

Epizyme, Inc. (EPZM)

Receives \$25mm Milestone Payment from Celgene for Proof of Concept in EPZ-5676 Program in MLL

MARKET DATA

Price	\$20.50
52-Week Range:	\$18.10 - \$45.72
Shares Out. (M):	28.4
Market Cap (\$M):	\$582.2
Average Daily Vol. (000):	91.0
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	

MARKET OUTPERFORM | Price: \$20.50 | Target Price: \$40.00

INVESTMENT HIGHLIGHTS

Proof of concept payment from Celgene indicates a positive read-through from the fourth dose cohort in the Phase I dose escalation study of EPZ-5676; we reiterate our Market Outperform rating on Epizyme and our 12-month \$40 price target based on our NPV, sum-of-the-parts, and standardized CAGR methodologies. Yesterday, EPZM announced the achievement of the proof of concept (POC) milestone in the EPZ-5676 DOT1L inhibitor clinical program, earning a \$25 million payment under the company's collaboration with Celgene Corporation (CELG, MO, \$175 PT). The milestone payment was triggered by objective responses (CR or PR based upon working group criteria and reviewed by Celgene) in mixed lineage leukemia (MLL) patients with translocations of the MLL gene (MLL-r). These patients are currently enrolled in the fourth dose cohort in the dose escalation stage of the ongoing Phase I clinical study and are receiving uninterrupted treatment with 54 mg/m² of EPZ-5676. While we lack specific details about the nature of the patient responses that triggered the milestone payment, the implication is that the results from the fourth dose cohort have demonstrated signs of clinical activity, and are superior to those seen from '5676 studies thus far. The safety profile of '5676 has been exemplary, and the fifth dose cohort of 80mg/m² (21 out 28 days continuous infusion) is currently enrolling patients. In addition, a 20-patient expansion cohort evaluating a starting dose of 80mg/m² without the drug holiday, exclusively in patients with MLL-r, is slated to begin by year end.

Expanding the breadth and depth of the current pipeline. Overall, EPZM plans to have as many as five clinical POC programs ongoing in 2014; including the ongoing adult MLL-r expansion stage, MLL-r in pediatric patients, and adult MLL-PTD patients for '5676. EPZ-5676 also received a recommendation for Orphan Drug Designation from CHMP. For EPZ-6438, Epizyme's first-in-class EZH2 inhibitor, these include adult non-Hodgkin lymphoma patients and also pediatric and young adult patients with synovial sarcomas, pending completion of the ongoing Phase I study. Separately, Epizyme announced that a development candidate milestone has been achieved for one of the three histone methyltransferase (HMT) targets included in the company's collaboration with GlaxoSmithKline (GSK, NC), earning EPZM an additional \$4mm payment.

In our opinion, Epizyme represents the rare opportunity to invest in a best-of-breed, pure-play, epigenetics-focused biotech company with clinical-stage assets and a robust drug discovery platform. We believe the company's clinical assets, EPZ-5676 and EPZ-6438, represent particularly compelling biology given that they are directed against clonally initiating mutations. This biologic focus, in combination with the selection of a genetically defined patient population, as providing capability for each asset to rapidly accelerate through the clinic and into registration-directed trials within 18 months.

FY DEC		2012A	2013E	2014E
Revenue (\$M)	1Q	--	\$8.9A	\$4.9
	2Q	--	\$14.8A	\$4.9
	3Q	--	\$8.4A	\$24.9
	4Q	--	\$36.5	\$34.7
	FY	\$45.2	\$68.7	\$69.5
EPS	1Q	--	(\$4.24)A	(\$0.54)
	2Q	--	(\$0.25)A	(\$0.41)
	3Q	--	(\$0.34)A	\$0.26
	4Q	--	\$0.45	\$0.47
	FY	(\$0.72)	(\$0.28)	(\$0.06)
Previous FY		NC	(\$1.99)	\$0.94
Source: Company reports and JMP Securities LLC				

STOCK PRICE PERFORMANCE



Combining these assets with a robust drug discovery product platform capable of consistently delivering multiple new therapeutic candidates targeting HMTs, and partnerships with GSK, Eisai, and CELG, we believe EPZM shares will accrete significant additional value over the next six to twelve months as the potential for the company's pipeline comes into greater focus. We remind investors that EPZM is scheduled to present at the 32nd Annual JP Morgan Healthcare Conference at 12 p.m. PST on Thursday, January 16, 2014.

