# Epizyme, Inc. (EPZM)

Incremental Update on '5676 Offered at ASH

**MARKET DATA**

| | |
|---|---|
| Price | $21.70 |
| 52-Week Range: | $18.10 - $45.72 |
| Shares Out. (M): | 28.4 |
| Market Cap ($M): | $616.3 |
| Average Daily Vol. (000): | 94.0 |
| Cash (M): | $140 |
| Cash/Share: | $8.04 |
| Enterprise Value (M): | $909 |
| Float (M): | 28.0 |
| LT Debt (M): | $0 |

Cash (M): Reflects cash, equivalents, and short-term investments
Source: Thomson Reuters and JMP Securities LLC

| FY DEC | | 2012A | 2013E | 2014E |
|---|---|---|---|---|
| Revenue ($M) | 1Q | $5.7 | $8.9A | $29.9 |
| | 2Q | -- | $14.8A | $4.9 |
| | 3Q | -- | $8.4A | $24.9 |
| | 4Q | -- | $7.5 | $38.7 |
| | **FY** | **$45.2** | **$39.7** | **$98.5** |
| EPS | 1Q | ($3.38) | ($4.24)A | $0.30 |
| | 2Q | -- | ($0.25)A | ($0.41) |
| | 3Q | -- | ($0.34)A | $0.26 |
| | 4Q | -- | ($0.50) | $0.58 |
| | **FY** | **($0.72)** | **($1.99)** | **$0.94** |

Source: Company reports and JMP Securities LLC

**STOCK PRICE PERFORMANCE**


**MARKET OUTPERFORM** | Price: $21.70 | Target Price: $40.00

## INVESTMENT HIGHLIGHTS

**Leukemia panelists strike a favorable contrast of '5676 differentiating effects with the treatment paradigm in APL, clinical efficacy expected to come into focus with higher dose cohorts; reiterate Market Outperform and $40 price target on Epizyme.** The company hosted an analyst event, coincident with events at ASH, to review clinical results of DOT1L inhibitor EPZ-5676 in MML-r acute leukemia that were reported in November. Invited panelists included Martin Tallman and Eytan Stein of Sloan-Kettering and Bob Lowenberg of Erasmus University Rotterdam. On the central question of how to contextualize the primary treatment effects of bone marrow differentiation seen to date, Dr. Tallman volunteered the treatment paradigm in APL (acute promyelocytic leukemia) as a potentially appropriate comparator. APL, a subtype of AML characterized by fatigue, bleeding, and once viewed as an aggressive leukemia, now responds rather effectively to differentiation therapy with retinoic acid and arsenic trioxide. Phase I data on hand may imply the ability to achieve remission with greater differentiation of the bone marrow as the trial goes up in dose and adopts a continuous 28-day infusion. To that point, the panel noted '5676's favorable tolerability and did not anticipate greater numbers of complications, such as PICC line contamination, resulting from continuous infusing. A fifth Phase I cohort evaluating 80mg/m2 on a 21-day on, 7-day holiday schedule is now fully enrolled, while an expansion stage evaluating ≥80mg/m2 doses on an uninterrupted schedule, exclusively in MLL-r patients is scheduled to begin by year-end. Our $40 price target is derived through a combination of our NPV sum-of-the-parts and standardized CAGR valuation methodologies.

**We maintain a bullish outlook on EPZM, believing it remains early days in assessing the clinical potential of '5676 in acute leukemia.** We suspect the treatment effects seen to date will convert into clinical responses with further dose escalation and duration on therapy.

**Michael G. King, Jr.**
mking@jmpsecurities.com
(212) 906-3520

**Eric Joseph, PhD**
ejoseph@jmpsecurities.com
(212) 906-3514

**FIGURE 1. Upcoming Milestones**

| Timing | Drug | Milestones |
|---|---|---|
| 4Q13 | EPZ-5676 | MLL-r Phase 1 expansion cohort initiation, data in 2014 |
| 1H14 | EPZ-6438 | Initiation of Phase 2 expansion cohort enrollment in EZH2+ NHL |
| 2014 | EPZ-5676 | MLL-r pediatric Phase 1 expected in 2014 |
| 2014 | EPZ-5676 | MLL-PTD Phase 2 expansion cohort expected |
| 2014 | EPZ-6438 | NHL Phase 1 dose escalation data |
| 2014 | EPZ-6438 | NHL Phase 2 expansion cohort expected initiation |
| 2014 | EPZ-6438 | Synovial sarcoma Phase 2 expected initiation |

