

Biotechnology

Price:	\$7.61
Fair Value Estimate:	\$13.00
52-Week Range:	\$5.49 - \$10.58
Market Cap (MM):	\$107
Shr.O/S-Diluted (mm):	14.0
Average Daily Volume:	12,536
Yield:	0.0%
Cash/Share:	NA
FCF Yield:	NA
Debt/Cap:	0%

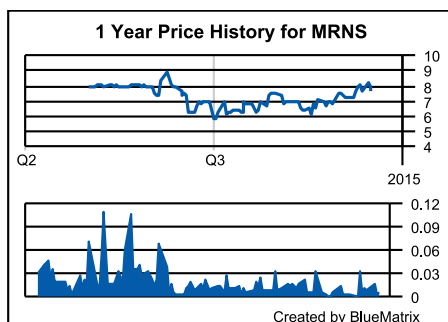
FYE: Dec	2014E	2015E
EPS:	\$(1.68)E	\$(1.95)E
Prior EPS:	NC	NC
Consensus	-2.28	-1.81
P/E Ratio:	NA	NA

Quarterly EPS:

Q1	\$(0.28)A	\$(0.49)E
Q2	\$(0.67)E	\$(0.49)E
Q3	\$(0.39)E	\$(0.48)E
Q4	\$(0.39)E	\$(0.48)E

Quarterly Revenue (M):

Q1	\$0A	\$0E
Q2	\$0E	\$0E
Q3	\$0E	\$0E
Q4	\$0E	\$0E
Year:	\$0E	\$0E



December 17, 2014

Marinus Pharmaceuticals, Inc (MRNS) - BUY

Resuming Coverage: Buy Rating, \$13 FV

PORTFOLIO MANAGER BRIEF

We are resuming coverage of Marinus Pharmaceuticals (MRNS) with a Buy and \$13 FV based on its lead product candidate, Ganaxolone for partial onset epilepsy. Ganaxolone is a first-in-class, novel GABA modulator that offers efficacy as an adjunctive therapy, but more importantly a safety and tolerability profile that should differentiate it in the marketplace. Phase 2b data is expected in 2H15. Ganaxolone also has potential in additional indications such as PCDH19 female pediatric epilepsy, Fragile X Syndrome and other neuropsychiatric disorders.

ANALYST NOTES

- Ganaxolone - Differentiated profile translates into prescribing preference: What will distinguish ganaxolone is its unique molecular structure and mechanism of action that allows for the same GABA modulation effects as allopregnanolone without the negative steroidal effects. The drug has demonstrated a reduction in seizure frequency as an adjunctive therapy without any cardiovascular or reproductive signals. This means that physicians can add a drug with a new MOA without adding significant toxicity to the current regimen. Given the novel MOA, safety data, lack of psychiatric side effects and lack of cognitive blunting ganaxolone should strike a chord with the refractory population, particularly in the pediatric population, women of child-bearing age and the elderly.
- Targeting a meaningful market opportunity with expansion into other indications: We estimate peak global sales of approximately \$600M in refractory partial onset seizures, assuming a \$3,300 annual price and 18% peak penetration. Pricing on par with Vimpat suggests upside to our assumption given ganaxolone's differentiated safety profile. Label expansion from Fragile X Syndrome and PCDH19 could add another \$1B in peak sales, per our estimates.
- Pipeline in a product could result in significant future upside: Ganaxolone acts via activation of GABAA receptors, an MOA that provides rationale for use in numerous indications. To that extent, ganaxolone is being tested in a Phase 2 study in patients with PCDH19 female pediatric epilepsy and Fragile X Syndrome, with data expected in 1H15 and mid:15, respectively. Preclinical data so far suggest utility in these indications, but we do not include value from these programs yet as we await potentially positive proof-of-concept data that should increase ganaxolone's value proposition.

INVESTMENT THESIS

Marinus Pharmaceuticals (MRNS) is a development stage biopharmaceutical company focused on the development and commercialization of ganaxolone, a novel GABA modulator, for the treatment of proprietary neuropsychiatric therapeutics. The drug has completed a Phase 2a study and is currently in a Phase 3 study in its lead indication as adjunctive therapy for partial or focal onset seizures in adults with epilepsy, with data expected in 2H15. Other clinical programs underway include proof-of-concept studies in PCDH19 female pediatric epilepsy and Fragile X Syndrome. We believe that ganaxolone will differentiate in the market with efficacy and a better safety profile.

