Aratana Therapeutics, Inc. (PETX)

Exclusive Global Licensing Agreement with Advaxis for Cancer Immunotherapies

MARKET DATA

Price	$18.11
52-Week Range:	$6.56 - $29.32
Shares Out. (M):	30.3
Market Cap ($M):	$548.7
Average Daily Vol. (000):	232.0
Cash (M):	$46

Source: Thomson Reuters and JMP Securities LLC

FY DEC		2013A	2014E	2015E
Revenue ($M)	1Q	$0.0	$0.0	--
	2Q	$0.0	$0.0	--
	3Q	$0.0	$0.0	--
	4Q	$0.0	$0.0	--
	FY	**$0.1**	**$0.0**	**$0.0**
EPS	1Q	($0.24)	($0.28)	--
	2Q	($4.62)	($0.35)	--
	3Q	($0.22)	($0.38)	--
	4Q	$0.33	($0.19)	--
	FY	**($0.39)**	**($1.27)**	**($1.52)**
	P/E	NM	NM	NM

Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE

MARKET OUTPERFORM | Price: $18.11 | Target Price: $38.00

INVESTMENT HIGHLIGHTS

We reiterate our Market Outperform rating and $38 price target on shares of Aratana Therapeutics following the announcement of a global licensing agreement with Advaxis. The agreement is for Advaxis' ADXS-cHER2 for the treatment of osteosarcoma in dogs and three additional cancer immunotherapy products for three other types of cancer. Each of the four licensed products is based on Advaxis' platform immunotherapy technology for the treatment of human cancers on a global basis. Under the agreement, Aratana will have exclusive rights to develop and commercialize the licensed immunotherapies for pet health applications, and will focus initially on developing ADXS-cHER2 for osteosarcoma. In our view, this licensing agreement bodes well with the recent acquisitions and the rapidly expanded product pipeline of Aratana. Our $38 price target remains predicated on a blend of our DCF analysis ($37) and relative valuation ($38) methodologies.

Terms of the agreement. Aratana made a one-time upfront payment to Advaxis of $1M and $1.5M equity investment in Advaxis common stock and warrants. Aratana agreed to pay up to an additional $6M in clinical and regulatory milestones for each of the four products, assuming approvals in both cats and dogs in both the U.S. and Europe. In addition, Aratana agreed to pay up to $28.5M in commercial milestones. Upon regulatory approval and commercialization of the immunotherapies, Aratana agreed to pay Advaxis a tiered royalty ranging from mid-single digit to 10% on net sales.

A promising treatment in pet cancer. ADXS-cHER2 is an immunotherapy for the treatment of HER2-overexpressing cancers (such as breast, gastric, esophageal, and other cancers in humans and for osteosarcoma in canines). ADXS-cHER2 was validated in an ongoing clinical study in 13 client-owned dogs with osteosarcoma, conducted by Dr. Mason at the University of Pennsylvania School of Veterinary Medicine and sponsored by Advaxis. Dogs treated with ADXS-cHER2 immunotherapy after the standard of care (amputation and follow up chemotherapy) had a statistically significant prolonged overall survival benefit (p=0.032) compared with dogs that received standard of care without ADXS-cHER2. The median survival time for dogs that did not receive ADXS-cHER2 immunotherapy was eight months, whereas the median survival time for those dogs treated with ADXS-cHER2 has not yet been reached. The first four dogs treated with ADXS-cHER2 are alive, with each dog surviving over 21 months. The majority of treated dogs are tumor-free. There were no short- or long-term complications associated with the immunotherapy and only low-grade, transient toxicities were reported in the study.

Lead compound timeline. Advaxis is currently conducting a Phase 1 study in companion dogs and is preparing an IND submission for ADXS-cHER2 in the treatment of overexpressing cancers in 2014.

