Filed Pursuant to Rule 424(b)(3)
Registration No. 333-217296

PROSPECTUS

2,317,460 Shares

Gemphire Therapeutics Inc.

Common Stock

This prospectus relates to the resale, from time to time, of up to 2,317,460 shares of common stock of Gemphire Therapeutics Inc. (the "Company") by the Selling Stockholders listed on page 10, which includes (i) 1,324,256 shares of our common stock, par value $0.001 per share (the "Common Stock") issued on March 15, 2017 and (ii) an aggregate of 993,204 shares of our Common Stock (the "Warrant Shares") issuable upon exercise of common stock purchase warrants issued on March 15, 2017 (the "Warrants") by the selling stockholders listed on page 10, including their transferees, pledgees or donees or their respective successors (the "Selling Stockholders"). We are registering these shares on behalf of the Selling Stockholders, to be offered and sold by them from time to time.

We are not selling any securities under this prospectus and we will not receive proceeds from the sale of Common Stock by the Selling Stockholders. However, we may receive proceeds from the cash exercise of the Warrants, which, if exercised in cash at the current applicable exercise price with respect to all of the 993,204 shares of Common Stock, would result in gross proceeds to the Company of $10,329,321.60.

We will pay the expenses of registering the shares of Common Stock offered by this prospectus, but all selling and other expenses incurred by each Selling Stockholder will be paid by such Selling Stockholder. The Selling Stockholders may sell the shares of our Common Stock offered by this prospectus from time to time on terms to be determined at the time of sale through ordinary brokerage transactions or through any other means described in this prospectus under "Plan of Distribution." The prices at which the Selling Stockholders may sell shares will be determined by the prevailing market price for shares of our Common Stock or in negotiated transactions.

Our Common Stock trades on the NASDAQ Global Market under the symbol "GEMP". On April 20, 2017, the last reported sale price per share of our Common Stock was $11.73 per share.

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our Common Stock involves a high degree of risk. See "Risk Factors" beginning on page 6 of this prospectus.

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

Prospectus dated April 21, 2017

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ABOUT THIS PROSPECTUS

This prospectus relates to the resale from time to time of up to 2,317,460 shares of Common Stock of the Company by the Selling Stockholders listed on page 10, which includes shares of our Common Stock issuable upon the exercise of the Warrants, issued to the Selling Stockholders in private placements. We are not selling any shares of Common Stock under this prospectus and will not receive any proceeds from the sale of shares of Common Stock by the Selling Stockholders.

This prospectus is part of a registration statement on Form S-1 that we filed with the Securities and Exchange Commission ("SEC"). It omits some of the information contained in the registration statement and reference is made to the registration statement for further information with regard to us and the securities being offered by the Selling Stockholders. You should review the information and exhibits in the registration statement for further information about us and the securities being offered hereby. Statements in this prospectus 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 the filings. You should review the complete document to evaluate these statements.

You should read this prospectus, any documents that we incorporate by reference in this prospectus and the additional information described below under "Where You Can Find Additional Information" and "Information Incorporated By Reference" before making an investment decision. You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information in this prospectus or any documents we incorporate by reference herein is accurate as of any date other than the date on the front of such document. Our business, financial condition, results of operations and prospects may have changed since those dates.

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PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus. Because it is only a summary, it does not contain all of the information that you should consider before investing in shares of our Common Stock and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information included or incorporated by reference in this prospectus. You should read the entire prospectus carefully, especially "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements, related notes and other financial information included or incorporated by reference in this prospectus, before deciding to buy shares of our Common Stock. Unless the context requires otherwise, references in this prospectus to "we," "us," "the Company" and "our" refer to Gemphire Therapeutics Inc.

Overview

Gemphire is a clinical-stage biopharmaceutical company that is committed to helping patients with cardiometabolic disorders, including dyslipidemia and NASH. We are focused on providing new treatment options for cardiometabolic diseases through our complementary, convenient, cost-effective product candidate, gemcabene, as add-on to the standard of care especially statins that will benefit patients, physicians, and payors. We are developing our product candidate gemcabene (CI-1027), a novel, once-daily, oral therapy, for high risk cardiovascular patients who are unable to achieve normal levels of LDL-C or triglycerides with currently approved therapies, primarily statin therapy and for those patients who present with NASH. Gemcabene's mechanism of action is designed to enhance the clearance of very low-density lipoproteins (VLDLs) in the plasma and inhibit the production of fatty acids and cholesterol in the liver. Gemcabene is liver-directed and inhibits apolipoprotein C-III (apoC-III) protein in the liver and may inhibit acetyl-CoA carboxylase (ACC) and HMG-CoA Synthase in the liver. Gemcabene has been tested as monotherapy and in combination with all doses of statins and other drugs in 895 subjects, which we define as healthy volunteers and patients, across 18 Phase 1 and Phase 2 clinical trials and has demonstrated promising evidence of efficacy, safety and tolerability.

