Karyopharm Therapeutics Inc. (KPTI)

Selinexor Combo IST to Explore Newly Diagnosed AML

MARKET OUTPERFORM | Price: $32.35 | Target Price: $50.00

MARKET DATA

Price	$32.35
52-Week Range:	$15.50 - $47.87
Shares Out. (M):	29.8
Market Cap ($M):	$964.0
Average Daily Vol. (000):	270.0
Cash (M):	$156
Cash/Share:	$5.24
Enterprise Value (M):	$1,286
Float (M):	14.6
LT Debt (M):	$0

Source: Thomson Reuters and JMP Securities LLC

FY DEC		2012A	2013A	2014E
Revenue ($M)	1Q	--	--	$0.0
	2Q	--	$0.4	$0.0
	3Q	--	$0.0	$0.0
	4Q	--	$0.0	$0.0
	FY	**$0.6**	**$0.0**	**$0.0**
EPS	1Q	--	--	($0.43)
	2Q	--	($5.39)	($0.45)
	3Q	--	($3.66)	($0.47)
	4Q	--	($0.47)	($0.55)
	FY	**($8.95)**	**($5.59)**	**($1.90)**

EPS 2013 Q2: Results are for six months ended June 30, 2013
Revenue ($M) 2013 Q2: Results are for six months ended June 30, 2013
Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE

INVESTMENT HIGHLIGHTS

Karyopharm Therapeutics announces the start of a Phase I combination study of selinexor plus Dacogen, exploring safety and efficacy in both R/R and newly diagnosed elderly settings of AML; reiterate Market Outperform rating and $50 price target based on DCF, SOTP and CAGR valuation methodologies. The recently announced Phase I investigator sponsored trial (IST) is one of several expected to unfold during 2014 evaluating selinexor in combination with standard therapy in both heme and solid tumor malignancies. We note that Dacogen (decitabine) currently sees appreciable use in the elderly AML setting. To the extent its combination with Dacogen proves clinically successful, we believe selinexor is incrementally better positioned for wider adoption in the treatment of AML. We remind investors that a registration directed Phase II study of single-agent selinexor in elderly relapse/refractory AML patients is currently underway.

Overview of the trial. The Phase I combination IST, being conducted at Ohio State University Cancer Center, is designed as a 42-patient study in both relapsed/refractory and first-line elderly (>60 years) settings of AML, first evaluating the safety and tolerability of the Dacogen (administered IV days 1-10) plus selinexor (oral BIW beginning day 11 of a 31-day cycle) combination, and second, to establish the RP2D and anti-leukemic activity. Trial investigators anticipate presenting initial results later in 2014, presumably at ASH.

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FIGURE 1. Upcoming Milestones

Timing	Drug	Milestones
1H14	Selinexor	Initiation of first pivotal Phase II/III study in (elderly R/R AML)
1H14	Selinexor	Initiation of first Phase II trial in solid tumor indication (potentially gynecological malignancies)
1H14	Selinexor	Updated Phase I data in heme malignancy and solid tumors at ASCO
1H14	Selinexor	Initiation of second Phase II trial in solid tumor indication (squamous cell cancer, head and neck, lung and esophageal cancer)
3Q14	Selinexor	Initiation of second pivotal Phase II/III study in (3L+ DLBCL)
2H14	KPT-350	IND completion for use in inflammation, auto-immune and anti-viral indications
2H14	PAK Inhibitor	IND completion for use in oncology indications
4Q14	Selinexor	Initial results from Phase I Dacogen combination IST at ASH 2014

Source: Company reports and JMP Securities LLC

Company Description

Karyopharm Therapeutics (KPTI) is a Natick, MA based, clinical-stage biopharmaceutical company focused on the discovery and development of novel first-in-class drugs directed against nuclear transport targets for the treatment of cancer and other major diseases. Karyopharm's Selective Inhibitors of Nuclear Export (SINE) compounds function by preventing the export of tumor suppressor proteins from the nucleus, driving their accumulation and restoration of function. The company's lead pipeline candidate selinexor (KPT-330) is a Phase I orally available small molecule inhibitor of XPO1, set to initiate pivotal Phase II/III evaluation in various hematologic malignancies in 2014. Karyopharm is also developing selinexor and SINE as potential therapies for autoimmune and inflammatory disease, viral infections and wound healing.

