Conatus Pharmaceuticals

Liver Cirrhosis

6-month Top-line Results

May 5, 2016

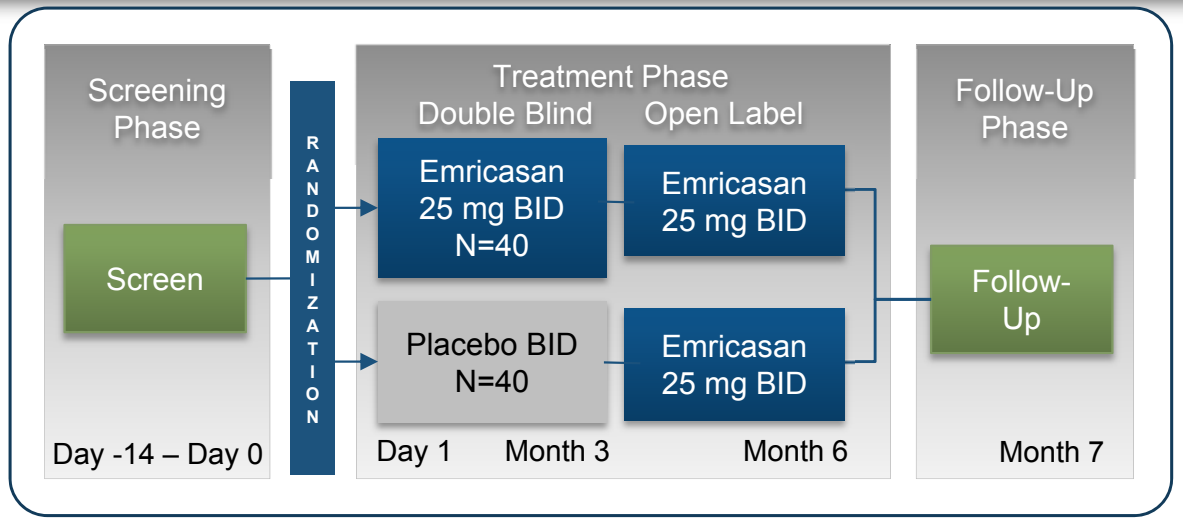
Forward-looking Statements

This presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position, business strategy, prospective products, product approvals, research and development costs, timing and likelihood of success, plans and objectives of management for future operations, and future results of current and anticipated products are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These known risks and uncertainties are described in detail in our filings made with the Securities and Exchange Commission from time to time. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements.

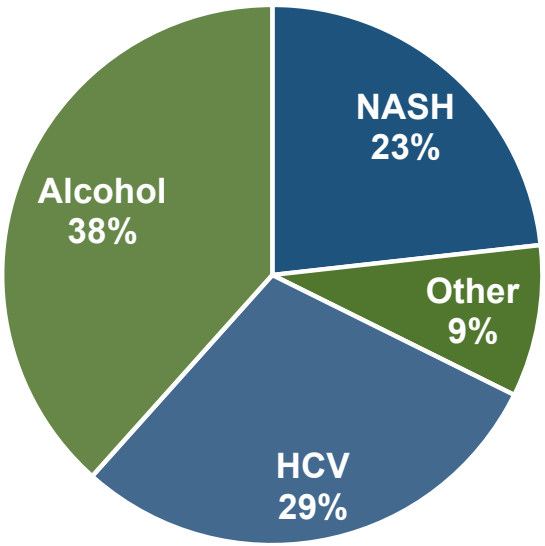
All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and we undertake no obligation to revise or update this presentation to reflect events or circumstances after the date hereof.

Conatus Pharmaceuticals

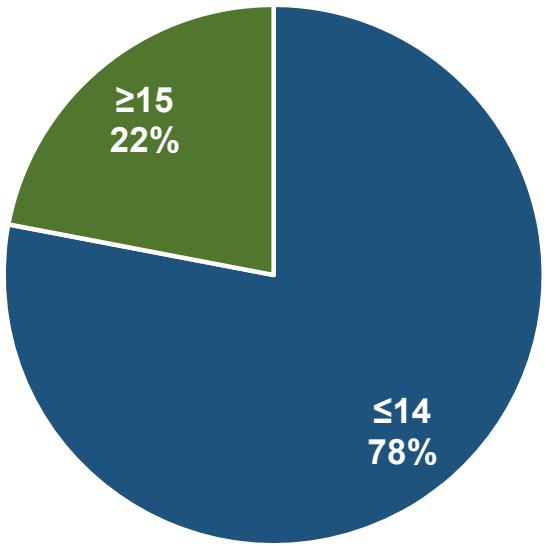
Liver Cirrhosis Phase 2 Trial



- Double-blind, placebo controlled (3 months), multicenter (26 U.S. sites) Phase 2
  - 86 patients enrolled and dosed
  - Open label continuation (3 months)
  - Multiple etiologies of cirrhosis
- Baseline MELD 11 to 18
  - Mean of 12.8 at baseline
- Child-Pugh
  - 43% Child-Pugh A
  - 56% Child-Pugh B
  - Mean of 6.9 at baseline



