# PiperJaffray.

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

# Overweight

## Emricasan – Pipeline in a Product with Near Term Data

#### CONCLUSION

We recently met with Conatus's management and as a result of this and other diligence we have enhanced perspective on emricasan's potential in the spectrum of liver disease (Exhibit 1). We believe the potential for emricasan to become a pipeline in a product has been out of focus from delayed HCV-POLT trials. However, our view is that liver disease should not be seen as distinct diseases, but a continuum and emricasan's activity towards a fundamental cell-survival mechanism suggests it may produce benefits across a wide range of liver disease states.

- Biomarker/PK data by YE or earlier from ACLF may require interpretation but correlating cCK18 changes with clinical benefit should validate potential in not only ACLF, but more broadly, other liver diseases as well. With a wholly-owned, largemarket-potential drug that has been de-risked with previous Pfizer-sponsored work and will be further de-risked with upcoming data, we believe this is a pipeline in a drug that could raise interest with strategic and institutional investors soon. We reiterate our Overweight rating and \$16 price target on Conatus.
- Recall that emricasan is a pan-caspase inhibitor targeting both the apoptotic (celldeath) and inflammatory types of this cellular enzyme class. Apoptotic enzymes directly cleave cytokeritin 18 (CK18) to produce cCK18. Some studies suggest that cCK18 may increase inflammation, resulting in a deleterious feedback loop in the liver (Exhibit 2). Conatus believes cCK18 goes beyond being a simple biomarker and hopes to establish it as an acceptable endpoint for its pivotal studies. We may gain greater clarity on this point, particularly regarding fibrosis and NASH, at an upcoming meeting on June 21st and 22nd in Chicago: Emerging Trends in Antifibrotic Drug Trials: Strategies and Endpoints.

#### 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\$5.78 TARGET: US\$16.00

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

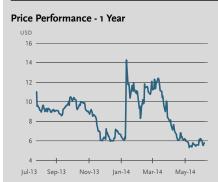
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Changes	Previous	Current
Rating	_	Overweight
Price Tgt	_	US\$16.00
FY14E Rev (mil)	_	US\$o.o
FY15E Rev (mil)	_	US\$o.o
FY14E EPS	_	US\$(1.78)
FY15E EPS	_	US\$(1.31)
52-Week High / Low	US\$15.	.67 / US\$5.06
Shares Out (mil)		15.4
Market Cap. (mil)		US\$89.0
Avg Daily Vol (000)		371
Book Value/Share		US\$3.10
Net Cash Per Share		US\$3.30
Debt to Total Capital		0%
Yield		0.00%
Fiscal Year End		Dec



Source: Bloomberg

YEAR REVENUE (US\$ m)				EARNINGS PER SHARE (US\$)								
TEAR	Mar	Jun	Sep	Dec	FY	FY	Mar	Jun	Sep	Dec	FY	FY P/E
2013A	0.0	0.0	0.0	0.0	0.0	NA	(1.29)	0.16	(0.28)	(0.33)	(0.63)	NM
2014E	o.oA	0.0	0.0	0.0	0.0	NA	(0.34)A	(0.38)	(0.47)	(0.59)	(1.78)	NM
2015E	_	_	_	_	0.0	NA	_	_	_	_	(1.31)	NM

Reflects Diluted Earnings Per Share GAAP

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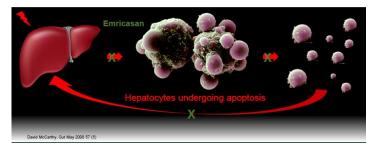
June 9, 2014

Near term data should enhance conviction on efficacy and safety. Emricasan has been studied in 6 Phase I and 4 Phase II studies. We believe safety fears have been largely allayed considering that over 500 patients have been investigated. That said, individual patient populations, with varying levels of liver function, will need to be adequately investigated. The most recently initiated study, a Phase IIb in HCV-POLT is a 2 year study but is not blinded to Conatus and should help inform on signals of efficacy, as well as safety. Interim data is expected 1H15. Beyond the ACLF Phase 2 data in 2H14, the Phase II in NASH should produce data in 2H and a CLF study start 2H14.

#### Exhibit 1

#### CCK18 - MORE THAN A BIOMARKER

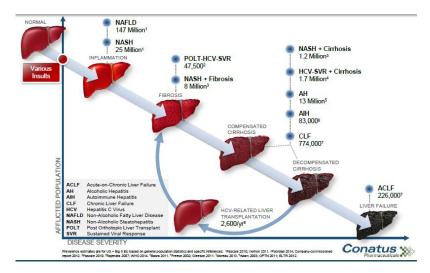
- Caspase-driven apoptosis releases highly pro-inflammatory microvesicles
  - Measured as elevated cCK18 in serum by commercial laboratory test
- Increased inflammation escalates insult to liver
  - Higher cCK18 levels linked to greater severity of liver disease
- · Emricasan reduces apoptosis and microvesicle production
  - Confirmed by reduction of elevated cCK18 levels