ISSUES TO CONSIDER

Key Issue	Our Position	Timing	Impact
Proof of Concept Trials	MRNS has two Proof-of-Concepts set to read out in 2015. The first is in PCDH19 in the 1H15 and in Fragile X Syndrome in mid-2015. We feel that a positive read out in PCDH19 would be more beneficial to the name with a large patient population at 40k-50k compared to the 7,000 in Fragile X that experience seizures.	6-12 Months	<div>+</div> <div>○</div> <div>-</div>
Isn't ganaxolone the same as Sage's-547?	We believe that the market is underestimating the differences between these two drugs. One is for acute, short-term use, while ganaxolone is for chronic, long-term use. Though similar in structure, they differ in target disease, duration of usage, formulation and risk profile. We feel that appreciation for the name comes into play once Phase 3 data starts coming in in 2H15.	6-12 Months	<div>+</div> <div>○</div> <div>-</div>
How far does the cash go?	With several trials underway in 2015, we have cash lasting through to the end of 2015, which allows for data from the two Proof-of-Concept trials as well as the first Phase 3. We believe that in some time in 2016, MRNS will return to the capital markets.	12-24 Months	<div>+</div> <div>○</div> <div>-</div>

COMPANY DESCRIPTION:

Marinus Pharmaceuticals (MRNS) is a development stage biopharmaceutical company focused on the development and commercialization of ganaxolone, a novel GABA modulator, for the treatment of proprietary neuropsychiatric therapeutics. The drug has completed a Phase 2a study and is currently in a Phase 3 study in its lead indication as adjunctive therapy for partial or focal onset seizures in adults with epilepsy, with data expected in 2H15. Other clinical programs underway include proof-of-concept studies in PCDH19 female pediatric epilepsy and Fragile X Syndrome.

WHAT IS FOCAL EPILEPSY?

Epilepsy is characterized by seizures that are caused by abnormal electrical disturbances within the brain. According to the Institute of Medicine, there were approximately 2.3 to 3 million epilepsy patients in the US in 2012. Decision Resources reported similar numbers with approximately five million people under treatment for epilepsy in the US, Europe and Japan. For the most part, epileptic seizures fall into two categories, primary generalized seizures which affect the whole brain, and focal onset seizures in which the electrical discharge is limited to one area of the brain. A diagnosis of epilepsy occurs when a patient experiences at least two seizures that do not have a self-limiting cause.

HOW IS IT TREATED?

Treatment for recently diagnosed patients involves chronic administration of an antiepileptic drug (AED). Suppression of seizures is achieved by various different mechanisms of action which come with a variety of side effects. The majority of patients (~60%) achieve adequate control with either first- or second-line monotherapy, which includes generics like carbamazepine, phenytoin or valproic acid. The rest of the patients need additional medications, called polypharmacy, and approximately 35% of patients do not achieve adequate seizure control and remain refractory to therapy. The latter is ganaxolone's initial target population. Physicians balance side effects with the risk of serious reaction, the convenience of administration and potential cost to the patient. For patients who require more than one medication, the side effect of these drugs becomes a very important factor in how physicians proceed with treatment. Unfortunately, the majority of marketed AEDs have many potential side effects associated with chronic use including cardiovascular risk, kidney stones, negative effects on cognition and reproductive risk among women.

One of the more common risks for women taking some of these AEDs is potential negative side effects if she becomes pregnant while on drug. Some of the complications associated with these AEDs are risks to the fetus that include birth defects, lowered IQ and low birth weight. Most drugs are categorized by the FDA as Pregnancy Category C which indicates a potential risk to the fetus. Valproate, carbamazepine and phenytoin are classified as Pregnancy Category D, which cautions use as only justifiable if there is a serious condition where the need outweighs the risk to the fetus based on registry data.

