MARINUS PHARMACEUTICALS INC
Form 424B5
December 11, 2018

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Filed pursuant to Rule 424(b)(5)
Registration No. 333-221243

The information in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This prospectus supplement and accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 11, 2018

PROSPECTUS SUPPLEMENT
(to Prospectus dated December 1, 2017)

12,000,000 Shares

Common Stock

We are offering 12,000,000 shares of our common stock pursuant to this prospectus supplement and the accompanying prospectus. Our common stock is listed on the Nasdaq Global Market under the symbol "MRNS." The last sale price of our common stock on December 10, 2018 as reported by the Nasdaq Global Market, was $5.24 per share.

We are an "emerging growth company" under the federal securities laws and may take advantage of certain reduced public company reporting requirements.

Investing in our securities involves a high degree of risk. Please read "Risk Factors" beginning on page S-9 of this prospectus supplement, page 3 of the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public Offering Price	$	$
Underwriting Discounts and Commissions[(1)]	$	$
Proceeds to Marinus Pharmaceuticals, Inc., before expenses	$	$

(1) See "Underwriting" for additional information regarding the compensation payable to the underwriters.

Delivery of the shares of common stock is expected to be made on or about December , 2018. We have granted the underwriters an option for a period of 30 days to purchase up to an additional 1,800,000 shares of our common stock. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $, and the total proceeds to us, before expenses, will be $.

Joint Book-Running Managers

Jefferies **Leerink Partners**

Prospectus Supplement dated December , 2018.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is the prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering and also adds to and updates the information contained in the accompanying prospectus and the documents incorporated by reference. The second part, the accompanying prospectus, including the documents incorporated by reference therein, provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein, as well as the additional information described in this prospectus supplement under "Where You Can Find More Information." This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference therein, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference therein.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses that we authorize to be distributed to you in connection with this offering. Neither we nor the underwriters have authorized any other person to provide you with any information that is different. If different information is given or different representations are made, you may not rely on that information or those representations as having been authorized by us or the underwriters. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

In this prospectus supplement and accompanying prospectus, unless the context otherwise requires, the terms "Marinus," the "Company," "we," "us," and "our" refer to Marinus Pharmaceuticals, Inc., a Delaware corporation.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement and in the documents we incorporate by reference. This summary is not complete and does not contain all the information you should consider before investing in our common stock pursuant to this prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus, including the section entitled "Risk Factors" in this prospectus supplement and the financial statements and related notes and other information that we incorporated by reference herein, including our Annual Report on Form 10-K for the year ended December 31, 2017 and our subsequent Quarterly Reports on Form 10-Q.

Our Business

Overview

We are a clinical stage biopharmaceutical company focused on developing and commercializing innovative therapeutics to treat epilepsy and neuropsychiatric disorders. Our clinical stage product candidate, ganaxolone, is a positive allosteric modulator of $GABA_A$ being developed in three different dose forms: intravenous (IV), oral capsule and oral liquid. We believe ganaxolone may exhibit anti-depression, anti-seizure and anti-anxiety actions via its effects on synaptic and extrasynaptic $GABA_A$ receptors.

Our Pipeline

We are developing ganaxolone in three different dose forms (IV, capsule, and liquid) intended to maximize therapeutic reach to adult and pediatric patient populations in both acute and chronic care settings where there is a mechanistic rationale for ganaxolone to provide a benefit, including the following indications:

Recent Developments

In June 2017, we initiated a Phase 2 double-blind, placebo-controlled clinical trial to evaluate the safety, efficacy and pharmacokinetics (PK) of ganaxolone IV in women diagnosed with postpartum depression (PPD)

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(Magnolia study). Patients randomized in the initial cohort(s) will undergo an infusion of either ganaxolone or placebo and will be followed for 30 days. Subsequent Magnolia study cohorts could include intravenous regimens of various durations alone or in sequential administration with oral ganaxolone. In December 2017, we initiated a Phase 2 study to evaluate the safety, tolerability and efficacy of ganaxolone oral capsules in moderate PPD patients (Amaryllis study).

Magnolia Study (Part 1):

On December 10, 2018, we announced positive top-line results from Part 1 of our Magnolia Study, a Phase 2 double-blind, placebo-controlled dose optimization clinical trial evaluating ganaxolone IV in women with PPD. The primary endpoints of the study were safety and pharmacokinetics. In the study, 58 patients with PPD were randomized on a 1:1 basis to receive one of three ascending fixed IV 60-hour dose regimens of ganaxolone or placebo. No initial up titration was required, and patients were down titrated over the final 12 hours of the 60-hour infusion. A bolus injection of ganaxolone prior to the 60-hour infusion was also explored to test the safety and tolerability of a very short, high dose infusion. Patients with a HAM-D17 score of ≥26 were considered for enrollment in the study. HAM-D17 measurements were conducted by a centralized rater and taken at various timepoints spanning from baseline to day 34.

Ganaxolone was safe and well-tolerated in all dose groups. Consistent with previous ganaxolone studies, the most common reported adverse events were sedation and dizziness. There were no serious adverse events reported, no discontinuations due to a treatment related adverse event and, consistent with prior studies, there were no reports of syncope or loss of consciousness. There was a dose response relationship seen for three groups of patients receiving ganaxolone IV at median doses of 60, 90 and 140 µg/kg/h. No dose group was powered to generate statistical significance. The 140 µg/kg/h dose group (n=10) demonstrated the largest HAM-D17 reduction, with a HAM-D17 reduction of 15.1 (5.6 > placebo), 16.9 (4.2 > placebo) and 15.7 (4.1 > placebo) points from baseline at 48 hours, 60 hours and day 34, respectively. Patients in the 140 µg/kg/h dose group had a mean response rate, as defined as having a ≥50% reduction from baseline, of 75% and 67% at 34 days and 60 hours, respectively, and a mean remission rate, as determined by a HAM-D17 ≤7, of 50% and 33% at 34 days and 60 hours, respectively. The Clinical Global Impression of Improvement (CGI-I) as well as the Edinburgh Postnatal Depression Survey (EPDS) and Spielberger State-Trait Anxiety 6 (STAI-6) showed consistent trends as HAM-D17.

Based on these results, the Company is advancing to Part 2 of the Magnolia Study that will evaluate a short IV infusion followed by oral ganaxolone administration. Data from Part 2 are expected in the first half of 2019.

Amaryllis Study (Interim Update):

On December 10, 2018, we provided an interim update from our Amaryllis study, a Phase 2 clinical trial to evaluate the safety, tolerability and efficacy of oral ganaxolone in women with PPD. Patients with a HAM-D17 score of ≥ 20 but < 26 are being considered for enrollment in the study. Cohorts of patients enrolled in the initial open label phase of the study receive ascending dose regimens with oral ganaxolone. The primary endpoints of the study are safety and pharmacokinetics. Patients in the most recent dose cohort who took oral ganaxolone for four weeks had a mean HAM-D17 reduction of 13.2 points at day 28 from a baseline of 24.7 and a mean reduction of 15.7 points at day 35. This cohort is on-going and not all of the 18 patients enrolled into this cohort have reached day 28. Oral ganaxolone was generally safe and well-tolerated with no serious adverse events reported and no discontinuations due to treatment related adverse events. Based on data to-date from this study and Part 1 of the Magnolia Study, we plan to enroll additional patients into the open label phase of the Amaryllis Study with the goal of further optimizing our oral ganaxolone dose regimen. Data from the Amaryllis Study are expected in the first half of 2019.

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Our Clinical-Stage Programs

Postpartum Depression (PPD)

PPD is a mood disorder that affects about 15% of women within the first year following childbirth. Common symptoms include feelings of extreme sadness, hopelessness, suicidal ideation, anxiety and fatigue. PPD is thought to be linked to the rapid fluctuations in the levels of reproductive hormones and allopregnanolone after childbirth. Allopregnanolone has shown early clinical evidence in treating patients with PPD. PPD can affect a mother's ability to care for her child and may negatively affect a child's cognitive development. There are no approved treatments for PPD but the most common treatments are psychotherapy and antidepressants. We believe that treatment with ganaxolone, a synthetic analog of allopregnanolone, may provide benefit to women suffering from PPD.