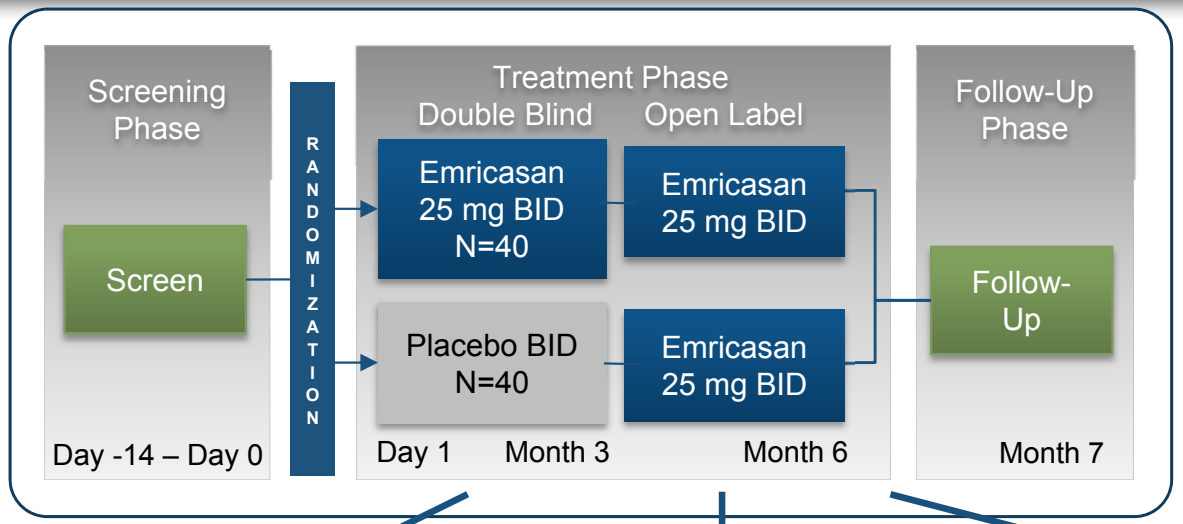
Etiology



Baseline MELD Score

Conatus Pharmaceuticals

Liver Cirrhosis Phase 2 Trial: Three Trials in One



Traditional 3-month double-blind randomized placebo-controlled study

Emricasan

Placebo

P-value for "treatment effect"

6-month "open-label" study

Emricasan | Emricasan

Comparison to baseline (Day 1)

3-month "natural history" study followed by 3-month "open-label" study

Placebo | Emricasan

Comparison to baseline (Month 3)

Conatus Pharmaceuticals

Baseline Disease Characteristics and Labs: Generally Well Distributed

	Placebo (N=42)	Emricasan (N=44)	All Subjects (N=86)
MELD score (mean, SD)	12.9±2.6	12.8±2.1	12.8±2.4
MELD ≤ 14	32 (76.2%)	35 (79.5%)	67 (77.9%)
MELD ≥ 15	10 (23.8%)	9 (20.5%)	19 (22.1%)
Child-Pugh score (mean, SD)	6.9±1.2	6.9±1.3	6.9±1.2
Child-Pugh A	15 (35.7%)	22 (50.0%)	37 (43.0%)
Child-Pugh B	26 (61.9%)	22 (50.0%)	48 (55.8%)
Child-Pugh C	1 (2.4%)	0 (0%)	1 (1.2%)
Disease Etiology			
Alcohol	15 (35.7%)	18 (40.9%)	33 (38.4%)
HCV	16 (38.1%)	9 (20.5%)	25 (29.1%)
NASH	9 (21.4%)	11 (25.0%)	20 (23.3%)
Other	2 (4.8%)	6 (13.6%)	8 (9.3%)
ALT (U/L)	30.1 ± 17.5	31.7 ± 14.9	30.9 ± 16.1
AST (U/L)	50.0 ± 28.1	54.3 ± 22.0	52.2 ± 25.1
Total bilirubin (mg/dL)	2.59 ± 1.49	2.25 ± 1.12	2.41 ± 1.32
Albumin (g/dL)	3.48 ± 0.54	3.46 ± 0.41	3.47 ± 0.47
INR	1.31 ± 0.18	1.33 ± 0.17	1.32 ± 0.18
Creatinine (mg/dL)	0.74 ± 0.30	0.81 ± 0.31	0.77 ± 0.30

Conatus Pharmaceuticals

AEs Generally Balanced Between Treatment Groups

Overall safety profile similar to control

AEs occurring in >5% of emricasan 3-month treated subjects	Treatment Group				
	Placebo 3 month (N=42)	Emricasan 3 month (N=44)	Pbo to Emricasan 3 month* (N=34)	Emricasan 3 mo + Pbo to emricasan 3 month* (N=78)	Emricasan 6 month (N=44)
Headache	3 (7%)	7 (16%)	1 (3%)	8 (10%)	7 (16%)
Nausea	4 (10%)	7 (16%)	6 (18%)	13 (17%)	9 (21%)
Hepatic encephalopathy	2 (5%)	5 (11%)	3 (9%)	8 (10%)	7 (16%)
Vomiting	1 (2%)	5 (11%)	1 (3%)	6 (8%)	6 (14%)
Fatigue	6 (14%)	4 (9%)	2 (6%)	6 (8%)	5 (11%)
Abdominal pain	3 (7%)	3 (7%)	1 (3%)	4 (5%)	3 (7%)
Arthralgia	0	3 (7%)	0	3 (4%)	4 (9%)
Urinary tract infection	1 (2%)	3 (7%)	0	3 (4%)	5 (11%)

*Includes 34 subjects treated with placebo for 3 months (baseline for this group is M3 visit prior to first dose of emricasan)

Conatus Pharmaceuticals

Clinical Endpoints for Accelerated Approval in Liver Cirrhosis Clinical Trials

- Publication from AASLD/FDA Joint Workshop provided comments on potential surrogate endpoints for cirrhosis trials*
- Model for End-Stage Liver Disease (MELD)
  - Predicts survival, measures of liver function; objective measure, validated
  - 2 point change in MELD score or lack of progression to MELD score of 15 as potential surrogate endpoints (disease state dependent)
  - **MELD components: Total bilirubin, creatinine, INR; values under 1.0 rounded to 1.0 in MELD calculation; ≥15 is transplant eligible**
- Child-Pugh
  - Predicts survival, measures of liver and clinical function; objective-subjective measure, validated
  - 2 point change in Child-Pugh score or lack of progression from CP-A to CP-B as potential surrogate endpoints (disease state dependent)
  - **Child-Pugh components: Total bilirubin, albumin, INR, encephalopathy, ascites; A = 5-6; B = 7-9; C = 10-15**

*Sanyal, AJ, et al. *Hepatology* 2015;61:1392-1405.