Figure 1

Current Adjunctive Treatment Comparisons

Generic Drug	Branded Name	Generic	Black Box	Pregnancy Category	Mechanism of Action	Side Effects
levetiracetam	Keppra	Y	N	C	Binds to SV2A protein	Psychotic sx, irritability, aggression, depression
lamotrigine	Lamictal, (XR and ODT)	Y	Y	C	Sodium channel blocker	SJS, TEN, rash, worsening of bipolar disorder and suicidality
topiramate	Topamax	Y	N	D	Glutamate Blocker	Cognitive blunting, depression
oxcarbazepine	Trileptal	Y	N	C	Sodium channel blocker	SJS, hyponatremia, suicidal behavior
pregabalin	Lyrica	N	N	C	Calcium channel blocker	Cognitive blunting
lacosamide	Vimpat	N	N	C	Sodium channel blocker	NA
ezogabine	Potiga	N	Y	C	Neuronal potassium channel opener	Vision loss, confusional state, psychotic sx, hallucinations
rufubamide	Banzel	N	Y	C	Sodium channel regulator	Suicidal ideation
zonisamide	Zonegran	N	N	C	Sodium channel blocker	Kidney stones, metabolic acidosis
vigabatrin	Sabril	N	Y	C	GABA transaminase inhibitor	Acute psychosis, irritability
eslicarbazepine	Aptiom	N	N	C	QD metabolite of oxcarbazepine	Suicidal ideation, memory impairment, amnesia
perampanel	Fycompa	N	Y	C	Glutamate blocker	Neuropsychiatric events, irritability, aggression, etc
ganaxolone	ganaxolone	N	N	B	Postsynaptic GABAA receptor binder	None expected

SJS - Stevens-Johnson Syndrome; TEN - toxic epidermal necrosis

Source: Company reports, Janney estimates

GANAXOLONE: UNIQUE MECHANISM OF ACTION...

Ganaxolone is a small molecule synthetic analog of allopregnanolone, an endogenous neurosteroid that modulates GABA through the activation of GABAA receptors. As a neurosteroid, ganaxolone interacts with both synaptic and extrasynaptic GABAA receptors and provides a more constant control of the GABA inhibitory signal that calms overexcited neurons.

Unlike some antiepileptic drugs, ganaxolone activates GABAA receptors by interacting with the neurosteroid recognition site. Specifically, outside of the synapse, allopregnanolone is absorbed into the cell membrane and slowly diffuses to activate the extrasynaptic GABAA receptors. As an analog,

Focal epilepsy is a type of in which the electrical discharge is limited to one area of the brain.

Treatment is usually with antiepileptic drugs as a monotherapy, however ~35% of patients to do achieve adequate seizure control, even on multiple drugs.

Many of these drugs have severe side effect, especially with chronic use and many have a Pregnancy Category C, which represents a potential risk to the fetus.

Since ganaxolone has an additional methyl group it does not convert back to an active steroid. This eliminates the unwanted hormonal effects while maintaining the central nervous system activity.

there is high affinity for extrasynaptic GABA_A receptors with the δ subunit which results in tonal and phasic modulation of GABA-mediated inhibition of neuronal excitation. Structurally, ganaxolone is similar to allopregnanolone with an additional methyl group which prevents the conversion of ganaxolone back to an active steroid. The effect is elimination of unwanted hormonal effects while maintaining the central nervous system activity.

Figure 2

Allopregnanolone

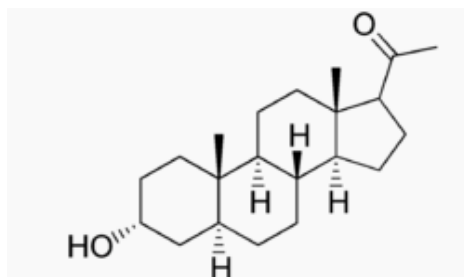
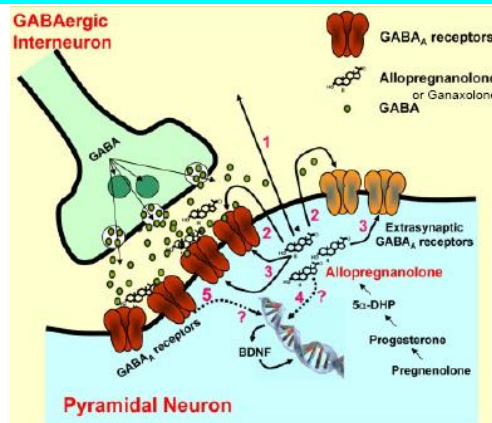


Figure 3

Allopregnanolone Action at GABA_A Receptors



Source: Wikipedia, adapted from Pinna et al (2008) Neurochem Res.33(10): 1990-2007,doi: 10.1007/s11064-001-9718-5

AND SAFETY, SAFETY, SAFETY!