CDKL5 Deficiency Disorder (CDD)

CDD is a serious and rare genetic disorder that is caused by a mutation of the cyclin-dependent kinase-like 5 (CDKL5) gene, located on the X chromosome. It predominantly affects girls and is characterized by early-onset, difficult-to-control seizures and severe neuro-developmental impairment. The CDKL5 gene encodes proteins essential for normal brain function. Most children affected by CDD cannot walk normally, talk, or care for themselves. Many also suffer from scoliosis, visual impairment, gastrointestinal difficulties and sleeping disorders. Currently, there are no approved therapies or treatments for CDD. We believe that no previous late-stage clinical trials have been conducted in this patient population.

We are currently enrolling patients in a pivotal Phase 3 clinical trial (Marigold Study) evaluating the use of oral ganaxolone in children and young adults with CDD. The Marigold Study is a global, double-blind, placebo-controlled, trial that will enroll approximately 70 patients between the ages of 2 and 21 with a confirmed disease-related CDKL5 gene variant. Patients will undergo an eight-week baseline period before being randomized to receive either ganaxolone (up to 1,800 mg/day) or placebo for 17 weeks, in addition to their existing anti-seizure treatment. Following the double-blind treatment period, all patients that meet certain eligibility requirements will have the opportunity to receive ganaxolone in the open label phase of the study. The study's primary efficacy endpoint is percent reduction in seizures. Secondary outcome measures will include non-seizure-related endpoints to capture certain changes in behavior and sleep.

The U.S. Food and Drug Administration, or the FDA, granted Orphan Drug Designation to ganaxolone for the treatment of CDKL5 gene-related early-onset infantile epileptic encephalopathy. Orphan Drug Designation is granted by the FDA Office of Orphan Products Development (OOPD) to novel drugs or biologics that treat a rare disease or condition affecting fewer than 200,000 patients in the U.S. The designation provides the drug developer with a seven-year period of U.S. marketing exclusivity, as well as tax credits for clinical research costs, the ability to apply for annual grant funding, clinical research trial design assistance and waiver of Prescription Drug User Fee Act (PDUFA) filing fees.

Status Epilepticus (SE)

SE is a life-threatening occurrence of continuous or intermittent seizures lasting more than five minutes in duration without full recovery. If SE is not treated immediately, permanent neuronal damage may occur, which contributes to high rates of morbidity and mortality. In refractory status epilepticus (RSE), certain synaptic $GABA_A$ receptors are internalized, and thereby unavailable to drugs that target these receptors, such as benzodiazepines. According to LexisNexis, there are approximately 45,000 cases of hospitalized RSE treated in the United States annually. RSE patients who do not respond to additional antiepileptic drugs (AEDs), referred to as having super refractory status epilepticus (SRSE), are generally placed under IV anesthesia as a last resort to attempt to stop the seizures and prevent further damage to the brain and death.

We are enrolling patients with refractory status epilepticus (RSE) in a Phase 2 study with ganaxolone IV. Initial data from this proof-of-concept study are expected in the first half of 2019. The FDA granted Orphan Drug Designation to the IV formulation of ganaxolone for the treatment of SE.

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Ganaxolone Safety and Tolerability

In clinical trials, ganaxolone has been administered in approximately 1,600 subjects at therapeutically relevant dose levels and treatment regimens for more than two years. In these clinical trials, ganaxolone was generally well tolerated with no adverse effects on cardiovascular, liver, blood or other systems. In animal studies, there was no evidence of reproductive toxicity or other toxicities after long-term administration of ganaxolone.

Ganaxolone Mechanism of Action

Ganaxolone is a synthetic analog of a naturally occurring neurosteroid, allopregnanolone, which exhibits potent anxiolytic, antidepressant, antiepileptic and sedative activity by virtue of its $GABA_A$ receptor-modulating properties. While allopregnanolone's $GABA_A$ modulatory activity is well documented, it has the potential to convert back to its metabolic precursor, progesterone, which could lead to hormonal side effects. Ganaxolone has been designed with an added methyl group that prevents back conversion to an active steroid. This, along with our proprietary nanoparticulate technology, enables ganaxolone to be dosed chronically and orally. In preclinical studies, ganaxolone exhibited potency and efficacy comparable to allopregnanolone.

GABA (gamma-aminobutyric acid) is the chief inhibitory neurotransmitter in the brain. One of the subclasses of receptors that respond to GABA is the $GABA_A$ receptor. When activated, these receptors selectively conduct chloride ions through a pore that results in the inhibitory effect of hyperpolarization of the neuron. Synaptic $GABA_A$ receptors respond quickly to inhibit neurotransmission, while extrasynaptic $GABA_A$ receptors provide ambient tonic inhibition.

Both ganaxolone and allopregnanolone bind to $GABA_A$ receptors at the synaptic and extrasynaptic binding sites. Activity with extrasynaptic $GABA_A$ receptors may be of particular importance for treating patients who developed tolerance to benzodiazepines and barbiturates. Ganaxolone binds to the $GABA_A$ receptors, which opens the pore to allow chloride ions to move into the postsynaptic neuron, leading to the inhibition of neurotransmission.

Our Strategy

Our goal is to maximize the value of ganaxolone as a best-in-class innovative neuropsychiatric therapy with a portfolio of diversified indications and formulations. The key elements of our strategy to achieve this goal include the following:

- ***Pursuing depression and other neuropsychiatric disorder indications for ganaxolone.*** Due to its mechanism of action, we believe ganaxolone has potential for therapeutic benefit in a variety of neuropsychiatric disorders. Evidence from preclinical and clinical studies demonstrates that treatment with ganaxolone could benefit patients with depression, anxiety, mood, sleep and other neuropsychiatric disorders. We believe our top-line results from Phase 2 clinical trials in PPD, CDD, PCDH19 related epilepsy and Fragile X Syndrome (FXS) patients support this hypothesis. We may also explore development of ganaxolone in other depression-related, neuropsychiatric disorders and rare neurological diseases

- ***Pursuing orphan, genetic epilepsy indications for ganaxolone.*** Within epilepsy, there are several smaller patient populations, such as CDD, where a genetic marker associated with the syndrome has been linked to deficits in GABAergic signaling. Based on clinical data, we believe that increasing GABAergic tone with ganaxolone could provide benefits and that treatments for these small populations have the potential for more efficient paths to regulatory approval and commercialization. In addition to CDD, we may also explore development of ganaxolone in other rare refractory epilepsy indications such as PCDH19 related epilepsy.

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- ***Pursuing hospital based indications for ganaxolone.*** We believe there to be a significant unmet need for hospitalized patients who do not respond to available first and second line treatment options. Due to its activity at extrasynaptic $GABA_A$ receptors, ganaxolone may provide a therapeutic benefit to patients as a second line therapy for patients refractive to benzodiazapines. To that end, we are conducting a Phase 2 proof-of-concept study in refractory SE patients and may in the future study other hospital based patient populations that could benefit from ganaxolone's mechanism.

- ***Building on our product pipeline.*** We intend to expand and diversify our product pipeline through development and/or acquisition of additional drug candidates that fit our business strategy. In addition, we may expand the targeted indication footprint for our ganaxolone franchise into other epilepsy, neuropsychiatric or other indications.

Corporate Information

We were incorporated in Delaware in August 2003. Our principal executive offices are located at 170 N. Radnor Chester Rd., Suite 250, Radnor, Pennsylvania 19087 and our telephone number is (484) 801-4670. Our website address is www.marinuspharma.com. The inclusion of our website address is, in each case, intended to be an inactive textual reference only and not an active hyperlink to our website. The information on our internet website is not incorporated by reference in this prospectus supplement and should not be considered to be part of this prospectus supplement.

