FLASH NOTE
Company Update
USA | Healthcare | Biotechnology
December 5, 2013
Jefferies

Stemline Therapeutics (STML)
Second Retreatment With SL-401 Supports Safety Of Multiple Cycles

BUY
Price target $60.00
Price $22.77

EQUITY RESEARCH AMERICAS

Key Takeaway

We are aware of a second BPDCN patient retreated with SL-401 who tolerated the therapy but did not achieve a response. That said, the primary goal of retreatment is to demonstrate the safety of a second cycle of therapy, as there was a significant lapse between cycles. Thus, we remain positive on the favorable tolerability profile of multi-cycle therapy in the pivotal trials to start in 1H14.

Second Retreatment With SL-401 Was Safe – No Response Observed. A second patient with blastic plasmacytoid dendritic cell neoplasm (BPDCN), a rare lymphoma, has been retreated with SL-401 in November 2013 following an initial cycle of SL-401 in August 2012 that resulted in a complete response at that time with no serious adverse events. We understand that the patient tolerated the retreatment well through all five days of dosing, which represents a complete cycle of therapy, and although he even reported some physical symptom improvement, he did not achieve an objective response. A week following completion of treatment, the retreated patient experienced some deterioration in physical well-being including fluid in the lungs and elevated liver enzymes. While these fall in line with the SL-401 toxicity profile, our guess is that these are actually not drug-related. On the fluid accumulation in the lungs, while this could be related to capillary leak syndrome, the dose-limiting toxicity with SL-401 at higher doses, we note that capillary leak with SL-401 is most commonly observed at the time of dosing and typically resolves completely between each of the daily doses administered. Thus, the one-week delay to the event leads us to believe that this is not likely drug-related. Furthermore, we believe that pulmonary edema by itself is not a common presentation of capillary leak syndrome. Liver enzyme elevations with SL-401, on the other hand, are associated with a delayed onset relative to dosing (onset is typically between days 5-8 with resolution by days 15-18), but we believe that this is likely not drug-related based on the fact that the patient experienced elevated liver enzymes immediately prior to the start of his retreatment cycle. In addition, we also note that these adverse events were transient with the patient subsequently recovering sufficiently to begin treatment with alternate chemotherapy.

Retreatment Data Supports Strategy To Give Multiple Cycles In Phase 3. Although early and limited to only two patients, we are encouraged by the safety of SL-401 retreatment. As a reminder, a key part of our thesis on STML has been that multiple cycles of SL-401 would have the potential to improve already-encouraging single-cycle efficacy without a meaningful increase in capillary leak syndrome or liver enzyme elevations. As a reminder, a single cycle of SL-401 has resulted in an 86% objective response rate in BPDCN and 25% of patients with acute myeloid leukemia experiencing tumor shrinkage. From an efficacy standpoint, we are not too concerned about the lack of an objective response in either of the two retreatment patients. Retreatment in the context of these two patients is suboptimal, as the patients had both been off drug for months (and over a year in the most recent case), had highly progressive disease, and were heavily pretreated. In the upcoming Phase 3 trials in BPDCN and acute myeloid leukemia, investigators will be allowed to dose SL-401 once daily for five days at the start of each three-week cycle, with treatment available to patients until disease progression.

Updated SL-401 Data At ASH This Weekend. STML will have five presentations at the American Society of Hematology (ASH) meeting (12/7-10) in New Orleans, including one on the first retreated patient with BPDCN who had received a second cycle of SL-401 (refer to our STML note from 11/14/13 for more details on the first retreatment patient). Investigators will also present preclinical data of SL-401 in additional indications including multiple myeloma and chronic eosinophilic leukemia (a rare hematologic cancer) as well as an oral presentation regarding preclinical data for SL-101 in FLT3-ITD acute myeloid leukemia.

