Conatus Pharmaceuticals Inc. (CNAT)

Conatus Under Pressure, but Fundamentals Remain Intact

MARKET OUTPERFORM | Price: $6.89 | Target Price: $14.00

MARKET DATA

Price	$6.89
52-Week Range:	$6.26 - $11.24
Shares Out. (M):	16.0
Market Cap ($M):	$110.2
Average Daily Vol. (000):	36.0
Cash (M):	$60
LT Debt (M):	$1

Source: Thomson Reuters and JMP Securities LLC

FY DEC		2012A	2013E	2014E
Revenue ($M)	1Q	--	$0.0A	--
	2Q	--	$0.0A	--
	3Q	--	$0.0A	--
	4Q	--	$0.0	--
	FY	**$0.0**	**$0.0**	**$0.0**
EPS	1Q	--	($0.03)A	--
	2Q	--	$0.16A	--
	3Q	--	($0.28)A	--
	4Q	--	($0.38)	--
	FY	**($1.04)**	**($0.50)**	**($1.62)**

Source: Company reports and JMP Securities LLC

STOCK PRICE PERFORMANCE

INVESTMENT HIGHLIGHTS

Conatus Pharmaceuticals under pressure, but fundamentals remain intact; reiterate Market Outperform and $14 price target based on a risk-adjusted, discounted cash flow analysis. This week, we attended a series of investor meetings in New York with Conatus CEO, Steve Mento, and CFO, Chuck Cashion. Conatus is currently engaged in a Phase 2b trial in acute-on-chronic liver failure (ACLF) with its pan-caspase inhibitor, emricasan, and we expect data in late 2Q14 to show the expected changes in biochemical markers, and potentially even trends in clinical outcomes, providing a boost to the stock. We are not surprised by management's reluctance to invest in the HCV-POLT indication given the dynamics of the field and we believe establishing long-term safety margins will be critical and potentially challenging for chronic indications, such as NASH and NAFLD. With shares trading off since the IPO, we think CNAT could be of interest to long-term investors.

Phase 2b ACLF trial underway. Conatus provided additional details on the enrollment process for the ongoing ACLF trial and suggested that there is strong interest in pan-caspase inhibitors from big pharma and positive efficacy data in this study could make it a takeout candidate. The study will randomize 60 patients into four arms (5 mg, 25 mg, and 50 mg BID emricasan and placebo). Management intends to use this study to: 1) identify a safe dose for Phase 3; 2) get an early indication of efficacy, including biomarker and clinical treatment response; and 3) better understand patient subsets. Based on previous studies, the Conatus team believes that all doses in the trial will be efficacious and that they will be able to group the three treatment arms into a 45-patient cohort for analysis, increasing the likelihood of seeing a meaningful change in efficacy. Our analysis of prior studies suggests that this trial is likely to show a positive trend in liver disease / fibrosis biomarkers, such as cCK18, but is unlikely to show a meaningful change in clinical endpoints due to its powering.

Plans for POLT on hold. The Phase 2/3 trial in POLT, which was set to initiate in just two weeks, is in a holding pattern. Management commented that although the HCV-POLT population is still viewed as the best group to demonstrate the safety of emricasan, physicians are beginning to warehouse patients in anticipation of the next-generation HCV antivirals (e.g., sofosbuvir) and, as such, enrolling a multi-year study is not currently possible. Based on our prior analysis, the POLT population was never likely to be a major source of revenue. We no longer include this patient population in our current market model.

Pivot to NASH. Conatus has encouraging pre-clinical data in NASH (Figure 1) and NAFLD (Figure 2) models and emricasan's mechanism of action supports the idea that it could be effective in these large populations. Conatus plans to use a fast follower approach in these indications, rather than blazing a trail itself, because the patient

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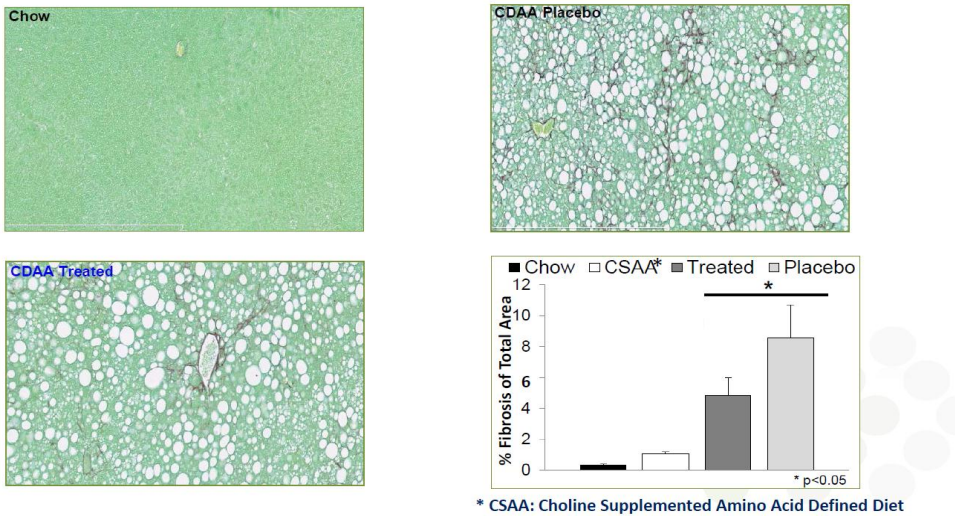
population is still poorly understood and it is unclear what endpoints the FDA would accept in a pivotal trial. Gilead is running two Phase 2 studies with its LOXL2 inhibitor (simtuzumab) in NASH, and Conatus plans to leverage information from Gilead's placebo arms in its own trial design. This approach will minimize development costs for Conatus and position it to either compete with, or work in combination with, Gilead's compound. Importantly, emricasan acts upstream of simtuzumab, which could lead to distinct drug effects, such as allowing management of metabolic aspects of the disease. We note that while success in this large indication would be transformational for Conatus, the risk associated with safety in a chronic dosing regimen (likely required in NASH) is much higher than in a short-term setting like ACLF. With no clinical data to date, we await the first proof-of-concept study and view NASH as a free option for shareholders.