Cardiovascular disease is a major health concern, causing more deaths globally than any other disease. Dyslipidemia leads to cardiovascular disease and is generally an important predictor of cardiovascular events including heart attack and stroke. Dyslipidemia is generally characterized by an elevation of low-density lipoprotein cholesterol (LDL-C), or bad cholesterol, triglycerides, or fat in the blood, or both. It represents one of the largest therapeutic areas with annual worldwide drug sales of approximately $22 billion in 2013. We estimate more than 40% of Americans have elevated LDL-C or triglycerides, or both. Statins, such as atorvastatin or rosuvastatin, are standard of care for LDL-C lowering, while fibrates, prescription fish oils and niacin are standard of care for triglyceride lowering. Although these drugs are highly prescribed and capable of reducing LDL-C and triglyceride levels, many patients are unable to effectively manage their dyslipidemia with currently approved therapies and are in need of additional treatment options. For example, approximately 40% of patients on statins are unable to meet their LDL-C lowering goal, and doubling a statin dose has shown to incrementally lower LDL-C levels by a nominal percentage (approximately 6% based on historical evidence), while increasing safety and tolerability concerns. An even higher percentage of patients with severe hypertriglyceridemia do not achieve triglyceride levels low enough to reduce the risk of developing co-morbidities such as pancreatitis.

Non-alcoholic steatohepatitis (NASH) is part of a group of conditions called nonalcoholic fatty liver disease (NAFLD) that affects one out of four people in the United States. In the United States NASH affects up to approximately 2-5% of the population, or between six to eight million people. The presentation of NASH resembles alcoholic liver disease but occurs in people who drink little or no alcohol. The major feature of NASH is excess fat content in the liver, along with inflammation and liver damage. It can lead to liver cirrhosis, fibrosis, hepatocellular carcinoma, liver failure, liver-related death and liver transplantation. NASH can also lead to an increased risk of cardiovascular disease, which is a leading cause of death in this patient population. Prevalence of NASH has increased due to the growing number of obese and diabetic patients. It is more common in women than in men and currently there are no FDA approved therapies for treating NASH.

We believe gemcabene possesses a differentiated product profile compared to other therapies in the market and in clinical development. Key attributes of our product candidate include the following:

- **Cost-effective, once-daily, oral therapy.** Gemcabene is a small molecule formulated as a tablet and is cost effective to manufacture. As a once-daily, oral therapy, gemcabene, if approved, would be more convenient than other non-statin therapies, many of which require frequent injections or multiple daily doses. We expect to take a value-based approach to pricing across all the target indications.

- **Promising safety and tolerability.** Gemcabene was observed to be well tolerated in 895 subjects across 18 Phase 1 and Phase 2 trials both as monotherapy and in combination with statins. No subjects died and no subjects experienced a serious adverse event (SAE) that was considered to be related to gemcabene. Adverse events (AEs) reported were generally mild to moderate in intensity. Gemcabene did not appear to increase the reporting of

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myalgia (muscle pain) when added to statin therapy and no treatment related events of myalgia were reported in any gemcabene monotherapy arm in the dyslipidemia trials.

- **First-in-class mechanism.** Gemcabene's pleotropic mechanism of action hits multiple established targets that lower LDL-C, TG, and hsCRP in plasma. Gemcabene has been observed to reduce production of cholesterol and triglyceride pathways inside the liver. This gemcabene effect may be due to inhibition of acetyl CoA carboxylase (ACC) and HMG-CoA Synthase in the liver. Gemcabene has also been shown to enhance clearance of VLDL in the plasma. This is likely due to gemcabene's effect on reduction of apoC-III gene expression and reduction of plasma apoC-III levels, which may facilitate the uptake of VLDL remnants via hepatic remnant receptors. Gemcabene's effects on hsCRP may be due to its effect on reduction of IL-6 expression, as well as its direct effects on inhibiting transcription factors C/EBP-β and NF-kB interaction with the CRP gene.