Thomas Wei *
Equity Analyst
(212) 284-2326 twei@jefferies.com
Rebecca Forest *
Equity Associate
(212) 284-2170 rforest@jefferies.com
Timothy Chou *
Equity Associate
(212) 284-2571 tchou@jefferies.com
Shaunak Deepak *
Equity Associate
(212) 284-2020 sdeepak@jefferies.com
* Jefferies LLC

Company Description

Stemline Therapeutics, Inc. (STML) is a New York, NY-based clinical-stage biopharmaceutical company, specializing in the development of oncologic drugs that target cancer stem cells (CSCs) and tumor bulk. Cancer stem cells are thought to drive cancer progression, metastasis, and chemotherapy resistance. STML has two candidates in clinical trials, SL-401, humanized IL-3 linked to diphtheria toxin for third-line acute myeloid leukemia (AML) and for blastic plasmacytoid dendritic cell neoplasm (BPDCN). Phase 2b trials are expected to begin for both indications in 2014. The company's other leading candidate is SL-701, a brain cancer vaccine consisting of synthetic peptudes targeting IL-13Rα2 and EphA2. Phase 2b are expected to begin in both pediatric glioma and adult second-line glioblastoma multiform (GBM). STML also has a portfolio of preclinical candidates targeting both solid and blood cancers. The company has a proprietary discovery platform targeting CSCs, StemScreen.

Analyst Certification

I, Thomas Wei, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

I, Rebecca Forest, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

I, Timothy Chou, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

I, Shaunak Deepak, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

As is the case with all Jefferies employees, the analyst(s) responsible for the coverage of the financial instruments discussed in this report receives compensation based in part on the overall performance of the firm, including investment banking income. We seek to update our research as appropriate, but various regulations may prevent us from doing so. Aside from certain industry reports published on a periodic basis, the large majority of reports are published at irregular intervals as appropriate in the analyst's judgement.

Company Specific Disclosures

Jefferies Group LLC makes a market in the securities or ADRs of Stemline Therapeutics, Inc..

Within the past 12 months, Jefferies Group LLC, its affiliates or subsidiaries has received compensation from investment banking services from Stemline Therapeutics, Inc..

Meanings of Jefferies Ratings

Buy - Describes stocks that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

Hold - Describes stocks that we expect to provide a total return (price appreciation plus yield) of plus 15% or minus 10% within a 12-month period.

Underperform - Describes stocks that we expect to provide a total negative return (price appreciation plus yield) of 10% or more within a 12-month period.

The expected total return (price appreciation plus yield) for Buy rated stocks with an average stock price consistently below $10 is 20% or more within a 12-month period as these companies are typically more volatile than the overall stock market. For Hold rated stocks with an average stock price consistently below $10, the expected total return (price appreciation plus yield) is plus or minus 20% within a 12-month period. For Underperform rated stocks with an average stock price consistently below $10, the expected total return (price appreciation plus yield) is minus 20% within a 12-month period.

NR - The investment rating and price target have been temporarily suspended. Such suspensions are in compliance with applicable regulations and/or Jefferies policies.

CS - Coverage Suspended. Jefferies has suspended coverage of this company.

NC - Not covered. Jefferies does not cover this company.

Restricted - Describes issuers where, in conjunction with Jefferies engagement in certain transactions, company policy or applicable securities regulations prohibit certain types of communications, including investment recommendations.

Monitor - Describes stocks whose company fundamentals and financials are being monitored, and for which no financial projections or opinions on the investment merits of the company are provided.

Valuation Methodology

Jefferies' methodology for assigning ratings may include the following: market capitalization, maturity, growth/value, volatility and expected total return over the next 12 months. The price targets are based on several methodologies, which may include, but are not restricted to, analyses of market risk, growth rate, revenue stream, discounted cash flow (DCF), EBITDA, EPS, cash flow (CF), free cash flow (FCF), EV/EBITDA, P/E, PE/growth, P/CF, P/FCF, premium (discount)/average group EV/EBITDA, premium (discount)/average group P/E, sum of the parts, net asset value, dividend returns, and return on equity (ROE) over the next 12 months.