Conatus Pharmaceuticals

Emricasan Dosing in Overall Patient Population

3-month dosing shows treatment effect trends toward improving parameters of liver function

Overall Patient Population	Placebo (N=42)		Emricasan (N=44)			Month 3 p-value*
	Baseline	Change at Month 3†	Baseline	Change at Month 3†	Change at Month 6†	
MELD score	12.9	+0.1	12.8	–0.1	–0.3	0.466
Child-Pugh score	6.9	+0.1	6.9	–0.2	–0.3	0.124
Total bilirubin (mg/dL)	2.59	+0.07	2.25	–0.05	–0.05	0.209
INR	1.31	+0.02	1.33	–0.02	–0.04	0.117
Albumin (g/dL)	3.48	+0.06	3.46	+0.02	+0.06	0.440

Directional improvement continues through month 6

***p-values for treatment effect at Month 3, based on adjusted LSMeans from the primary ANCOVA model with baseline value and treatment group; not adjusted for multiple testing.**
†Based on last observation carried forward.

Conatus Pharmaceuticals

Emricasan Dosing in High MELD (≥15) Patient Subgroup

Emricasan improves liver function treatment effect parameters in High MELD patients

Baseline MELD Score ≥15 Patient Population	Placebo (N=10)		Emricasan (N=9)			Month 3 p-value*
	Baseline	Change at Month 3†	Baseline	Change at Month 3†	Change at Month 6†	
MELD score	16.3	+0.6	16.0	–1.6	–2.8	0.003
Child-Pugh score	8.2	+0.6	7.8	–0.6	–0.7	0.003
Total bilirubin (mg/dL)	4.30	–0.06	3.17	–0.55	–0.65	0.029
INR	1.45	+0.06	1.54	–0.14	–0.21	<0.001
Albumin (g/dL)	3.19	+0.05	3.41	+0.07	+0.10	0.779

Directional improvement continues through month 6

*p-values for treatment effect at Month 3, based on adjusted LSMeans from the secondary ANCOVA model with baseline value, treatment group, baseline MELD category, etiology, treatment and MELD category interaction, and treatment and etiology interaction; not adjusted for multiple testing.

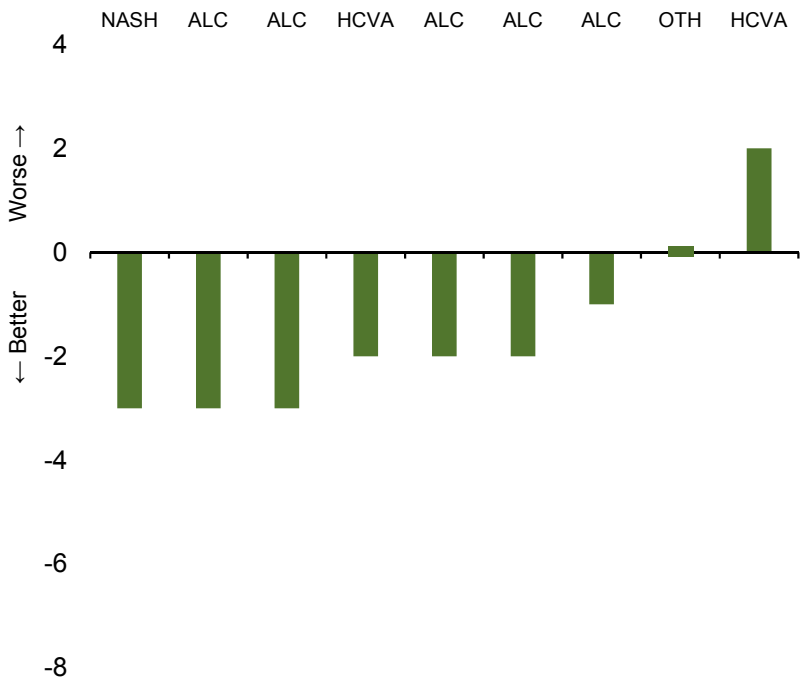
†Based on last observation carried forward.

Conatus Pharmaceuticals

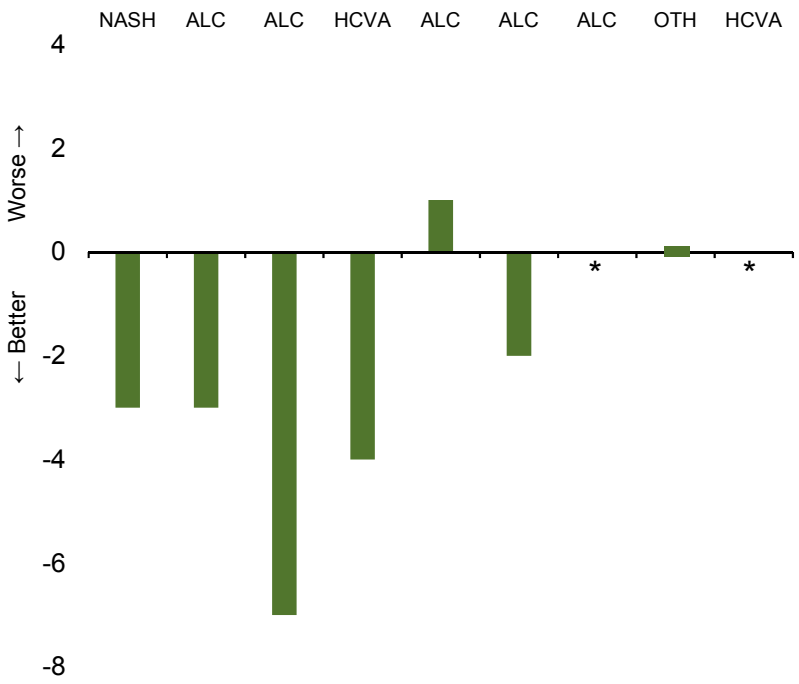
MELD Change in High MELD: Patients on Emricasan for 6 Months

Improvements in MELD generally sustained through month 6

Change in MELD after 3-mo emricasan



Change in MELD after 6-mo emricasan



***Early termination**

Baseline to Month 3 change using LOCF
Baseline to Month 6 change using observed data