- **Significant lipid-lowering of LDL-C, high-sensitivity C-reactive protein (hsCRP) and triglycerides.** In Phase 2 trials, patients with hypercholesterolemia treated with gemcabene as monotherapy were observed to have significantly lowered LDL-C by approximately 30% from baseline and significantly lowered hsCRP by approximately 40% from baseline. In addition, patients with hypertriglyceridemia ($\geq$200 mg/dL) were observed to have significantly lowered triglycerides by approximately 40%, and based on post-hoc analysis, gemcabene was observed to lower triglycerides by up to 60% in patients with severe triglyceride levels ($\geq$500 mg/dL). Our product candidate's ability to meaningfully lower levels of multiple key lipids attributable to cardiovascular disease may expand its use across multiple indications within the dyslipidemia and NASH Market.

- **Additive effect in combination with statins.** In a Phase 2 trial in patients with uncontrolled hypercholesterolemia while on stable statin therapy (Trial 2017-018), gemcabene was observed to significantly lower LDL-C by an additional 25% to 31% from baseline. This data indicates that gemcabene may better treat a large population of patients who are unable to reach their lipid goal with statins and other currently prescribed therapies, including those medications commonly used for diabetes and NASH patients.

- **No drug-drug interactions when combined with high-intensity statin doses.** In two Phase 1 trials, gemcabene was tested in combination with high-intensity statin doses, 80 mg simvastatin and 80 mg atorvastatin. No clinically relevant drug-drug interactions were observed. In addition, gemcabene has been formulated as a fixed-dose combination tablet with various atorvastatin doses, which may offer additional convenience and compliance to patients.

We are pursuing gemcabene in the following indications (representing approximately 20 million addressable at-risk patients in the United States) as a treatment for: (1) dyslipidemia in patients on maximally tolerated statin therapy, unable to reach their lipid-lowering goal, and (2) in patients diagnosed with NASH as monotherapy or in combination with other approved treatments.

- homozygous familial hypercholesterolemia (HoFH), a rare genetic lipid disorder which results in elevated LDL-C usually due to mutations in both alleles, a pair of genes on a chromosome, responsible for a specific trait of the LDL-receptor gene. There are approximately 300-2,000 patients in the US and 6,000 to 45,000 patients worldwide;

- heterozygous familial hypercholesterolemia (HeFH), a more prevalent genetic lipid condition which results in elevated LDL-C usually due to a mutation in one allele of the LDL-receptor gene. The US population is estimated at .5M - 1.5M and an additional 15 - 30M worldwide;

- atherosclerotic cardiovascular disease (ASCVD), patients with hypercholesterolemia, or patients with elevated LDL-C who have had or are at risk for a cardiovascular event, such as heart attack, stroke, and/or revascularization. This is an estimated 10M patients in the US of which approximately half have mixed dyslipidemia. Worldwide estimates of ASCVD patients range from 100 - 120M;

- severe hypertriglyceridemia (SHTG), in which patients with elevated triglycerides are at an increased risk of developing co-morbidities such as pancreatitis. There are 3 - 3.5M patients in the US and another estimated 60 - 75M worldwide; and

- non-alcoholic steatohepatitis (NASH) and non-alcoholic fatty liver disease (NAFLD), are severe diseases of the liver caused by inflammation and a buildup of fat in the organ, which can lead to liver cirrhosis, fibrosis, hepatocellular carcinoma, liver failure, liver related death and liver transplantation. There is an estimated 80M patients with NAFLD and 6 to 8M patients with NASH in the US.

We initially began pursuing HoFH given that gemcabene has received orphan drug designation for this indication. We believe we can design an efficient development plan to provide a new treatment alternative for these patients. Furthermore, we believe that gemcabene's potential ability to treat patients in the

most severe segment of the dyslipidemia market, HoFH, can further enhance brand awareness among key thought leaders and physicians. We are in parallel developing gemcabene for HeFH, ASCVD, SHTG and NASH given gemcabene's: (1) promising clinical data and mechanism in these indications; (2) cost-effective manufacturing process; (3) convenient oral dosing; (4) viability as safe adjunctive combination therapy; and (5) large commercial potential. By the end of 2017, we expect to report top-line data from all three dyslipidemia trials

