TICKER	NASDAQ: KPTI
RATING	BUY
PRICE TARGET	$54.00
Price (November 21, 2014)	$43.30

Karyopharm Therapeutics Inc.

Promising Preclinical Selinexor Data in Lung Cancer

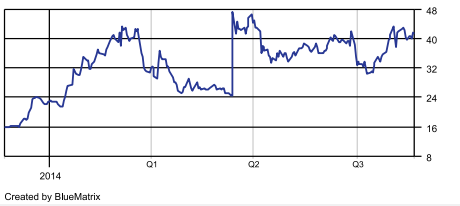
Market Data	
Market Cap (M):	$1,342.0
Shares out (M):	32.7
Float (M):	13.1
Daily Vol, 3 Mo Avg (M):	0.0
52-Week Range:	$47.98-$15.50
Cash & Cash Eq (M):	$227.1
Debt (M):	$0.0

Financial Metrics	
Short Interest (M):	0.0
Instit. Holdings (%):	98.8%
Cash Burn (M):	$(55.8)
Short Interest (% of Float):	23.3%

EPS	1Q	2Q	3Q	4Q	FY
2014	-0.46A	-0.55A	-0.61A	-0.61E	-2.24E
2015	-0.62E	-0.62E	-0.64E	-0.64E	-2.53E
2016	—	—	—	—	-2.51E

Revenue ($M)	1Q	2Q	3Q	4Q	FY
2014	0.2A	0.0A	0.0A	0.0E	0.2E
2015	0.0E	0.0E	0.0E	0.0E	0.0E
2016	0.0E	0.0E	0.0E	0.0E	0.0E

1-Year Price History



This morning, KPTI announced presentation of data at the EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics November 18-21. Though preclinical, the data delineates a clear rationale for combination of lead product candidate selinexor in combination with DNA damaging treatments, and we are particularly intrigued by selinexor's potential in lung cancer, which we do not currently include in our SOTP valuation. We reiterate our Buy rating and $54 PT.

Selinexor Sensitizes Cancer Cells to DNA Damaging Treatments in Lung, AML, MM, and Sarcoma. In a poster presentation, selinexor treatment resulted in reduced levels of DNA Damage Repair (DDR) proteins in acute monocytic leukemia, multiple myeloma, and sarcoma cell lines, resulting in inhibition of recovery from DNA damage. Pre-treatment with DNA damaging agents had a more pronounced effect than pre-treatment with selinexor, suggesting selinexor should be dosed after DNA damaging agents. Additionally, combination of selinexor with radiation therapy resuted in synergistic decrease in non-small cell lung cancer xenograft tumor size (12% vs 30% vs 86% for selinexor alone vs radiation alone vs selinexor + radiation). In our view, selinexor's ability to impair DNA repair mechanisms following treatment with DNA damaging treatments provides a sound scientific rational for combination.

PAK4 Allosteric Modulator (PAM) Program Shows Promise as Broad Anti-Tumor Agent; First PAM Expected in Clinic in 2H15. Separately, preclinical data for Karyopharm's P21-Activated Kinase 4 (PAK4) program were presented in a poster. KPT-7523 binds selectively to PAK4 but not other members of the PAK family (1-6) and specifically to the kinase but not regulatory domain in an ATP-competitve and allosteric manner. PAMs destabilize and inactivate PAK4 resulting cell cycle arrest in G1/G2. We note KPT-8752 inhibition is particularly strong in acute lymphoblastic leukemia, mantle cell lymphoma, acute monocytic leukemia, megakaryoplastic leukemia, squamous cell lung carcinoma, glioblastoma, and colorectal cancers. Patients with many of these have very limited options, so with early clinical evidence, we believe these indications may serve as the basis for rapid development. Though the poster includes data on KPT-8752, KPT-7523, and other PAMs, Karyopharm plans to initiate Phase 1 studies on KPT-9274 in 2H15.

Upcoming Catalysts. At the annual ASH meeting December 6-9, we expect full data from the MM and NHL clinical trials as well as preclinical selinexor and PAK4 inhibitor data. In 4Q14, we also expect initiation of registration-directed trials DLBCL followed by myeloma in 1H15. In early 2015, we also expect further clarity on a regulatory path forward in solid tumors. In mid 2015, we look forward to interim Phase 2 data from the solid tumor program including gynecologic cancers (SINE), gliblastoma multiforme (KING), metastatic prostate cancer (SHIP), squamous head and neck, lung and esophageal cancers (STARRS). Given the preclinical evidence, we think squamous lung cancer is an attractive target and look forward to clinical data.