Implications of Being an Emerging Growth Company

We are an "emerging growth company," as defined in the JOBS Act enacted in April 2012. For as long as we continue to be an "emerging growth company," we may choose to take advantage of exemptions from various public company reporting requirements. These exemptions include, but are not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;

- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and

- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We can be an "emerging growth company" for up to five years after the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, as amended, or the Securities Act, which occurred on July 31, 2014 when the SEC declared effective our Form S-1 registration statement. We would cease to be an "emerging growth company" if we have more than $1.07 billion in annual revenue, have more than $700 million in market value of our capital stock held by non-affiliates, or issue more than $1.0 billion of non-convertible debt over a three-year period.

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THE OFFERING

Common stock offered by us	12,000,000 shares
Common stock to be outstanding after this offering	52,525,013 shares (or 54,325,013 shares if the underwriters exercise in full their option to purchase additional shares). The actual number of shares issued will vary depending on the actual public offering price in this offering.
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days to purchase up to an additional 1,800,000 shares of common stock.
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting estimated underwriting discounts and commissions and estimated expenses payable by us and relating to the offering, will be approximately $58.9 million (or approximately $67.8 million if the underwriters exercise their option to purchase additional shares of common stock in full), based on the assumed offering price of $5.24 per share (the last reported sale price of our common stock on the Nasdaq Global Market on December 10, 2018). We intend to use the net proceeds received from the sale of our common stock to advance the preclinical and clinical development of ganaxolone, including clinical trial expenses, including trials for PPD and our rare pediatric refractory epilepsy program, and regulatory, research and development, pre-commercial, general and administrative and manufacturing expenses and for working capital and general corporate purposes. See "Use of Proceeds."
Risk factors	An investment in our common stock involves a high degree of risk. See "Risk Factors" beginning on page S-9 of this prospectus supplement for a discussion of factors that you should read and consider before investing in our securities.
Nasdaq Global Market symbol	Our common stock is listed on the Nasdaq Global Market under the symbol "MRNS."

The number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 40,525,013 shares outstanding as of September 30, 2018 and excludes 4,832,109 shares of common stock issuable upon exercise of outstanding options as of September 30, 2018, with a weighted average exercise price of $5.54 per share.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options described above and no exercise of the underwriters' option to purchase additional shares of common stock.

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RISK FACTORS

Investing in our securities involves a high degree of risk. Before you make a decision to invest in our securities, you should carefully consider the risks described below, together with the risks described in the section entitled "Risk Factors" contained in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q filed with the SEC, as well as any amendment or update thereto reflected in subsequent filings with the SEC or in any Current Report on Form 8-K we may file. If any of these risks actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our securities to decline and you may lose part or all of your investment. Moreover, the risks described are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition.

Our future success is dependent on the successful clinical development, regulatory approval and commercialization of ganaxolone, which will require significant capital resources and years of additional clinical development effort.

We do not have any products that have gained regulatory approval. Currently, our only clinical stage product candidate is ganaxolone. As a result, our business is dependent on our ability to successfully complete clinical development of, obtain regulatory approval for, and, if approved, successfully commercialize ganaxolone in a timely manner. We cannot commercialize ganaxolone in the United States without first obtaining regulatory approval from the FDA; similarly, we cannot commercialize ganaxolone outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of ganaxolone for a target indication, we must demonstrate with substantial evidence gathered in preclinical studies and clinical trials, generally including two adequate and well-controlled clinical trials, and, with respect to approval in the United States, to the satisfaction of the FDA, that ganaxolone is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate. While we currently plan to rely on our ongoing Phase 3 clinical trial (Marigold Study) evaluating the use of oral ganaxolone in children and young adults with CDD as the single pivotal clinical trial to support potential FDA approval for ganaxolone for the treatment of seizures in CDKL5-related epileptic encephalopathy, depending on the results of that clinical trial, we may need to conduct additional pivotal clinical trials to obtain FDA approval. Even if ganaxolone were to obtain approval from the FDA and comparable foreign regulatory authorities, any approval might contain significant limitations, such as restrictions as to specified age groups, warnings, precautions or contraindications, or may be subject to burdensome post-approval study or risk management requirements. For instance, based on human abuse potential studies that we will need to conduct in connection with the potential FDA approval of ganaxolone, the FDA may recommend controlled substances scheduling of ganaxolone. In such event, prior to a product launch, the U.S. Drug Enforcement Agency will need to determine the controlled substance schedule of the product, taking into account the recommendation of the FDA. The scheduling process may delay our ability to market ganaxolone if it is approved. If we are unable to obtain regulatory approval for ganaxolone in one or more jurisdictions, or any approval contains significant limitations, we may not be able to obtain sufficient funding or generate sufficient revenue to continue the development of any other product candidate that we may in-license, develop or acquire in the future. Furthermore, even if we obtain regulatory approval for ganaxolone, we will still need to develop a commercial organization, establish commercially viable pricing and obtain approval for adequate reimbursement from third-party and government payers. If we are unable to successfully commercialize ganaxolone, we may not be able to earn sufficient revenue to continue our business.

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We have broad discretion in the use of the net proceeds of this offering and, despite our efforts, we may use the proceeds in a manner that does not improve our operating results or increase the value of your investment.

We currently anticipate that the net proceeds from the sale of our common stock will be used primarily to advance the preclinical and clinical development of ganaxolone, including clinical trial expenses, including trials for PPD and our rare pediatric refractory epilepsy program, and regulatory, research and development, pre-commercial, general and administrative and manufacturing expenses and for working capital and general corporate purposes. However, we have not determined the specific allocation of the net proceeds among these potential uses. Our management will have broad discretion over the use and investment of the net proceeds of this offering, and, accordingly, investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds, with only limited information concerning our specific intentions. These proceeds could be applied in ways that do not improve our operating results or increase the value of your investment. Please see the section entitled "Use of Proceeds" for further information.

If you purchase the common stock sold in this offering, you will experience immediate dilution as a result of this offering and future equity issuances.

Because the price per share of our common stock being offered is higher than the book value per share of our common stock, you will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering. See the section entitled "Dilution" for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

The issuance of additional shares of our common stock could be dilutive to stockholders if they do not invest in future offerings. Moreover, to the extent that we issue options or warrants to purchase, or securities convertible into or exchangeable for, shares of our common stock in the future and those options, warrants or other securities are exercised, converted or exchanged, stockholders may experience further dilution.

Future sales of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. As of September 30, 2018, we had 40,525,013 shares of common stock outstanding, all of which shares were eligible for sale in the public market, subject in some cases to compliance with the requirements of Rule 144, including the volume limitations and manner of sale requirements. In addition, shares of common stock issuable upon exercise of outstanding options and shares reserved for future issuance under our stock incentive plans will become eligible for sale in the public market to the extent permitted by applicable vesting requirements and subject in some cases to compliance with the requirements of Rule 144.

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FORWARD-LOOKING STATEMENTS

This prospectus supplement and the information incorporated or deemed to be incorporated by reference herein contain or incorporate by reference "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In some cases, you can identify forward-looking statements by the words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "objective," "ongoing," "plan," "predict," "project," "potential," "should," "will," or "would," and or the negative of these terms, or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus supplement and the information incorporated or deemed to be incorporated by reference herein, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain.