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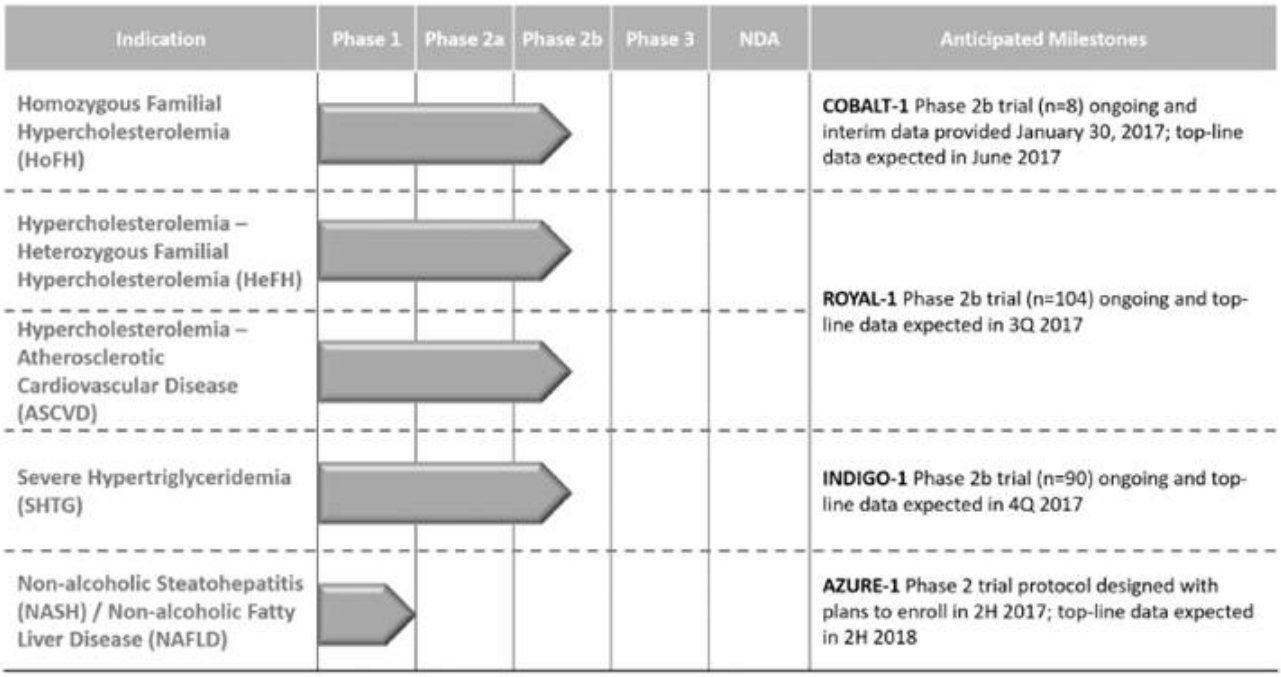
(COBALT-1, ROYAL-1 and INDIGO-1). We expect to initiate our clinical trial in NASH (AZURE-1) in 2017, with top-line data available in the second half of 2018.

Gemcabene Pipeline Indications



Upon completion of one or more of our trials, we intend to request one or more End of Phase 2 (EOP2) meetings with the U.S. Food and Drug Administration (FDA) to reach an agreement on the design of Phase 3 registration trials and long-term safety exposure for our target indications. We intend to pursue similar discussions with Canadian and European health authorities. Other markets will be considered as appropriate.

We believe it is unlikely the FDA will require us to initiate a cardiovascular outcomes trial for our target dyslipidemia indications. The FDA has not required the initiation or completion of cardiovascular outcomes trials for recent approvals of certain dyslipidemia therapies, including non-statin therapies targeting LDL-C for the treatment of HoFH, HeFH and ASCVD and triglyceride lowering for treatment of SHTG. Cardiovascular outcomes trials require evaluation of cardiovascular clinical conditions in large patient populations over a long period of time and are both costly and time-consuming. However, for commercial and competitive reasons, such as the potential to broaden the label claims, we intend to review with the FDA a design for a cardiovascular outcomes trial enriched with diabetic and obese ("diabesity") patients which we may initiate before an NDA submission and complete post-approval.

