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# **Conatus Pharmaceuticals Inc. (CNAT)**

# Overweight

# Liver Fibrosis Likely to Support Multiple Drugs like CVD

#### CONCLUSION

Conatus shares were up 130% last week primarily as a result of positive Phase II results from Intercept's candidate for non-alcoholic steatosis (NASH). While we remain encouraged for Conatus's emricasan, which is currently in Phase IIb testing for acute-on-chronic liver failure (ACLF), we note the two candidates are tackling different (though related) conditions and by very different mechanisms. However, Conatus is planning studies in NASH based on promising early data, as indicated in a press release this AM. Additionally, an FDA environment that may increasingly be amenable to surrogate markers of clinical benefit could reduce timelines and risk for all fibrotic liver disease programs. We continue to rate Conatus Overweight with a \$16 price target, with Phase IIb data for ACLF expected by mid-year.

- Different approaches. Intercept's drug, obeticholic acid, targets a signaling pathway that basically regulates fat flux in the liver. Conatus's emricasan inhibits pathways resulting in cell death and inflammation. While obeticholic acid also addresses inflammation, according to Intercept's statements, and Conatus has data in mice indicating a reduction in liver steatosis (fat) and other measures such as blood glucose and insulin due to emricasan, we would be cautious in drawing too much of a parallel between the drugs. That said, we note the positive Phase II data for emricasan in HCV treatment-failure patients demonstrating significant reductions in markers of liver cell death and inflammation (serum ALT, ALS, and cCK18). Conatus also has a Phase II study for emricasan ongoing in severe alcoholic steatosis (an IST) and may start a Phase II in chronic liver failure this half.
- ACLF endpoints surrogates becoming increasingly acceptable? One of the key tenets to the recent Intercept news is that NIDDK, and perhaps FDA, may be increasingly amenable to using surrogate markers for evaluating efficacy and clinical benefit in fibrotic liver diseases. In its ongoing phase II trial with emricasan in ACLF (data by mid '14), Conatus is looking at changes in blood ALT/AST and cCK18 as measures of disease severity and improvement. If the Intercept results have any predictive value for the emricasan program, it is likely in the use of Biomarkers as a surrogate for clinical benefit. We look forward to the phase II results to gauge the likelihood of success for emricasan in ACLF, and other liver fibrosis diseases.

#### RISKS TO ACHIEVEMENT OF PRICE TARGET

Principal risks to our price target include: 1) emergence of a safety signal or lack of efficacy; 2) new HCV anti-virals could reduce size of HCV-POLT market opportunity beyond our expectations 3) delay in emricasan to reach the market and 4) inability to raise capital.

## **COMPANY DESCRIPTION**

Conatus focuses on treatments for liver disease.

#### PRICE: US\$14.25

#### TARGET: US\$16.00

DCF of projected 2015-2028 free cash flows, 15% discount rate

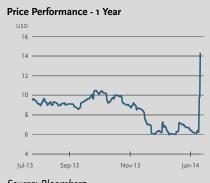
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Changes	Previous	Current
Rating	_	Overweight
Price Tgt	_	US\$16.00
FY13E Rev (mil)	_	US\$o.o
FY14E Rev (mil)	_	US\$o.o
FY13E EPS	_	US\$(1.14)
FY14E EPS	_	US\$(1.73)
52-Week High / Low	US\$15	.67 / US\$5.76
Shares Out (mil)		15.6
Market Cap. (mil)		US\$222.3
Avg Daily Vol (000)		116
Book Value/Share		US\$4.98
Net Cash Per Share		US\$5.11
Debt to Total Capital		0%
Yield		0.00%
Fiscal Year End		Dec



Source:	Blooi	mberg
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YEAR REVENUE (US\$ m)				EARNINGS PER SHARE (US\$)								
TEAR	Mar	Jun	Sep	Dec	FY	FY	Mar	Jun	Sep	Dec	FY	FY P/E
2012A	_	_	_	_	0.0	NA	_	_	_	_	(0.91)	NM
2013E	o.oA	o.oA	0.0	0.0	0.0	NA	(1.10)A	0.16A	(o.28)A	(0.28)	(1.14)	NM
2014E	0.0	0.0	0.0	0.0	0.0	NA	(0.32)	(0.38)	(0.46)	(0.57)	(1.73)	NM

Reflects Diluted Non-GAAP EPS

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**Updates on clinical plans.** The Phase IIb in ACLF remains on track for data this half. Conatus will start a Phase II in NASH this half as well. A Phase IIb for chronic liver failure (CLF) will start in 2H as will a Phase IIb in HCV-POLT patients with re-established fibrosis. The company earlier put the HCV-POLT program on "watch" following strong anti-HCV drug results, however, Conatus has come to the conclusion there remains an unmet need for treating re-established fibrosis.