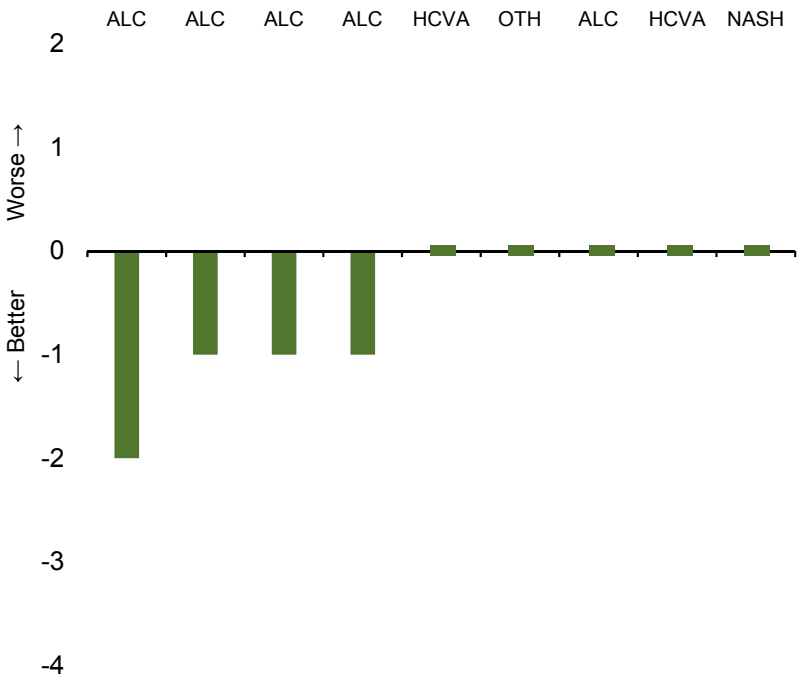
Etiologies: NASH, Alcohol (ALC), HCV-active (HCVA), HCV-SVR (HCVS), other (OTH)

Conatus Pharmaceuticals

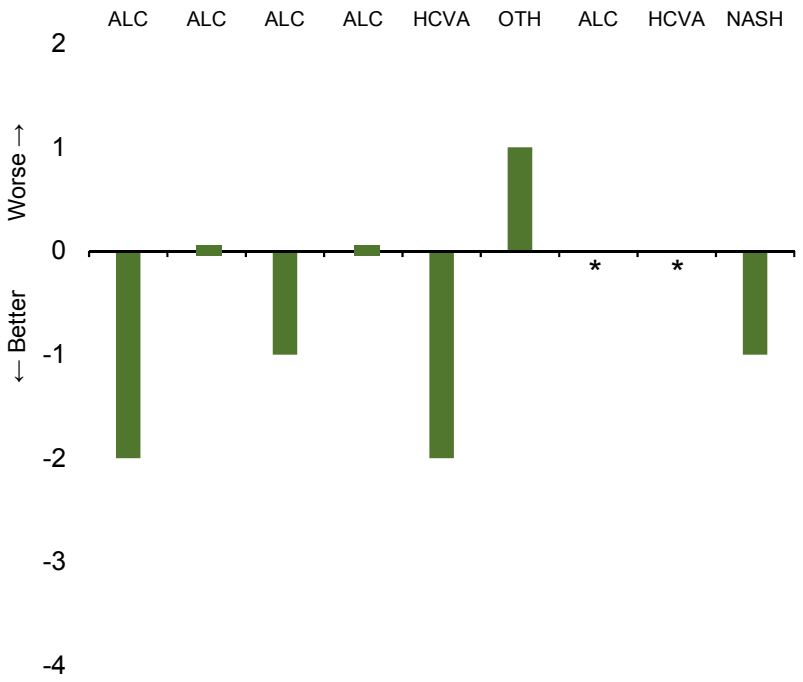
Child-Pugh Change in High MELD: Patients on Emricasan for 6 Months

Improvements in C-P Score observed through month 6

Change in C-P after 3-mo emricasan



Change in C-P after 6-mo emricasan



***Early termination**

Baseline to Month 3 change using LOCF
Baseline to Month 6 change using observed data

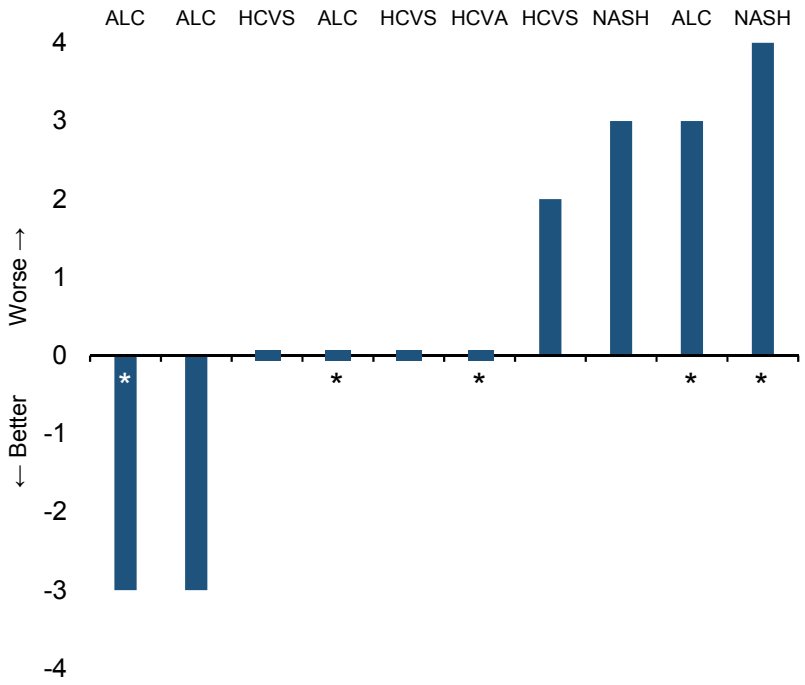
Etiologies: NASH, Alcohol (ALC), HCV-active (HCVA), HCV-SVR (HCVS), other (OTH)

