

March 15, 2015

HEALTHCARE/SPECIALTY AND GENERIC PHARMACEUTICALS

**Stock Rating:**
**OUTPERFORM**

12-18 mo. Price Target \$12.00  
MRNS - NASDAQ \$9.26

3-5 Yr. EPS Gr. Rate NM  
52-Wk Range \$16.60-\$5.49  
Shares Outstanding 14.0M  
Float 5.5M  
Market Capitalization \$131.5M  
Avg. Daily Trading Volume 24,525  
Dividend/Div Yield \$0.00/0.00%  
Book Value \$2.94  
Fiscal Year Ends Dec  
2015E ROE NM  
LT Debt \$7.0M  
Preferred \$0.0M  
Common Equity \$41M  
Convertible Available No  
*Trading range since July 2014 IPO.*

EPS Diluted	Q1	Q2	Q3	Q4	Year	Mult.
2014A	(7.09)	(7.99)	(0.22)	(0.26)	(2.17)	NM
Prior (E)	--	--	--	(0.55)	(1.73)	NM
2015E	(0.53)	(0.52)	(0.41)	(0.40)	(1.83)	NM
Prior (E)	(0.59)	(0.66)	(0.51)	--	(2.11)	NM
2016E	--	--	--	--	(1.21)	NM
Prior (E)	--	--	--	--	(1.34)	NM

# Marinus Pharmaceuticals

## 4Q14 Results: Ganaxolone IV Added to the Mix

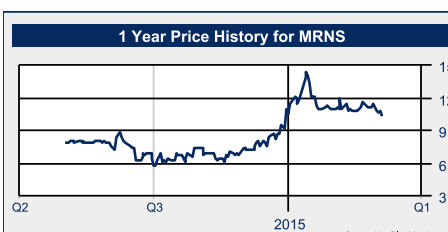
### SUMMARY

Shares of Marinus were particularly strong in 4Q14, up almost 60%, but have traded ~flatish over 1Q15 and were down 11% post the 4Q14 results. Epilepsy prescription growth remains solid with scripts up nearly 9% y/y in 2014, mirroring the growth from 2013. The ganaxolone programs remain largely on track, with the company having initiated a phase 2 POC in PCDH19 in February. The epilepsy program will likely be fully enrolled later this year. Additionally, the company has dusted off the ganaxolone IV program for a hospital setting, and hopes to have an update on that project later this year. We continue to believe that for long-term investors, Marinus' shares represent favorable risk/reward. We maintain our Outperform rating.

### KEY POINTS

- **Headline Results:** MRNS reported a net loss of (\$0.26) vs. our/consensus (\$0.55)/(\$0.39). R&D expense of \$2.2M came in well below our \$5.3M estimate, but is largely related to the timing of payments in the 603 study (ganaxolone in epilepsy). We expect those study costs to increase moving into 2015.
- **Ganaxolone Programs:** The clinical programs remain largely on track. Management noted a slight shift in the epilepsy program with data now expected in 1Q16 (vs. prior 2H15), as MRNS worked through regulatory procedures in on-boarding new geographies for the trial sites. With respect to PCDH19/Fragile X, management anticipates completing early-stage studies in 2015.
- **IV Formulation:** MRNS is readying the IV formulation of ganaxolone, for use in a hospital setting to control seizures. Management indicated that the company was fairly far along in pre-clinical studies and would likely be in a position to discuss next steps for clinical studies by mid-2015.
- **Model Forecasts:** Epilepsy Rx's grew 9% y/y in 2013 and 2014, according to Symphony Health data. We conservatively estimate 5% y/y growth for FY15 and 3% growth in the out years. We do not anticipate ganaxolone revenues until 2020 and forecast sales of ~\$35M/~\$625M for 2020/2024.
- **Valuation:** We believe fair value for MRNS is \$12, which represents ~30% potential upside from current levels. Our valuation is based on a DCF methodology. Using a discount rate of ~25%, and an exit EBITDA multiple of 4.0x the 2025E terminal year EBITDA of ~\$500 million, we arrive at our valuation.

### Stock Price Performance



### Company Description

Marinus is a clinical stage biopharmaceutical company focused on developing and commercializing neuropsychiatric therapeutics.