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Conatus Pharmaceuticals Earnings Model	2012A	1Q 13A	2Q 13A	3Q 13A	4Q 13E	2013E	1Q 14E	2Q 14E	3Q 14E	4Q 14E	2014E	2015E	2016E
(\$ in 000s, except per share amounts)													
US Emricasan Sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Ex-US Emricasan Sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Product Sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0
Costs & Expenses:													
Cost of Goods Sold	0	0	0	0	0	0	0	0	0	0	0	0	0
R&D	5,528	968	1,117	1,886	3,111	7,082	3,609	4,403	5,548	7,212	20,772	23,264	27,452
SG&A	3,086	749	670	1,108	1,385	3,911	1,551	1,706	1,876	2,064	7,197	10,795	20,511
Total Operating Expenses	8,615	1,717	1,788	2,993	4,496	10,993	5,160	6,109	7,424	9,276	27,969	34,060	47,963
Operating Income	(8,614.6)	(1,717)	(1,788)	(2,993)	(4,496)	(10,993)	(5,160)	(6,109)	(7,424)	(9,276)	(27,969)	(34,060)	(47,963)
Interest Income	26	0	0	8	176	184	162	142	116	84	505	166	2,381
Interest Expense	(70)	(18)	(196)	(204)	0	(418)	0	0	0	0	0	0	0
Other income (expense), net	(90)	(563)	(2,890)	(131)	0	(3,584)	0	0	0	0	0	0	0
Pretax Income (Loss)	(8,749)	(2,297)	(4,873)	(3,321)	(4,320)	(14,811)	(4,997)	(5,966)	(7,308)	(9,193)	(27,464)	(33,893)	(45,582)
Provision for (benefit from) income taxes	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.0%	0.0%
Other	92	547	5,097	0	0	5,644	0	0	0	0	0	0	0
Net Income (Loss) GAAP	(8,658)	(1,750)	224	(3,321)	(4,320)	(9,167)	(4,997)	(5,966)	(7,308)	(9,193)	(27,464)	(33,893)	(45,582)
Stock option expense, tax adjusted	144	21	0	0	25	46	25	25	25	25	100	103	105
Other	90	563	0	12	0	575	0	0	0	0	0	0	0
Net Income (Loss) Non-GAAP	(8,423)	(1,165)	224	(3,309)	(4,295)	(8,546)	(4,972)	(5,941)	(7,283)	(9,168)	(27,364)	(33,791)	(45,477)
Diluted Earnings Per Share Non-GAAP	(\$0.91)	(\$1.10)	\$0.16	(\$0.28)	(\$0.28)	(\$1.14)	(\$0.32)	(\$0.38)	(\$0.46)	(\$0.57)	(\$1.73)	(\$1.29)	(\$1.69)
Earnings Per Share, Diluted Fully Taxed						nm					nm	nm	nm
Basic Earnings Per Share Non-GAAP	(\$0.91)	(\$1.10)	\$0.20	(\$0.28)	(\$0.28)	(\$1.16)	(\$0.32)	(\$0.38)	(\$0.46)	(\$0.57)	(\$1.73)	(\$1.29)	(\$1.71)
Diluted Earnings Per Share GAAP	(\$0.94)	(\$1.29)	\$0.16	(\$0.28)	(\$0.28)	(\$1.22)	(\$0.32)	(\$0.38)	(\$0.46)	(\$0.58)	(\$1.74)	(\$1.29)	(\$1.69)
Basic Earnings Per Share GAAP	(\$0.94)	(\$1.65)	\$0.20	(\$0.28)	(\$0.28)	(\$1.25)	(\$0.32)	(\$0.38)	(\$0.46)	(\$0.58)	(\$1.74)	(\$1.29)	(\$1.71)
Diluted Shares Outstanding (000s)	9,255	1,361	1,439	11,664	15,576	7,510	15,669	15,762	15,856	15,951	15,809	26,270	26,927
Basic Shares Outstanding (000s)	9,255 9,255	1,061	1,439	11,664	15,576	7,360	15,669	15,762	15,856	15,951	15,809	26,270 26,190	26,583
Dasic Strates Outstationly (0005)	9,200	1,001	1,139	11,004	15,576	1,300	13,009	15,702	13,030	13,931	13,609	20,190	20,000

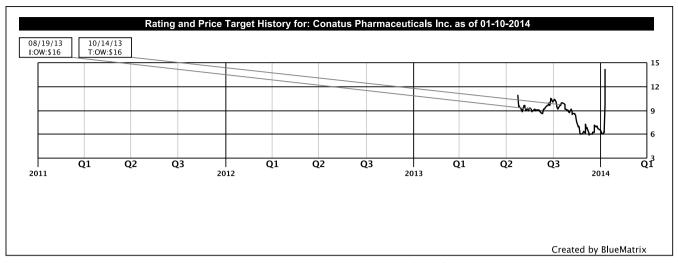
Proprietary to Piper Jaffray & Co. January 13, 2014

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Legend:

I: Initiating Coverage

R: Resuming Coverage

T: Transferring Coverage

D: Discontinuing Coverage

S: Suspending Coverage

OW: Overweight

N: Neutral

UW: Underweight NA: Not Available UR: Under Review

Distribution of Ratings/IB Services Piper Jaffray								
			IB Serv.	/Past 12 Mos.				
Rating	Count	Percent	Count	Percent				
BUY [OW]	347	58.22	73	21.04				
HOLD [N]	228	38.26	22	9.65				
SELL [UW]	21	3.52	0	0.00				

Note: Distribution of Ratings/IB Services shows the number of companies currently in each rating category from which Piper Jaffray and its affiliates received compensation for investment banking services within the past 12 months. FINRA rules require disclosure of which ratings most closely correspond with "buy," "hold," and "sell" recommendations. Piper Jaffray ratings are not the equivalent of buy, hold or sell, but instead represent recommended relative weightings. Nevertheless, Overweight corresponds most closely with buy, Neutral with hold and Underweight with sell. See Stock Rating definitions below.

# Analyst Certification — Charles C. Duncan, PhD, Sr. Research Analyst — Roy Buchanan, Ph.D., Research Analyst

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