*Source: Company presentations, JMP Securities LLC*

## Company Description

Epizyme (EPZM) is a biopharmaceutical company, based in Cambridge, Massachusetts, focused on the discovery, development, and commercialization of personalized therapeutics for epigenetically-defined cancers. The company's technology is focused on the development of small molecule drugs specifically targeted against the individual members of the 96-member histone methyltransferase (HMT) class of enzymes. To date, the company has entered into strategic collaborations with Celgene, Eisai, and GSK regarding specific products, as well as the underlying technology platform.

## Investment Risks

Clinical. Drug development is an inherently risky business. As clinical trials always carry a risk of failure, Epizyme's assets (EPZ-5676, EPZ-6438, or future products), may fail to demonstrate clinically meaningful levels of efficacy in ongoing or future trials. Further, it is unclear whether resistance pathways may develop to the epigenetic mechanisms being targeted.

Regulatory. The ability of Epizyme or its partners to market its drugs is dependent upon those drugs obtaining approval from the U.S. FDA and foreign regulatory authorities. Failure to achieve approval or delays in the timeline to approval could lead to a substantial decrease in the company's share price.

Competitive. Epigenetics is an increasingly competitive field and Epizyme faces competition both from companies focused in the space, as well as players targeting related mechanisms. As such, there is no assurance that Epizyme's product will be competitive or differentiated from other drugs.

Commercialization. Epizyme has stated its plans to retain U.S. commercial rights to its products and develop a commercial infrastructure to market those products. The company has limited commercial experience and infrastructure in place. As such, the company faces significant expenses to develop or acquire these resources.

Reimbursement. There is no guarantee that Epizyme, or its partners, will garner adequate reimbursement for its products. Failure to obtain adequate levels of reimbursement could negatively impact the company's share price.

Partners. Epizyme has formed development and commercial partnerships with Celgene, Eisai, and GSK. Epizyme is highly dependent upon these partnerships to provide non-dilutive sources of capital. Celgene and Eisai are critical to the development and commercialization of Epizyme's clinical stage assets. Changes to or terminations of these partnerships could affect Epizyme's shares negatively.

Financial. Post-IPO, we estimate that the company will end 2Q13 with approximately $160MM in cash and cash equivalents. While the company has guided that even excluding any milestone payments from Celgene, Eisai, or GSK (which we expect) it has adequate resources to fund the company into 2015, we expect the company to revisit the capital markets to further fund clinical development of its assets, develop a commercial infrastructure in the U.S., and to identify other assets using its platform technology and expertise. We currently forecast that the company will conduct secondary offerings in 2014 and 2015 before reaching profitability in 2017. While we view this as common for similar stage biotechnology companies, the risk of dilution may create an overhang at times.

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Market Outperform (MO): JMP Securities expects the stock price to outperform relevant market indices over the next 12 months.

Market Perform (MP): JMP Securities expects the stock price to perform in line with relevant market indices over the next 12 months.

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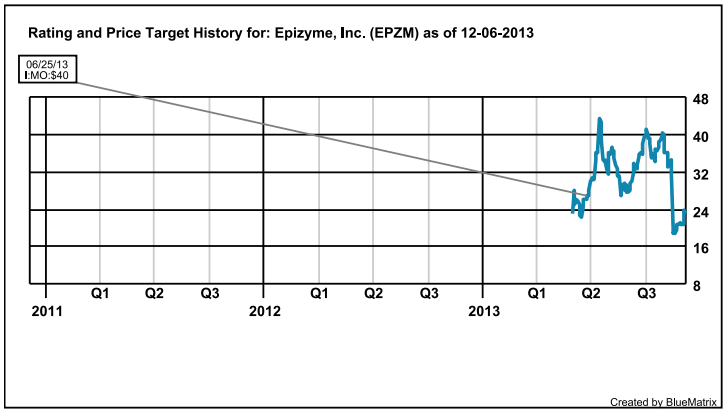
| JMP Rating | Regulatory Equivalent | # Co's Under Coverage | *% of Total* | Regulatory Equivalent | # Co's Under Coverage | *% of Total* | # Co's Receiving IB Services in Past 12 Months | *% of Co's With This Rating* |
|---|---|---|---|---|---|---|---|---|
| MARKET OUTPERFORM | Buy | 228 | *54.68%* | Buy | 228 | *54.68%* | 89 | *39.04%* |
| MARKET PERFORM | Hold | 139 | *33.33%* | Hold | 139 | *33.33%* | 25 | *17.99%* |
| MARKET UNDERPERFORM | Sell | 5 | *1.20%* | Sell | 5 | *1.20%* | 0 | *0%* |
| COVERAGE IN TRANSITION | | 45 | *10.79%* | | 45 | *10.79%* | 0 | *0%* |
| TOTAL: | | 417 | *100%* | | 417 | *100%* | 114 | *27.34%* |