Approximately 1,000 patients have been dosed with ganaxolone, with duration ranging from days to 2 years and on doses as low as 50mg/day to as high as 2,000 mg/day. In clinical trials, the majority of adverse events were not medically serious and resolved upon discontinuation of therapy.

Ganaxolone has caused fewer dropout and adverse events in clinical studies than other currently marketed products.

Ganaxolone caused fewer dropouts and adverse events in clinical studies than other marketed adjunctive therapies. Importantly, ganaxolone has a lower risk for reproductive toxicity based on preclinical data in which there were no malformations of the embryo or fetus in rats or mice.

Ganaxolone preclinical studies show a Pregnancy Category of B. Coupled with the lack of psychological and cognitive issues, ganaxolone demonstrates a highly competitive and desirable product profile.

This differentiating toxicity profile is key given that all marketed AEDs have demonstrated developmental toxicities in preclinical studies that resulted in a rating of Pregnancy Category C. Marketed therapies such as valproate, carbamazepine, phenytoin and topiramate have been linked to birth defects in humans which have resulted in a Pregnancy Category D for these drugs. As such, we believe ganaxolone's mechanism and data to date may allow for a Pregnancy Category B rating for ganaxolone, which we believe would be an important value proposition for women of childbearing age.

Coupled with the lack of psychological and cognitive issues, ganaxolone demonstrates a highly competitive and desirable product profile, in our view, and could present a commercially compelling drug profile that can provide significant safety advantages in the refractory setting.

Figure 4

Safety Data Comparison

Expected AEs (%)	Ganaxolone (expected)	Levetiracetam (Keppra)	Placebo	Topiramate (Topamax)**	Placebo	Lamotrigine (Lamictal)	Placebo	Pregabalin (Lyrica)	Placebo	Lacosamide (Vimpat)*	Placebo	Ezogabine (Potiga)*	Placebo
Dizziness	8	9	4	25	15	38	13	31	11	53	8	15	9
Somnolence	11	15	8	29	12	14	7	28	11	8	5	15	12
Fatigue	8	n/a	n/a	15	13	n/a	n/a	n/a	n/a	15	6	16	6
Diplopia	1	2	1	10	5	28	7	12	4	16	2	8	2
Blurred Vision	5	n/a	n/a	n/a	n/a	16	5	12	4	16	3	2	2
Vomiting	0	n/a	n/a	n/a	n/a	9	4	n/a	n/a	16	3	n/a	n/a

* 600mg/day

** 200-400mg/day

Source: Company reports, Janney estimates

ADJUNCTIVE THERAPY IS A PROVEN MARKET:

Though there are some unwanted side effects for many of these adjunctive therapies, there is still a strong market opportunity. The recent launch of Vimpat (lacosamide) in 2008 proves this out. Vimpat is an adjunctive treatment for refractory patients that had a novel mechanism of action, sodium channel blocker. It is priced at a 50% premium to branded Keppra and has had a very successful

Proven market for adjunctive novel therapies have commanded significant premium pricing.

launch, reaching over \$500 million in sales five years post launch. Over 150,000 patients have been prescribed the medication and peak sales are estimated to top \$1.5B.

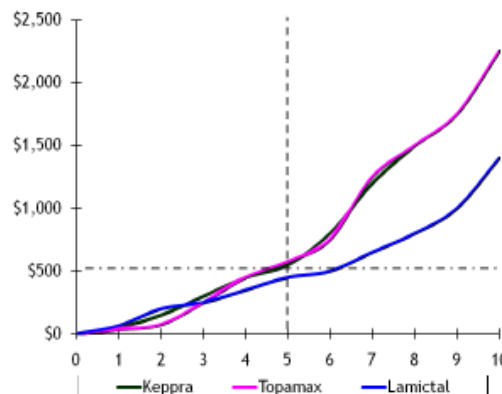
Figure 5

Vimpat Launch Sales (\$M)

Vimpat Launch Sales (\$M)	
2009	\$62
2010	\$168
2011	\$287
2012	\$437
2013	\$565

Figure 6

Antiepileptic Drug Sales (\$M)



Source: Company presentation

Ganaxolone has caused fewer dropout and adverse events in clinical studies than other currently marketed products.

