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 of the Securities Exchange Act of 1934

Date of Report: July 8, 2019 **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)

ndicate 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 □
ndicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):
ndicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

EXHIBIT INDEX

Exhibit <u>Title</u>

99.1 Press release, dated July 8, 2019

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)

July 8, 2019 By: /s/ André Choulika

André Choulika

Chief Executive Officer

Cellectis Publishes New CAR Design to Control CAR T-Cells in Non-Lethal Way

SWIFF-CAR, a Next Generation CAR with an Embedded On/Off-Switch Increases Safety for Patients and Extends
Manufacturing Possibilities

NEW YORK--(BUSINESS WIRE)--July 8, 2019--Regulatory News:

Cellectis (Paris:ALCLS) (NASDAQ:CLLS) (Euronext Growth: ALCLS - Nasdaq: CLLS), a clinical-stage biopharmaceutical company focused on developing immunotherapies based on gene-edited allogeneic CAR T-cells (UCART), announced today the publication of a study in *BMC Biotechnology*, a Springer Nature journal, describing and evaluating the development of the SWIFF-CAR, a CAR construct with an embedded on/off-switch, which enables tight control of the CAR surface presentation and subsequent cytolytic functions using a small molecule drug. The reversible control of these engineered T-cells represents a promising approach to further mitigate the potential toxicities that are associated with CAR T-cell administration in clinical settings and to improve the process of CAR T-cell production for specific target antigens.

"Following Cellectis' previously developed CubiCAR system, an all-in-one CAR architecture with an embedded multi-functional tag for purification, detection and elimination of CAR T-cells, we knew that we needed an additional 'on/off switch' to direct T-cells to either be active or inert, without necessarily killing them," said Dr. Alexandre Juillerat, Ph.D., Project Leader and U.S. Laboratory Head, Cellectis. "The SWIFF-CAR system does precisely that, representing a major breakthrough in our ongoing efforts to develop innovative applications to treat a range of diseases, including cancer and autoimmune diseases."

"While suicide gene systems have proven to be an effective way to eliminate transduced CAR T-cells, they also potentially terminate CAR T-cell treatment altogether," added Dr. Philippe Duchateau, Ph.D., Chief Scientific Officer, Cellectis. "The capability to manipulate CAR surface presentation improves the safety of CAR-T therapies and enhances our ability to circumvent hurdles associated with manufacturing. The SWIFF-CAR system addresses both of these factors and is an important next step for Cellectis in treating deadly illnesses that affect patients globally."

Alexandre Juillerat, Ph.D. Project Leader and Senior Scientist, Cellectis

Dr. Alexandre Juillerat, Ph.D., graduated in Chemistry from the University of Lausanne, Switzerland. After receiving his Ph.D. in 2006 in protein engineering from the École Polytechnique Fédérale de Lausanne (EPFL, Switzerland), he moved to the laboratory of Structural Immunology at the Institut Pasteur in Paris, France. In 2010, he joined the R&D department of Cellectis in Paris, France, working on the development and implementation of sequence specific designer nucleases including the transcription activator-like effector nucleases (TALEN®). He then joined the Cellectis facility based in New York, NY, USA, leading projects associated with the development of the T-cell chimeric antigen receptor (CAR) technology.

Modulation of Chimeric Antigen Receptor surface expression by a small molecule switch

Alexandre Juillerat¹, Diane Tkach¹, Brian W. Busser¹, Sonal Temburni¹, Julien Valton¹, Aymeric Duclert², Laurent Poirot², Stéphane Depil² and Philippe Duchateau²

¹Cellectis Inc, 430E 29th street, NYC, NY 10016, USA ²Cellectis, 8 rue de la croix Jarry, 75013 Paris, France

About Cellectis

Cellectis is a clinical-stage biopharmaceutical company focused on developing a new generation of cancer immunotherapies based on gene-edited T-cells (UCART). By capitalizing on its 19 years of expertise in gene editing – built on its flagship TALEN® technology and pioneering electroporation system PulseAgile – Cellectis uses the power of the immune system to target and eradicate cancer cells.

Using its life-science-focused, pioneering genome engineering technologies, Cellectis' goal is to create innovative products in multiple fields and with various target markets.

Cellectis is listed on the Nasdaq market (ticker: CLLS) and on Euronext Growth (ticker: ALCLS). To find out more about us, visit our website: www.cellectis.com

Talking about gene editing? We do it. TALEN® is a registered trademark owned by Cellectis.

Disclaimer

This press release contains "forward-looking" statements that are based on our management's current expectations and assumptions and on information currently available to management. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Further information on the risk factors that may affect company business and financial performance is included in Cellectis' Annual Report on Form 20-F and the financial report (including the management report) for the year ended December 31, 2018 and subsequent filings Cellectis makes with the Securities Exchange Commission from time to time. 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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