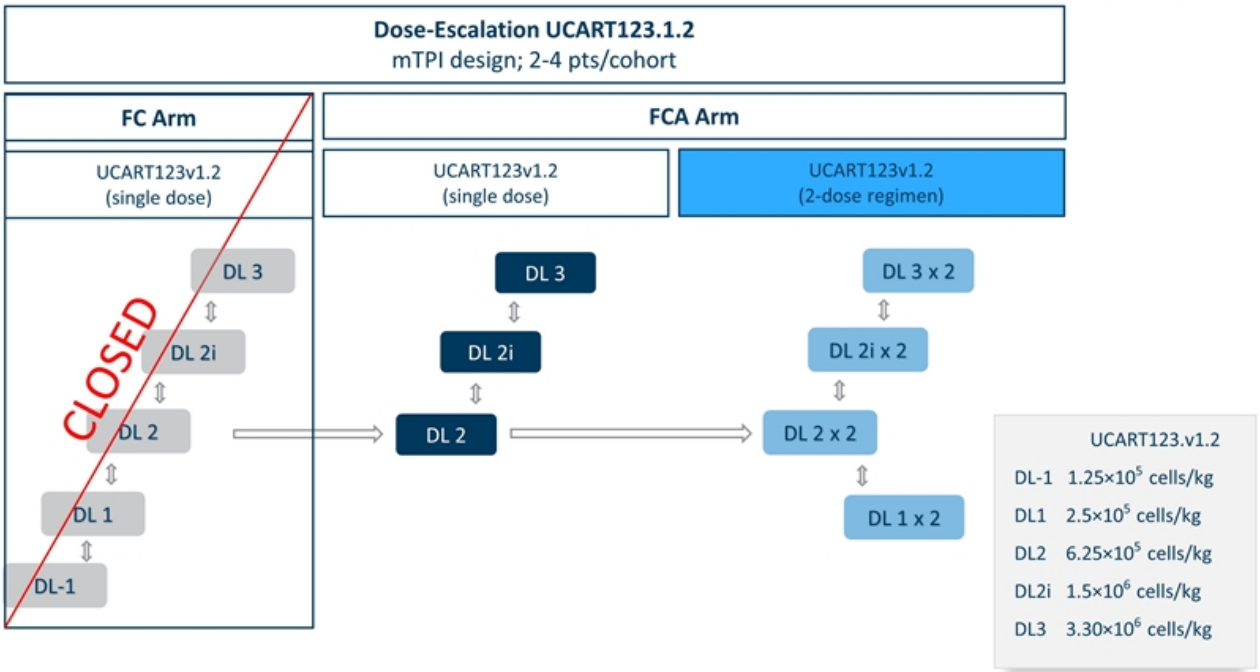


MDS myelodysplastic syndrome; HSCT Hemopoietic stem cell transplant; MRD minimal residual disease; CRi compete response with incomplete hematologic recovery; CR complete response

Translational Data From Patient 104-226 and Others Supports Use of a Two-Dose Regimen of UCART123v1.2

- UCART123v1.2 expansion correlates with reduction in tumor burden at DL2 (6.25×10^5 cells/kg) but at this dose, UCART123v1.2 cell function is not sufficient for sustained anti-leukemic activity in all patients
- A second dose would then be given to allow for additional UCART123v1.2 expansion and clinical activity after 10-14 days without the use of additional lymphodepletion
- The second peak of expansion in the setting of reduced disease burden should be safe and allow for clearance of residual disease
- The 2-dose regimen will initiate at DL2, a dose that has already been administered and cleared for safety as a single dose, and incorporate the use of prophylactic tocilizumab