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Company Description

Founded in 2010, Aratana is a development-stage biopharmaceutical company focused on the licensing, development, and commercialization of prescription medications for companion animals (i.e., pet therapeutics). The companion animal market represents a sizable opportunity with a number of therapeutic and medical needs that have yet to be fully realized or met. Aratana has an active in-licensing effort focused on identifying human therapeutics for development and commercialization as pet therapeutics. This model enables human health-focused pharma and biotech companies to extend drug candidates to the companion animal market. With a focus on both cats and dogs, a single, in-licensed drug candidate can offer two therapeutic programs, each of which can potentially offer its own arrangement with specific development milestones and royalties. Additionally, Aratana is developing its own commercial operations to potentially bring its current and future in-licensed drugs to market.

Investment Risks

Limited operating history and significant losses. The company is a development-stage company with a limited operating history and significant losses since its inception. Aratana is expected to continue to incur losses in the short- to medium-term, as it continues the development of product candidates. Previous losses, combined with expected future losses, will continue to have an adverse effect on stockholders' equity and working capital.

Dependence on the success of the three compounds currently in development. Aratana currently has no products approved for commercial distribution. To date, the company has invested much of its efforts and financial resources in the in-licensing, research, and development of AT-001, AT-002, and AT-003, currently the only product candidates that are still in development. If Aratana is not successful in commercializing one or more product candidates, operating results will be negatively impacted.

Regulatory environment. The denial or delay of regulatory approval (e.g., FDA, EMA) for Aratana's existing and future product candidates would delay commercialization efforts and adversely impact the potential to generate revenue and operating results.

Market acceptance/commercial success. Even if current or future product candidates obtain regulatory approval, they may fail to achieve market acceptance and commercial success, which would adversely affect the company's operating and financial results.

Financing risk. On June 27, 2013, Aratana completed an initial public offering, issuing 5.8 million shares of common stock at a price of $6.00/share, resulting in net proceeds of $35 million. The company plans to use the net proceeds of the offering to: (i) in-license and develop additional product candidates; (ii) commercialize its current and future product candidates; (iii) establish a direct sales organization in the U.S.; and (iv) for general corporate and working capital purposes. Cash on hand should be enough to fund clinical efforts for AT-001, AT-002, and AT-003 to completion. However, the company will need to raise additional capital in order to successfully commercialize these products and expand its product pipeline.

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 J.T. Haresco

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JMP Securities has received compensation for banking or other services rendered to Aratana Therapeutics, Inc. in the past 12 months.

JMP Securities was manager or co-manager of a public offering, and received compensation for doing so, for Aratana 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.

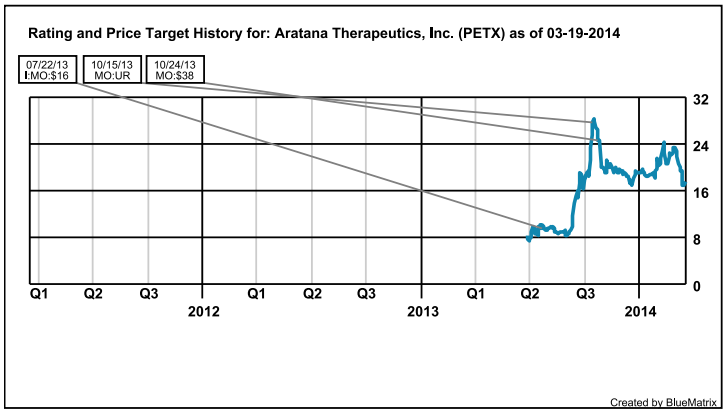
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

JMP Securities Research Ratings and Investment Banking Services: (as of March 19, 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	250	*57.34%*	Buy	250	*57.34%*	99	*39.60%*
MARKET PERFORM	Hold	136	*31.19%*	Hold	136	*31.19%*	16	*11.76%*
MARKET UNDERPERFORM	Sell	7	*1.61%*	Sell	7	*1.61%*	0	*0%*
COVERAGE IN TRANSITION		43	*9.86%*		43	*9.86%*	0	*0%*
TOTAL:		436	*100%*		436	*100%*	115	*26.38%*

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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