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Marinus Pharmaceuticals		2014					2015E									
Income Statement (\$MM)	2013	1Q-14	2Q-14	3Q-14	4Q-14	2014	Q1-15E	Q2-15E	Q3-15E	Q4-15E	2015E	2016E	2017E	2018E	2019E	2020E
		Mar-14	Jun-14	Sep-14	Dec-14		Mar-15	Jun-15	Sep-15	Dec-15						
Revenue																
Products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.3
Total Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.3
Cost of Services																
Total Cost of Services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Gross Profit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.9
Gross margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	90.0%
SG&A	1.2	0.5	0.5	0.9	1.4	3.2	0.9	0.9	0.9	0.9	3.4	3.8	4.2	8.5	23.5	80.6
% of revenue	NM	NM	NM	NM	NM	NM	0.0%	0.0%	0.0%	0.0%	NM	0.0%	0.0%	0.0%	0.0%	235.0%
Research & development	4.2	2.1	2.8	1.6	2.2	8.7	6.5	6.5	6.5	6.5	26.0	23.0	21.0	17.0	14.0	13.7
% of revenue	NM	NM	NM	NM	NM	NM	0.0%	0.0%	0.0%	0.0%	NM	0.0%	0.0%	0.0%	0.0%	40.0%
Contingent consideration	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% of revenue	NM	NM	NM	NM	NM	NM	0.0%	0.0%	0.0%	0.0%	NM	0.0%	0.0%	0.0%	0.0%	0.0%
Amortization of intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% of revenue	NM	NM	NM	NM	NM	NM	0.0%	0.0%	0.0%	0.0%	NM	0.0%	0.0%	0.0%	0.0%	0.0%
Depreciation and amortization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gain on sale/Merger expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total operating expenses	5.4	2.7	3.3	2.4	3.6	11.9	7.4	7.4	7.4	7.4	29.4	26.8	25.2	25.5	37.5	94.3
Operating Income	-5.4	-2.7	-3.3	-2.4	-3.6	-11.9	-7.4	-7.4	-7.4	-7.4	-29.4	-26.8	-25.2	-25.5	-37.5	-63.4
Operating margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-185.0%
Adjusted Operating Income	-5.1	-2.6	-3.2	-2.2	-3.1	-11.2	-6.9	-6.8	-6.8	-6.7	-27.2	-24.4	-22.5	-22.5	-34.2	-59.9
Adj. Operating margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-174.6%
EBITDA	-5.4	-2.7	-3.3	-2.4	-3.6	-11.9	-7.4	-7.4	-7.4	-7.4	-29.4	-26.8	-25.2	-25.5	-37.5	-63.4
Stock option compensation	0.2	0.0	0.0	0.2	0.4	0.7	0.5	0.5	0.6	0.6	2.2	2.4	2.7	3.0	3.3	3.6
Other adjustments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adjusted EBITDA	-5.1	-2.6	-3.2	-2.2	-3.1	-11.2	-6.9	-6.8	-6.8	-6.7	-27.2	-24.4	-22.5	-22.5	-34.2	-59.9
Adj EBITDA margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-174.6%
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expense	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Fair value change of derivatives	0.0	0.4	0.0	0.8	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gain on sale of assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Realized gain (loss) on investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unrealized gain (loss) on investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Litigation settlement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Income	-5.3	-2.2	-3.3	-1.7	-3.6	-10.8	-7.4	-7.4	-7.4	-7.4	-29.6	-27.0	-25.4	-25.7	-37.7	-63.7
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax rate	0.5%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Income	-5.3	-2.2	-3.3	-1.7	-3.6	-10.8	-7.4	-7.4	-7.4	-7.4	-29.6	-27.0	-25.4	-25.7	-37.7	-63.7
Non-Controlling Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-5.3	-2.2	-3.3	-1.7	-3.6	-10.8	-7.4	-7.4	-7.4	-7.4	-29.6	-27.0	-25.4	-25.7	-37.7	-63.7
Recurring Net Income ex SFAS	-5.0	-2.2	-3.3	-1.5	-3.2	-10.1	-6.9	-6.9	-6.8	-6.8	-27.4	-24.6	-22.7	-22.8	-34.5	-60.1
Preferred stock dividends	-3.8	-1.1	-1.1	-0.4	0.0	-2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income less dividends	-9.1	-3.3	-4.4	-2.0	-3.6	-13.4	-7.4	-7.4	-7.4	-7.4	-29.6	-27.0	-25.4	-25.7	-37.7	-63.7
Basic GAAP EPS	-\$11.38	-\$4.79	-\$6.00	-\$1.76	-\$0.26	-\$1.76	-\$0.53	-\$0.52	-\$0.41	-\$0.40	-\$1.83	-\$1.21	-\$1.12	-\$1.10	-\$1.38	-\$2.29
Diluted GAAP EPS	-\$11.38	-\$4.79	-\$6.00	-\$0.18	-\$0.26	-\$1.76	-\$0.53	-\$0.52	-\$0.41	-\$0.40	-\$1.83	-\$1.21	-\$1.12	-\$1.10	-\$1.38	-\$2.29
Adjusted EPS (ex SFAS)	-\$10.87	-\$4.74	-\$5.95	-\$0.15	-\$0.23	-\$1.65	-\$0.49	-\$0.48	-\$0.38	-\$0.37	-\$1.69	-\$1.10	-\$1.00	-\$0.98	-\$1.26	-\$2.16
EPS ex dividends	-\$19.60	-\$7.09	-\$7.99	-\$0.22	-\$0.26	-\$2.17	-\$0.53	-\$0.52	-\$0.41	-\$0.40	-\$1.83	-\$1.21	-\$1.12	-\$1.10	-\$1.38	-\$2.29
Basic Shares	0.5	0.5	0.6	0.9	14.0	6.2	14.1	14.2	18.2	18.3	16.2	22.3	22.8	23.3	27.3	27.8
Fully Diluted shares	0.5	0.5	0.6	9.5	14.0	6.2	14.1	14.2	18.2	18.3	16.2	22.3	22.8	23.3	27.3	27.8
Margins																
Total Cost of Services	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	10.0%
Source: Company Reports and Oppenheimer & Co. estimates																