AMELI-01 Amended Protocol with Two-Dose Regimen Design



Conclusions

- Adding alemtuzumab to the FC regimen was associated with improved LD and significantly higher UCART123v1.2 cell expansion, which correlated with improved activity and cytokine profiles
  - ➢ One patient in the DL2 FCA arm achieved >90% blast reduction at Day 28
  - ➢ One patient in the DL2 FCA arm achieved a long term durable MRD negative CR (now past 12 months)
- Overall, these data support further study of UCART123v1.2 after FCA LD in pts with R/R AML
- Based on observed UCART123v1.2 expansion patterns and cytokine profiles, the study is enrolling patients in the FCA 2-dose regimen arm

BALLI-01: UCART22

UCART22 – BALLI-01 Trial Design

Phase I/IIa, Open Label Dose-escalation and Dose-expansion Study to Evaluate the Safety, Expansion, Persistence and Clinical Activity of UCART22 in Patients with Relapsed or Refractory CD22⁺ B-cell Acute Lymphoblastic Leukemia

Up to 30 pts; mTPI design; 2-4 pts/cohort

Up to 53 pts; binomial exact study design; LD regimen: FCA

Objectives

Primary/Secondary:

- Safety and tolerability
- MTD/RP2D
- Response (Investigator assessed)

Exploratory

- UCART22 expansion and persistence, VCN and chimerism in WB and BM
- Immune reconstitution

Key Eligibility Criteria

- Patients aged 15 years to 70 years
- Adequate organ function
- ECOG PS ≤1
- B-ALL blast CD22 expression ≥70%
- Received ≥1 standard chemotherapy regimen and ≥1 salvage regimen

Dose Levels

- DL-1 1 $\times 10^4$ cells/kg
- DL1 1 $\times 10^5$ cells/kg
- DL2 1 $\times 10^6$ cells/kg
- DL2i 2.5 x 10^6 cells/kg
- DL3 5 $\times 10^6$ cells/kg

F: 30 mg/m^2/d x 4d; C: 1 g/m^2/d x 3d;
F: 30 mg/m^2/d x 3d; C: 500 mg/m^2/d x 3d;
A: 20 mg x 3d

NCT04150497
MTD: Maximum Tolerated Dose; RP2D: Recommended Phase 2 Dose; LD: Lymphodepletion; DL: Dose Level; F: Fludarabine; C: Cyclophosphamide; FC: Fludarabine + Cyclophosphamide ; FCA: Fludarabine + Cyclophosphamide + Alemtuzumab; NCCN: National Comprehensive Cancer Network; VCN: Viral Copy Number; WB: White Blood; BM: Bone Marrow; ALL: Acute Lymphoblastic Leukemia

UCART22 Administration Shows Promising Safety Profile

Patient Characteristics (N=12)

Median age: 30 (20-61)

WHO classification:

- B-ALL with recurrent genetic abnormalities: 7 (58%);
- CRFL2 rearrangement: 4 (33%)

Median prior lines of therapy: 3 (2-6)

- Prior blinatumomab: 8 (73%)
- Prior inotuzumab: 5 (45%)
- Prior CD19 CART: 3 (27%)
- Prior HSCT: 3 (25%)

Safety: FCA Cohorts (N=6)

0 dose limiting toxicity

0 ICANS (immune effector cell associated neurotoxicity)

0 severe UCART22-related TEAEs (treatment emergent adverse events)

3 patients with mild to moderate CRS (cytokine release syndrome), Grade 1/2

1 patient with GII GvHD; skin only*

*not confirmed by biopsy; in context of re-activation of prior allogeneic bone marrow donor stem cells

Data Source: ASH 2021 Conference Presentation
CRFL2: Cytokine Receptor-Like Factor 2 ; FCA: Fludarabine, Cyclophosphamide, Alemtuzumab ; ICANS: Immune effector Cell-Associated Neurotoxicity Syndrome ; TEAE: Treatment Emergent Adverse Event
CRS: Cytokine Release Syndrome ; GvHD: Graft versus Host Disease
N=11 for calculating patients with prior therapy