These risks and uncertainties include, among other things:

- our ability to develop and commercialize ganaxolone;
- status, timing and results of preclinical studies and clinical trials;
- enrollment in clinical trials, availability of data from ongoing clinical trials, expectations for regulatory approvals, the attainment of clinical trial results that will be supportive of regulatory approvals;
- the potential benefits of ganaxolone;
- the timing of seeking regulatory approval of ganaxolone;
- our ability to obtain and maintain regulatory approval;
- our estimates of expenses, future revenue and profitability;
- our estimates regarding our capital requirements and our needs for additional financing;
- our plans to develop and market ganaxolone and the timing of our development programs;
- our estimates of the size of the potential markets for ganaxolone;
- our selection and licensing of ganaxolone;
- our ability to attract collaborators with acceptable development, regulatory and commercial expertise;

- the benefits to be derived from corporate collaborations, license agreements and other collaborative or acquisition efforts, including those relating to the development and commercialization of ganaxolone;
- sources of revenue, including contributions from corporate collaborations, license agreements and other collaborative efforts for the development and commercialization of products;
- our ability to create an effective sales and marketing infrastructure if we elect to market and sell ganaxolone directly;
- the rate and degree of market acceptance of ganaxolone;
- the timing and amount or reimbursement for ganaxolone;
- the success of other competing therapies that may become available;
- the manufacturing capacity for ganaxolone;
- our intellectual property position;
- our ability to maintain and protect our intellectual property rights;
- our results of operations, financial condition, liquidity, prospects and growth strategies;
- the industry in which we operate; and
- the trends that may affect the industry or us.

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You should refer to "Risk Factors" beginning on page S-9 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus supplement will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

You should read this prospectus supplement and the documents that we reference in this prospectus supplement and have filed as exhibits to the documents incorporated by reference in this prospectus supplement completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

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USE OF PROCEEDS

We anticipate that the net proceeds to us from the offering, after deducting estimated underwriting discounts and commissions and estimated expenses payable by us and relating to the offering, will be approximately $58.9 million, or approximately $67.8 million if the underwriters exercise in full their option to purchase additional shares, based on the assumed offering price of $5.24 per share (the last reported sale price of our common stock on the Nasdaq Global Market on December 10, 2018). We currently intend to use the net proceeds of this offering to advance the preclinical and clinical development of ganaxolone, including clinical trial expenses, including trials for PPD and our rare pediatric refractory epilepsy program, and regulatory, research and development, pre-commercial, general and administrative and manufacturing expenses and for working capital and general corporate purposes.

Each $1.00 increase/decrease in the assumed public offering price would increase/decrease the net proceeds received by us by approximately $11.3 million, assuming the total number of shares sold in this offering remains the same.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. Accordingly, our management will have broad discretion in the application of these proceeds. Pending these uses, we will invest the net proceeds in investment-grade, interest-bearing securities.

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DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share and our as adjusted net tangible book value per share after this offering. We calculate net tangible book value per share by dividing our net tangible book value, which is tangible assets less total liabilities, by the number of outstanding shares of our common stock.

Our net tangible book value as of September 30, 2018 was approximately $35.1 million, or $0.87 per share. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the assumed sale of 12,000,000 shares of our common stock at the assumed public offering price of $5.24 per share (the last reported sale price of our common stock on the Nasdaq Global Market on December 10, 2018) and after deducting estimated underwriting discounts and commissions and estimated offering expenses, our as adjusted net tangible book value as of September 30, 2018 would have been approximately $94.1 million, or approximately $1.79 per share. This represents an immediate increase in net tangible book value of approximately $0.92 per share to existing stockholders and immediate dilution of approximately $3.45 per share to investors purchasing our common stock in this offering at the assumed public offering price. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		$ 5.24
Net tangible book value per share as of September 30, 2018	$ 0.87	
Increase in net tangible book value per share attributable to this offering	$ 0.92	
As adjusted net tangible book value per share as of September 30, 2018, after giving effect to this offering		$ 1.79
Dilution per share to new investors in this offering		$ 3.45

The table above assumes for illustrative purposes that an aggregate of 12,000,000 shares of our common stock are sold in this offering at an assumed public offering price of $5.24 per share (the last reported sale price for our common stock on the Nasdaq Global Market on December 10, 2018). A $1.00 increase in the assumed public offering price would increase the dilution per share to new investors by approximately $0.79 per share, assuming the total number of shares sold in this offering remains the same. Similarly, a $1.00 decrease in the assumed public offering price would decrease the dilution per share to new investors by approximately $0.79 per share, assuming the total number of shares sold in this offering remains the same.

We may also increase or decrease the number of shares we are offering from the assumed number of shares set forth on the cover page of this prospectus supplement. An increase of 1,000,000 shares offered by us would decrease the dilution per share to new investors by approximately $0.06 per share, assuming that the assumed public offering price remains the same. Similarly, a decrease of 1,000,000 shares offered by us would increase the dilution per share to new investors by approximately $0.06 per share, assuming that the assumed public offering price remains the same.

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The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at pricing.

If the underwriters exercise their option to purchase additional shares in full, the as adjusted net tangible book value per share of our common stock after giving effect to this offering would be approximately $1.89 per share, and the dilution in net tangible book value per share to investors purchasing common stock in this offering would be approximately $3.35 per share.

The as-adjusted numbers shown above are based on 40,525,013 shares of common stock outstanding as of September 30, 2018 and excludes 4,832,109 shares subject to outstanding options as of September 30, 2018, having a weighted average exercise price of $5.54 per share.

To the extent outstanding options are exercised, there will be further dilution to new investors. In addition, to the extent we issue additional equity securities in connection with future capital raising activities, our then-existing stockholders may experience dilution.

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DIVIDEND POLICY

We have never paid cash dividends. We do not expect to declare or pay any cash dividends on our common stock in the near future. We intend to retain all earnings, if any, to invest in our operations. The payment of future dividends is within the discretion of our board of directors and will depend upon our future earnings, if any, our capital requirements, financial condition and other relevant factors.

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UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated December , 2018, among us, Jefferies LLC and Leerink Partners LLC, as the representatives of the underwriters named below and the joint book-running managers of this offering, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the respective number of shares of common stock shown opposite its name below:

Underwriter	Number of Shares
Jefferies LLC	
Leerink Partners LLC	
Total	12,000,000

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the completion of this offering, they currently intend to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock subject to their acceptance of the shares of common stock from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers, which may include the underwriters, at that price less a concession not in excess of $ per share of common stock. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of $ per share of common stock to certain brokers and dealers. After the offering, the public offering price, concession and reallowance to dealers may be reduced by the representative. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such

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amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Share		Total	
	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	$	$	$	$
Underwriting discounts and commissions paid by us	$	$	$	$
Proceeds to us, before expenses	$	$	$	$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $175,000. This amount also includes up to $20,000, which we have agreed to reimburse the underwriters for their FINRA counsel fee. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

Listing

Our common stock is listed on the Nasdaq Global Market under the trading symbol "MRNS."

Stamp Taxes

If you purchase shares of common stock offered in this prospectus supplement, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus supplement.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase, from time to time, in whole or in part, up to an aggregate of 1,800,000 shares from us at the public offering price set forth on the cover page of this prospectus supplement, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares proportionate to that underwriter's initial purchase commitment as indicated in the table above.

No Sales of Similar Securities

We, our officers and directors have agreed, subject to specified exceptions, not to directly or indirectly:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer or establish an open "put equivalent position" within the meaning of Rule 16a-l(h) under the Exchange Act,
- otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially, or
- publicly announce an intention to do any of the foregoing for a period of 90 days after the date of this prospectus without the prior written consent of Jefferies LLC and Leerink Partners LLC.

This restriction terminates after the close of trading of the common stock on and including the 90th day after the date of this prospectus supplement.

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Jefferies LLC and Leerink Partners LLC may, in their sole discretion and at any time or from time to time before the termination of the 90-day period release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our stockholders who will execute a lock-up agreement, providing consent to the sale of shares prior to the expiration of the lock-up period.

Stabilization

The underwriters have advised us that they, pursuant to Regulation M under the Exchange Act and certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of our common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either "covered" short sales or "naked" short sales.

"Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

"Naked" short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriter's purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member is purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriters may also engage in passive market making transactions in our common stock on the Nasdaq Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

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Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the websites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' websites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus supplement, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Other Activities and Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and certain of their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

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NOTICE TO INVESTORS

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), an offer to the public of any securities which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- to any legal entity which is a "qualified investor" as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the underwriters or underwriters nominated by us for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of securities shall require the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe to the securities, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong ("SFO") and any rules made under that Ordinance; or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong ("CO") or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is

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not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Israeli Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the common stock is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals," each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

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securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ("CISA"). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

United Kingdom

This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

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LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Duane Morris LLP, Philadelphia, Pennsylvania. Covington & Burling LLP, New York, New York is counsel to the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements of Marinus Pharmaceuticals, Inc. as of December 31, 2017 and 2016, and for each of the years in the three year period ended December 31, 2017, have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the internet at the SEC's website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.marinuspharma.com. Our website is not a part of this prospectus supplement and is not incorporated by reference into this prospectus supplement. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

This prospectus supplement omits some information contained in our registration statement in accordance with the SEC's rules and regulations. You should review the information contained in and exhibits filed to the registration statement for further information on us and the securities we are offering. Statements in this prospectus supplement concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to those filings. You should review the complete document to evaluate these statements.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference into this prospectus supplement is considered to be part of this prospectus supplement. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any document previously incorporated by reference have been modified or superseded. Information in future filings updates and supplements the information provided in this prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements. This prospectus supplement incorporates by reference the documents listed below (File No. 000-36576) and any future filings (in each case, other than those documents or the portions of those documents not deemed to be filed, including current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) we make with the SEC

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under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the offering of the securities under the registration statement of which this prospectus forms a part is terminated or completed, which will become a part of this prospectus from the date that such documents are filed with the SEC:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 7, 2018;
- Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2018, June 30, 2018 and September 30, 2018 filed with the SEC on May 2, 2018, August 3, 2018 and October 29, 2018 respectively;
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 from our Definitive Proxy Statement on Schedule 14A filed on March 7, 2018;
- Current Reports on Form 8-K filed with the SEC on April 23, 2018, September 5, 2018, December 4, 2018, December 7, 2018 and December 10, 2018; and
- The description of our common stock contained in our registration statement filed pursuant to Section 12 of the Exchange Act, as modified by our reports we file under the Exchange Act.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or phone number:

Marinus Pharmaceuticals, Inc.
170 N. Radnor Chester Rd., Suite 250
Radnor, PA 19087
Attn: Investor Relations
Phone: (484)-801-4670

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MARINUS PHARMACEUTICALS, INC.

$200,000,000
Common Stock
Preferred Stock
Debt Securities
Warrants
Units

From time to time, we may offer up to $200,000,000 of any combination of the securities described in this prospectus, either individually or in units. We may also offer common stock or preferred stock upon conversion of debt securities, common stock upon conversion of preferred stock, or common stock, preferred stock or debt securities upon the exercise of warrants. We will provide the specific terms of these offerings and securities in one or more supplements to this prospectus. We may also authorize the provision to you of one or more free writing prospectuses in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information we include in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents we incorporate by reference, before buying any of the securities being offered.

Our common stock is traded on the Nasdaq Global Market under the symbol "MRNS." On October 25, 2017, the last reported sale price of our common stock on the Nasdaq Global Market was $5.24. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the Nasdaq Global Market or any securities market or other exchange of the securities covered by the applicable prospectus supplement. On October 25, 2017, the aggregate market value of our outstanding common stock our non-affiliates held was approximately $181.9 million.

We may sell the securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, we will set forth in a prospectus supplement the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options. We will also set forth in a prospectus supplement the price to the public of such securities and the net proceeds that we expect to receive from such sale.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that we incorporate by reference into this prospectus.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

Neither the U.S. Securities and Exchange Commission, any state securities commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

This prospectus is dated October 31, 2017.

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You should rely only on the information contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, including the information we incorporate by reference as described under "Where You Can Find More Information." We have not authorized anyone to provide you with different information. If you receive any other information, you should not rely on it. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

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RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the specific risks and uncertainties we describe under the caption "Risk Factors" or similar heading in our periodic reports referred to in "Where You Can Find More Information" below and, if included in an applicable prospectus supplement or free writing prospectus under the caption "Risk Factors" or similar heading in the applicable prospectus supplement. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

ABOUT THIS PROSPECTUS

All references in this prospectus to "Marinus," "Company," "we," "our" and "us" refer to Marinus Pharmaceuticals, Inc. unless the context otherwise requires.

This prospectus is part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or "SEC", using a "shelf" registration process. Under this shelf registration process, we and certain holders of our securities may sell the securities described in this prospectus in one or more offerings, up to the total dollar amount of $200,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we or holders of our securities offer to sell securities under this shelf registration statement, we will provide a prospectus supplement that will contain more specific information about the terms of the offering and those securities. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also modify, add to or supersede the information contained in this prospectus or in the documents we have incorporated by reference into this prospectus. You should read this prospectus together with the documents incorporated by reference, the applicable prospectus supplement and any related free writing prospectus, to with the additional information referred to below under "Where You Can Find More Information," before buying any of the securities being offered.

We have filed a registration statement on Form S-3 with the SEC relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all of the information in the registration statement. Whenever we refer in this prospectus, including other documents we incorporate by reference, to a Company contract or other document, please be aware that the reference is only a summary and that you should refer to the exhibits that are a part of the registration statement for a copy of the applicable contract or other document. We qualify all of the summaries in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find Additional Information."

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any documents we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our filings with the SEC are also available to the public through the SEC's Internet site at http://www.sec.gov.

The SEC's rules allow us to "incorporate by reference" information into this prospectus. Therefore, we can disclose important information to you by referring you to any of the SEC filings we reference in the list below. Any information we refer to in this way in this prospectus or the applicable prospectus supplement is considered part of this prospectus or the applicable prospectus supplement. Any reports we file with the SEC after the date of this prospectus and before the date that the offering

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of securities by means of this prospectus terminates will automatically update and, where applicable, supersede any information contained or incorporated by reference in this prospectus or the applicable prospectus supplement.

We incorporate by reference into this prospectus the following documents or information we file with the SEC, other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules. The SEC file number for these documents is 000-36576.

- Our annual report on Form 10-K for the year ended December 31, 2016 we filed with the SEC on March 13, 2017;
- Our quarterly reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 we filed with the SEC on May 1, 2017, August 1, 2017 and October 31, 2017, respectively;
- Our current reports on Form 8-K we filed on January 9, 2017, January 19, 2017, January 24, 2017, February 1, 2017, April 6, 2017, April 12, 2017, May 15, 2017, June 16, 2017, September 11, 2017 and September 15, 2017, other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits we file on such form that relate to such items;
- The description of our common stock contained in our registration statement filed pursuant to Section 12 of the Securities Exchange Act of 1934, or the Exchange Act, as modified by our reports we file under the Exchange Act; and
- All documents we file under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before the termination of the offering of securities under this prospectus, other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits we file on such form that relate to such items.

Any statement contained in a document incorporated by reference in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that any statement contained in this prospectus or in any subsequently filed document, which also is or is deemed to be incorporated by reference in this prospectus or any prospectus supplement, modifies or supersedes this statement. Any statement modified or superseded in this way will not be deemed, except as so modified or superseded, to constitute a part of this prospectus or any prospectus supplement. The information incorporated by reference contains information about us and our financial condition and performance and is an important part of this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus, excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from Marinus Pharmaceuticals, Inc., Attention: Investor Relations, 170 N. Radnor Chester Rd., Suite 250, Radnor, Pennsylvania, telephone (484) 801-4670.

CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

This prospectus, including documents we incorporate by reference, any applicable prospectus supplement and any related free writing prospectus, contains forward-looking statements, as defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as ""anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "objective," "ongoing," "plan," "predict," "project," "potential," "should," "will," or "would," the negative of such terms or other comparable terminology intended to identify statements about the future. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity,

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performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus supplement and the information incorporated or deemed to be incorporated by reference herein, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain.

