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Fate Therapeutics (FATE - OUTPERFORM): Recent Novartis Investment in Gamida Cell Points to FATE Shares as Undervalued, Reiterate Outperform

Price: $5.41 **12-Month Price Target: $14**

- **Novartis (NVS, not covered) invested $35M in Gamida Cell (privately held) for a 15% equity stake plus an option to acquire the entire company for an additional $165M plus up to $435M in milestone payments, a minimum $200M purchase if exercised, and an implied $233M current valuation.** Gamida Cell is developing NiCord, a stem cell expansion technology designed to provide the benefit of a double umbilical cord hematopoetic stem cell transplant with a single cord blood unit.

- **We note that a Phase I/II study of NiCord in patients with hematological malignancies showed a median time to neutrophil engraftment in 8 patients of 10.5 days (ranging from 7-18 days), with one graft failure and 2 patients engrafting with the unmanipulated unit.**

- **By comparison (with the caveat that cross-trial comparison is not head-to-head comparison), 12 patients transplanted with cord blood cells treated with the old formulation of ProHema showed a median time to engraftment of 17.5 days (ranging from 14-31 days), with no engraftment failures in the Phase 1b study. Of the first 8 patients in the Phase II study begun with the old ProHema formulation, 1 patient failed to engraft. We expect the new ProHema formulation, currently in Phase II, to improve on these metrics.**

- **A key difference is that Fate's ProHema is an "off-the-shelf" treatment of cord blood conducted in the transplant suite immediately prior to infusion of the cells, which fits well into the current transplantation procedure with minimal additional steps. However Gamida Cell's technology requires three weeks of treating the cells with NiCord prior to infusion. It is also patient-specific and requires centralized processing, adding significant costs.**

- **Furthermore, Fate's technology appears to improve immune system reconstitution, by also modulating T-cells, as evidenced by T-cell analysis and limited viral reaction with no CMV or EBV disease in ProHema treated patients in the Phase I/II.** Expansion technologies like Gamida's typically decrease T-cell activity and number.

- **Fate recently reported that an interim safety data review supported continued enrollment, and we expect a similar outcome from the next review after the first 12 patients have been treated with ProHema, likely to occur this half. Furthermore, the company has opened the PROMPT study in children with hematologic malignancies and the PROVIDE study in children with rare, inherited metabolic diseases.**

- **With a market cap of ~107M and an enterprise value of ~$65M, our view is that investors in Fate Therapeutics can buy into a versatile, off-the-shelf stem cell modulation platform at a very attractive valuation. We remain buyers of FATE shares.**

- **Reiterate OUTPERFORM rating and $14 price target.** We arrive at our $14 price target by applying a 6x multiple to an estimated $380M in revenues in 2019, discounted by 35% annually.

- Risks to the achievement of our price target include failure to gain approval for ProHema, failure to achieve sales estimates for ProHema and failure to achieve earnings estimates.

Analyst Certification
I, David M. Nierengarten, Ph.D., Dilip Joseph, certify that the views expressed in this report accurately reflect my personal opinion and that I have not and will not, directly or indirectly, receive compensation or other payments in connection with my specific recommendations or views contained in this report.

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Company	Disclosure
Fate Therapeutics	1,3,4,5

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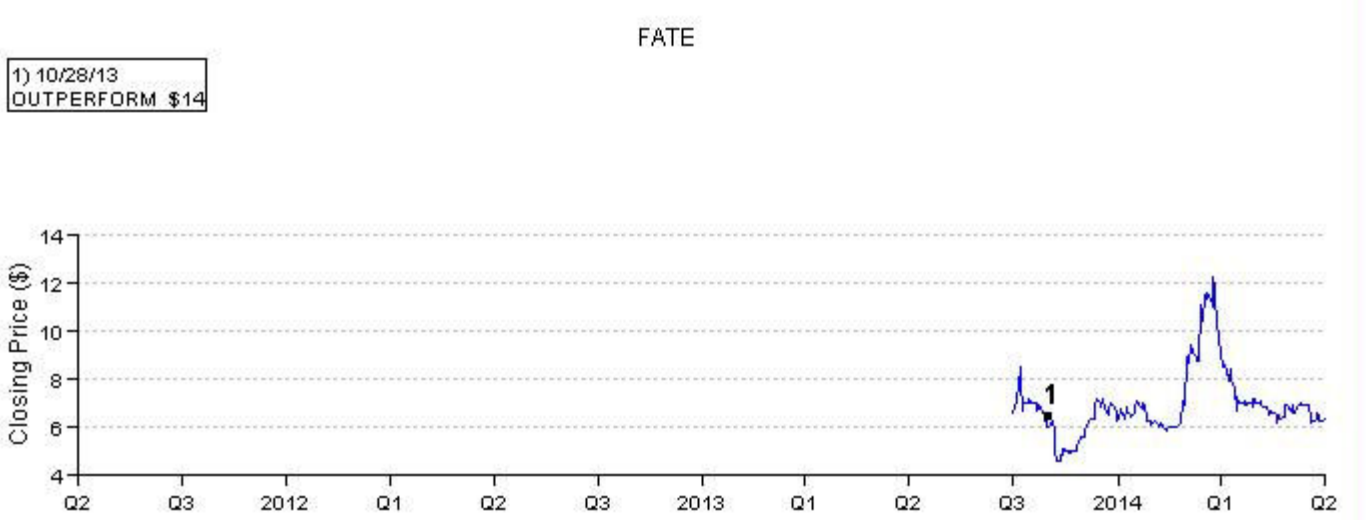

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