Source: Company reports

#### Exhibit 2

#### SPECTRUM OF LIVER DISEASE



Source: Company reports

Conatus Pharmaceuticals Earnings Model	2012A	1Q 13A	2Q 13A	3Q 13A	4Q 13	2013A	1Q 14	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	2,977	6,947	3,651	4,454	5,612	7,295	21,011	23,533	27,768
SG&A	3,086	749	670	1,108	2,124	4,651	1,595	1,755	1,930	2,123	7,404	11,105	21,100
Total Operating Expenses	8,615	1,717	1,788	2,993	5,101	11,598	5,246	6,209	7,542	9,418	28,415	34,638	48,869
Operating Income	(8,614.6)	(1,717)	(1,788)	(2,993)	(5,101)	(11,598)	(5,246)	(6,209)	(7,542)	(9,418)	(28,415)	(34,638)	(48,869)
Interest Income	26	0	0	8	14	22	21	255	235	202	713	639	2,850
Interest Expense	(70)	(18)	(196)	(204)	(45)	(463)	(18)	0	0	0	(18)	0	0
Other income (expense), net	(90)	(563)	(2,890)	(131)	6	(3,578)	(1)	0	0	0	(1)	0	0
Pretax Income (Loss)	(8,749)	(2,297)	(4,873)	(3,321)	(5,126)	(15,616)	(5,243)	(5,953)	(7,307)	(9,216)	(27,720)	(33,999)	(46,018)
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	2	0	0	0	2	0	0
Net Income (Loss) GAAP	(8,658)	(1,750)	224	(3,321)	(5,126)	(9,972)	(5,241)	(5,953)	(7,307)	(9,216)	(27,718)	(33,999)	(46,018)
Stock option expense, tax adjusted	144	21	0	0	25	46	25	25	25	25	100	103	105
Other	90	563	0	12	(6)	569	1	0	0	0	1	0	0
Net Income (Loss) Non-GAAP	(8,423)	(1,165)	224	(3,309)	(5,107)	(9,357)	(5,215)	(5,928)	(7,282)	(9,191)	(27,617)	(33,897)	(45,913)
Diluted Earnings Per Share Non-GAAP	(\$0.91)	(\$1.10)	\$0.16	(\$0.28)	(\$0.33)	(\$1.27)	(\$0.34)	(\$0.38)	(\$0.47)	(\$0.59)	(\$1.78)	(\$1.30)	(\$1.72)
Earnings Per Share, Diluted Fully Taxed						nm					nm	nm	nm
Basic Earnings Per Share Non-GAAP	(\$0.91)	(\$1.10)	\$0.20	(\$0.28)	(\$0.33)	(\$1.27)	(\$0.34)	(\$0.38)	(\$0.47)	(\$0.59)	(\$1.78)	(\$1.31)	(\$1.74)
Diluted Earnings Per Share GAAP	(\$0.94)	(\$1.29)	\$0.16	(\$0.28)	(\$0.33)	(\$0.63)	(\$0.34)	(\$0.38)	(\$0.47)	(\$0.59)	(\$1.78)	(\$1.31)	(\$1.73)
Basic Earnings Per Share GAAP	(\$0.94)	(\$1.65)	\$0.20	(\$0.28)	(\$0.33)	(\$1.36)	(\$0.34)	(\$0.38)	(\$0.47)	(\$0.59)	(\$1.78)	(\$1.31)	(\$1.75)
Diluted Shares Outstanding (000s)	9.255	1.361	1.439	11,664	15,353	7.358	15.412	15,505	15,597	15,690	15,551	26.004	26.654
Basic Shares Outstanding (000s)	9,255	1.061	1,139	11,664	15,353	7,358	15,412	15,505	15,597	15,690	15,551	25,926	26,315
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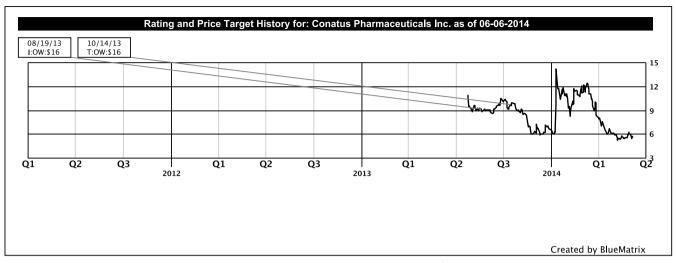
Proprietary to Piper Jaffray & Co. June 9, 2014

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R: Resuming Coverage

T: Transferring Coverage

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S: Suspending Coverage

OW: Overweight

N: Neutral

UW: Underweight NA: Not Available UR: Under Review

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			IB Serv.	IB Serv./Past 12 Mos.				
Rating	Count	Percent	Count	Percent				
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HOLD [N]	203	35.43	21	10.34				
SELL [UW]	16	2.79	0	0.00				

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

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Conatus Pharmaceuticals Inc. Page 4 of 54



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