

## Conatus Pharmaceuticals Inc. (CNAT)

Overweight

Data Driven Phase 3 Plan Could Become More Visible in 2H14

### CONCLUSION

We recently hosted Conatus management for meetings with investors and have enhanced clarity on timing and the decision tree that will be deployed to determine next, perhaps pivotal, steps in the emricasan development program. Based on our discussions, we believe that most investors are focused primarily on the upcoming acute-on-chronic liver failure (ACLF) Phase II biomarker and PK data yet this year that may define the path forward to Phase III. Three possible paths that we can see: 1) ACLF, 2) CLF (chronic liver failure) for patients not on a transplant list, and 3) HCV-POLT (post-orthotopic liver transplant, reinfected with HCV and displaying fibrosis). As the potential clinical utility and regulatory path for emricasan becomes clearer in the eyes of investors, we expect share price appreciation for Conatus. We reiterate our Overweight rating and \$16 price target.

- **ACLF data on its way.** Management has guided to the ACLF data by or before YE and we expect this and other info to define a Phase III path (in ACLF, CLF, or otherwise) within next 6-12 months. The most important of the ACLF data, in our view, is likely to be a correlation of cleaved cyokeratin 18 (cCK18) with clinical outcomes including liver function and time to clinical worsening. Recall that Conatus sees this as more than a “signal biomarker” but one that plays a role in perpetuating the disease process. Additionally, the company hopes to establish changes in cCK18 levels as a primary endpoint for future studies. Also in the 2nd half, Conatus expects top-line data from the Phase II in NAFLD/NASH, as well as pK information for patients with/without multi-organ liver/renal failure (Exhibit 1 has a table of current NAFLD/NASH studies that we are aware of). Data from the HCV-POLT study is anticipated in 2017, however, the study is open to Conatus (though not to patients or physicians), allowing for interim data analyses (the 1st one in 1H15) that may help shape other development programs as well.

### 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\$7.61

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\$0.0    |
| FY15E Rev (mil)       | —                    | US\$0.0    |
| 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\$117.2            |            |
| Avg Daily Vol (ooo)   | 703                  |            |
| 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                  |            |

### Price Performance - 1 Year



Source: Bloomberg

| YEAR  | REVENUE (US\$ m) |     |     |     |     |    | EARNINGS PER SHARE (US\$) |        |        |        |        |        |
|-------|------------------|-----|-----|-----|-----|----|---------------------------|--------|--------|--------|--------|--------|
|       | 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 | 0.0A             | 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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We anticipate that strategies for development will be right sized for a capital constrained small biotechnology company. For the larger market opportunities (NASH, NAFLD) or those with more challenging/undefined endpoints and patient populations (also NASH, possibly ACLF), we expect Conatus will seek partnerships to support development. Indications with more clearly defined endpoints (delay in progression from compensated to decompensated status in CLF patients, or resolution of fibrosis in HCV-POLT) and manageable market size (again, HCV-POLT with ~50k U.S. patients, for example), we expect Conatus probably will retain ownership. Regarding an outline of its Phase III plans in terms of indication and protocol specifics, we will need to wait additional data and the completion of multifactorial analyses of clinical endpoints/regulatory path/commercial opportunity, as well as differentiation based on emricasan mechanism. However, we believe that management has a firm grasp of the possible scenarios and costs, as well as need for enhanced visibility and certainty in the institutional investor community. Thus, we guesstimate that a Phase III program in, for example ACLF, could involve a 6 month study of ~400 patients with a total cost of ~\$50mm. Finally, the company reiterated previous guidance to end FY14 with \$28-32mm on its balance sheet.