Source: Company Reports and Oppenheimer &amp; Co. estimates

## Investment Thesis

We rate Marinus Pharmaceuticals Outperform with a 12- to 18-month \$12 price target. Marinus is a clinical stage biopharmaceutical company focused on developing and commercializing neuropsychiatric therapeutics. The company's clinical stage product, ganaxolone, is a small molecule, add-on therapy for the treatment of partial onset seizures in adults with epilepsy. Our investment thesis for Marinus is threefold: (1) ganaxolone will show positive safety and efficacy results in phase 2b and potential phase 3 studies, (2) the company will gain FDA acceptance for ganaxolone in the epilepsy indication some time in the late 2019 or early 2020 time frame, and (3) ganaxolone will penetrate the epilepsy market as adjunctive treatment to existing therapy.

## Price Target Calculation

We believe fair value for Marinus' shares is \$12. Our valuation is based on a discounted cash flow methodology. Using a discount rate of approximately ~25%, and an exit EBITDA multiple of 4.0x on the estimated 2025 terminal year EBITDA of close to \$500 million, we arrive at a \$12 per share valuation. The 25% discount rate, we believe, adequately reflects the clinical development risk that yet remains with ganaxolone along with the execution risk for commercialization.

## Key Risks to Price Target

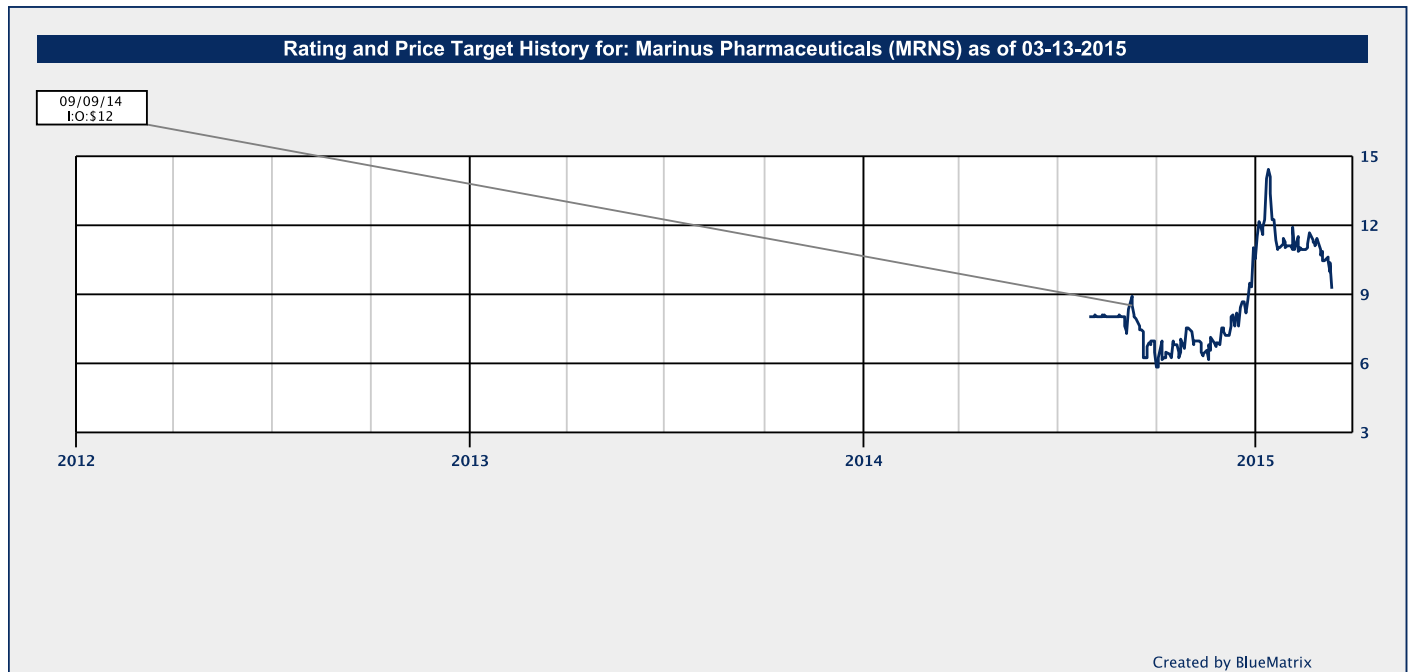
Key risks to Marinus' outperformance and price target include the following: clinical development risk and either a failure by ganaxolone to meet clinical trial endpoints or show efficacy, or an inability by Marinus to gain approval from the FDA for ganaxolone; a failure to successfully introduce ganaxolone into the market or a failure to penetrate the highly competitive epilepsy market; the company may require substantial additional funding which may dilute stockholdings in the company.

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Rating	Count	IB Serv/Past 12 Mos.		Count	Percent
		Percent			
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PERFORM [P]	252	43.22		93	36.90
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