Conatus Pharmaceuticals

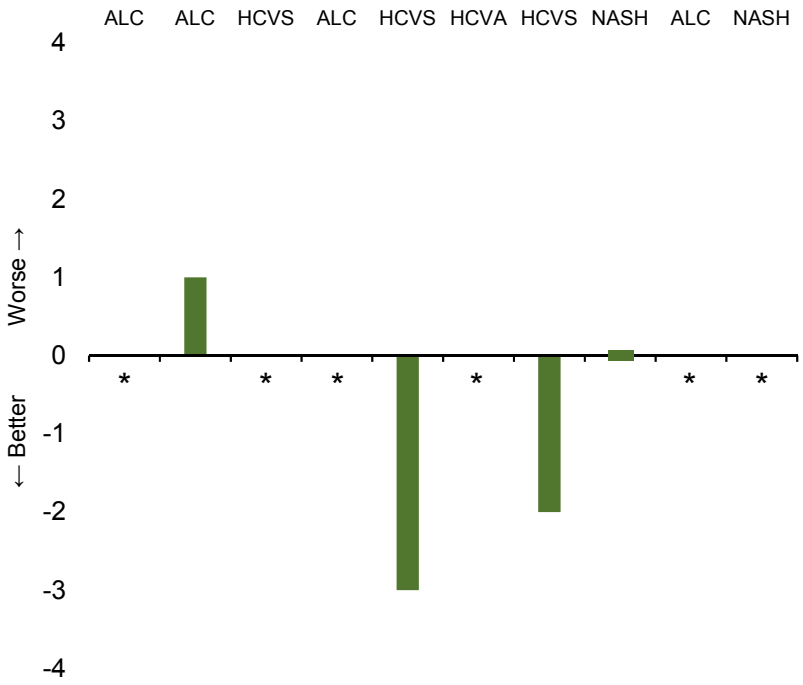
MELD Change in High MELD: Patients on Placebo for 3 Months Followed by Emricasan for 3 Months

Limited number of patients with data at 6 months due to 5 early terminations prior to month 3

Change in MELD after 3-mo placebo



Change in MELD after 3-mo emricasan



***Early termination**

Baseline to Month 3 change using LOCF
Month 3 to Month 6 change using observed data

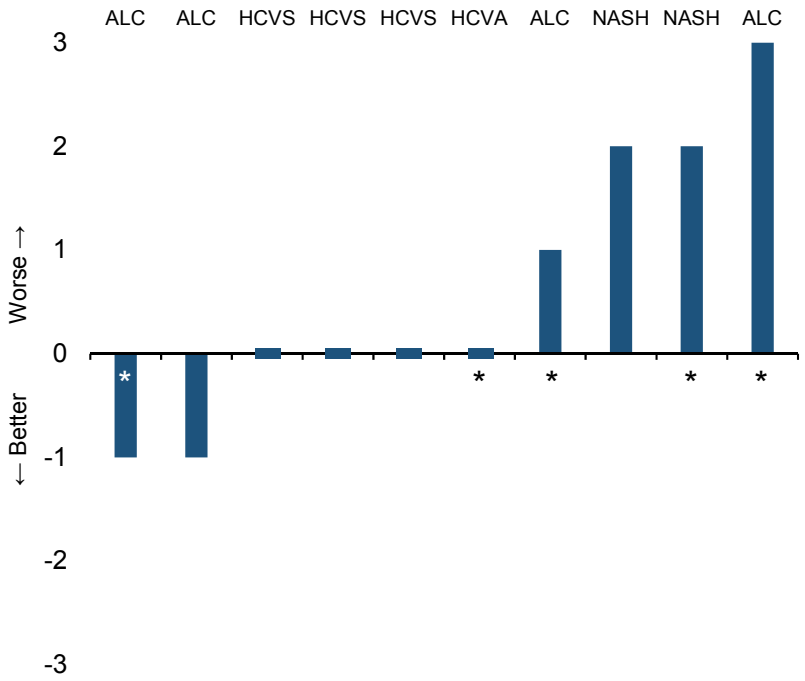
Etiologies: NASH, Alcohol (ALC), HCV-active (HCVA), HCV-SVR (HCVS), other (OTH)

Conatus Pharmaceuticals

Child-Pugh Change in High MELD: Patients on Placebo for 3 Months Followed by Emricasan for 3 Months

Limited number of patients with data at 6 months due to 5 early terminations prior to month 3

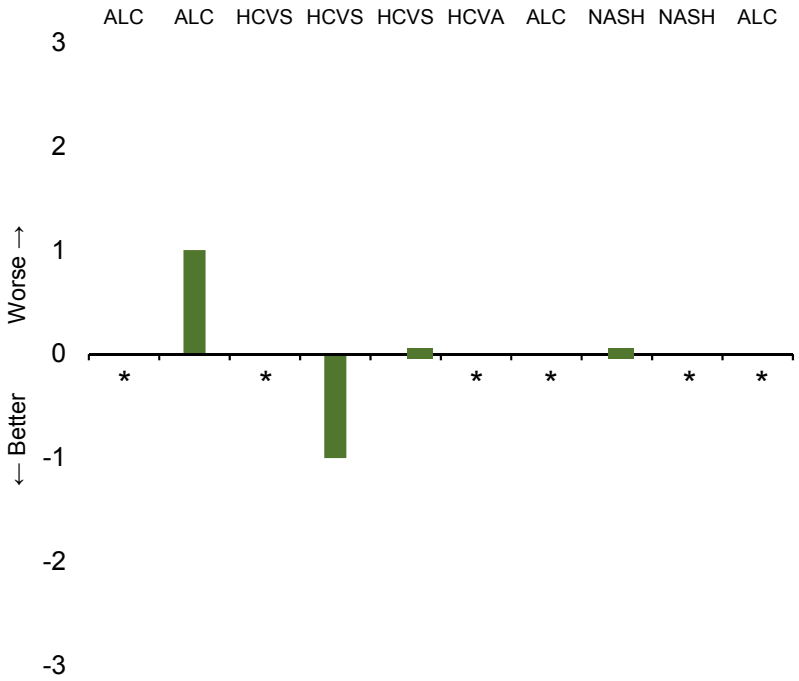
Change in C-P after 3-mo placebo



***Early termination**

Baseline to Month 3 change using LOCF
Month 3 to Month 6 change using observed data