Patient 1

Age	34		
Sex	Male		
Prior Therapies	1: Induction: GRALL 2014 (Intensive chemotherapy) – Daunorubicin; vincristine; cyclophosphamide; L-asparaginase; mercaptopurine; methotrexate; etoposide; cytarabine; prednisone/dexamethasone 2: Salvage: Vincristine; HiDAC; vindesine; ifofsamide; thioguanine; PEG-asparginase; mercaptopurine; methotrexate; daunorubicin; dexamethasone; followed by **allogeneic HSCT** (matched related donor) 3: Salvage: Vincristine; PEG-asparginase; dexamethasone + **venetoclax** followed by **autologous CD19 CART** 4: Salvage: **Venetoclax**		
Cytogenetics at Screening	Very complex (>5 abnormalities): 46, XY, -1,+3,-4,-5,-6,+11,+14,-16,-17,+MAR[8]/46, XY[12]		
Molecular at Screening	IKZF1		
CRS	Days 3-8	Grade 1	
Best Response	MRD-negative CRi (currently Month 7)		

Patient 2

Age	24		
Sex	Female		
Prior Therapies	1: AALL1131 high-risk arm (Intensive chemotherapy) – Vincristine; daunorubicin; prednisone/dexamethasone; cyclophosphamide; cytarabine; mercaptopurine; PEG-asparginase; methotrexate 2: Salvage: Vincristine; daunorubicin followed by **autologous CD19 CART** 3: Salvage: Liposomal vincristine + **venetoclax** followed by **allogeneic HSCT** (haploidentical donor)		
Cytogenetics at Screening	46, XX, inv(3),inv(11)[2]/46, XX, t(1;10)(p10;p10)[1]/46, XX, +11[1]/46, XX, inv(11)[1]/46, XX[14]		
Molecular at Screening	Unknown		
CRS	None		
Best Response	MRD-negative MLFS (until Day 84), now MRD-positive MLFS (currently Day 117)		

Patient 3

Age	57		
Sex	Male		
Prior Therapies	1: Induction: Vincristine; daunorubicin; cyclophosphamide; PEG-asparaginase; prednisone + consolidation: **blinatumomab;** cytarabine; methotrexate; vincristine; mercaptopurine; dexamethasone; followed by **allogeneic HSCT** (haploidentical donor) 2: Salvage: Vincristine + dexamethasone followed by **autologous CD19 CART** 3: Salvage: Vinblastine; cyclophosphamide + **inotuzumab ozogamicin** 4: Salvage: Vincristine + dexamethasone		
Cytogenetics at Screening	Normal		
Molecular at Screening	Normal		
CRS	Day 8	Grade 1	Tocilizumab x1
Best Response	MRD-negative CR (currently Day 71)		

Summary of UCART22 DL3 data

- Five subjects were dosed at DL3 (5 x 10^6 cells/kg) with UCART22 Process 1 (P1) using FCA LD:
  - No safety issues, no Grade 2 or higher CRS
  - 3 out of 5 clinical responses (60% ORR): 1 MRD neg. **CR**, 1 MRD neg. **CRi**, 1 **MLFS**
  - All 3 of the responders failed multiple lines of prior therapy including chemotherapy, CD19 directed autologous CAR T cell therapy, and allogeneic stem cell transplant. Additionally, 1 of the 3 failed prior blinatumomab and inotuzumab.

Next steps for BALLI-01

- Dosing started with UCART22 Process 2 (P2) made by Cellectis
- UCART22 P2 product candidate has shown a significantly higher potency *in vitro* than P1
- 1^{st} subject dosing at DL2 (1×10^6 cells/kg)
- Next data set with P2 expected in 2023

SUMMARY

- AMELI-01 (UCART123)
  - Adding alemtuzumab to the FC lymphodepletion regimen was associated with improved LD and significantly higher UCART123v1.2 cell expansion, which correlated with improved activity
    - One patient in the DL2 FCA arm achieved >90% blast reduction at Day 28
    - One patient in the DL2 FCA arm achieved a long term durable MRD negative CR (now past 12 months)
  - The study is enrolling patients in the FCA 2-dose regimen arm
- BALLI-01 (UCART22)
  - 3 out of 5 clinical responses (60% ORR) at DL3: 1 MRD neg. CR, 1 MRD neg. CRi, 1 MLFS
  - UCART22 Process 2 (P2) made by Cellectis at the Raleigh facility is now being used in the clinical study.