These risks and uncertainties include, among other things:

- our ability to develop and commercialize ganaxolone;
- status, timing and results of preclinical studies and clinical trials;
- enrollment in clinical trials, availability of data from ongoing clinical trials, expectations for regulatory approvals, the attainment of clinical trial results that will be supportive of regulatory approvals;
- the potential benefits of ganaxolone;
- the timing of seeking regulatory approval of ganaxolone;
- our ability to obtain and maintain regulatory approval;
- our estimates of expenses, future revenue and profitability;
- our estimates regarding our capital requirements and our needs for additional financing;
- our plans to develop and market ganaxolone and the timing of our development programs;
- our estimates of the size of the potential markets for ganaxolone;
- our selection and licensing of ganaxolone;
- our ability to attract collaborators with acceptable development, regulatory and commercial expertise;
- the benefits to be derived from corporate collaborations, license agreements, and other collaborative or acquisition efforts, including those relating to the development and commercialization of ganaxolone;
- sources of revenue, including contributions from corporate collaborations, license agreements, and other collaborative efforts for the development and commercialization of products;
- our ability to create an effective sales and marketing infrastructure if we elect to market and sell ganaxolone directly;

the rate and degree of market acceptance of ganaxolone;

the timing and amount or reimbursement for ganaxolone;

the success of other competing therapies that may become available;

the manufacturing capacity for ganaxolone;

our intellectual property position;

our ability to maintain and protect our intellectual property rights;

our results of operations, financial condition, liquidity, prospects, and growth strategies;

the industry in which we operate; and

the trends that may affect the industry or us.

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Ganaxolone is an investigational drug undergoing clinical development and has not been approved by the FDA, nor submitted to the FDA for approval. Ganaxolone has not been, nor may never be approved by any regulatory agency nor marketed anywhere in the world. Statements contained in this prospectus should not be deemed to be promotional.

You should refer to "Risk Factors" beginning on page 2 of this prospectus and in the documents incorporated by reference into this prospectus supplement for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the documents incorporated by reference in this prospectus completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

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OUR COMPANY

Overview

We are a clinical stage biopharmaceutical company focused on developing and commercializing innovative therapeutics to treat epilepsy and neuropsychiatric disorders. Our clinical stage product candidate, ganaxolone, is a positive allosteric modulator of $GABA_A$ being developed in three different dose forms: intravenous (IV), oral capsule and oral liquid. The multiple dose forms are intended to maximize the therapeutic range of ganaxolone for both adult and pediatric patient populations, in both acute and chronic care, and both in-patient and self-administered settings. Ganaxolone exhibits anti-seizure and anti-anxiety actions via its effects on synaptic and extrasynaptic $GABA_A$ receptors.

Our Clinical-Stage Programs

CDKL5 deficiency disorder (CDD)

CDD is a serious and rare genetic disorder that is caused by a mutation of the cyclin-dependent kinase-like 5 (CDKL5) gene, located on the X chromosome. It predominantly affects girls and is characterized by early-onset, difficult-to-control seizures and severe neuro-developmental impairment. The CDKL5 gene encodes proteins essential for normal brain function. Most children affected by CDD cannot walk, talk, or care for themselves. Many also suffer from scoliosis, visual impairment, gastrointestinal difficulties, and sleeping disorders. Currently, there are no approved therapies for CDD. We believe that no previous formal clinical trials have been conducted in this patient population.

In September 2017, we announced Phase 2 results in patients suffering from CDD. Patients in the CDD cohort of our ongoing Phase 2 open-label study in orphan pediatric epilepsies showed a median decrease of 43% (n=7) in 28-day seizure frequency from baseline in the ITT (intent-to-treat) population (primary endpoint). The median change from baseline in seizure-free days in the ITT population (key secondary endpoint) was an increase of 78% (n=5; two subjects cannot be calculated due to 0 baseline seizure-free days). Four patients continue to receive ganaxolone; three of which have entered the one-year extension of the study and one of which is still receiving treatment within the 26-week treatment period. Ganaxolone was generally safe and well-tolerated with no serious adverse events. To date, there have been no adverse event reports of somnolence or dizziness and two children discontinued prior to completing the 26-week treatment due to lack of efficacy. We are planning to meet with regulatory agencies to discuss the clinical development plan with the goal of commencing a clinical study in 2018.

The U.S. Food and Drug Administration granted Orphan Drug Designation to ganaxolone for the treatment of CDD. Orphan Drug Designation is granted by the FDA Office of Orphan Products Development (OOPD) to novel drugs or biologics that treat a rare disease or condition affecting fewer than 200,000 patients in the U.S. The designation provides the drug developer with a seven-year period of U.S. marketing exclusivity, as well as tax credits for clinical research costs, the ability to apply for annual grant funding, clinical research trial design assistance and waiver of Prescription Drug User Fee Act (PDUFA) filing fees.

Postpartum Depression (PPD)

PPD is a mood disorder that affects about 15% of women within the first year following childbirth. Common symptoms include feelings of extreme sadness, hopelessness, suicidal ideation, anxiety, and fatigue. PPD is thought to be linked to the rapid fluctuations in the levels of reproductive hormones and allopregnanolone (allo) after childbirth. Allo has shown early clinical evidence in treating patients with severe PPD. PPD can affect a mother's ability to care for her child and may negatively affect a child's cognitive development. There are no approved treatments for PPD but the most common

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treatments are psychotherapy and antidepressants. We believe that treatment with ganaxolone may provide benefit to women suffering from PPD.

In June 2017, we initiated a Phase 2 double-blind, placebo-controlled clinical trial to evaluate the safety, efficacy and pharmacokinetics (PK) of ganaxolone IV in women diagnosed with severe PPD (Magnolia study). Patients randomized in the initial cohort(s) will undergo an infusion of either ganaxolone or placebo and will be followed for 30 days, with data expected in early 2018. Subsequent Magnolia study cohorts could include shorter- or higher-dose intravenous regimens alone or in sequential administration with oral ganaxolone. We are also initiating a Phase 2 study to evaluate the safety, tolerability and efficacy of ganaxolone oral capsules in moderate PPD patients (Amaryllis study). Data from this study are expected in 2018.

Status Epilepticus (SE)

SE is a life-threatening occurrence of continuous or intermittent seizures lasting more than five minutes in duration without full recovery. If SE is not treated immediately, permanent neuronal damage may occur, which contributes to high rates of morbidity and mortality. In refractory status epilepticus (RSE), certain synaptic $GABA_A$ receptors are internalized, thereby unavailable to drugs that target these receptors, such as benzodiazepines. According to LexisNexis, there are approximately 45,000 cases of hospitalized RSE treated in the United States annually. RSE patients who do not respond to additional antiepileptic drugs (AEDs), referred to as having super refractory status epilepticus (SRSE), are generally placed under IV anesthesia as a last resort to attempt to stop the seizures and prevent further damage to the brain and death.

Allo has shown early clinical evidence in treating certain SRSE patients. Like allo, ganaxolone modulates both synaptic and extrasynaptic $GABA_A$ receptors, allowing a therapeutic pathway in situations where synaptic $GABA_A$ receptors are unavailable. Ganaxolone has shown activity at least comparable to allo in preclinical rat models of benzodiazepine-resistant SE. Another preclinical rat model of benzodiazepine refractory SE showed anti-epileptic synergy with the combination of ganaxolone and diazepam in blocking pilocarpine-induced seizures in rats. Ganaxolone and diazepam plasma levels were identical when measured both alone and in combination, indicating that neither drug affected the pharmacokinetic disposition of the other. These data may have clinical implications on the treatment and dosing of ganaxolone in patients with SE who are or have been treated with benzodiazepines.

The Company is initiating its Phase 2 feasibility study with ganaxolone IV in patients with refractory status epilepticus (RSE). The Phase 2 trial is designed to treat patients in the SE treatment paradigm as second line when they have active brain function and potential for better outcomes. Data from this feasibility study is expected in 2018.

The U.S. Food and Drug Administration (FDA) granted Orphan Drug Designation to the IV formulation of ganaxolone for the treatment of SE.