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VALUATION

Our $54 PT is based on a probability-adjusted sum of the parts analysis including AML, DLBCL, Richter's, myeloma, sarcoma, and ovarian cancers and $6 cash.

INVESTMENT RISK

Risks to our outlook include clinical and regulatory delays, commercialization risk, financing risk, and intellectual property risk.

IMPORTANT DISCLOSURES

Analyst Certification

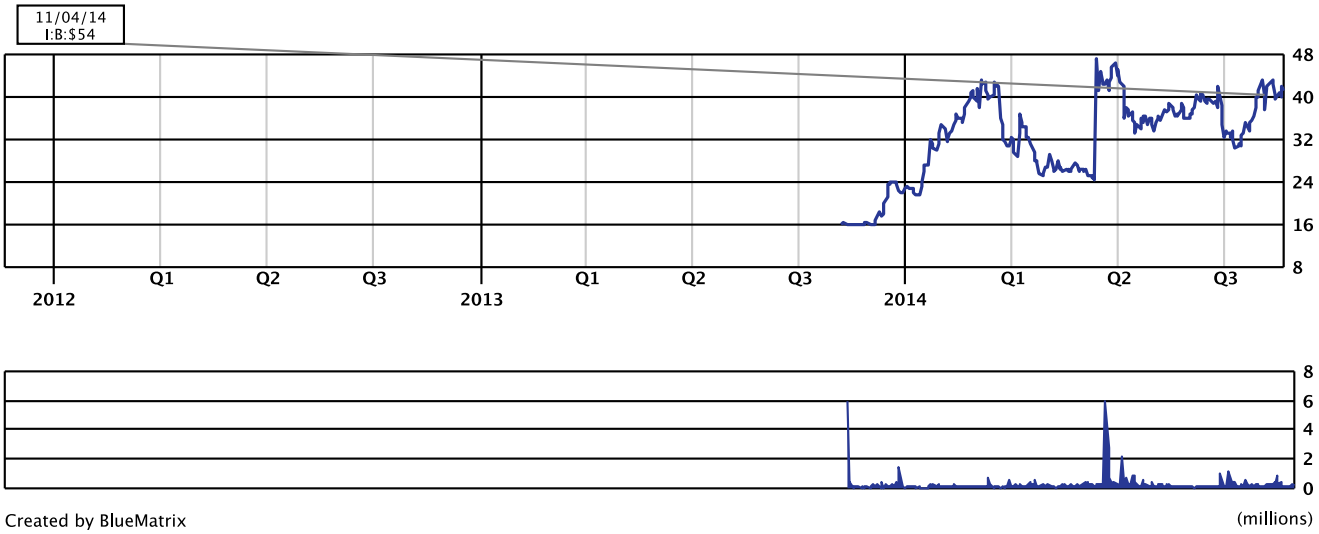
The research analyst, Arlinda Lee, who is primarily responsible for the preparation of this research report, certifies that (i) all views expressed in this research report accurately reflect the analyst's personal views about any and all the subject issuer and security featured in this report and (ii) no part of the analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Rating and Price Target History

MLV disclosure price charts are updated within the first fifteen days of each new calendar quarter per FINRA regulations. Price charts for companies initiated upon in the current quarter, and rating and target price changes occurring in the current quarter, will not be displayed until the following quarter. Additional information on recommended securities is available upon request.

All required current disclosures on subject companies covered in this report may be obtained by contacting Randy Billhardt at MLV at 212-542-5882 or rbillhardt@mlvco.com.

Karyopharm Therapeutics Inc. (KPTI): Share Price (in USD) and Volume History as of 11-21-2014



MLV RATING ALLOCATION (as of November 23, 2014)

BUY: MLV projects that the subject company's stock price will increase in value by 20% or more in the next 12 months.

HOLD: MLV projects that the subject company's stock price will trade in a range not more than 20% above or below its current price.

SELL: MLV projects that the subject company's stock price will decrease in value by 20% or more in the next 12 months.

	COMPANIES UNDER COVERAGE		INVESTMENT BANKING SERVICE WITHIN 12 MONTHS	
Rating	Count	Percent	Count	Percent
BUY	107	64.85%	50	30.30%
HOLD	58	35.15%	21	12.73%
SELL	0	0.00%	0	0.00%

Issuer Specific Disclosures

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