Discover, Create, Develop, Produce and Test

New York, New York

Innovation, Clinical Development

~25,000 sq ft. facility

- ✓ Gene Editing platform – TALEN®
- ✓ I/O discovery platform
- ✓ Gene therapy discovery platform
- ✓ Clinical development

Paris, France

HQ, PD/AD, Starting Materials

~55,000 sq ft. facility

- ✓ Process & analytical development
- ✓ Raw materials manufacturing
- ✓ QC labs
- ✓ Warehouse
- ✓ Cryogenic Storage rooms

Raleigh, North Carolina

UCART – Clinical & potential for Commercial

~82,000 sq ft. facility

- ✓ Cell therapy GMP manufacturing
- ✓ QC labs
- ✓ Warehouse
- ✓ Cryogenic Storage rooms

Expected 2023 Milestones

UCART22 r/r B-ALL	UCART123 r/r AML	UCARTCS1 r/r MM	UCART20x22 r/r NHL
Data update with in-house manufactured product	Data update with 2-dose regimen	Enroll DL1 with FC lymphodepletion	1st in human data update

ALL, acute lymphoblastic leukemia; AML, acute myeloid leukemia; DL, dose level; FC, fludarabine + cyclophosphamide; FCA, fludarabine + cyclophosphamide + alemtuzumab; MM, multiple myeloma; NHL, non-Hodgkin's lymphoma; RP2D, recommended Phase 2 dose; r/r, relapsed/refractory.

Thank You

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PRESS RELEASE

Cellectis Announces Positive Preliminary Clinical Data for UCART22 in ALL and UCART123 in AML

- *UCART22: anti-tumor activity observed in 60% (n=3) of patients at DL3 using FCA lymphodepletion*
- *UCART123: 25% (n=2) of patients at DL2 in the FCA arm achieved meaningful response; one patient experienced a durable minimal residual disease (MRD)-negative complete response that continues beyond 12 months*
- *BALLI-01 study (evaluating UCART22) now enrolling patients with product candidate manufactured in-house at DL2*
- *AMELI-01 study (evaluating UCART123) now enrolling patients in a two-dose regimen arm at DL2*

New York, NY – December 13, 2022 - Cellectis S.A. (the "Company") (Euronext Growth: ALCLS - NASDAQ: CLLS), a clinical-stage biotechnology company using its pioneering gene-editing platform to develop life-saving cell and gene therapies, today will host a live webcast reviewing updated clinical data on its Phase 1/2a BALLI-01 clinical trial (evaluating UCART22) and on its Phase 1 AMELI-01 clinical trial (evaluating UCART123) that were presented in an oral session on December 12, 2022 at the 64th Annual Meeting of the American Society of Hematology (ASH).

Preliminary Data from the BALLI-01 Clinical Study

BALLI-01 is a Phase 1/2a open-label dose-escalation trial evaluating the safety and clinical activity of UCART22 given at escalating dose levels after lymphodepletion (LD) with either fludarabine and cyclophosphamide (FC) or FC with alemtuzumab (FCA) in patients with relapsed or refractory acute lymphoblastic leukemia (r/r ALL). Alemtuzumab was added to the LD regimen to sustain host T-cell and Natural Killer (NK) cell depletion and to promote UCART22 cell expansion and persistence.

Compared to the last clinical update on BALLI-01 at ASH 2021, the webcast presented data from five additional patients who received UCART22 at dose level 3 (DL3) $5x10^6$ cells/kg after lymphodepletion with FCA. No dose limiting toxicities (DLTs), Grade 2 or higher cytokine release syndrome (CRS), immune effector cell-associated neurotoxicity syndrome (ICANS) or adverse events of special interest (AESI) were observed.