Our company was co-founded by Dr. Charles Bisgaier, who was responsible for licensing exclusive worldwide rights to gemcabene from Pfizer in April 2011. Prior to co-founding the original Esperion Therapeutics, Inc. (Esperion) in 1998, which was acquired by Pfizer in 2004, Dr. Bisgaier worked at Parke-Davis, a division of Warner-Lambert Company from 1990 to 1998, and was instrumental in the discovery and development of gemcabene, as well as the development of Lipitor and Lopid. Many of our employees and consultants have been involved in the historical development of gemcabene and other innovative dyslipidemia product candidates in development, including ETC-216, a synthetic high-density lipoprotein mimetic based on ApoAI-Milano (developed by the original Esperion, Pfizer, and currently The Medicines Company), ACP-501 (developed by AlphaCore Pharma, later acquired by AstraZeneca) and ETC-1002 (developed by the original Esperion, Pfizer and the current Esperion). We have organized a medical and scientific advisory board including Drs. John Kastelein, Evan Stein, Robert Hegele, Dirk Blom, Harold Bays, Peter Toth, Jay Horton, David Cohen, Rohit Loomba, Brian Krause, Gerald Watts, Todd Leff, and Kevin Williams, who combined have been involved in numerous dyslipidemia, cardiovascular and NASH clinical trials (e.g., statins from their earliest trials, fibrates, ezetimibe, cholesteryl ester transfer protein (CETP) inhibitors, extended release niacin, antisense oligonucleotides (mipomersen), monoclonal antibodies including PCSK9 inhibitors and multiple development stage NASH drugs) and published numerous research papers. The management team, led by our CEO Mina Sooch, collectively has significant experience in operating and financing biopharmaceutical companies and discovering, developing and commercializing treatments in the cardiovascular and orphan markets.

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Corporate Information

We were formed in Michigan as Michigan Life Therapeutics, LLC (MLT) in November 2008. In October 2014, we incorporated a new entity under the name Gemphire Therapeutics Inc. in Delaware. MLT then merged with and into Gemphire, with Gemphire as the surviving entity. The purpose of the merger was to change the jurisdiction of our incorporation from Michigan to Delaware and to convert from a limited liability company to a corporation. Our principal executive offices are located at 17199 N. Laurel Park Dr., Suite 401, Livonia, Michigan 48152, and our telephone number is (734) 245-1700. Our corporate

website address is www.gemphire.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

Implications of Being an Emerging Growth Company

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company," as defined in the Jumpstart Our Business Startups Act (JOBS Act) enacted in April 2012. As an "emerging growth company" we are:

- permitted to present only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;
- permitted to take advantage of reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- permitted to take advantage of 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 may use these provisions until the last day of our fiscal year following the fifth anniversary of the closing of our initial public offering. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenue exceeds $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. We have elected to take advantage of certain of the reduced disclosure obligations in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

The JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

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The Offering

Common Stock offered by Selling Stockholders	2,317,460 shares
Common Stock to be outstanding after this offering	10,596,838 (as of April 3, 2017)
Use of proceeds	We will not receive any proceeds from the sale by the Selling Stockholders of the shares of Common Stock being offered by this prospectus.
Risk factors	You should read the "Risk Factors" section included or incorporated by reference in this prospectus for a discussion of certain of the factors to consider carefully before deciding to purchase any shares of our Common Stock.
NASDAQ Global Market symbol	"GEMP"

Except as otherwise indicated, all information in this prospectus is based on 10,596,838 shares of Common Stock outstanding as of April 3, 2017 and excludes the following:

- the 993,204 Warrant Shares being offered by the Selling Stockholders pursuant to this prospectus;
- 2,360,723 shares of Common Stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of $9.15 per share; and
- 336,950 shares of our Common Stock reserved for future issuance under our equity incentive plans.

Description of Private Placement with the Selling Stockholders

On March 10, 2017, we entered into a securities purchase agreement for a private placement with the Selling Stockholders whereby, on March 15, 2017 we issued and sold 1,324,256 units at a price of $9.47 per unit for gross proceeds of approximately $12.5 million. Each unit consists of one share of our Common Stock and a Warrant to purchase 0.75 shares of Common Stock. The Warrants have an exercise price of $10.40 per share and are exercisable for a period of five years from the date of issuance. For a detailed description of the transactions contemplated by the securities purchase agreement with the Selling Stockholders and the securities issued pursuant thereto, see "Relationships with the Selling Stockholders—Private Placement" in this prospectus.

We filed the registration statement on Form S-1, of which this prospectus forms a part, to fulfill our contractual obligations under the registration rights agreement entered into concurrently with the securities purchase agreement with the Selling Stockholders to provide for the resale by the Selling Stockholders of the shares of Common Stock offered hereby.