Ganaxolone Safety and Tolerability

In clinical trials, ganaxolone has been administered in approximately 1,500 subjects at therapeutically relevant dose levels and treatment regimens for up to two years. In these clinical trials, ganaxolone was generally well tolerated with no adverse effects on cardiovascular, liver, blood or other systems. In animal studies there was no evidence of reproductive toxicity or other toxicities after long-term administration of ganaxolone.

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Ganaxolone Mechanism of Action

Ganaxolone is a synthetic analog of a naturally occurring neurosteroid, allopregnanolone, which exhibits potent anxiolytic, antidepressant, antiepileptic and sedative activity by virtue of its $GABA_A$ receptor modulating properties. While allopregnanolone's activities are well documented, allopregnanolone has the potential to convert back to its metabolic precursor progesterone, which could lead to hormonal side effects. Ganaxolone has been designed with an added methyl group that prevents back conversion to an active steroid which we believe unlocks ganaxolone's potential for chronic use. In preclinical studies, ganaxolone has exhibited potency and efficacy comparable to allopregnanolone.

GABA (gamma-aminobutyric acid) is the chief inhibitory neurotransmitter in the brain. One of the subclasses of receptors that respond to GABA is the $GABA_A$ receptor. When activated, these receptors selectively conduct chloride ions through a pore that results in the inhibitory effect of hyperpolarization of the neuron. Synaptic $GABA_A$ receptors respond quickly to inhibit neurotransmission, while extrasynaptic $GABA_A$ receptors provide ambient tonic inhibition.

Ganaxolone and allopregnanolone interact with both synaptic and extrasynaptic $GABA_A$ receptors and at binding sites distinct from the benzodiazepines. Activity with extrasynaptic $GABA_A$ receptors may be of particular importance for treating patients who developed tolerance to benzodiazepines and barbiturates. Ganaxolone binds to the $GABA_A$ receptors, which opens the pore to allow chloride ions to move into the postsynaptic neuron, leading to the inhibition of neurotransmission.

Our Strategy

Our goal is to maximize the value of ganaxolone as a first-in-class innovative neuropsychiatric therapy with a portfolio of diversified indications. The key elements of our strategy to achieve this goal include the following:

Broadening dose forms to acute care setting. To date, our clinical trials in patients have utilized our patented nanoparticulate composition administered in oral capsule and liquid suspension dose forms. As a complement to these orally administered dose forms, we have developed an IV dose form for the acute care setting and in patient populations, such as SE, that may benefit from both inpatient ganaxolone IV before transitioning to an outpatient oral dose form.

Pursuing orphan, genetic epilepsy indications for ganaxolone. Within epilepsy, there are several smaller patient populations, such as CDD, where a genetic marker associated with the syndrome has been linked to deficits in GABAergic signaling. Based on clinical data, we believe that increasing GABAergic tone with ganaxolone could provide benefit and that treatments for these small populations have the potential for more efficient paths to regulatory approval and commercialization. In addition to CDD, we may also explore development of ganaxolone in other rare genetic epilepsy indications.

Expanding non-epilepsy indications for ganaxolone. Due to its mechanism of action, we believe ganaxolone has potential for therapeutic benefit in a variety of neuropsychiatric disorders in addition to epilepsy. Evidence from preclinical and clinical studies demonstrates that treatment with an agent similar to naturally occurring allopregnanolone could be of benefit in patients with anxiety, mood, sleep and other neuropsychiatric disorders. We believe our top-line results from the Phase 2 proof-of-concept clinical trials in Fragile X Syndrome (FXS) patients and anecdotal reports from investigators who treated CDD and PCDH19 pediatric epilepsy patients support this hypothesis. We are also exploring development of ganaxolone in PPD, and we may explore development of ganaxolone in other neuropsychiatric disorders and rare disease neurology indications.

Build on our intellectual property. We believe that our intellectual property around nanotechnology and other formulation know-how creates significant barriers to competition. We

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have developed most of our technology internally, which provides us with greater control and flexibility and reduces expense. We intend to further expand our intellectual property portfolio through internal development and opportunistic licensing or acquisition of complementary technologies.

Corporate Information

We were incorporated in Delaware in August 2003. Our principal executive offices are located at 170 N. Radnor Chester Rd., Suite 250, Radnor, Pennsylvania 19087 and our telephone number is (484) 801-4670. Our website address is www.marinuspharma.com. The inclusion of our website address is, in each case, intended to be an inactive textual reference only and not an active hyperlink to our website. The information on our internet website is not incorporated by reference in this prospectus supplement and should not be considered to be part of this prospectus supplement.

Implications of Being an Emerging Growth Company

We are an "emerging growth company," as defined in the JOBS Act enacted in April 2012. For as long as we continue to be an "emerging growth company," we may choose to take advantage of exemptions from various public company reporting requirements. These exemptions include, but are not limited to:

not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;

reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and

exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We can be an "emerging growth company" for up to five years after the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, or the Securities Act, which occurred on July 31, 2014 when the SEC declared effective our Form S-1 registration statement. We would cease to be an "emerging growth company" if we have more than $1.0 billion in annual revenue, have more than $700 million in market value of our capital stock held by non-affiliates, or issue more than $1.0 billion of non-convertible debt over a three-year period.

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STATEMENT OF COMPUTATION OF RATIOS

The following table sets forth our ratio of earnings (loss) to fixed charges and to combined fixed charges and preferred stock dividends for the years ended December 31, 2016, 2015 and 2014, and for the nine months ended September 30, 2017.

	Nine months ended September 30,	Years ended December 31,		
(Dollars in thousands)	**2017**	**2016**	**2015**	**2014**
Pre-tax loss	$ (14,160)	$ (28,643)	$ (24,850)	$ (10,833)
Ratio of earnings to fixed charges	N/A	N/A	N/A	N/A
Deficiency of earnings available to cover fixed charges	$ 14,160	$ 28,643	$ 24,850	$ 10,833
Deficiency of earnings available to cover fixed charges and preferred stock dividend requirements	$ 14,160	$ 28,643	$ 24,850	$ 13,378

We did not record earnings for the years ended December 31, 2016, 2015 or 2014, or for the nine months ended September 30, 2017. Accordingly, our earnings were insufficient to cover fixed charges for such periods and we are unable to disclose a ratio of earnings to fixed charges for such periods.

For purposes of computing the ratio of earnings to fixed charges, earnings consist of loss from continuing operations before income taxes plus fixed charges. Fixed charges consist of interest expense and an estimate of the interest within rental expense.

For purposes of computing the ratio of earnings to combined fixed charges and preferred stock dividends, earnings consist of loss from continuing operations before income taxes plus fixed charges. Combined fixed charges and preferred stock dividends consist of interest expense, an estimate of interest within rental expense and preferred stock dividends.

USE OF PROCEEDS

Except as described in any prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you, we currently intend to use the net proceeds from the sale of the securities offered hereby for general corporate purposes, research and development and clinical trial costs. We may also use a portion of the net proceeds to acquire or invest in businesses, products and technologies that are complementary to our own. Pending these uses, we expect to invest the net proceeds in short-term, investment-grade securities.

DESCRIPTION OF CAPITAL STOCK

This prospectus contains summary descriptions of the common stock, preferred stock, warrants, debt securities and units that we may offer and sell from time to time. When we offer one or more of these securities in the future, a prospectus supplement will explain the particular terms of the securities and the extent to which these general provisions may apply. These summary descriptions and any summary descriptions in the applicable prospectus supplement do not purport to be complete descriptions of the terms and conditions of each security and are qualified in their entirety by reference to our amended and restated certificate of incorporation and amended and restated by-laws, the Delaware General Corporation Law, or DGCL, and any other documents referenced in such summary descriptions and from which such summary descriptions are derived. If any particular terms of a security described in the applicable prospectus supplement differ from any of the terms described in this prospectus, then the terms described in this prospectus will be deemed superseded by the terms set forth in that prospectus supplement.