Figure 7

Marketed Therapies Current Side Effect Profiles

Generic Drug	Brands	Generic?	Black Box	Pregnancy Category	Psych/Cognitive	2013 Sales (\$M)
levetiracetam	Keppra	Y	N	C	Psychotic sx, irritability, aggression, depression	\$946
lamotrigine	Lamictal, (XR and ODT)	Y	SJS, TEN, rash	C	Worsening of bipolar disorder and suicidality	\$925
topiramate	Topamax	Y	N	D	Cognitive blunting, depression	NA
oxcarbazepine	Trileptal	Y	N	C	SJS, hyponatremia, suicidal behavior	NA
pregabalin	Lyrica	N	N	C	Cognitive blunting	NA
lacosamide	Vimpat	N	N	C	N/A	\$565
ezogabine	Potiga	N	N	C	Confusional state, psychotic sx, hallucinations	NA
rufubamide	Banzel	N	Y	C	Suicidal ideation	NA
zonisamide	Zonegran	N	N		Kidney stones, metabolic acidosis	NA
vigabatrin	Sabril	N	Y	C	Acute psychosis, irritability	Approved 10/13
eslicarbazepine	Aptiom	N	N	C	Suicidal ideation, memory impairment, amnesia	Approved 11/13
perampanel	Fycompa	N	Y	C	Neuropsychiatric events, irritability, aggression, etc	NA
Ganaxolone	Ganaxolone	N	N	B	None expected	Not Approved

SJS - Stevens-Johnson Syndrome; TEN - toxic epidermal necrosis

Source: Company reports, Janney estimates

Ganaxolone and Sage-547 are different molecules with different potential indications, chronic vs. acute.

MARINUS GANAXOLONE (APPLE) VS. SAGE-547 (ORANGE)

Sage Therapeutics is developing Sage-547, an allosteric modulator of GABA, for the treatment of status epilepticus, which is an acute and emergency condition. The long lasting or multiple seizures if not resolved, are controlled by putting the patient into a medically induced coma. Ganaxolone, as previously described is for adult and pediatric focal epilepsy which is chronic and long-lasting condition.

Sage-547 just completed their Phase 1/2 with positive results involving 12 patients. Dosage of the drug was for just 5 days. Ganaxolone is currently in Phase 2b/3 and has been dosed in over 1,000 patients with exposure duration as long as 2 years.

Ganaxolone and Sage-547 differ in formulation, duration of treatment, number of patient exposures and safety profile.

Other differences involve the molecule itself. Ganaxolone is an analog of allopregnanolone which converts to a steroid, thus side-stepping some unwanted side effects where as Sage-547 is not an analog. Sage-547 is being formulated as an IV delivery as it is looking to target acute care whereas ganaxolone is formulated in capsules for chronic, long-term therapy.

In the final analysis these compounds, though similar in structure, differ in target disease, duration of usage, formulation, as well as different risk profiles.

Figure 8

Comparison of Ganaxolone to Sage-547

	Ganaxolone	Sage-547
Structure	Analog of allopregnanolone that does not convert to a steroid	Allopregnanolone
Formulation	Capsules and liquid	Interavenous (IV)
Patent Status	Multiple issued in US and worldwide	Application only, none issued
Development Stage	Phase 2b/3	Phase 1/2
Lead Indication	Adult and pediatric partial onset seizures	Super Refractory Status Epilepticus (SRSE)
Treatment Setting	Hospital and community	Hospital ICU
Therapy Duration	Chronic, long-term therapy	Acute
Efficacy	Phase 2 - Placebo-controlled, double-blind study with statistically significant data	Open label study of 7 patients
Safety/Tolerability	> 1000 subjects exposed	7 subjects
Exposure Duration	2 years (adults)	Days
Patient Population	5 million (w/line extensions)	Approximately 25,000
Orphan Studies	Fragile X Syndrome, PCDH19	SRSE

Source: Company presentation

PCDH19 is a disorder caused by a genetic mutation in which ~90% of women with the mutation on one of their two X-chromosomes exhibit symptoms.