Evidence of UCART22 anti-tumor activity was observed in 60% (n=3) of the five patients at DL3 after lymphodepletion with FCA:

- A patient experienced a durable minimal residual disease (MRD) negative complete response with incomplete count recovery (CRi) that continues beyond 6 months.

- A patient experienced an MRD negative complete response (CR) that continues beyond Day 56.
- A patient experienced a morphologic leukemia-free state (MLFS) that continues beyond Day 84 (MRD-negative until Day 84; MRD-positive at Day 117).

All three of the responders failed multiple lines of prior therapy including 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).

“These treatment responses in combination with the safety data are very encouraging for patients with r/r B-cell ALL who have limited, if any, treatment options, especially for those who have failed prior CD19 directed CAR T-cell therapy and allogeneic stem cell transplant’, said Nitin Jain, M.D., The University of Texas MD Anderson Cancer Center, Department of Leukemia, and coordinating investigator for the BALLI-01 study.

Next Steps

Overall, these preliminary data support the continued administration of UCART22 after FCA lymphodepletion in patients with r/r ALL. The Company is now enrolling patients in BALLI-01 with product candidate manufactured fully in-house at DL2 after FCA lymphodepletion. The first patient has been dosed at dose level 2 (DL2) $1x10^6$ cells/kg. The next data set is expected to be released in 2023.

Preliminary Clinical Data from the AMELI-01 Study Presented at ASH 2022

AMELI-01 is a Phase 1 open-label dose-escalation trial evaluating the safety, tolerability, expansion and preliminary activity of UCART123 given at escalating dose levels after lymphodepletion (LD) with either fludarabine and cyclophosphamide (FC) or FC with alemtuzumab (FCA) in patients with relapsed or refractory acute myeloid leukemia (r/r AML).

The oral presentation reviewed preliminary data from patients who received UCART123 at one of the following dose levels: dose level 1 (DL1) $2.5x10^5$ cells/kg; dose level 2 (DL2) $6.25x10^5$ cells/kg; intermediate dose level 2 (DL2i) $1.5x10^6$ cells/kg; or dose level 3 (DL3) $3.30x10^6$ cells/kg after lymphodepletion with FC ([n=8], DL1 – DL3) or FCA ([n=9], DL2 & DL2i).

Preliminary Safety Data

The FCA LD 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 LD, and a significant increase in area under the curve $(AUC)_{(0\text{-}28\ days)}$ (p=0.04; FC 10.2±15.7 vs. FCA 34.9±28.4).

Cytokine release syndrome (CRS) occurred in eight patients in the FC arm and nine patients in the FCA 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.

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:

- A 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 continues beyond one year.
- A patient with stable disease achieved greater than 90% bone marrow blast reduction (60% to 5%) at Day 28.

“Exemplary activity was seen in a 64-year-old female with AML who had relapsed after allogeneic stem cell transplantation (allo-SCT) and has maintained a durable MRD-negative complete response for over one year without salvage donor lymphocyte infusion or second allo-SCT,” said David A. Sallman, M.D., Moffit Cancer Center, Department of Malignant Hematology, Tampa, FL. “Overall, these encouraging clinical data are a meaningful step forward for patients and support further enrollment into the study. This trial addresses a patient population with severe unmet medical need, where a successful CAR T-cell product candidate could be a major breakthrough.”

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

Next Steps: 2-Dose Regimen

Overall, these preliminary data support the continued administration of UCART123 after FCA lymphodepletion in patients with r/r AML. Based on observed UCART123 expansion patterns and cytokine profiles, pursuant to an amended protocol (as described below), a second dose of UCART123 will be given after 10-14 days to allow for additional UCART123 expansion and clinical activity without the use of additional lymphodepletion. The second expansion phase in the setting of reduced disease burden is expected to be safe and allow for clearance of residual disease.

