Fate Therapeutics

(FATE-NASDAQ)

Stock Rating: **Outperform**
Stock Price: **$9.47**
Target Price: **$11.00**

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Biotechnology

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Additional Platform Value From Human-Induced Pluripotent Stem Cells

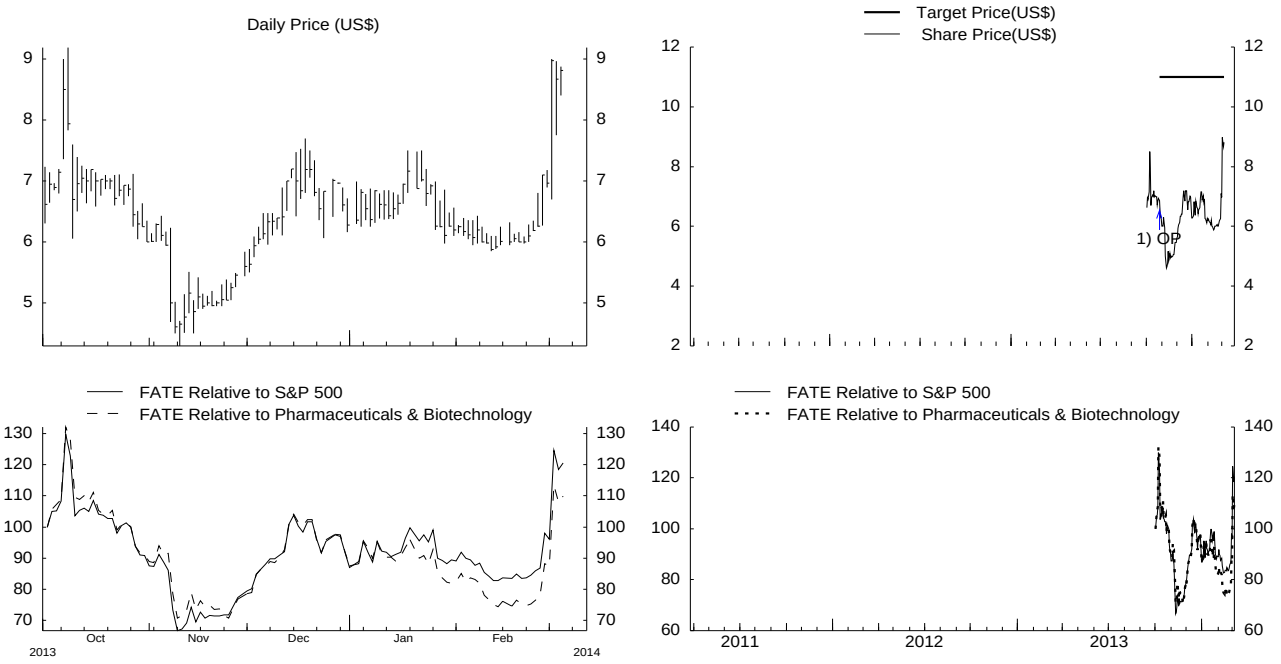
FATE Therapeutics published data in the *Stem Cell Reports* on-line edition describing steps required to produce human-induced pluripotent stem cells (hiPSC) and their subsequent manipulation to differentiated tissue specific progenitor cells. Critical to this process is the use of a combination of small molecule inhibitors of key death/developmental pathways into cell culture medium, noted as the "fate maintenance medium" of FMM, which allow for the large-scale development of pluripotent progenitors. Several key steps are fundamental to FATE's technology, including the ability to grow cells with out a feeder layer, the use of small molecules to inhibit cell death, and avoidance of gene therapy, all in a process that allows for industrial scaleability. Switching cells from FMM to fate reprogramming medium allows for the selection of tissue-specific progenitor cells that could have specific clinical application. While many different tissue-derived cells can be deprogrammed into hiPSC, an ideal source for developing pools of pluripotent stem cells will be human umbilical cord blood cells, the source product of FATE's PROHEMA product to enhance neutrophil recovery after stem cell transplantation.

Our View:

- The goal of regenerative medicines is the correction of genetic disease through cellular replacement therapy, and we think FATE's hiPSC technology appears viable, rapid, flexible, amenable to high-throughput applications, and protected by significant IP.
- While the time line for clinical use of hiPSCs by FATE has yet to be established, hiPSC have entered the clinic in Japan as a potential cure for age-related macular degeneration.
- Of more immediate value, FATE has already demonstrated that the hiPSC platform can be used to generate hiPSC from muscle of both healthy volunteers and patients with muscular dystrophy, from which differentiated muscle myoblasts.
- These myoblasts can be used as a tool for testing potential therapies, such as FATE's wnt7a protein analog that is being developed to enhance satellite cell regeneration to treat diseases such as muscular dystrophy.

Please refer to pages 2 to 5 for Disclosure Statements, including the Analyst's Certification.

Fate Therapeutics (FATE)



FATE - Rating as of 30-Sep-13 = NR

	Date	Rating Change	Share Price
1	25-Oct-13	NR to OP	$6.93

Last Daily Data Point: March 5, 2014

Important Disclosures

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Methodology: We arrive at our price target by applying a 25x multiple to 2020 EPS estimate of $1.68 and discounting at 30%.
Risks: There are a number of risks associated with investment in biotechnology companies. These risks include, but are not limited to, risk of clinical trial delay or failure, adverse regulatory decisions including product non-approval, unanticipated adverse effects of drugs which may result in removal from market, risk of manufacturing difficulties, capital market risk which may impair the ability to fund product discovery, research, regulatory filing, manufacture and/or commercialization, risk in attaining and retaining appropriate development or commercial partners, lower-than-expected product adoption, difficulties in gaining appropriate reimbursement for products from payors, unforeseen generic and branded competition, risk to patents being invalidated, and failure to meet earnings and revenue expectations.

Distribution of Ratings (December 31, 2013)

Rating Category	BMO Rating	BMOCM US Universe*	BMOCM US IB Clients**	BMOCM US IB Clients***	BMOCM Universe****	BMOCM IB Clients*****	Starmine Universe
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Hold	Market Perform	56.1%	13.8%	49.0%	54.0%	46.5%	41.8%
Sell	Underperform	5.8%	5.6%	2.0%	7.2%	3.1%	5.7%

* Reflects rating distribution of all companies covered by BMO Capital Markets Corp. equity research analysts.
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