**Stock Price Chart of Rating and Target Price Changes:**

Note: First annotation denotes initiation of coverage or 3 years, whichever is shorter. If no target price is listed, then the target price is N/A. In accordance with NASD Rule 2711, the chart(s) below reflect(s) price range and any changes to the rating or price target as of the end of the most recent calendar quarter. The action reflected in this note is not annotated in the stock price chart. Source: JMP Securities.



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**Jeffrey H. Spurr**
**Director of Research**
(415) 835-3903

## RESEARCH PROFESSIONALS

### FINANCIAL SERVICES

**Alternative Asset Managers**
Devin Ryan (212) 906-3578

**Commercial & Specialty Finance**
Christopher York (415) 835-8965
Hannah Kim, CFA (415) 835-8962

**Consumer Finance**
David M. Scharf (415) 835-8942
Jeremy Frazer (312) 768-1796

**Financial Processing & Outsourcing**
David M. Scharf (415) 835-8942
Jeremy Frazer (312) 768-1796

**Insurance**
Matthew J. Carletti (312) 768-1784
Christine Worley (312) 768-1786

**Investment Banks & Brokers**
Devin Ryan (212) 906-3578

**Mortgage Finance**
Steven C. DeLaney (404) 848-7773
Trevor Cranston, CFA (415) 869-4431
Charter Robinson (757) 613-8955
Benjamin Zucker (212) 906-3529

### HEALTHCARE

**Biotechnology**
Liisa A. Bayko (312) 768-1785
Heather Behanna, PhD (312) 768-1795
Andrew Prigodich (312) 768-1788
Jason N. Butler, PhD (212) 906-3505
Christopher T. Radom, PhD (212) 906-3519
Caroline Palomeque (212) 906-3509
Michael G. King, Jr. (212) 906-3520
Eric Joseph, PhD (212) 906-3514
Joseph A. Knowles (212) 906-3525

**Healthcare Services & Facilities**
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Arthur Kwok (415) 835-8908

**Medical Devices & Supplies**
David Turkaly (212) 906-3563
John Gillings (212) 906-3564

**Medical Devices & Molecular Diagnostics**
J. T. Haresco, III, PhD (415) 869-4477
Marie T. Casey, PhD (415) 835-3955

### REAL ESTATE

**Housing & Land Development**
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Bharathwajan Iyengar (415) 835-3902

**Lodging**
Robert A. LaFleur (212) 906-3510
Whitney Stevenson (212) 906-3538

**Property Services**
Mitch Germain (212) 906-3546
Peter Lunenburg (212) 906-3537

**REITs: Healthcare**
Peter L. Martin, CFA (415) 835-8904
Aaron Hecht (415) 835-3963
Arthur Kwok (415) 835-8908

**REITs: Office, Industrial, & Diversified**
Mitch Germain (212) 906-3546
Peter Lunenburg (212) 906-3537

### TECHNOLOGY

**Communications Equipment & Internet Security**
Erik Suppiger (415) 835-3918
John Lucia (415) 835-3920

**Internet & Digital Media**
Ronald V. Josey III (212) 906-3528

**Software**
Patrick Walravens (415) 835-8943
Peter Lowry (415) 869-4418
Caitlin Schields (415) 835-8960
Greg McDowell (415) 835-3934

**Wireless & Cloud Computing Technologies**
Alex Gauna (415) 835-8998
Michael Wu (415) 835-8996

## ADDITIONAL CONTACTS

**Thomas R. Wright**
**Director of Equities**
(212) 906-3599

**Dan Wychulis**
**Director of Institutional Sales**
(617) 235-8530

**600 Montgomery Street, Suite 1100**
San Francisco, CA 94111
www.jmpsecurities.com