Other Potential Indications: PCDH19 Female Pediatric Epilepsy

PCDH19 female pediatric epilepsy is a disorder caused by mutation of the PCDH19 gene on the X chromosome that results in a wide spectrum of severity in seizures, cognitive delays and other symptoms. PCDH19 can arise as a single case in a family, just through an accident in cell replication, or it can be inherited. The inheritance pattern is very unusual in that men who carry the gene mutation on their only X-chromosome are typically unaffected, whereas approximately 90% of women who have the mutation on one of their two X-chromosomes, exhibit symptoms.

PCDH19 is characterized by seizures with an onset in infancy with cognitive impairment. The seizures often occur in clusters and are often provoked by fever or illness. The affected girls experience multiple seizure types (focal, generalized and absence) and developmental delay, intellectual disability and behavioral problems that persist after the seizures resolve in adolescence. Estimates suggest that the US incidence is between 40k-50k cases.

Ganaxolone has shown efficacy in children with multiple seizure types. MRNS is currently working on a POC study.

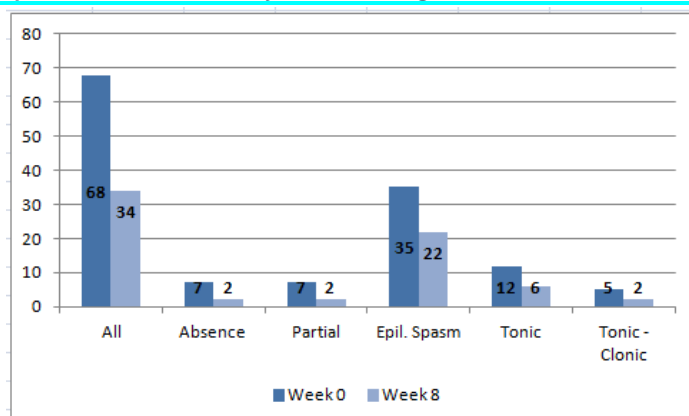
Ganaxolone's efficacy in children with multiple seizure types has been demonstrated in the open label pediatric study 9408.01/2. In addition, the company believes that ganaxolone being a synthetic analog of allopregnanolone can be used to increase GABAergic signaling in these patients. The company plans to initiate an expanded access protocol to provide proof-of-concept in approximately 10 patients with PCDH19 female pediatric epilepsy. MRNS is finalizing the study design and expects to initiate the study in 2H14 followed by top-line data in 1H15.

Figure 9

% Responders

% Responder (>50% improved from BL)	
ITT	26.7% (12/45)
Week 8	41.3% (12/29)

Figure 10

Open-Label Pediatric Study 9408.01 – Stage 2

Source: Company presentation

Other Potential Indications: Fragile X Syndrome

Fragile X Syndrome, or FXS, is a genetic condition that causes a range of intellectual and developmental disabilities as well as various physical characteristics. The studies conducted by the Centers for Disease Control and Prevention, show that FXS affects 1 in 3,600 to 4,000 males and 1 in 4,000 to 6,000 females and does not discriminate based on race or ethnicity. In the US, approximately

Fragile X Syndrome is genetic condition that causes a range of intellectual and developmental disabilities.

There currently are no cures of approved therapies for Fragile X.

Ganaxolone could potentially be a treatment as it normalizes GABA receptors which could help with the reduced GABA expression in Fragile X.

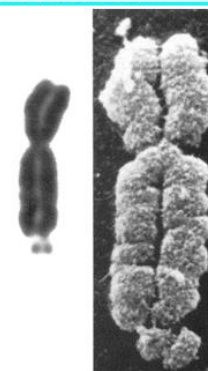
100,000 people are affected with the disease and one million individuals are at risk for developing a Fragile X associated disorder.

The Fragile X gene can be passed down through each generation with daughters born to male carriers inheriting their fathers' affected X chromosome to become carriers. Sons born to male carriers will not inherit their fathers' X chromosome and will not be affected. Approximately 1 in 151 women and 1 in 468 men carry the Fragile X gene. Patients with this specific genetic condition exhibit autism-like symptoms such as cognitive impairment, anxiety and mood swings, attention deficit and heightened stimuli. Seizures are also associated with the disease with approximately 7% of women and 18% men affected.

People with FXS are affected throughout their entire lives and currently, there are no known cures or approved therapies for FXS. Treatment approaches focus primarily on supportive care and medications addressing development delays, learning disabilities, and social and behavioral problems caused by the disease. A variety of medications are available to treat behavioral and mental health conditions associated with FXS. Depending upon the patients' symptoms, some have benefited from attention deficient disorder medications while others have been helped by various types of anti-anxiety medications. Available treatments that reduce the burden of the illness include special education and symptomatic treatments.