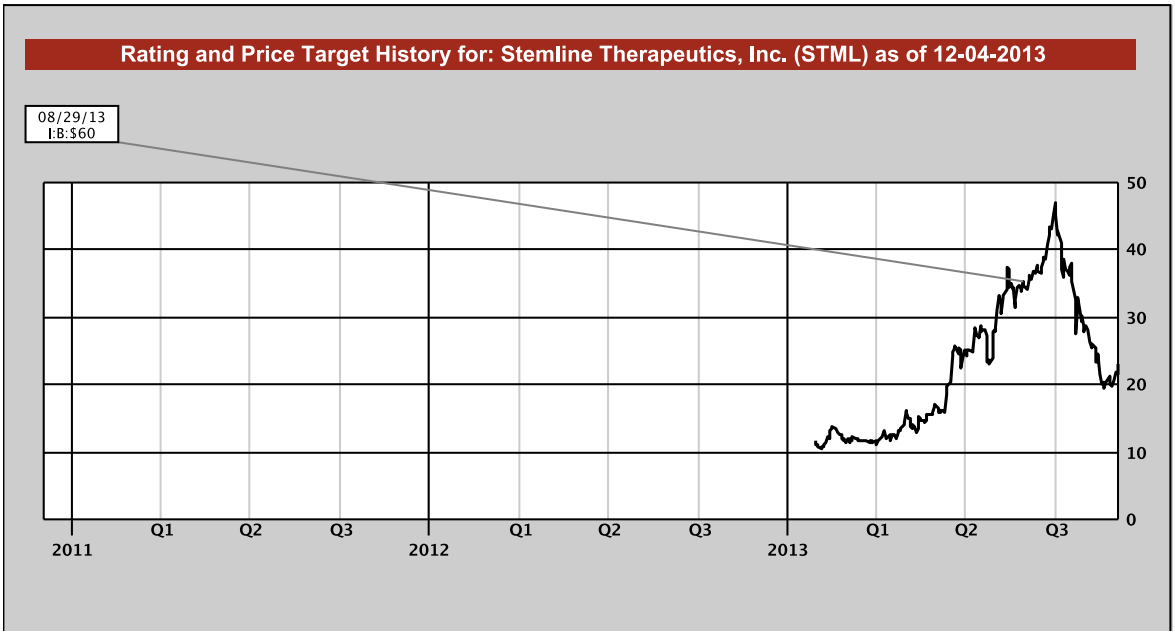
Thomas Wei, Equity Analyst, (212) 284-2326, twei@jefferies.com

Conviction List Methodology

1. The aim of the conviction list is to publicise the best individual stock ideas from Jefferies Global Research
2. Only stocks with a Buy or Underperform rating are allowed to be included in the recommended list.
3. Stocks are screened for minimum market capitalisation and adequate daily turnover. Furthermore, a valuation, correlation and style screen is used to ensure a well-diversified portfolio.
4. Stocks are sorted to a maximum of 30 stocks with the maximum country exposure at around 50%. Limits are also imposed on a sector basis.
5. Once a month, analysts are invited to recommend their best ideas. Analysts' stock selection can be based on one or more of the following: non-Consensus investment view, difference in earnings relative to Consensus, valuation methodology, target upside/downside % relative to the current stock price. These are then assessed against existing holdings to ensure consistency. Stocks that have either reached their target price, been downgraded over the course of the month or where a more suitable candidate has been found are removed.
6. All stocks are inserted at the last closing price and removed at the last closing price. There are no changes to the conviction list during the month.
7. Performance is calculated in US dollars on an equally weighted basis and is compared to MSCI World AC US$.
8. The conviction list is published once a month whilst global equity markets are closed.
9. Transaction fees are not included.
10. All corporate actions are taken into account.