Change in C-P after 3-mo emricasan



Etiologies: NASH, Alcohol (ALC), HCV-active (HCVA), HCV-SVR (HCVS), other (OTH)

Conatus Pharmaceuticals

Phase 2 Liver Cirrhosis Trial 6-Month Top-Line Data: Summary and Conclusions in Cirrhosis Patients

Liver function measured as MELD, Child-Pugh, bilirubin, INR and albumin

- Reassuring safety and tolerability profile
  - Consistent with prior experience
- 3-month final data analysis confirms earlier top-line results
  - Trends toward treatment effect improvement observed in total patient population
  - Significant treatment effects in MELD and Child-Pugh predict improved survival in emricasan treated high MELD (≥15 at baseline) patients
- 6 month efficacy results confirm the interim 3 month results
  - Positive trends for improvement in liver function in overall population
  - MELD and Child-Pugh score improvements predict improved survival and liver function in high MELD population
    - Improvement driven by both INR and total bilirubin

Conatus Pharmaceuticals

Conatus Pharmaceuticals

NASH Etiology Top-Line Results

Emricasan Dosing in NASH Cirrhosis Patients

Positive treatment effect in liver function parameters

NASH Patient Population	Placebo (N=9)		Emricasan (N=11)			Month 3 p-value*
	Baseline	Change at Month 3†	Baseline	Change at Month 3†	Change at Month 6†	
MELD score	12.8	+1.0	13.0	+0.3	+0.1	0.029
Child-Pugh score	6.9	+0.4	7.3	–0.3	–0.1	0.030
Total bilirubin (mg/dL)	2.26	+0.39	2.68	+0.09	–0.03	0.265
INR	1.27	+0.07	1.25	+0.01	0.00	0.017
Albumin (g/dL)	3.60	+0.11	3.39	+0.05	+0.03	0.645

NASH patients progress more rapidly than total population

Slower disease progression continues through month 6

***p-values for treatment effect at Month 3, based on adjusted LSMeans from the secondary ANCOVA model with baseline value, treatment group, baseline MELD category, etiology, treatment and MELD category interaction, and treatment and etiology interaction; not adjusted for multiple testing.**

†Based on last observation carried forward.

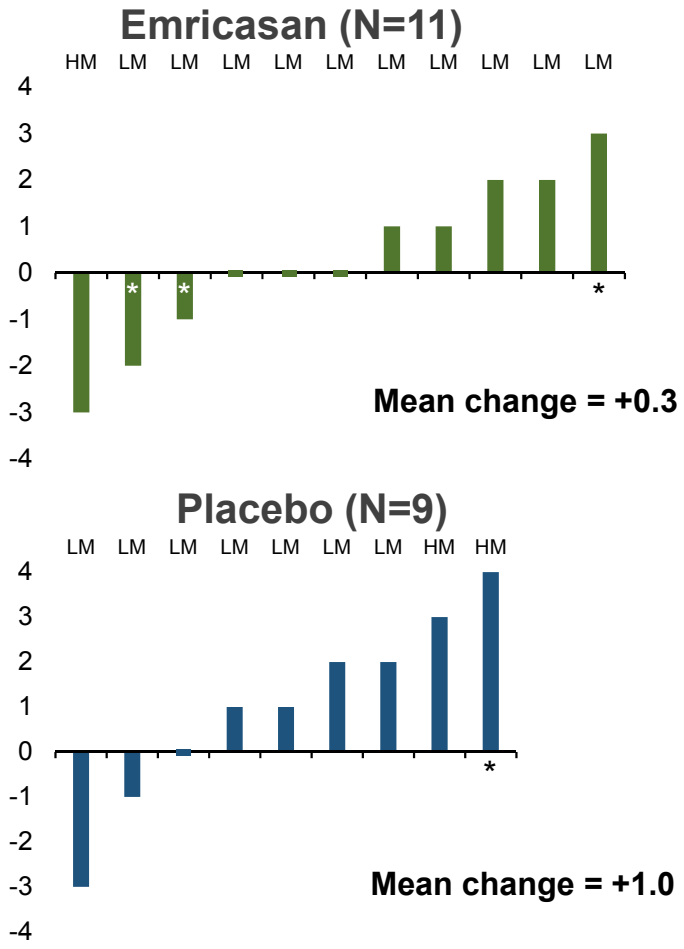
Conatus Pharmaceuticals

MELD and Child-Pugh in NASH Cirrhosis Patients at Month 3

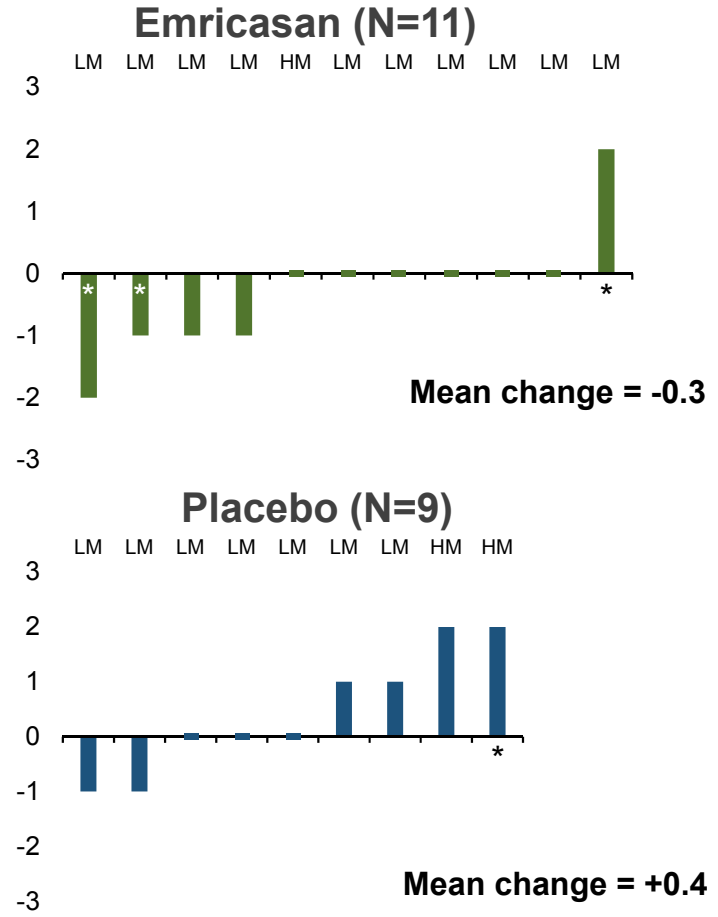
Emricasan not progressing as fast as placebo