Figure 11

Fragile X Chromosome



Source: Medicineworld.org

Why Ganaxolone?

Fragile X Syndrome (FXS) is a result of a mutation of the *fmr1* gene that codes for the FMRP protein. Ganaxolone has a high-affinity for GABA-A/ δ receptors which should increase signaling at existing receptors to normalize GABA-mediated inhibition. Studies in *fmr1* knock-out mouse model confirm that there is a deficit in the production of GABAA receptors with a δ subunit, a deficit in GABAA receptor-mediated inhibition in the neocortex and a down-regulation of GABA-ergic enzymes and protein in cerebellum and neocortex. The consequences of reduced GABAA expression in Fragile X Syndrome are heightened sensitivity to sensory stimuli, anxiety, and seizures in up to 30% of patients. Through clinical trials, ganaxolone has been successfully assessed in changes in anxiety, attention and social withdrawal. The novel mechanism is working via established GABAA pathways for anticonvulsant efficacy.

CLINICAL TIMELINE:

Figure 12

Clinical Timeline

Marinus Pharmaceuticals Branded drugs trial timelines

	2014E				2015E			
	1QA	2QA	3QE	4QE	1QE	2QE	3QE	4QE
Ganaxolone in Epilepsy								
Adjunctive Treatment of Focal Onset Seizures								
Phase 3 - 1 of 2								
Phase 3 - 2 of 2								
NDA Filing								
FDA approval & launch								
Ganaxolone in Developmental Disorders								
Fragile X Syndrome (grand funded, orphan)								
Phase 2 - Proof of Concept								
Phase 3								
NDA Filing								
FDA approval & launch								
Ganaxolone in Pediatric Epilepsy								
PCDH19 Female Pediatric Epilepsy								
Phase 2 - POC								
Phase 3								
NDA Filing								
FDA approval & launch								

Source: Janney estimates

Financials and Valuation:

MRNS Quarterly Income Statement											
(\$000 except per share)	2013A Year	1QA	2QA	3QA	4QE	2014E Year	1Q	2Q	3Q	4Q	2015E Year
Revenue											0
Collaboration and Milestone Products											
Total Revenue	0	0	0	0	0	0	0	0	0	0	0
Expenses											0
COGS											0
Gross Profit	0	0	0	0	0	0	0	0	0	0	0
R&D	9,154	2,149	2,804	1,569	4,700	11,221	6,150	6,150	6,150	6,150	24,600
G&A	3,575	517	458	868	900	2,743	810	810	810	810	3,240
Impairment Loss	0	0	0								
Total Expenses	12,729	2,665	3,262	2,437	5,600	13,964	6,960	6,960	6,960	6,960	27,840
Operating Income/Loss	(12,729)	(2,665)	(3,262)	(2,437)	(5,600)	(13,964)	(6,960)	(6,960)	(6,960)	(6,960)	(27,840)
Interest Income	(1,511)	4	0	4	26	35	22	17	12	7	59
Change in Fair Value of Warrants	(81)	428	(31)	794		1,192					0
Other	0	(2)	(29)	(29)		(61)					0
Income/Loss Before Taxes	(14,321)	(2,235)	(3,321)	(1,668)	(5,574)	(12,799)	(6,938)	(6,943)	(6,948)	(6,953)	(27,781)
Income Tax Expense	0	0	0			0					0
Preferred stock divs			(1,102)	(372)							
Net Gain / Loss	(14,321)	(2,235)	(4,424)	(2,041)	(5,574)	(12,799)	(6,938)	(6,943)	(6,948)	(6,953)	(27,781)
GAAP EPS	(\$1.93)	(\$0.28)	(\$0.54)	(\$0.22)	(\$0.58)	(\$1.45)	(\$0.71)	(\$0.70)	(\$0.69)	(\$0.68)	(\$2.79)
Non-GAAP Adjusted EPS											
Weighted Average S/O (000)	7,409	8,063	8,154	9,449	9,599	8,817	9,749	9,899	10,049	10,199	9,974
Fully diluted S/O (000)	7,409	8,063	8,154	13,779	9,599	9,899	9,749	9,899	10,049	10,199	9,974