Changes to our model do not result in material changes to our valuation of EPZM. In our model, we anticipated the \$25MM payment from Celgene in 1Q14 and have, therefore, moved it back to 4Q13. In addition, we have also added, for the first time, the GSK payment of \$4MM in 4Q13. As a result, GAAP EPS for 4Q13 increased from (\$0.50) to \$0.45 and FY13 EPS increased from (\$1.99) to (\$0.28). In addition, our 1Q14 EPS estimate was reduced from \$0.30 to (\$0.54) and FY14 EPS from \$0.94 to (\$0.06). EPZM estimates a 2013 end-of-year cash and accounts receivable position of approximately \$145 million versus previous guidance of an end-of-year cash position of more than \$115 million.

FIGURE 1. Upcoming Milestones

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

Source: Epizyme press releases and presentations and SEC filings

FIGURE 2. Changes to Our Model

Changes to Income Statement (\$MM, except where noted)	4Q13E		2013E		1Q14E		2Q14E		3Q14E		4Q14E		2014E		2015E	
	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW
Total Collaboration Revenue	7.5	36.5	44.1	68.7	29.9	4.9	4.9	4.9	24.9	24.9	38.7	34.7	88.5	69.5	38.0	38.0
Operating Expenses																
R&D	18.0	18.0	64.1	59.9	16.0	16.0	12.0	12.0	11.5	11.5	12.5	12.5	52.0	52.0	55.0	55.0
SG&A	3.8	3.8	15.2	13.5	4.2	4.2	4.5	4.5	5.0	5.0	5.5	5.5	19.2	19.2	24.0	24.0
Total Operating Expenses (R&D, SG&A)	21.8	21.8	79.3	73.3	20.2	20.2	16.5	16.5	16.5	16.5	18.0	18.0	71.2	71.2		
Operating Income (Loss)	(14.3)	14.7	(35.2)	(4.6)	9.7	(15.3)	(11.6)	(11.6)	8.4	8.4	20.7	16.7	17.3	(1.7)	(41.0)	(41.0)
Non-operating income (expense)																
Earnings before Taxes	(14.3)	14.7	(35.2)	(4.7)	9.7	(15.3)	(11.6)	(11.6)	8.4	8.4	20.7	16.7	17.3	(1.7)	(41.0)	(41.0)
Provision for income taxes (benefit)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income (Loss)	(14.3)	14.7	(35.2)	(4.7)	9.7	(15.3)	(11.6)	(11.6)	8.4	8.4	20.7	16.7	17.3	(1.7)	(41.0)	(41.0)
Basic shares outstanding	28,420	28,420	17,336	16,943	28,434	28,434	28,455	28,455	28,480	28,480	31,004	31,004	29,093	29,093	33,590	33,590
Diluted shares	28,420	32,684	17,336	16,943	32,775	28,434	28,455	28,455	32,957	32,957	35,549	35,549	29,093	29,093	33,590	33,590
GAAP EPS Figures																
Basic EPS	\$ (0.50)	\$ 0.52	\$ (2.03)	\$ (0.28)	\$ 0.34	\$ (0.54)	\$ (0.41)	\$ (0.41)	\$ 0.30	\$ 0.30	\$ 0.67	\$ 0.54	\$ 0.94	\$ (0.06)	\$ (1.22)	\$ (1.22)
Diluted EPS	\$ (0.50)	\$ 0.45	\$ (2.03)	\$ (0.28)	\$ 0.30	\$ (0.54)	\$ (0.41)	\$ (0.41)	\$ 0.26	\$ 0.26	\$ 0.58	\$ 0.47	\$ 0.94	\$ (0.06)	\$ (1.22)	\$ (1.22)
Non-GAAP EPS																
Basic	\$ (0.49)	\$ 0.53	\$ (1.94)	\$ (0.14)	\$ 0.36	\$ (0.52)	\$ (0.39)	\$ (0.39)	\$ 0.32	\$ 0.32	\$ 0.69	\$ 0.56	\$ 1.02	\$ 0.02	\$ (1.10)	\$ (1.10)
Diluted	\$ (0.49)	\$ 0.46	\$ (1.94)	\$ (0.14)	\$ 0.31	\$ (0.52)	\$ (0.39)	\$ (0.39)	\$ 0.27	\$ 0.27	\$ 0.60	\$ 0.49	\$ 1.02	\$ 0.02	\$ (1.10)	\$ (1.10)

