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: October 4, 2016 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 if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):
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):
Form 20-F ☑ Form 40-F [
Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

EXHIBIT INDEX

Exhibit <u>Title</u>

99.1 Press release, dated October 4, 2016.

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)

October 4, 2016

By: /s/ André Choulika

André Choulika
Chief Executive Officer

3

Calyxt Expands its Patent Portfolio, Now Encompassing Broad Uses of Technologies such as CRISPR/Cas9, Zinc Finger Nucleases and TAL-effector Nucleases for Plant Gene Editing

U.S. Patents 9,458,439 and 8,921,332 are Now Issued

MINNEAPOLIS-ST. PAUL, Minn.--(BUSINESS WIRE)--October 4, 2016--Calyxt, Inc., a Minnesota-based company developing healthier food products to benefit both consumers and growers, today announced the issuance of U.S. patent 9,458,439, which claims broad gene inactivation by use of chimeric restriction endonucleases, including TALEN[®] and CRISPR/Cas9 gene editing technologies. This patent, granted by the USPTO to the Institut Pasteur and Boston Children's Hospital, is exclusively licensed to Cellectis, Calyxt's parent company. This patent expands on a previous patent (Patent 8,921,332, claiming the use of homologous recombination for gene editing), which is a member of a patent family claiming the basic uses of chimeric restriction nucleases for gene editing in cells.

"CRISPR/Cas9 and TALEN[®] are two modern gene editing tools that introduce targeted breaks in DNA as a first step in the gene editing process," said Dr. Dan Voytas, Calyxt's Chief Science Officer and University of Minnesota Professor.

The most important, and perhaps overlooked, step in genome editing is what comes next: the repair of the break by either NHEJ (resulting in gene inactivation) or HR (resulting in gene replacement or insertion). We are very excited to have broad intellectual property covering both NHEJ and HR gene editing methods in plant cells."

"This new patent builds on over 16 years of gene editing experience and an extensive patent portfolio, which refer to diverse uses of gene editing technologies in the plant space. We believe that Calyxt is in a unique position to benefit both consumers and the environment as we expand our product pipeline, which already includes a high oleic/low saturated fat/no trans-fat soybean, a cold storable/low acrylamide potato and several wheat products – all of which have been evaluated by the USDA and many of which are growing in fields across the United States," added Federico Tripodi, Calyxt's CEO.

This issued U.S. patent 9,458,439 claims the method of introducing chromosomal modifications at a locus by induction of double-stranded DNA cleavage using a chimeric restriction endonuclease and non-homologous end joining recombination (NHEJ).

This pivotal invention is at the basis of almost all current nuclease-based precise gene inactivation techniques using chimeric restriction endonuclease such as CRISPR/Cas9 and related reagents, zinc finger nucleases, TAL effector nucleases, Mega-TALEs, some meganucleases and others, i.e. endonucleases generated by the juxtaposition of specific DNA binding sequences and DNA cleavage domains with a recognition site of at least 12 base pairs. This new patent follows U.S. patent 8,921,332 issued on December 30th, 2014, which claims the use of chimeric restriction endonucleases for directing chromosomal gene editing in cells by homologous recombination (HR).

Claim 1 of the U.S. patent 9,458,439:

"A method for attenuating or inactivating an endogenous gene of interest in a cell in vitro comprising: inducing in the cell double stranded cleavage of chromosomal DNA at a genomic site of interest in the specific sequence to be modified, wherein the inducing comprises contacting the genomic site of interest with a chimeric restriction endonuclease, said chimeric restriction endonuclease comprising a DNA binding sequence and a DNA cleavage domain, and said restriction endonuclease recognizing a DNA sequence of at least 12 bp, wherein said restriction endonuclease is introduced as a protein or is encoded by a nucleic acid vector that is expressed, thereby inducing a cellular repair mechanism which leads to highly efficient recombinational events at said genomic site of interest, wherein said recombinational events introduce a mutation into said genomic site of interest, thereby modifying the specific sequence in the chromosomal DNA of the cell and thereby attenuating or inactivating an endogenous gene of interest in said cell."

Claim 1 of the U.S. patent 8,921,332:

"A method of modifying a specific sequence in chromosomal DNA of a cell in vitro comprising: inducing in the cell double stranded cleavage of chromosomal DNA at a genomic site of interest in the specific sequence to be modified, wherein the inducing comprises contacting the genomic site of interest with a chimeric restriction endonuclease, said chimeric restriction endonuclease comprising a DNA binding sequence and a DNA cleavage domain, and said restriction endonuclease recognizing a DNA sequence of at least 12 bp, wherein said restriction endonuclease is introduced as a protein or is encoded by a nucleic acid vector that is expressed; and contacting said cell with a targeting DNA or a nucleic acid vector encoding said targeting DNA in an amount sufficient to produce recombination between said targeting DNA and said chromosomal DNA at the site of interest, wherein said targeting DNA comprises (1) DNA homologous to the region surrounding the genomic site of interest and (2) DNA which modifies the specific sequence upon recombination between said targeting DNA and said chromosomal DNA, thereby modifying the specific sequence in the chromosomal DNA of the cell."

About Calyxt

Calyxt, Inc. is a fast-growing, consumer-oriented ag company that utilizes its innovative, patented TALEN® technology to usher in a new era of agriculture and develop crop products with healthier characteristics for consumers – all the while helping farmers and food and agriculture industries reduce their environmental footprints in the context of climate change. Calyxt believes that agricultural technologies can have a profound, positive impact on humanity and is looking to engage those who share this passion for food and agriculture. Calyxt is located in Minneapolis-St. Paul, Minn., and is a wholly owned subsidiary of Cellectis.

For further information please visit our website: www.calyxt.com CalyxtTM and the corporate logo are trademarks owned by Calyxt, Inc.

Talking about gene editing? We do it.

TALEN[®] is a registered trademark owned by the Cellectis Group.

CONTACT:

For Calyxt

Media

Jennifer Moore, 917-580-1088

VP Communications

contact@calyxt.com

or

Caitlin Kasunich, 212-896-1241

KCSA Strategic Communications

ckasunich@kcsa.com

۸r

Investor Relations

Simon Harnest, 646-385-9008 VP Corporate Strategy and Finance simon.harnest@cellectis.com