Investment Risks

Clinical. Drug development is an inherently risky business. Clinical trials always carry a risk of failure and Karyopharm's assets (Selinexor (KPT330), KPT-350, PAK4 inhibitor, verdinexor or future drug candidates) may fail to demonstrate meaningful enough levels of efficacy in current or future clinical trials.

Regulatory and commercial. The ability of Karyopharm to market its drugs depends on those drugs obtaining approval from the FDA and foreign regulatory agencies. Failure to achieve approval or delays in the timelines to approval could negatively impact the company's share price.

Competitive. Hematologic malignancies including multiple myeloma, indolent non-Hodgkin lymphoma and acute myeloid leukemia represent increasingly competitive fields and Karyopharm faces competition from both commercial and development-stage companies with product(s) or product candidates addressing similar clinical indications. Some of these companies may possess substantially greater R&D and commercial resources than Karyopharm. As such, there is no assurance Karyopharm will be competitive or differentiated from other drug products.

Financial. Following its IPO, we estimate that Karyopharm will end 4Q13 with approximately $153MM in cash and cash equivalents, which are adequate resources to fund operations into 2015, according to Karyopharm financial guidance. We anticipate the company is likely to seek additional equity financing in the form of a secondary offering in order to complete the development of its drug candidates, creating dilution risk for existing shareholders.

JMP FACTS AND DISCLOSURES

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The research analyst(s) who prepared this report does/do hereby certify that the views presented in this report are in accordance with my/our personal views on the securities and issuers discussed in this report. As mandated by SEC Regulation AC no part of my/our compensation was, is or will be directly or indirectly related to the specific views or recommendations expressed herein. This certification is made under the obligations set forth in SEC Regulation AC. Any other person or entity may not use it for any other purpose. This certification is made based on my/our analysis on the date of this report's publication. I/We assume no obligation to update this certification to reflect any facts,circumstances or events that may subsequently come to my/our attention. Signed Michael G. King and Eric Joseph

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JMP Securities was manager or co-manager of a public offering, and received compensation for doing so, for Karyopharm Therapeutics Inc. in the past 12 months.

JMP Securities Investment Opinion Definitions:

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.

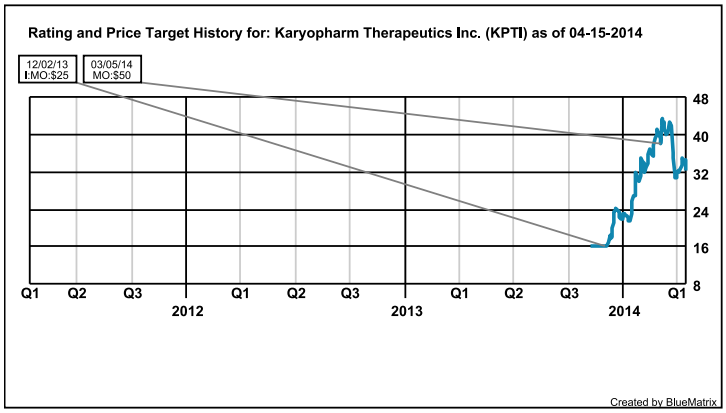
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

JMP Securities Research Ratings and Investment Banking Services: (as of April 15, 2014)

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	253	*58.16%*	Buy	253	*58.16%*	96	*37.94%*
MARKET PERFORM	Hold	134	*30.80%*	Hold	134	*30.80%*	15	*11.19%*
MARKET UNDERPERFORM	Sell	6	*1.38%*	Sell	6	*1.38%*	0	*0%*
COVERAGE IN TRANSITION		42	*9.66%*		42	*9.66%*	0	*0%*
TOTAL:		435	*100%*		435	*100%*	111	*25.52%*

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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