Risk which may impede the achievement of our Price Target

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, the financial instruments discussed in this report may not be suitable for all investors and investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary. Past performance of the financial instruments recommended in this report should not be taken as an indication or guarantee of future results. The price, value of, and income from, any of the financial instruments mentioned in this report can rise as well as fall and may be affected by changes in economic, financial and political factors. If a financial instrument is denominated in a currency other than the investor's home currency, a change in exchange rates may adversely affect the price of, value of, or income derived from the financial instrument described in this report. In addition, investors in securities such as ADRs, whose values are affected by the currency of the underlying security, effectively assume currency risk.



Distribution of Ratings

Rating	Count	Percent	IB Serv./Past 12 Mos. Count	IB Serv./Past 12 Mos. Percent
BUY	843	48.03%	189	22.42%
HOLD	770	43.87%	121	15.71%
UNDERPERFORM	142	8.09%	2	1.41%

Thomas Wei, Equity Analyst, (212) 284-2326, twei@jefferies.com

Other Important Disclosures

Jefferies Equity Research refers to research reports produced by analysts employed by one of the following Jefferies Group LLC ("Jefferies") group companies:

United States: Jefferies LLC which is an SEC registered firm and a member of FINRA.

United Kingdom: Jefferies International Limited, which is authorized and regulated by the Financial Conduct Authority; registered in England and Wales No. 1978621; registered office: Vintners Place, 68 Upper Thames Street, London EC4V 3BJ; telephone +44 (0)20 7029 8000; facsimile +44 (0)20 7029 8010.

Hong Kong: Jefferies Hong Kong Limited, which is licensed by the Securities and Futures Commission of Hong Kong with CE number ATS546; located at Suite 2201, 22nd Floor, Cheung Kong Center, 2 Queen's Road Central, Hong Kong.

Singapore: Jefferies Singapore Limited, which is licensed by the Monetary Authority of Singapore; located at 80 Raffles Place #15-20, UOB Plaza 2, Singapore 048624, telephone: +65 6551 3950.

Japan: Jefferies (Japan) Limited, Tokyo Branch, which is a securities company registered by the Financial Services Agency of Japan and is a member of the Japan Securities Dealers Association; located at Hibiya Marine Bldg, 3F, 1-5-1 Yuraku-cho, Chiyoda-ku, Tokyo 100-0006; telephone +813 5251 6100; facsimile +813 5251 6101.

India: Jefferies India Private Limited, which is licensed by the Securities and Exchange Board of India as a Merchant Banker (INM000011443) and a Stock Broker with Bombay Stock Exchange Limited (INB011491033) and National Stock Exchange of India Limited (INB231491037) in the Capital Market Segment; located at 42/43, 2 North Avenue, Maker Maxity, Bandra-Kurla Complex, Bandra (East) Mumbai 400 051, India; Tel +91 22 4356 6000.

