

Epizyme, Inc. (EPZM)

MLL-PTD Proffered as Additional Indication for '5676 Development

MARKET DATA

Price	\$36.58
52-Week Range:	\$18.60 - \$45.72
Shares Out. (M):	28.4
Market Cap (\$M):	\$1,038.9
Average Daily Vol. (000):	96.0
Cash (M):	\$149
Cash/Share:	\$5.80
Enterprise Value (M):	\$966
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: \$36.58 | Target Price: \$40.00

INVESTMENT HIGHLIGHTS

Early pre-clinical data presented this morning suggest MLL-PTD AML may also benefit from DOT1L inhibition, warranting clinical investigation with EPZ-5676; reiterating Market Outperform rating with \$40 price target on Epizyme based on NPV sum-of-the-parts and standardized CAGR valuation methodologies. The data were presented by Epizyme CSO, Robert Copeland Ph.D., during a plenary presentation given at the AACR-EORTC Molecular Targets meeting in Boston, entitled *Protein Methyltransferase Inhibitors as Personalized Cancer Therapeutics*. As implied in the name, MLL-PTD AML may harbor partial, in-frame tandem duplications of the MLL gene (either exons 3 through 9, 5 through 11, or 5 through 12 inserted into intron 4 of the full length MLL gene). MLL-PTD comprises 5-8% of AML cases and correlates with high risk. Notably, MLL-PTD represents a molecularly distinct AML subtype from the MLLr subtype currently being evaluated in the forthcoming expansion cohort of ongoing Phase I trial of EPZ-5676. Pre-clinical data presented today from Epizyme, in collaboration with Scott Armstrong of MSKCC, showed EOL1 MLL-PTD cells to be exquisitely sensitive to DOT1L inhibition with EPZ-5676, both in vitro and in tumor xenografts (Figure 1). In our view, the data highlight expanded opportunities for EPZ-5676 consistent with the company's focus on specific, genetically defined disease subsets exhibiting a tight dependence on protein methyltransferase activity. Additional brief comments on EZH2 and EPZ-6438 shed light on the prevalence of SNF5/INI-1/SMARCB1 loss across various soft tissue sarcomas and their dependence on EZH2 for survival and proliferation (Figure 2). We anticipate Epizyme will provide further color regarding these data, as well as on the potential start of a clinical trial in MLL-PTD AML with '5676, during its 3Q13 earnings call, tomorrow after market close.

FY DEC

2012A

2013E

2014E

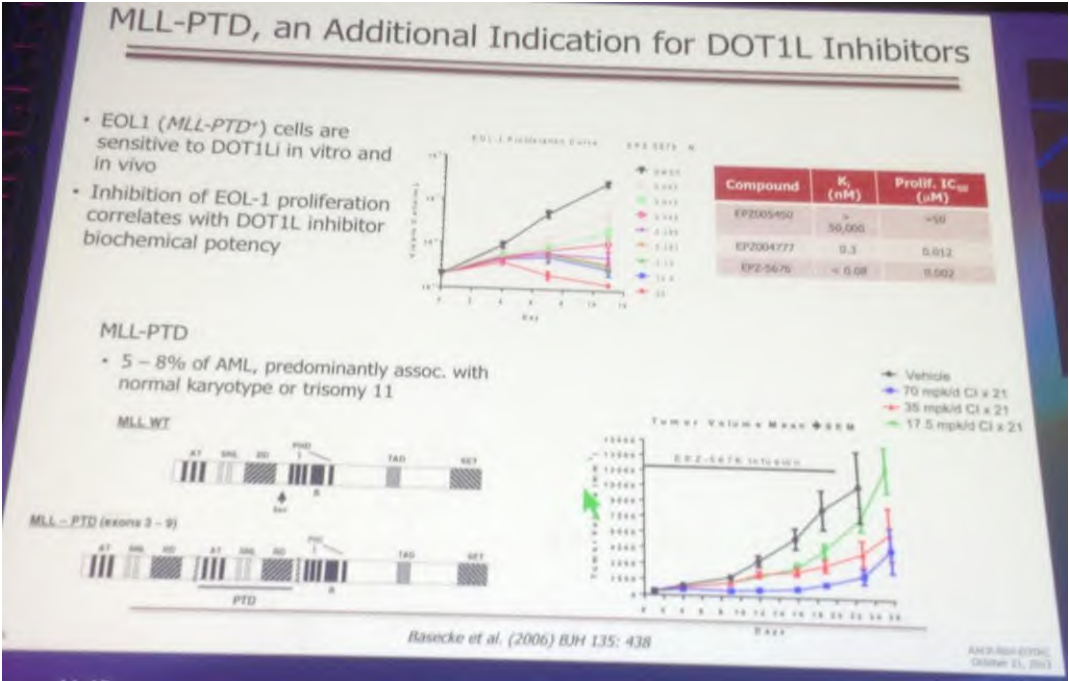
Revenue (\$M)	1Q	\$5.7	\$8.9A	\$29.9
	2Q	--	\$14.8A	\$4.9
	3Q	--	\$19.8	\$24.9
	4Q	--	\$7.5	\$38.7
	FY	\$45.2	\$51.1	\$98.5
EPS	1Q	(\$3.38)	(\$4.24)A	\$0.30
	2Q	--	(\$0.25)A	(\$0.41)
	3Q	--	(\$0.02)	\$0.26
	4Q	--	(\$0.50)	\$0.58
	FY	(\$0.72)	(\$1.45)	\$0.94

Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE

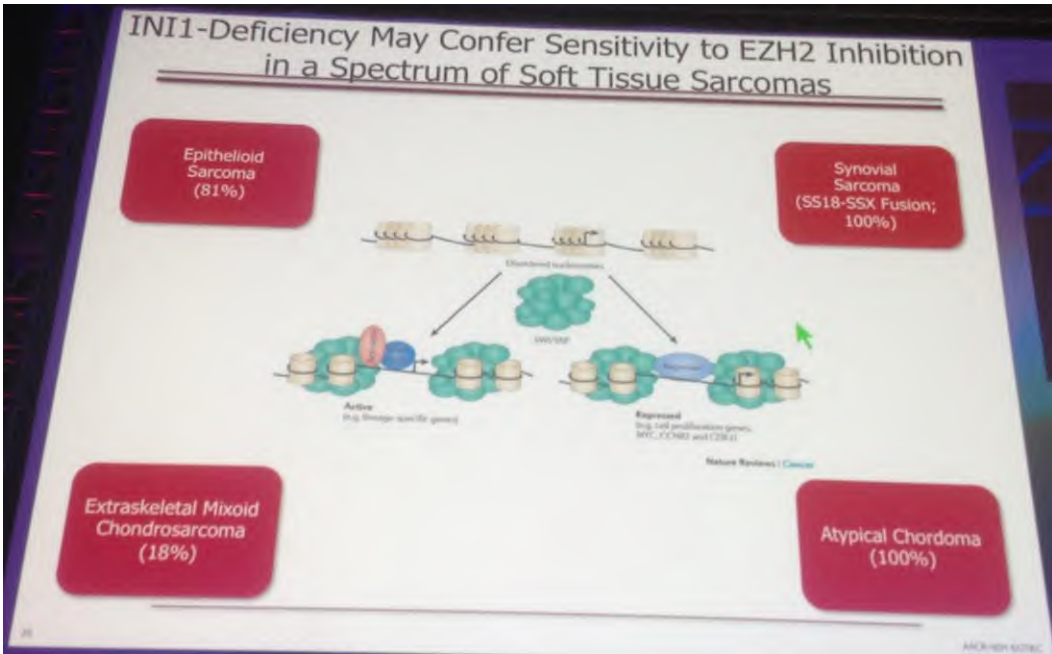


FIGURE 1. DOT1L Inhibition with EPZ-5676 is Active Against MLL-PTD Driven AML



Source: Copeland B, AACR-EORTC Molecular Targets, Plenary Session 3

FIGURE 2. SNF5/SMARCB1/INI-1 Deficiency Provokes EZH2 Dependence and is Prevalent in Sarcoma



Source: Copeland B, AACR-EORTC Molecular Targets, Plenary Session 3

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 substantial decrease in the company's share price.

Competitive. Epigenetics is an increasingly competitive field and Epizyme will face 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 will face significant expenses developing or acquiring 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 milestones payments from Celgene, Eisai, or GSK (which we expect) it has adequate resources to fund the company into 2015, we wholly 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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JMP Securities was manager or co-manager of a public offering 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.

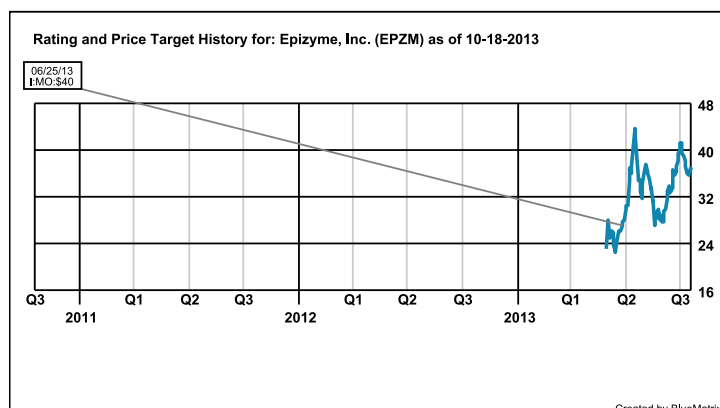
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

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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	247	61.44%	Buy	247	61.44%	77	31.17%
MARKET PERFORM	Hold	149	37.06%	Hold	149	37.06%	23	15.44%
MARKET UNDERPERFORM	Sell	6	1.49%	Sell	6	1.49%	0	0%
TOTAL:		402	100%		402	100%	100	24.88%

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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