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We may issue securities in book-entry form through one or more depositaries, such as The Depository Trust Company, named in the applicable prospectus supplement. Each sale of a security in book-entry form will settle in immediately available funds through the applicable depositary, unless otherwise stated. We will issue the securities only in registered form, without coupons, although we may issue the securities in bearer form if so specified in the applicable prospectus supplement. If any securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement will so indicate.

Capital Stock

Our authorized capital stock consists of 100,000,000 shares of common stock, $0.001 par value per share, and 25,000,000 shares of preferred stock, $0.001 par value per share. As of September 30, 2017, there were 40,430,196 shares of common stock outstanding.

Common Stock

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders and do not have any cumulative voting rights. Any election at a meeting of stockholders is determined by a plurality of the votes cast by the stockholders entitled to vote at the election, and all other matters are generally determined by a majority of the votes cast on the matter. Holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of funds legally available. In the event of we liquidate, dissolve or wind up, after payment of all of our debts and liabilities, and subject to the preferential rights, if any, of any outstanding preferred stock, the holders of our common stock are entitled to share ratably in all assets. Our common stock has no preemptive or conversion rights or other subscription rights, and there are no redemptive or sinking funds provisions applicable to our common stock. We have received full payment for all outstanding shares of our common stock and cannot require our stockholders to make further payments on the stock.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or Nasdaq Stock Market rules), to designate and issue up to 25,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the designations, powers, preferences and rights of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

We will fix the designations, powers, preferences and rights of the preferred stock of each series, as well as the qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

the title and stated value;

the number of shares we are offering;

the liquidation preference per share;

the purchase price;

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the dividend rate, period and payment date and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;

whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;

voting rights, if any, of the preferred stock;

preemptive rights, if any;

restrictions on transfer, sale or other assignment, if any;

whether interests in the preferred stock will be represented by depositary shares;

a discussion of any material United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the

effect of decreasing the market price of our common stock.

Stock Options

As of September 30, 2017, we have reserved 3,732,664 shares of common stock for issuance under our equity compensation plans. Of this number, we have reserved 2,910,761 shares for issuance upon exercise of outstanding options that we previously granted under our stock option plans, and 1,258,825 shares for issuance upon exercise of options or other awards that we may grant in the future under our equity compensation plans.

Delaware Anti-Takeover Law and Certain Charter Provisions

Delaware Section 203. We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, the statute prohibits a publicly held Delaware corporation from engaging

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in a "business combination" with an "interested stockholder" for a period of three years following the date that the stockholder became an interested stockholder unless:

- prior to such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding, those shares owned by persons who are directors and also officers, and employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- on or subsequent to such date, the board of directors approves the business combination and stockholders authorize the business combination at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock that the interested stockholder does not own.

A "business combination" includes a merger, asset or stock sale or other transaction resulting in financial benefit to the stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior, did own, 15% or more of a corporation's outstanding voting stock.

Charter Provisions. Our amended and restated certificate of incorporation includes the following provisions, among others:

- the authority of our board of directors to issue shares of undesignated preferred stock and to determine the rights, preferences and privileges of these shares, without stockholder approval;

- the division of our board of directors into three classes with staggered three-year terms;

- all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent; and

- the elimination of cumulative voting.

Indemnification. Our amended and restated certificate of incorporation and our amended and restated bylaws provide that we will indemnify officers and directors against losses as they incur in investigations and legal proceedings resulting from their services to us, which may include service in connection with takeover.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or management. We intend these provisions to enhance the likelihood of continued stability in the composition of our board of directors and in the policies they implement, and to discourage certain types of transactions that may involve an actual or threatened change of our control. We designed these provisions to reduce our vulnerability to an unsolicited acquisition proposal. We also intend for the provisions to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in our management.

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Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, NY 11219, and its telephone number is (718) 921-8200. The transfer agent for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indentures, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue the subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. The indentures will be qualified under the Trust Indenture Act of 1939. We use the term "debenture trustee" to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable. We have filed forms of indentures to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indentures that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, the terms and who the depositary will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

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the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;

whether the indenture will restrict our ability to:

- incur additional indebtedness;
- issue additional securities;
- create liens;
- pay dividends and make distributions in respect of our capital stock;
- redeem capital stock;
- make investments or other restricted payments;
- sell or otherwise dispose of assets;
- enter into sale-leaseback transactions;

engage in transactions with stockholders and affiliates; or

effect a consolidation or merger;

whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;

a discussion of any material United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

provisions for a sinking fund purchase or other analogous fund, if any;

the applicability of the provisions in the indenture on discharge;

whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code;

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the denominations in which we will issue the series of debt securities, if other than denominations of $1,000 and any integral multiple thereof;

the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended or deferred;

if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable and the time for payment has not been extended or delayed;

if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the debenture trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and

if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the debenture trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the debenture trustee if notice is given by such holders, may declare the unpaid

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principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the debenture trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the debenture trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the debenture trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the debenture trustee, or exercising any trust or power conferred on the debenture trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act of 1939, the debenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the debenture trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the debenture trustee to institute the proceeding as trustee; and
- the debenture trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the debenture trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

We and the debenture trustee may change an indenture without the consent of any holders with respect to specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under "Description of Debt Securities Consolidation, Merger or Sale;"

to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act of 1939;

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to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;

to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under "Description of Debt Securities General" to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee;

to provide for uncertificated debt securities in addition to or in place of certificated debt securities and to make all appropriate changes for such purpose;

to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the holders, and to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default; or

to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the debenture trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the debenture trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

extending the fixed maturity of the series of debt securities;

reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any debt securities; or

reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

register the transfer or exchange of debt securities of the series;

replace stolen, lost or mutilated debt securities of the series;

maintain paying agencies;

hold monies for payment in trust;

recover excess money held by the debenture trustee;

compensate and indemnify the debenture trustee; and

appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the debenture trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

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Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of $1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depositary named by us and identified in a prospectus supplement with respect to that series. See "Legal Ownership of Securities" for a further description of the terms relating to any book-entry securities.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or

- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Debenture Trustee

The debenture trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the debenture trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the debenture trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt

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securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the debenture trustee in the City of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the debenture trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

Subordination of Subordinated Debt Securities

The subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue, nor does it limit us from issuing any other secured or unsecured debt.

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DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreements and warrants may be modified;

a discussion of any material or special United States federal income tax consequences of holding or exercising the warrants;

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- the terms of the securities issuable upon exercise of the warrants; and

- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or

- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

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DESCRIPTION OF UNITS

We may issue, in one more series, units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock, preferred stock and/or debt securities in any combination. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We will issue each unit so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which we issue a unit may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Capital Stock," "Description of Debt Securities" and "Description of Warrants" will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

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We, and any unit agent and any of their agents, may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary. See "Legal Ownership of Securities" below.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depositary or warrant agent maintain for this purpose as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as "indirect holders" of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

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Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

how it handles securities payments and notices;

whether it imposes fees or charges;

how it would handle a request for the holders' consent, if ever required;

whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;

how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and

if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with

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another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations For Global Securities

The rights of an indirect holder relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security, nor do we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult

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their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the applicable prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

A prospectus supplement or supplements will describe the terms of the offering of the securities, including:

- the name or names of the underwriters, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;

any public offering price;

any discounts or concessions allowed or reallowed or paid to dealers; and

any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may

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offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriter may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the Nasdaq Global Market may engage in passive market making transactions in the common stock on the Nasdaq Global Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker

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dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

VALIDITY OF SECURITIES

Unless otherwise indicated in the applicable prospectus supplement, Duane Morris LLP, Philadelphia, Pennsylvania, will pass upon the validity of the securities offered by this prospectus.

EXPERTS

The financial statements of Marinus Pharmaceuticals, Inc. as of December 31, 2016 and 2015, and for each of the years in the three-year period ended December 31, 2016, have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

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12,000,000 Shares

Common Stock

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Jefferies **Leerink Partners**

December , 2018