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RISK FACTORS

An investment in our Common Stock involves a high degree of risk. Before deciding whether to invest in our Common Stock, you should consider carefully the risks and uncertainties described under the section captioned "Risk Factors" contained in our most recent Annual Report on Form 10-K and other filings we make with the SEC from time to time, which are incorporated by reference herein in their entirety, together with other information in this prospectus and in the documents incorporated by reference in this prospectus. We caution you that the risks and uncertainties we have described, among others, could cause our actual results to differ materially from those expressed in forward-looking statements made by us or on our behalf in filings with the SEC, press releases, communications with investors and oral statements. We undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosure we make in our reports filed with the SEC.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements. We may, in some cases, use words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes to identify these forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. Forward-looking statements included or incorporated by reference in this prospectus include, but are not limited to, statements about:

- our anticipated timing of regulatory submissions; commencement and completion of preclinical studies and clinical trials, meetings with the FDA and other regulatory authorities; and product approvals for gemcabene or any other product candidates we may pursue in the future;
- the outcome of our ongoing preclinical toxicology studies related to our partial clinical hold with respect to clinical trials of longer than six months in duration;
- the outcome of our Phase 2 and Phase 3 clinical trials of gemcabene and our ability to replicate positive results from a completed clinical trial in a future clinical trial;
- our expected clinical trial designs and regulatory pathways;
- our expectation that the FDA will not require us to complete a cardiovascular outcomes trial prior to approval;
- our expectations for the attributes of gemcabene or any other product candidate we may pursue in the future, including pharmaceutical properties, efficacy, safety, dosing regimens and cost, as compared to other lipid-lowering therapies;
- our ability to design an efficient development plan;
- our expectation that our existing capital resources will be sufficient to enable us to complete our planned late stage clinical trials and complete certain preclinical studies;
- our plans to advance the late-stage clinical development of gemcabene across multiple target indications, pursue oral combination opportunities for gemcabene, maximize the global commercial value of gemcabene and leverage the expertise and experience of our management team to evaluate future in-license acquisition opportunities;
- our estimates regarding industry trends and market potential for gemcabene;
- if approved, our ability to maintain regulatory approval of gemcabene and respond and adhere to regulatory requirements;
- our ability to identify, in-license or acquire, develop and, if approved, successfully commercialize best-in-class products, including gemcabene or any other product candidates we may pursue in the future;
- our ability to enhance brand awareness among key thought leaders and physicians;
- if approved, the rate and degree of market acceptance of gemcabene or any other product candidates we may pursue in the future;
- if approved, our ability to compete with other companies that are, or may be, developing or selling products that may compete with gemcabene;
- reimbursement policies, including any future changes to such policies or related government legislation and our ability to sell gemcabene, if approved;
- regulatory and legal developments in the United States and in foreign countries;
- our ability to obtain and maintain intellectual property protection for gemcabene or any other product candidates we may pursue in the future and not infringe upon the intellectual property of others;
- our ability to fund our working capital requirements;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our needs for, or ability to, obtain additional financing;

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- the ability of any third parties with whom we collaborate for the development and commercialization of gemcabene to successfully perform their assigned functions;
- our ability to retain and recruit key scientific and management personnel;
- our financial performance; and
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act.

These forward-looking statements reflect our management's beliefs and views with respect to future events and are based on estimates and assumptions as of the date they are made and are subject to risks and uncertainties. We discuss many of these risks in greater detail under "Risk Factors." Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should read this prospectus, documents incorporated by reference and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements included or incorporated by reference in this prospectus by these cautionary statements. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date they are made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

STATISTICAL DATA AND MARKET INFORMATION

This prospectus and the documents incorporated by reference herein contain estimates and other statistical data made by independent parties and by us relating to market size, the incidence of certain medical conditions and other industry data. These data, to the extent they contain estimates or projections, involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates or projections. Industry publications and other reports we have obtained from independent parties generally state that the data contained in these publications or other reports have been obtained in good faith or from sources considered to be reliable, but they do not guarantee the accuracy or completeness of such data. The industry in which we operate is subject to risks and uncertainties due to a variety of factors, including those incorporated by reference in the section "Risk Factors." These and other factors could cause results to differ materially from those expressed in these publications and reports.

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USE OF PROCEEDS

We are not selling any securities under this prospectus and will not receive any proceeds from the sale of shares of Common Stock offered by this prospectus by the Selling Stockholders. However, we may receive proceeds from the cash exercise of the Warrants, which, if exercised in cash at the current exercise price with respect to all 993,204 Warrant Shares, would result in gross proceeds to us of approximately $10.3 million. The use of proceeds from such Warrant exercises, if any, will not be subject to any restrictions. Under certain conditions set forth in the Warrants, the Warrants are exercisable on a cashless basis. If the Warrants are exercised on a cashless basis, we would not receive any cash payment from the Selling Stockholders upon any exercise of the Warrants. For information about the Selling Stockholders, see "Selling Stockholders."