FIGURE 1. Emricasan Pre-clinical Data in NASH

Reduced fibrosis in the Choline Deficient Amino Acid Defined Diet (CDAA) Model of NASH:

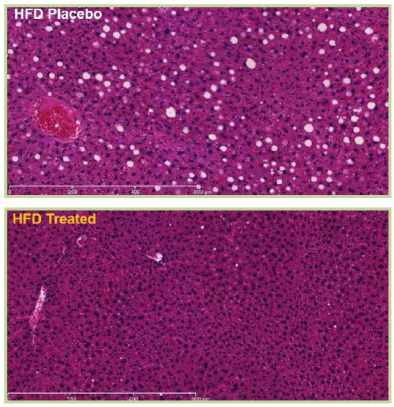


* CSAA: Choline Supplemented Amino Acid Defined Diet

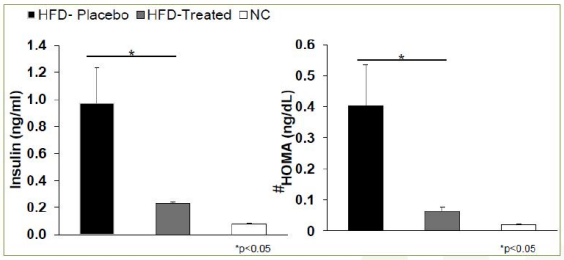
Source: Company reports

FIGURE 2. Emricasan Pre-clinical Data in NAFLD

Resolution of hepatic steatosis:



Reduced Insulin Levels and Insulin Resistance:



The homeostasis model assessment (HOMA), based on plasma levels of fasting glucose and insulin, has been widely validated and applied for quantifying insulin resistance and β-cell function

HFD – high fat diet

Source: Company reports

Company Description

Conatus Pharmaceuticals is a San Diego-based biopharmaceutical company focused on the development of emricasan, a pan-caspase inhibitor with the potential to be used to treat liver fibrosis, particularly in areas of large unmet need, including cirrhosis-induced liver failure.

Investment Risks

Clinical Risk. Emricasan has not yet been evaluated in clinical trials longer than 12 weeks. Longer trials may result in unanticipated safety concerns, which could cause emricasan to underperform in clinical trials. Although successful in the regulation of biomarkers, emricasan may not impact clinical outcomes.

Regulatory Risk. Conatus hopes to use emricasan in acute and chronic indications. However, due to potential on-target activities that may increase cancer risk, FDA maybe unwilling to approve the drug in a chronic setting.

Intellectual Property Risk. The composition of matter patent for emricasan expires in 2017 and has not yet received a Hatch Waxman extension. As such, Conatus may have to rely on a polymorph composition and method patent, which expires in 2027, for long-term market exclusivity. If Conatus does not receive orphan exclusivity for emricasan, protection may also be limited.

Commercial Risk. As a small company, Conatus may have difficulty educating healthcare payers and providers on the benefits of a novel drug. As such, emricasan adoption may be slowed.

Sector Risk. Valuation of biopharmaceutical stocks is subject to both investor assessments of the prospects of the underlying companies, as well as risk tolerance and the level of confidence in the prospects of pharmaceutical stocks as a group. Therefore, Conatus' stock price may fall even while the company meets or exceeds investor expectations.

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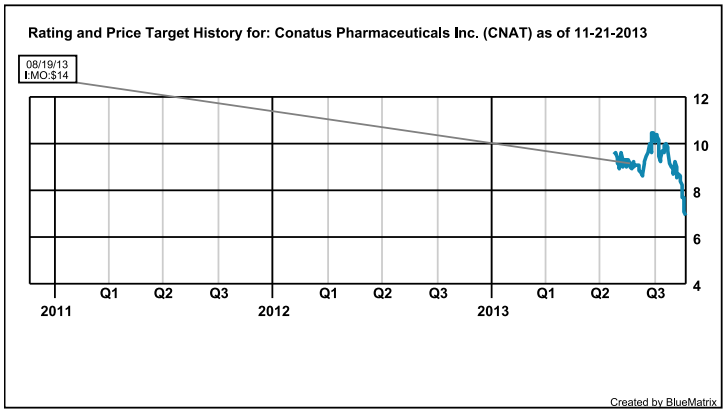
MARKET OUTPERFORM	Buy	231	*56.20%*	Buy	231	*56.20%*	84	*36.36%*
MARKET PERFORM	Hold	138	*33.58%*	Hold	138	*33.58%*	24	*17.39%*
MARKET UNDERPERFORM	Sell	5	*1.22%*	Sell	5	*1.22%*	0	*0%*
COVERAGE IN TRANSITION		37	*9.00%*		37	*9.00%*	0	*0%*
TOTAL:		411	*100%*		411	*100%*	108	*26.28%*

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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