Exhibit 1

**NASH/NAFLD STUDIES**

| Drug                     | Sponsor              | Indication                | Mechanism                                 | Status                         | Possible next data           |
|--------------------------|----------------------|---------------------------|---|--------------------------------|------------------------------|
| Emricasan                | Conatus              | NAFLD/NASH                | Pan-caspase inhibitor                     | In Phase II                    | YE14                         |
| GFT-505                  | Genfit               | NASH                      | Oral PPAR- $\alpha$ /8( $\beta$ ) agonist | In Phase IIb                   | 1Q15                         |
| OCA                      | Intercept            | NASH                      | Oral FXR agonist                          | Phase IIb stopped on + interim | Full IIb data at AASLD (Nov) |
| OCA                      | Intercept            | Primary biliary cirrhosis | Oral FXR agonist                          | In Phase II                    | Data late-'14/early-'15      |
| OCA                      | Intercept/Dainippon  | NASH                      | Oral FXR agonist                          | In Phase II                    | 2015                         |
| Simtuzumab               | Gilead               | NASH w/ advanced fibrosis | Lysyl Oxidase-Like Molecule 2 inhibitor   | In Phase II                    | Possible interim mid-'15     |
| Metreleptin              | NIDDK                | NAFLD/NASH                | Leptin receptor agonist                   | In Phase II                    | 2H15?                        |
| Losartan                 | Newcastle University | NASH                      | ARB                                       | In Phase III                   | late-'14/early-'15?          |
| Ezetimibe                | UCSD                 | NASH                      | Inhibits cholesterol absorption           | In Phase II                    | 2015                         |
| Sitagliptin              | UCSD                 | NASH                      | DPP-4 inhibitor                           | Phase II ready                 | 2016                         |
| Vitamin E                | NIDDK                | NAFLD                     | Antioxidant                               | In Phase II                    | 2018                         |
| S-adenosyl-L-methionine  | Abbott               | NAFLD                     | Methyl transfer                           | In Phase II                    | 2H14?                        |
| Roflumilast/Pioglitazone | Takeda               | NASH                      | PDE-4 inhibitor/DPP-4 inhibitor           | In Phase II                    | 2014                         |
| GR-MD-02                 | Galectin             | NASH w/ advanced fibrosis | GAL-3 inhibitor                           | In Phase I                     | 2H14                         |

