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Fate Therapeutics Secures U.S. Patent for Class of Small Molecule Modulators Key to the Development of iPSC-Based Therapeutics

SAN DIEGO, April 10, 2014 (GLOBE NEWSWIRE) -- Fate Therapeutics, Inc. (Nasdaq:FATE), a biopharmaceutical company engaged in the discovery and development of adult stem cell modulators to treat orphan diseases, announced today that the U.S. Patent and Trademark Office (PTO) has issued Patent No. 8,691,573 entitled "Stem Cell Cultures." The newly issued patent claims a class of small molecule inhibitors of Rho-associated kinase (ROCK) that are crucial to the therapeutic application of human induced pluripotent stem cells (hiPSCs). Modulators belonging to the patented class have been shown to be necessary for the high-throughput derivation of transgene-free hiPSCs, and for the maintenance, survival and genomic stability of hiPSCs in culture. Fate Therapeutics holds an exclusive license from The Scripps Research Institute (TSRI) to the patent in all commercial fields.

"We believe the class of ROCK inhibitors covered by these issued claims is a key component to enable the clinical manufacture of hiPSCs for therapeutic applications," said Scott Wolchko, Chief Operating and Financial Officer of Fate Therapeutics. "These newly issued claims complement the hiPSC-related cell compositions previously patented under our Whitehead Institute for Biomedical Research intellectual property portfolio, which we believe are foundational to hiPSC generation. Our growing patent estate covering small molecule-enhanced reprogramming and pluripotency maintenance and expansion is a reflection of the breadth of our proprietary platform for developing iPSC-based regenerative therapeutics."

Thiazovivin, one specific ROCK inhibitor covered within the patented class, was first discovered by Sheng Ding, Ph.D., a scientific founder of Fate Therapeutics. Under a research collaboration between TSRI and Fate Therapeutics, Dr. Ding and his team first demonstrated that Thiazovivin, in combination with other small molecules, increases the reprogramming efficiency of human fibroblasts into hiPSCs by 200-fold as compared to non-chemically enhanced methods of hiPSC generation (Lin, T., et al, Nature Methods 6, 805 - 808 (2009)). Additional work by both Dr. Ding and Fate Therapeutics further differentiated the ability of Thiazovivin and its related class of molecules, as compared to other ROCK inhibitors, to significantly enhance hiPSC survival and homogeneity. Thiazovivin, as well as compositions and cell culture media comprising Thiazovivin, are patented under U.S. Patent No. 8,044,201 entitled "Stem Cell Cultures," to which Fate Therapeutics holds an exclusive license from TSRI in all commercial fields.

Last month, Fate scientists published an article in the journal *Stem Cell Reports* describing its proprietary stem cell modulation platform for developing hiPSC-based regenerative therapeutics. The Company's therapeutic platform consists of stage-specific cell culture systems containing combinations of small molecule modulators including ROCK inhibitors, and enables the rapid, parallel derivation of hiPSC clones and their subsequent expansion and survival as transgene-free, single cells in culture. Fate Therapeutics is currently researching therapeutic applications of hiPSC-derived myogenic progenitor cells and hematopoietic cells.

About Fate Therapeutics, Inc.

Fate Therapeutics is a clinical-stage biopharmaceutical company engaged in the discovery and development of pharmacologic modulators of adult stem cells to treat orphan diseases. The Company utilizes established pharmacologic modalities, including small molecules and therapeutic proteins, and well-characterized biological mechanisms to enhance the therapeutic potential of adult stem cells. The Company has built two adult stem cell modulation platforms: a hematopoietic stem cell (HSC) modulation platform, which seeks to optimize the therapeutic potential of HSCs for treating patients with hematologic malignancies and rare genetic disorders, and a muscle satellite stem cell modulation platform, which seeks to activate the regenerative capacity of muscle for treating patients with degenerative muscle disorders. The Company is presently advancing its lead product candidate, PROHEMA®, a pharmacologically-modulated HSC therapeutic, in Phase 2 clinical development for hematologic malignancies. Fate Therapeutics is also advancing its proprietary Wnt7a protein analogs in preclinical development for the treatment of muscular dystrophies. 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 therapeutic potential of our programs for the modulation of adult stem cells to treat orphan diseases, as well as the therapeutic potential of our hiPSC platform technology. 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, the risks that our hiPSC platform may not enable us to develop hiPSC-derived myogenic progenitor cells or hematopoietic cells suitable for therapeutic applications. 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 Form 10-K for the fourth quarter and year ended December 31, 2013, and from time to time the company's other investor communications. Fate Therapeutics is providing the information in this press release as of this date and does not undertake any obligation to update any forward-looking statements contained in this press release as a result of new information, future events or otherwise.

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