Emricasan reduces progression in Child-Pugh

Change in MELD at 3 months



Change in Child-Pugh at 3 months



*Early termination
Baseline to Month 3 change using LOCF

Emricasan 25 mg BID
Placebo BID

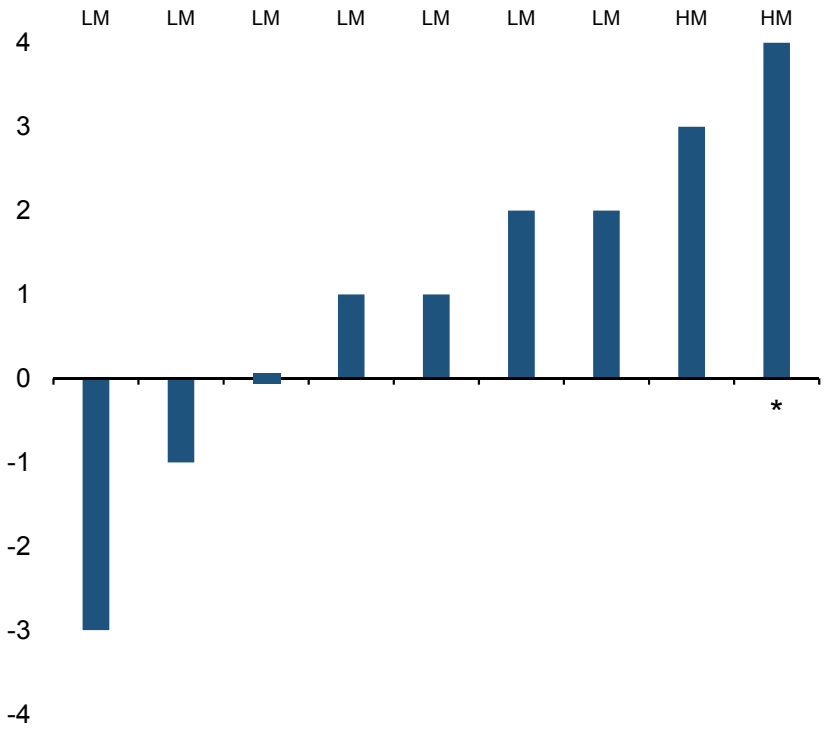
HM = "High" MELD (≥15)
LM = "Low" MELD (≤14)

Conatus Pharmaceuticals

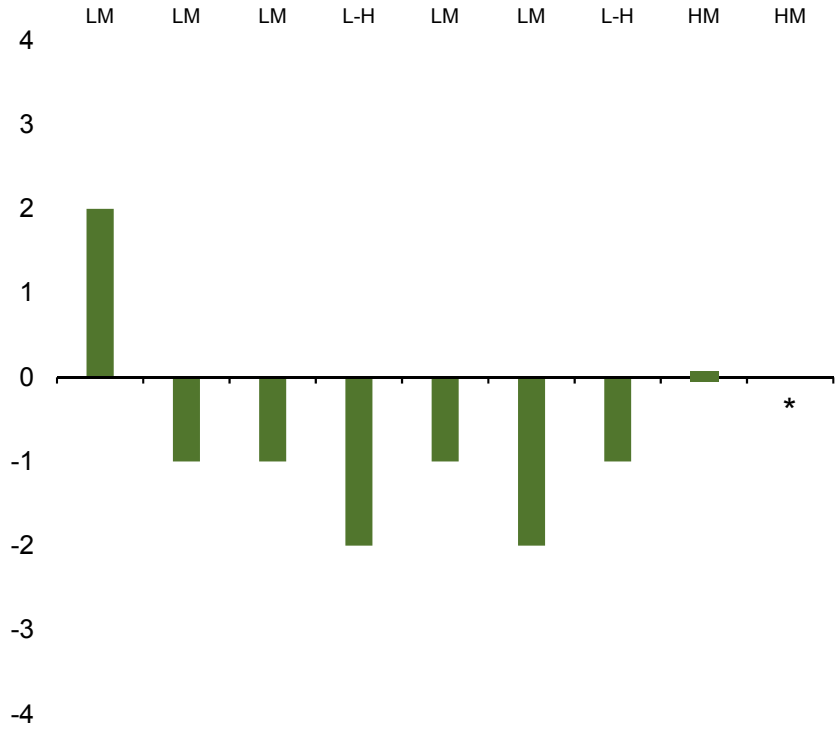
MELD Change in NASH Cirrhosis: Placebo Patients Switching to 3-months Emricasan

Positive directional change in MELD observed in NASH patients

Change in MELD after 3-mo placebo



Change in MELD after 3-mo emricasan



***Early termination**

Baseline to Month 3 change using LOCF
Month 3 to Month 6 change using observed data