This material has been prepared by Jefferies employing appropriate expertise, and in the belief that it is fair and not misleading. The information set forth herein was obtained from sources believed to be reliable, but has not been independently verified by Jefferies. Therefore, except for any obligation under applicable rules we do not guarantee its accuracy. Additional and supporting information is available upon request. Unless prohibited by the provisions of Regulation S of the U.S. Securities Act of 1933, this material is distributed in the United States ("US"), by Jefferies LLC, a US-registered broker-dealer, which accepts responsibility for its contents in accordance with the provisions of Rule 15a-6, under the US Securities Exchange Act of 1934. Transactions by or on behalf of any US person may only be effected through Jefferies LLC. In the United Kingdom and European Economic Area this report is issued and/or approved for distribution by Jefferies International Limited and is intended for use only by persons who have, or have been assessed as having, suitable professional experience and expertise, or by persons to whom it can be otherwise lawfully distributed. Jefferies International Limited has adopted a conflicts management policy in connection with the preparation and publication of research, the details of which are available upon request in writing to the Compliance Officer. Jefferies International Limited may allow its analysts to undertake private consultancy work. Jefferies International Limited's conflicts management policy sets out the arrangements Jefferies International Limited employs to manage any potential conflicts of interest that may arise as a result of such consultancy work. For Canadian investors, this material is intended for use only by professional or institutional investors. None of the investments or investment services mentioned or described herein is available to other persons or to anyone in Canada who is not a "Designated Institution" as defined by the Securities Act (Ontario). In Singapore, Jefferies Singapore Limited is regulated by the Monetary Authority of Singapore. For investors in the Republic of Singapore, this material is provided by Jefferies Singapore Limited pursuant to Regulation 32C of the Financial Advisers Regulations. The material contained in this document is intended solely for accredited, expert or institutional investors, as defined under the Securities and Futures Act (Cap. 289 of Singapore). If there are any matters arising from, or in connection with this material, please contact Jefferies Singapore Limited, located at 80 Raffles Place #15-20, UOB Plaza 2, Singapore 048624, telephone: +65 6551 3950. In Japan this material is issued and distributed by Jefferies (Japan) Limited to institutional investors only. In Hong Kong, this report is issued and approved by Jefferies Hong Kong Limited and is intended for use only by professional investors as defined in the Hong Kong Securities and Futures Ordinance and its subsidiary legislation. In the Republic of China (Taiwan), this report should not be distributed. The research in relation to this report is conducted outside the PRC. This report does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. In India this report is made available by Jefferies India Private Limited. In Australia this information is issued solely by Jefferies International Limited and is directed solely at wholesale clients within the meaning of the Corporations Act 2001 of Australia (the "Act") in connection with their consideration of any investment or investment service that is the subject of this document. Any offer or issue that is the subject of this document does not require, and this document is not, a disclosure document or product disclosure statement within the meaning of the Act. Jefferies International Limited is authorised and regulated by the Financial Conduct Authority under the laws of the United Kingdom, which differ from Australian laws. Jefferies International Limited has obtained relief under Australian Securities and Investments Commission Class Order 03/1099, which conditionally exempts it from holding an Australian financial services licence under the Act in respect of the provision of certain financial services to wholesale clients. Recipients of this document in any other jurisdictions should inform themselves about and observe any applicable legal requirements in relation to the receipt of this document.

This report is not an offer or solicitation of an offer to buy or sell any security or derivative instrument, or to make any investment. Any opinion or estimate constitutes the preparer's best judgment as of the date of preparation, and is subject to change without notice. Jefferies assumes no obligation to maintain or update this report based on subsequent information and events. Jefferies, its associates or affiliates, and its respective officers, directors, and employees may have long or short positions in, or may buy or sell any of the securities, derivative instruments or other investments mentioned or described herein, either as agent or as principal for their own account. Upon request Jefferies may provide specialized research products or services to certain customers focusing on the prospects for individual covered stocks as compared to other covered stocks over varying time horizons or under differing market conditions. While the views expressed in these situations may not always be directionally consistent with the long-term views expressed in the analyst's published research, the analyst has a reasonable basis and any inconsistencies can be reasonably explained. This material does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any advice or recommendation in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to herein and the income from them may fluctuate. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments. This report has been prepared independently of

Thomas Wei, Equity Analyst, (212) 284-2326, twei@jefferies.com

any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of securities. None of Jefferies, any of its affiliates or its research analysts has any authority whatsoever to make any representations or warranty on behalf of the issuer(s). Jefferies policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis. Any comments or statements made herein are those of the author(s) and may differ from the views of Jefferies.

This report may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor's. Reproduction and distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.

Jefferies research reports are disseminated and available primarily electronically, and, in some cases, in printed form. Electronic research is simultaneously available to all clients. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of Jefferies. Neither Jefferies nor any officer nor employee of Jefferies accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents.

For Important Disclosure information, please visit our website at https://javatar.bluematrix.com/sellside/Disclosures.action or call 1.888.JEFFERIES

Thomas Wei, Equity Analyst, (212) 284-2326, twei@jefferies.com