The Selling Stockholders will pay any underwriting discounts and commissions and expenses incurred by the Selling Stockholders for brokerage or legal services or any other expenses incurred by the Selling Stockholders in disposing of the shares of Common Stock offered hereby. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares of Common Stock covered by this prospectus, including all registration and filing fees and fees and expenses of our counsel and accountants.

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PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

Price Range of Common Stock

Our Common Stock has been listed on the NASDAQ Global Market under the symbol "GEMP" since August 5, 2016. Our Common Stock priced at $10.00 per share in our initial public offering on August 4, 2016. Prior to that date, there was no public trading market for our Common Stock. The following table sets forth for the periods indicated the high and low sale prices per share of our Common Stock as reported on the NASDAQ Global Market:

The following table sets forth the high and low intra-day sales prices of our Common Stock for the periods indicated.

	High	Low
2017		
First quarter (through April 20, 2017)	$ 13.00	$ 7.51
2016		
Third quarter (from August 5, 2016)	$ 13.98	$ 8.50
Fourth quarter	$ 11.95	$ 7.25

As of April 20, 2017, the last reported sale price of our Common Stock on the NASDAQ Global Market was $11.73.

As of April 3, 2017, we had 10,596,838 shares of Common Stock outstanding and 127 registered holders of record for our Common Stock. A substantially greater number of holders are beneficial owners, whose shares are held of record by banks, brokers and other nominees. The transfer agent and registrar for our Common Stock is Computershare, Inc.

Dividend Policy

We have never declared or paid any dividends on our Common Stock, and we do not currently intend to pay any dividends on our Common Stock for the foreseeable future. Any future determination to pay dividends on our Common Stock will be, subject to applicable law, at the discretion of our Board and will depend upon, among other factors, our results of operations, financial condition, capital requirements, and contractual restrictions in loan or other agreements.

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SELLING STOCKHOLDERS

On March 10, 2017, we entered into a Securities Purchase Agreement (the "Purchase Agreement") with the Selling Stockholders, pursuant to which we agreed to issue and sell to the Selling Stockholders 1,324,256 units at a price of $9.47 per unit for total gross proceeds of approximately $12.5 million before deducting placement agent fees and estimated offering expenses (the "Private Placement"). Under the Purchase Agreement, we agreed to use the net proceeds to fund development costs of gemcabene, including the planned Phase 2 clinical trial of gemcabene in NASH patients, to fund manufacturing related activities for gemcabene and for general corporate purposes. The Private Placement closed on March 15, 2017. Each unit consists of one share of Common Stock (for

an aggregate of 1,324,256 shares of Common Stock) and a Warrant to purchase 0.75 shares of Common Stock (for an aggregate of 993,204 Warrant Shares). The Warrants issued in the Private Placement will expire on March 15, 2022, five years after the date on which they were initially issued.

In connection with the Private Placement, we entered into a Registration Rights Agreement with the Selling Stockholders, dated as of March 10, 2017 (the "Registration Rights Agreement"), pursuant to which we agreed to file a registration statement with the SEC covering the resale of the shares of Common Stock sold in the Private Placement and underlying the Warrants. We agreed to file such registration statement within 30 days of the closing of the Private Placement. The Registration Rights Agreement includes customary indemnification rights in connection with the registration statement. The registration statement of which this prospectus is a part has been filed in accordance with the Registration Rights Agreement.

The foregoing summary descriptions of the Purchase Agreement, the Warrants and the Registration Rights Agreement do not purport to be complete and are qualified in their entirety by reference to the full text of such documents, which were filed as exhibits to our Current Report on Form 8-K, dated March 13, 2017 and are incorporated by reference herein.

The table below sets forth, to our knowledge, information concerning the beneficial ownership of shares of our Common Stock by the Selling Stockholders as of April 3, 2017. The information in the table below with respect to the Selling Stockholders has been obtained from the Selling Stockholders. The Selling Stockholders may sell all, some or none of the shares of Common Stock subject to this prospectus. See "Plan of Distribution."

Beneficial ownership is determined in accordance with the rules of the SEC, and includes voting or investment power with respect to shares. Unless otherwise indicated below, to our knowledge, each Selling Stockholder named in the table has sole voting and investment power with respect to the shares of Common Stock beneficially owned by it. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for any Selling Stockholder named below.