Source: Piper Jaffray, clinicaltrials.gov

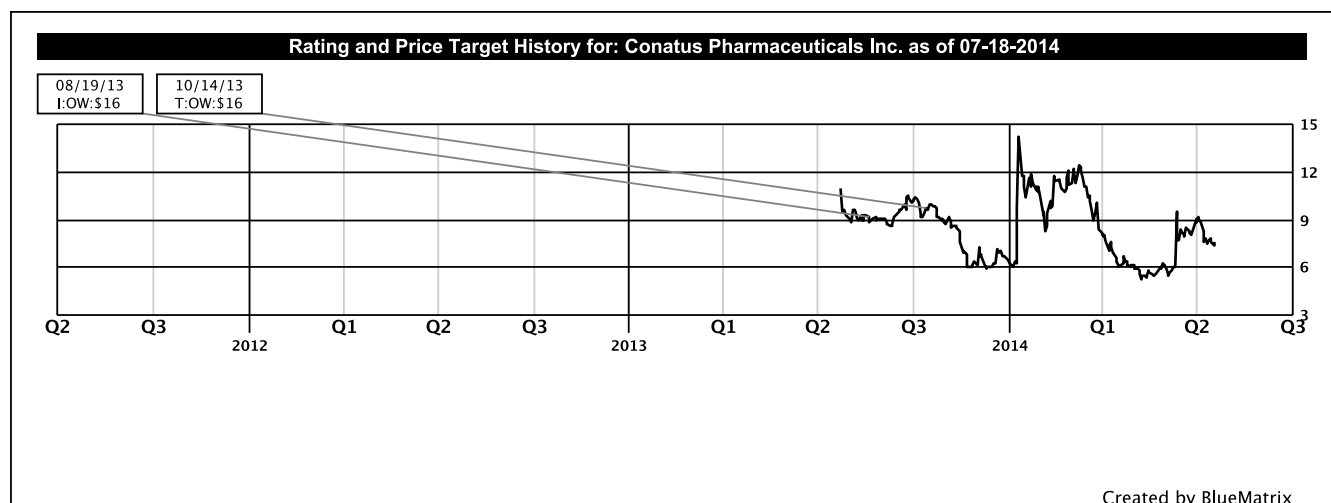
| <b>Conatus Pharmaceuticals Earnings Model</b> | <b>2012A</b>     | <b>1Q 13A</b>   | <b>2Q 13A</b>  | <b>3Q 13A</b>   | <b>4Q 13</b>    | <b>2013A</b>    | <b>1Q 14</b>    | <b>2Q 14E</b>   | <b>3Q 14E</b>   | <b>4Q 14E</b>   | <b>2014E</b>    | <b>2015E</b>    | <b>2016E</b>    |
|---|------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <i>(\$ in 000s, except per share amounts)</i> |                  |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 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               |
| <b>Total Product Sales</b>                    | <b>0</b>         | <b>0</b>        | <b>0</b>       | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        |
| <b>Total Revenues</b>                         | <b>0</b>         | <b>0</b>        | <b>0</b>       | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        |
| <b>Costs &amp; Expenses:</b>                  |                  |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| 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          |
| <b>Operating Income</b>                       | <b>(8,614.6)</b> | <b>(1,717)</b>  | <b>(1,788)</b> | <b>(2,993)</b>  | <b>(5,101)</b>  | <b>(11,598)</b> | <b>(5,246)</b>  | <b>(6,209)</b>  | <b>(7,542)</b>  | <b>(9,418)</b>  | <b>(28,415)</b> | <b>(34,638)</b> | <b>(48,869)</b> |
| 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               |
| <b>Pretax Income (Loss)</b>                   | <b>(8,749)</b>   | <b>(2,297)</b>  | <b>(4,873)</b> | <b>(3,321)</b>  | <b>(5,126)</b>  | <b>(15,616)</b> | <b>(5,243)</b>  | <b>(5,953)</b>  | <b>(7,307)</b>  | <b>(9,216)</b>  | <b>(27,720)</b> | <b>(33,999)</b> | <b>(46,018)</b> |
| 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               |
| <b>Net Income (Loss) GAAP</b>                 | <b>(8,658)</b>   | <b>(1,750)</b>  | <b>224</b>     | <b>(3,321)</b>  | <b>(5,126)</b>  | <b>(9,972)</b>  | <b>(5,241)</b>  | <b>(5,953)</b>  | <b>(7,307)</b>  | <b>(9,216)</b>  | <b>(27,718)</b> | <b>(33,999)</b> | <b>(46,018)</b> |
| 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               |
| <b>Net Income (Loss) Non-GAAP</b>             | <b>(8,423)</b>   | <b>(1,165)</b>  | <b>224</b>     | <b>(3,309)</b>  | <b>(5,107)</b>  | <b>(9,357)</b>  | <b>(5,215)</b>  | <b>(5,928)</b>  | <b>(7,282)</b>  | <b>(9,191)</b>  | <b>(27,617)</b> | <b>(33,897)</b> | <b>(45,913)</b> |
| <b>Diluted Earnings Per Share Non-GAAP</b>    | <b>(\$0.91)</b>  | <b>(\$1.10)</b> | <b>\$0.16</b>  | <b>(\$0.28)</b> | <b>(\$0.33)</b> | <b>(\$1.27)</b> | <b>(\$0.34)</b> | <b>(\$0.38)</b> | <b>(\$0.47)</b> | <b>(\$0.59)</b> | <b>(\$1.78)</b> | <b>(\$1.30)</b> | <b>(\$1.72)</b> |
| 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)        |
| <b>Diluted Earnings Per Share GAAP</b>        | <b>(\$0.94)</b>  | <b>(\$1.29)</b> | <b>\$0.16</b>  | <b>(\$0.28)</b> | <b>(\$0.33)</b> | <b>(\$0.63)</b> | <b>(\$0.34)</b> | <b>(\$0.38)</b> | <b>(\$0.47)</b> | <b>(\$0.59)</b> | <b>(\$1.78)</b> | <b>(\$1.31)</b> | <b>(\$1.73)</b> |
| 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)        |
| <b>Diluted Shares Outstanding (000s)</b>      | <b>9,255</b>     | <b>1,361</b>    | <b>1,439</b>   | <b>11,664</b>   | <b>15,353</b>   | <b>7,358</b>    | <b>15,412</b>   | <b>15,505</b>   | <b>15,597</b>   | <b>15,690</b>   | <b>15,551</b>   | <b>26,004</b>   | <b>26,654</b>   |
| 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          |

Proprietary to Piper Jaffray & Co. July 20, 2014

CNAT: Charles Duncan, 212-284-5025

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R: Resuming Coverage  
T: Transferring Coverage  
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N: Neutral  
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UR: Under Review

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|--|-------|---------|-----------------------|---------|
| Rating   | Count | Percent | IB Serv./Past 12 Mos. |         |
|  |       |         | Count                 | Percent |
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| HOLD [N]   | 203   | 35.37   | 20                    | 9.85    |
| SELL [UW]  | 14    | 2.44    | 0                     | 0.00    |

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