

#### PRESS RELEASE

# Cellectis to Present Data on Non-Viral Gene Therapy and TALE Base Editors at the ESGCT Annual Congress

New York, NY — October 7, 2025 - Cellectis (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, announced today that findings highlighting the strong potential of circular single-stranded DNA (CssDNA) as a universal, efficient non-viral template for gene therapy, along with a comprehensive study of TALE base editors (TALEB) off-targets in the nuclear genome, will be presented at the European Society of Cell and Gene Therapy (ESGCT) annual congress, that will take place on October 7-10, 2025, in Sevilla, Spain.

#### Poster presentation:

Title: Circularization of Single-Stranded DNA Donor Template Unleashes the Power of Non-Viral Gene Delivery for Long-Term HSCs editing

Presenter: Julien Valton, Ph.D., Vice President Gene Therapy at Cellectis

Date/Time: Wednesday, October 8, 2025 from 2:00 p.m. to 3:30 p.m. CET

Poster number: P0439

Over the past decade, non-viral DNA template delivery has been used with engineered nucleases to target single-stranded DNA sequences in hematopoietic stem and progenitor cells (HSPCs).

While developed for gene therapy purposes, so far this method has been restricting to gene corrections. To expand this scope, Cellectis developed an editing process using its gene editing technology and kilobase-long circular single-stranded DNA donor templates.

#### Research data show that:

- CssDNA editing process achieved high gene insertion frequency in viable HSPCs.
- CssDNA-edited HSPCs show a higher propensity to engraft and maintain gene edits in a murine model than adeno-associated viruses (AAV)-edited HSPCs.

These data highlight the strong potential of CssDNA as a universal and efficient non-viral DNA template for gene therapy applications.

The research was also presented as an oral presentation at the Homology-Directed Repair: The Path Forward Workshop in Sevilla on October 6, 2025.

### Poster presentation:

Title: Comprehensive analysis of TALEB off-target editing

Presenter: Maria Feola, Ph.D., Senior Scientist, Team Leader Gene Editing at Cellectis

Date/Time: Thursday, October 9, 2025 from 2:00 p.m. to 3:30 p.m. CET

Poster number: P0506

TALE base editors (TALEB) are fusions of a transcription activator-like effector domain (TALE), split-DddA deaminase halves, and an uracil glycosylase inhibitor (UGI).

These recent additions to the genome editing toolbox can directly edit double strand DNA, converting a cytosine (C) to a thymine (T) through the formation of an uracil (U) intermediate without the need of DNA break. Base editing has great potential in therapeutic applications. However, being able to avoid potential off-target effects is key toward this goal.

To evaluate TALEB safety, Cellectis combined advanced bioinformatic predictions with multiple experimental approaches to investigate potential off-target effects in the nuclear genome of primary T cells.

The study found no evidence of biases towards off-site C-to-T editing at sites flanked by CTCF binding sites, a key DNA-binding protein that regulates genome organization and gene expression at genome wide level.

These results provide a strong framework for the safe development of TALEB in therapeutic cell engineering, supporting their potential for future nuclear and mitochondrial applications.

The poster presentations are now published on Cellectis' website.

#### **About Cellectis**

Cellectis is a clinical-stage biotechnology company using its pioneering gene-editing platform to develop life-saving cell and gene therapies. The company 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 develop gene therapies in other therapeutic indications. With its in-house manufacturing capabilities, Cellectis is one of the few end-to-end gene editing companies that controls the cell and gene therapy value chain from start to finish.

Cellectis' headquarters are in Paris, France, with locations in New York and Raleigh, NC. Cellectis is listed on the Nasdaq Global Market (ticker: CLLS) and on Euronext Growth (ticker: ALCLS). To find out more, visit www.cellectis.com and follow Cellectis on LinkedIn and X.

TALEN® is a registered trademark owned by Cellectis.

## **Cautionary Statement**

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 "potential", "can", "future". These forward-looking statements are based on our management's current expectations and assumptions and on information currently available to management. Forward-looking statements include statements regarding the potential of our research and development programs. 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 the sufficiency of cash, cash equivalent and fixed-term deposits to fund our operations, which we refer to as our runway, we note that our operating plans, including product development plans, may change as a result of various factors. Furthermore, many other important factors, including those described in our Annual Report on Form 20-F as amended and in our annual 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, 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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