PRESS RELEASE

First Patient Dosed with Off-the-Shelf UCARTCS1 Product Candidate for Relapsed/Refractory Multiple Myeloma

Cellectis' UCARTCS1 MELANI-01 Trial Commenced at MD Anderson Cancer Center

October 29, 2019 4:30 P.M. Eastern Time – New York – Cellectis (Euronext Growth: ALCLS; Nasdaq: CLLS), a biopharmaceutical company focused on developing immunotherapies based on gene-edited off-the-shelf CAR T-cells (UCART), today announced the Company has dosed the first patient in its UCARTCS1 clinical trial, MELANI-01, the first allogeneic off-the-shelf CAR-T product candidate the U.S. Food and Drug Administration (FDA) has cleared to enter into clinical development for relapsed/refractory multiple myeloma (R/R MM). The UCARTCS1 clinical trial is a Phase 1 dose-escalation study to evaluate the safety, expansion, persistence and clinical activity of UCARTCS1 cells in R/R MM patients.

"This first patient dosing for our MELANI-01 clinical trial is an important advancement, as our team has worked tirelessly to develop and take the CS1 target from the lab to the clinic," said Dr. André Choulika, Chairman and CEO, Cellectis. "In taking this next clinical step, we look forward to deepening our understanding of UCARTCS1 as a potential new treatment option for relapsed/refractory multiple myeloma patients in the future."

The MELANI-01 clinical trial is currently open at MD Anderson Cancer Center in Houston, Texas, under the supervision of Dr. Krina Patel, Principal Investigator, Study Coordinating Investigator, Assistant Professor, Department of Lymphoma/Myeloma, Division of Cancer Medicine at MD Anderson Cancer Center, as well as Hackensack Meridian in New Jersey under the supervision of Dr. David Siegel, Director of the Multiple Myeloma Institute at John Theurer Cancer Center (JTCC) at Hackensack University Medical Center. Another site is planned to open at Weill Cornell Medicine in New York under the leadership of Dr. Adriana Rossi, Associate Clinical Director, Myeloma Center and Assistant Professor of Medicine, Division of Hematology and Medical Oncology.

About Multiple Myeloma (MM)

Multiple myeloma is a cancer that affects a type of white blood cells called plasma cells that are specialized mature B cells, which secrete antibodies to combat infections. Multiple myeloma is characterized by the uncontrolled proliferation of neoplastic plasma cells in the bone marrow, where they overcrowd healthy blood cells. Although MM is a chronic disease and an exact cause has not yet been identified, researchers have made significant progress over the years in managing the disease through better understanding MM's pathophysiology. The progress in finding a cure needs to be continued as The American Cancer Society estimates that 32,110 new cases of MM will be diagnosed, and 12,960 deaths are expected to occur in 2019 in the U.S. alone.

About UCARTCS1
UCARTCS1 is an allogeneic, off-the-shelf, gene-edited T-cell product candidate designed for the treatment of multiple myeloma. CS1 (SLAMF7) is highly expressed on MM tumor cells and is an attractive target. The limitation so far has been the presence of the CS1 target on the surface of T-cells, which has hindered the access to CAR-Ts. For example, the introduction of a CAR construct in T-cells induces cross T-cell reactivity and leads to destruction of the CS1+ T-cell population during manufacturing. Cellectis solved this issue by using TALEN® gene editing to knock out the *CS1* gene from T-cells before introducing the CS1 CAR construct.

About Cellectis
Cellectis is developing the first of its kind 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. As a clinical-stage biopharmaceutical company with over 19 years of expertise in gene editing, Cellectis is developing life-changing product candidates utilizing TALEN®, its proprietary gene editing technology, and PulseAgile, its pioneering electroporation system to harness the power of the immune system in order to target and eradicate cancer cells.

As part of its commitment to a cure, Cellectis remains dedicated to its goal of providing life-saving UCART product candidates to address unmet needs for multiple cancers including acute myeloid leukemia (AML), B-cell acute lymphoblastic leukemia (B-ALL), multiple myeloma (MM), Hodgkin lymphoma (HL) and non-Hodgkin lymphoma (NHL).

Cellectis headquarters are in Paris, France, with additional 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.

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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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