

Fate Therapeutics and Memorial Sloan Kettering Cancer Center Launch Partnership for Development of Off-the-Shelf T-Cell Immunotherapies

Unite Cellular Immunotherapy Expertise to Accelerate Clinical Translation of Off-the-Shelf Products Offering Broad Patient Access

Collaboration to Use Engineered Pluripotent Cell Lines to Renewably Generate T-Cell Product Candidates

Foundational Intellectual Property Covering Pluripotent Cell-derived Engineered T Cells Exclusively Licensed to Fate Therapeutics

SAN DIEGO, Sept. 07, 2016 (GLOBE NEWSWIRE) -- Fate Therapeutics, Inc. (NASDAQ:FATE), a biopharmaceutical company dedicated to the development of programmed cellular immunotherapies for cancer and immune disorders, announced today a partnership with Memorial Sloan Kettering Cancer Center for the development of off-the-shelf T-cell product candidates using engineered pluripotent cell lines. Research and development activities under the multi-year collaboration will be led by Michel Sadelain, M.D., Ph.D., Director of the Center for Cell Engineering and the Stephen and Barbara Friedman Chair at Memorial Sloan Kettering Cancer Center.

"This partnership brings together Memorial Sloan Kettering's excellence in the manufacture and delivery of cell-based immunotherapies, and our established expertise in pluripotent cell generation, engineering and differentiation," said Scott Wolchko, President and Chief Executive Officer of Fate Therapeutics. "Together, we are at the forefront of an off-the-shelf paradigm shift, seeking to broaden patient access to revolutionary T-cell immunotherapies through a renewable, robust and standardized product approach."

"Engineering therapeutic attributes into pluripotent cell lines, such as antigen specificity, lack of alloreactivity, enhanced persistence and histocompatibility, is a breakthrough approach to renewably generate potent T-cell immunotherapies," said Dr. Sadelain. "This unique approach offers the prospect for off-the-shelf delivery of T-cell immunotherapies with enhanced safety and therapeutic potential at the scale necessary to serve significant numbers of patients."

The collaboration unites research, preclinical development and manufacturing work currently being conducted independently at Fate Therapeutics and Memorial Sloan Kettering to accelerate the clinical translation of T-cell product candidates derived from engineered pluripotent cells. Collectively, the groups have amassed significant and complementary expertise necessary to deliver off-the-shelf T-cell immunotherapies, including the engineering, maintenance and expansion of induced pluripotent cell lines and the scalable generation of T cells with enhanced safety profiles and effector functions.

In connection with the partnership, Fate Therapeutics has exclusively licensed from Memorial Sloan Kettering foundational intellectual property covering induced pluripotent cell-derived immune cells, including T cells and NK cells derived from pluripotent cells engineered with chimeric antigen receptors, for human therapeutic use. Additionally, Fate Therapeutics maintains an option to exclusively license intellectual property arising from all research and development activities under the collaboration.

Off-the-Shelf Immunotherapy Opportunity

Cellular immunotherapies are poised to transform the treatment of cancer and immunological conditions. However, cellular immunotherapies currently undergoing clinical investigation are patient-specific and their delivery requires the extraction, engineering, expansion and re-introduction of each individual patient's T cells. This multi-step manufacturing process is logistically challenging and complex, and significant hurdles remain to ensure that patient-specific T-cell immunotherapies can be efficiently and consistently manufactured, and safely and reliably delivered, at the scale necessary to support broad patient access and wide-spread commercialization.

Induced pluripotent cells possess the unique dual properties of self-renewal and differentiation potential into all cell types of the body including T cells. Similar to master cell lines used for the manufacture of monoclonal antibodies, engineered pluripotent cell lines can repeatedly deliver clonal populations of T cells with broad histocompatibility and enhanced effector functions. These highly-stable pluripotent cell lines have the potential to serve as a renewable cell source for the consistent manufacture of homogeneous populations of effector cells for the treatment of many thousands of patients.

Exclusive License & Development Plan

Through the three-year collaboration, the group aims to leapfrog the field's current patient-specific approach to T-cell immunotherapy. Over the last decade, Fate Therapeutics has developed a proprietary, patent-protected platform to efficiently generate, genetically engineer, isolate and bank pluripotent cell lines. Memorial Sloan Kettering is leading the field in generating pluripotent cell-derived, tumor-targeting T cells that are capable of profound tumor clearance *in vivo*. The scientific teams will combine forces to create pluripotent cell lines that have been engineered for enhanced antigen specificity and functionality, optimize T-cell differentiation protocols, and clinically translate off-the-shelf engineered T-cell product candidates.

New Subsidiary Formed

Fate Therapeutics has also launched a new venture company, Tfinity Therapeutics, Inc., which will focus exclusively on the advancement of off-the-shelf T-cell immunotherapies across a wide range of diseases using Fate's proprietary, patent-protected pluripotent cell platform. Fate Therapeutics has an intellectual property portfolio consisting of over 60 issued patents and 90 pending patent applications, which are owned or exclusively licensed by Fate Therapeutics, that cover compositions and methods critical for deriving, engineering, maintaining and differentiating induced pluripotent cells. Tfinity Therapeutics is a majority-owned subsidiary of Fate Therapeutics, and holds an option to license from Fate Therapeutics intellectual property covering pluripotent cell-derived T-cell immunotherapies.

About Fate Therapeutics, Inc.

Fate Therapeutics is a biopharmaceutical company dedicated to the development of programmed cellular immunotherapies for cancer and immune disorders. The Company's cell therapy pipeline is comprised of immuno-oncology programs, including off-the-shelf NK- and T-cell cancer immunotherapies derived from engineered induced pluripotent cells, and immuno-regulatory programs, including hematopoietic cell immunotherapies for protecting the immune system of patients undergoing hematopoietic cell transplantation and for regulating autoimmunity. Its adoptive cell therapy programs are based on the Company's novel *ex vivo* cell programming approach, which it applies to modulate the therapeutic function and direct the fate of immune cells. Fate Therapeutics is headquartered in San Diego, CA. For more information, please visit www.fatetherapeutics.com.

Forward-Looking Statements

This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the impact, benefits, timing, and conduct of the partnership between Memorial Sloan Kettering and Fate Therapeutics, as well as the capabilities, expertise, and responsibilities of each, and the therapeutic potential of any programmed cellular immunotherapies derived from induced pluripotent cells developed under the partnership. These and any other forward-looking statements in this release are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, risks associated with the success, cost, and timing of research and product development activities under the collaboration, the risk of cessation or delay of any development activities under the collaboration for a variety of reasons, including any inability to develop or manufacture off-the-shelf T-cell products, and the risk that any off-the-shelf T-cell therapies developed under the collaboration may not be suitable for therapeutic applications and may not provide the anticipated therapeutic benefits. For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the risks and uncertainties detailed in the Company's periodic filings with the Securities and Exchange Commission, including but not limited to the Company's most recently filed periodic report, and from time to time the Company's other investor communications. Fate Therapeutics is providing the information in this release as of this date and does not undertake any obligation to update any forward-looking statements contained in this release as a result of new information, future events or otherwise.

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