SOP Analysis: MRNS		
Segment	Valuation (000's)	Per share value
US Sales	\$67,217	\$7.0
EU Sales	\$42,541	\$4.0
Cash (end '15) & tech value	\$20,398	\$2.0
SUM	\$87,615	\$13
Shares out '15E (000)		9,974

Source: Janney estimates

IMPORTANT DISCLOSURES

Research Analyst Certification

I, Chiara Russo, the Primarily Responsible Analyst for this research report, hereby certify that all of the views expressed in this research report accurately reflect my personal views about any and all of the subject securities or issuers. No part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views I expressed in this research report.

Janney Montgomery Scott LLC ("Janney") Equity Research Disclosure Legend

Marinus Pharmaceuticals, Inc currently is, or during the past 12 months was, a Janney Montgomery Scott LLC client. Janney Montgomery Scott LLC, provided investment banking related services.

Janney Montgomery Scott LLC managed or co-managed a public offering of securities for Marinus Pharmaceuticals, Inc in the past 12 months.

Janney Montgomery Scott LLC received compensation for investment banking services from Marinus Pharmaceuticals, Inc in the past 12 months.

Janney Montgomery Scott LLC intends to seek or expects to receive compensation for investment banking services from Marinus Pharmaceuticals, Inc in the next three months.

The research analyst is compensated based on, in part, Janney Montgomery Scott's profitability, which includes its investment banking revenues.

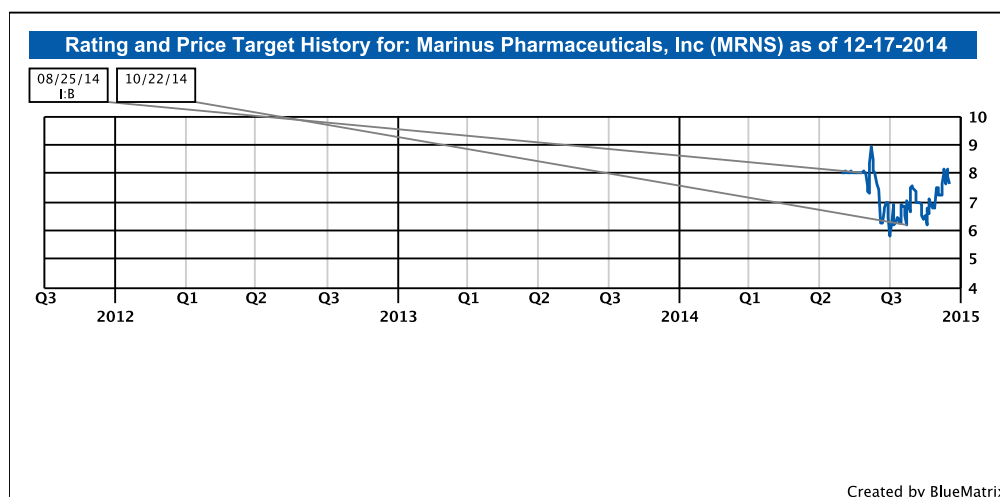
Definition of Ratings

BUY: Janney expects that the subject company will appreciate in value. Additionally, we expect that the subject company will outperform comparable companies within its sector.

NEUTRAL: Janney believes that the subject company is fairly valued and will perform in line with comparable companies within its sector. Investors may add to current positions on short-term weakness and sell on strength as the valuations or fundamentals become more or less attractive.

SELL: Janney expects that the subject company will likely decline in value and will underperform comparable companies within its sector.

Price Charts



Janney Montgomery Scott Ratings Distribution as of 9/30/14

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [B]	169	52.81	24	14.20
NEUTRAL [N]	150	46.88	18	12.00
SELL [S]	1	0.31	0	0

*Percentages of each rating category where Janney has performed Investment Banking services over the past 12 months.

Other Disclosures

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Investment opinions are based on each stock's 6-12 month return potential. Our ratings are not based on formal price targets, however, our analysts will discuss fair value and/or target price ranges in research reports. Decisions to buy or sell a stock should be based on the investor's investment objectives and risk tolerance and should not rely solely on the rating. Investors should read carefully the entire research report, which provides a more complete discussion of the analyst's views. Supporting information related to the recommendation, if any, made in the research report is available upon request.

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