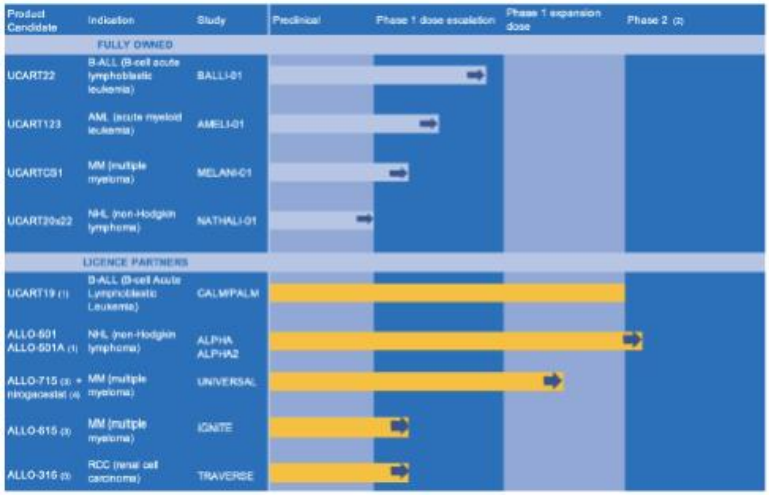
After a protocol-based pause in patient recruitment following a Grade 5 event related to CRS, the protocol treatment strategy has been modified and AMELI-01 has now commenced enrolling patients in the FCA 2-dose regimen arm at DL2, a dose that has already been administered and cleared for safety as a single dose. The arm incorporates the use of prophylactic tocilizumab, which is associated with reduced incidence of CRS.

A copy of the ASH oral presentation is available on Cellectis’ website.

“These clinically meaningful preliminary data from both the BALLI-01 and AMELI-01 studies are very encouraging for patients and for the future of allogeneic CART-cell therapy. Both ALL and AML are diseases with an urgent need for alternative treatment options for patients, and we are excited to be moving each of these studies forward,” said Dr. Mark Frattini, M.D., Ph.D., Chief Medical Officer at Cellectis. “We are now implementing a two-dose regimen arm for our AMELI-01 trial, as well as enrolling patients with in-house manufactured product for our BALLI-01 trial. We look forward to sharing future updates as they become available for both of these clinical studies.”

Pipeline Overview

The following chart highlights our and our licensee's key product candidates:



(1) ALLO-501 and ALLO-501A are exclusively licensed to Servier and under a joint clinical development program between Servier and Allogene. The ALPHA and ALPHA2 studies targets Diffuse Large B-Cell Lymphoma (DLBCL) and Follicular Lymphoma (FL) indications, which are subtypes of NHL.

(2) Phase 3 may not be required if Phase 2 is registrational.

(3) ALLO-715 and ALLO-605 target BCMA which is a licensed target from Cellectis. Allogene has an exclusive license to the Cellectis technology for allogeneic products directed at the BCMA target. Allogene holds global development and commercial rights for this Investigational candidate.

(4) Allogene is promoting this clinical trial in combination with SpringWorks Therapeutics.

(5) ALLO-316 targets CD70 which is a licensed target from Cellectis.. Allogene has an exclusive license to the Cellectis technology for allogeneic products directed at the CD70 target. Allogene holds global development and commercial rights for this investigational candidate.

As of September 21, 2022, Servier has notified Allogene that Servier was discontinuing involvement in the development of CD-19-targeting allogeneic CAR T-cell products.

NATHALI-01 Study (evaluating UCART20x22):

Cellectis is enrolling patients at dose level 1 ($50x10^6$ cells) with a fludarabine, cyclophosphamide, and alemtuzumab lymphodepletion regimen in the NATHALI-01 Phase 1 dose-escalation clinical study of UCART20x22. UCART20x22 is Cellectis' first allogeneic dual CAR T-cell product candidate being developed for patients with relapsed or refractory non-Hodgkin lymphoma and fully designed, developed and manufactured in-house.