Source: JMP Securities LLC, Company filings

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 negatively affect Epizyme's shares.

Financial. Post-IPO, we estimate that the company will end 2Q13 with approximately \$160MM in cash and cash equivalents. 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 it 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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JMP Securities was manager or co-manager of a public offering, and received compensation for doing so, for Epizyme, Inc. in the past 12 months.

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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.

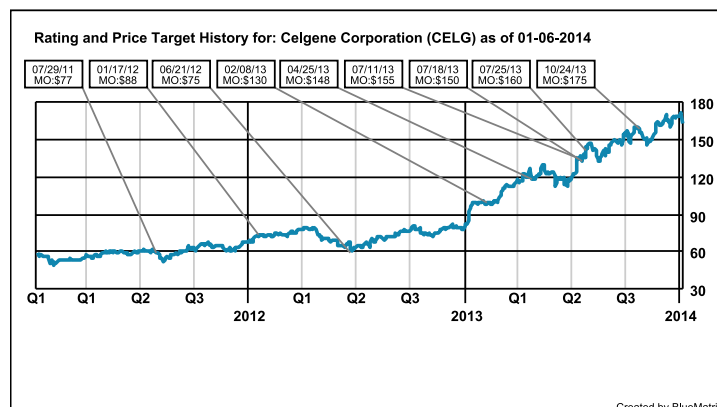
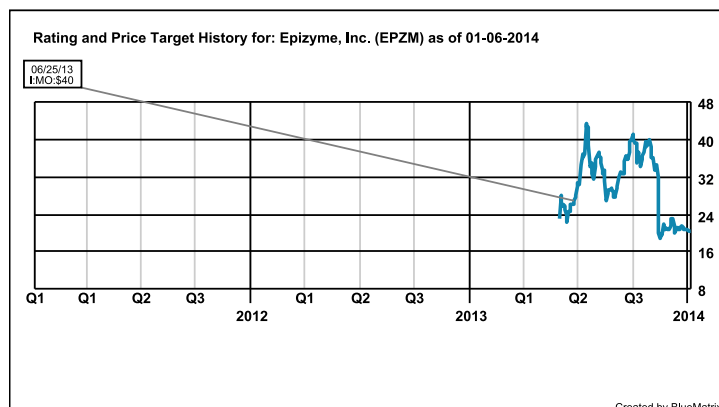
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

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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	241	55.40%	Buy	241	55.40%	92	38.17%
MARKET PERFORM	Hold	145	33.33%	Hold	145	33.33%	25	17.24%
MARKET UNDERPERFORM	Sell	6	1.38%	Sell	6	1.38%	0	0%
COVERAGE IN TRANSITION		43	9.89%		43	9.89%	0	0%
TOTAL:		435	100%		435	100%	117	26.90%

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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