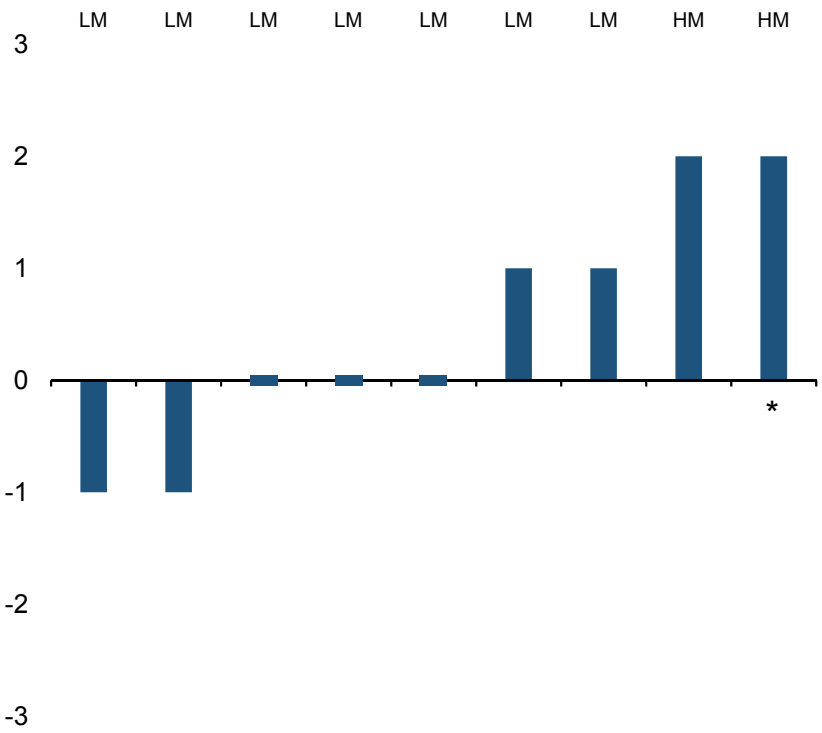
HM = "High" MELD (≥15) at original baseline
LM = "Low" MELD (≤14) at original baseline
L-H = MELD ≤ 14 at original baseline and ≥ 15 at M3

Conatus Pharmaceuticals

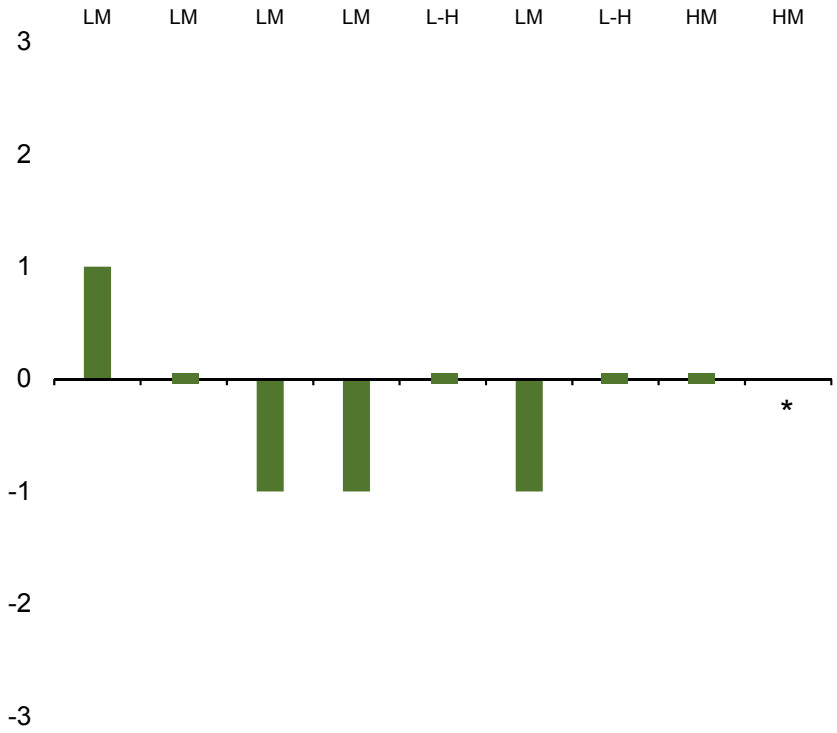
Child-Pugh Change in NASH Cirrhosis: Placebo Patients Switching to 3-months Emricasan

Positive directional change in C-P observed in NASH patients

Change in C-P after 3-mo placebo



Change in C-P after 3-mo emricasan



***Early termination**

Baseline to Month 3 change using LOCF
Month 3 to Month 6 change using observed data

HM = "High" MELD (≥15) at original baseline
LM = "Low" MELD (≤14) at original baseline
L-H = MELD ≤ 14 at original baseline and ≥ 15 at M3

Conatus Pharmaceuticals

Summary and Conclusions in NASH Cirrhosis Patients

Emricasan treatment positively impacts liver function in NASH cirrhosis patients

- Beneficial impact on liver function determined in three different ways
  - Traditional 3-month double-blind randomized placebo-controlled study
    - Significant treatment effect upon MELD, Child-Pugh and INR observed in NASH cirrhosis patients at 3 months regardless of baseline MELD
  - 6-month “open-label” study
    - Directional improvement in liver function continues through month 6
  - 3-month “natural history” study followed by 3-month “open-label” study
    - Directional improvement in MELD and Child-Pugh in roll-over placebo patients dosed with emricasan from month 3 to month 6
- Activity observed regardless of original baseline MELD score
  - Both low and high MELD patients respond to emricasan treatment
- Results support conduct of ENCORE-LF study in NASH cirrhosis
  - Plan to discuss results and next steps with health authorities 2H2016
- First drug to demonstrate liver function benefit in NASH cirrhosis

Conatus Pharmaceuticals

Emricasan: Current Clinical Milestones

Goals: Define dosing, broaden safety database, show activity against validated endpoints

Target Population	Preclinical	Phase 1	Phase 2	Importance	Next Milestone
Liver Cirrhosis (LC)				Validated surrogate endpoint	Phase 2 subgroup and ad hoc analyses to be reported 2016 + 2017
ENCORE-PH (NASH Cirrhosis)				Validated surrogate endpoint	Phase 2b initiation expected 2H16
ENCORE-LF (NASH Cirrhosis)				Validated surrogate endpoint	Phase 2b or 3 initiation expected 1H17
Post Liver Transplant HCV Clearance with Unresolved Fibrosis/Cirrhosis (POLT-HCV-SVR)				Established histology endpoint	Phase 2b top-line data expected 1H18
ENCORE-NF (NASH Fibrosis)				Relevant histology endpoint	Phase 2 top-line data expected 2018

Conatus Pharmaceuticals

NASDAQ:CNAT

Conatus Pharmaceuticals

Liver Cirrhosis

Q&A Session

May 5, 2016