MELANI-01 Study (evaluating UCARTCS1):

Cellectis is enrolling patients at dose level 1 ($1.0x10^6$ cells/kg) with a fludarabine and cyclophosphamide (FC) lymphodepletion regimen in the MELANI-01 Phase 1 dose-escalation clinical study of UCARTCS1 for patients with relapsed or refractory multiple myeloma (MM).

ASH 2022 Poster Presentation on UCARTCS1, in Collaboration with Amsterdam UMC

On December 10, 2022, the Amsterdam University Medical Center (VUmc location), in collaboration with Cellectis, presented preclinical data in a poster session showcasing Cellectis' UCARTCS1 product candidate. These initial preclinical data demonstrated anti-tumor activity *in vitro* and *in vivo*, supporting the potential benefit of Cellectis' UCARTCS1 first in-human study MELANI-01.

Collectively, the preclinical data demonstrated that UCARTCS1 has potent anti-MM activity against MM cell lines and primary MM cells, as well as in a MM xenograft model. These preclinical data support the ongoing Phase 1 clinical trial with UCARTCS1 in heavily pretreated multiple myeloma patients.

A copy of the poster presentation is available here on Cellectis' website.

Webcast Information

The event will feature presentations by the management team and will be followed by a live Q&A. A replay of the webcast will be made available under the "Events and Webcasts" section on the Investor page of the Company's website: https://cellectis.com/en/investors/events-and-webcasts/

In this context, the listing of the Company's ordinary shares on Euronext Growth will be suspended on December 13, 2022 until the opening of trading of Cellectis' ADSs on the Nasdaq Global Market at 3:30 pm (Paris time)/ 9:30 a.m. (New York time).

About Cellectis

Cellectis is a clinical-stage biotechnology company using its pioneering gene-editing platform to develop life-saving cell and gene therapies. Cellectis utilizes an allogeneic approach for CAR-T immunotherapies in oncology, pioneering the concept of off-the-shelf and ready-to-use gene-edited CAR T-cells to treat cancer patients, and a platform to make therapeutic gene editing in hemopoietic stem cells for various diseases. As a clinical-stage biopharmaceutical company with over 22 years of experience and expertise in gene editing, Cellectis is developing life-changing product candidates utilizing TALEN®, its gene editing technology, and PulseAgile, its pioneering electroporation system to harness the power of the immune system in order to treat diseases with unmet medical needs. Cellectis' headquarters are in Paris, France, with locations in New York, New York and Raleigh, North Carolina. Cellectis is listed on the Nasdaq Global Market (ticker: CLLS) and on Euronext Growth (ticker: ALCLS).

For more information, visit www.cellectis.com. Follow Cellectis on social media: @cellectis, LinkedIn and YouTube.

Forward-looking Statements and Legal Notices

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.

This press release 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 "anticipate," "believe," "can," "could," "expect," "intend,", "is designed to," "may," "might," "plan," "potential," "predict," "objective," "scheduled," "should," and "will," 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. Forward-looking statements include statements about the preliminary results for the AMELI-01 and BALLI-01 trials and the objectives of such trials, which remain ongoing; the ability to progress our clinical trials and to present any additional data from these trials; clinical outcomes from our trials, which may materially change as more patient data becomes available, potential benefits of our UCART product candidates; and our manufacturing capabilities. 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 risk that initial, interim and preliminary data from clinical trials may change as more data becomes available, and that subsequent data may not confirm any early result; the risk of disruptions or delays in our clinical trials as a result of failures by third-parties on whom we rely or arising out of regulatory inquiries or delays; the risk of manufacturing delays or problems; the risk associated with increased competition and/or adequate enrollment to support our clinical trials; and the numerous other risks associated with biopharmaceutical product candidate development. 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, 2021 and subsequent filings Cellectis makes with the Securities Exchange Commission from time to time, which are available on the SEC's website at www.sec.gov, 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.

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