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Name of Selling Stockholder	Number of Shares of Common Stock Beneficially Owned Prior to Offering(1)	Number of Shares of Common Stock Offered	Number of Shares of Common Stock Offered Upon Exercise of Warrants	Beneficial Ownership After Offering	
				Number of Shares	Ownership Percentage(2)
Cormorant Global Healthcare Master Fund, LP	976,855(3)	43,917	32,938	900,000	7.8
Excel Venture Fund II, L.P.	898,422(4)	52,798	39,599	806,025	7.0
Adage Capital Partners L.P.	769,957	200,000	150,000	419,957	3.6
Sigma Emerging Markets Ltd.	342,397	52,798	39,599	250,000	2.2
Nainoor Thakore	285,439	31,679	23,760	230,000	2.0
Andy Sassine	195,416(5)	21,119	15,840	158,457	1.4
Nathaniel Dalton	191,060	21,119	15,840	154,101	1.3
AIGH Investment Partners LP	92,397	52,798	39,599	0	*
Aspire Capital Fund, LLC	369,590	211,194	158,396	0	*
Brio Capital Master Fund Ltd.	55,437	31,678	23,759	0	*
CRMA SPV, L.P.	15,542	8,881	6,661	0	*
DAFNA Lifescience LP	55,437	31,678	23,759	0	*
DAFNA Lifescience Select LP	36,959	21,119	15,840	0	*
Highland Long/Short Healthcare Fund	277,192	158,395	118,797	0	*
Intracoastal Capital, LLC(6)	28,000	16,000	12,000	0	*
Iroquois Capital Investment Group LLC	36,959	21,119	15,840	0	*
Iroquois Master Fund LTD.	18,480	10,560	7,920	0	*
Kingsbrook Opportunities Master Fund LP (7)	46,200	26,400	19,800	0	*
Pedro Lichtinger	103,050(8)	10,559	7,920	84,571	*
Lincoln Park Capital Fund, LLC	87,500	50,000	37,500	0	*
Monashee Capital Master Fund LP	59,390	26,399	19,800	13,191	*
NexPoint Capital, Inc.	277,190	158,394	118,796	0	*
P. Kent Hawryluk Revocable Trust	100,639(9)	25,000	18,750	56,889	*
Timothy Sullivan	6,467	3,695	2,772	0	*
The Hewlett Fund LP	55,437	31,678	23,759	0	*
Patrick S. Wilmerding	9,239	5,279	3,960	0	*

* Represents beneficial ownership of less than one percent.

(1) Beneficial ownership is determined in accordance with Rule 13d-3 under the Securities Act, and includes any shares as to which the Selling Stockholder has sole or shared voting power or investment power, and also any shares which the Selling Stockholder has the right to acquire within 60 days of April 3, 2017, whether through the exercise or conversion of any stock option, convertible security, warrant or other right. The indication herein that shares are beneficially owned is not an admission on the part of the Selling Stockholder that he, she or it is a direct or indirect beneficial owner of those shares.

The share numbers in this table do not reflect that a Selling Stockholder may not exercise such Warrants to the extent such exercise would cause such Selling Stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of Common Stock which would exceed 4.999% of our then outstanding Common Stock following such exercise; provided, however, that upon prior notice to us, such Selling Stockholder may increase its ownership, provided that in no event will the ownership exceed 9.999%.

(2) Based upon 11,590,042 shares of Common Stock issued and outstanding as of April 3, 2017, assuming full exercise of the Warrants and issuance of the 993,204 Warrant Shares.

(3) Represents (i) 900,000 shares of Common Stock beneficially owned by Cormorant Asset Management, LLC ("Cormorant") and certain of its affiliates as reported on the Schedule 13G filed with the SEC on August 15, 2016, (ii) 43,917 shares of Common Stock held by Cormorant Global Healthcare Master Fund, LP, an affiliate of Cormorant and (iii) 32,938 shares of Common Stock underlying the Warrants, which are exercisable within 60 days of April 3, 2017 held by Cormorant Global Healthcare Master Fund, LP, an affiliate of Cormorant.

(4) Excel Venture Fund II, L.P. is an affiliate of Excel Ventures II GP, LLC ("Excel"), of which Dr. Gullans, a member of our Board of Directors, is a Manager. Represents (a) 858,823 shares of Common Stock held by Excel Venture Fund II, L.P. and (b) 39,599 shares underlying the Warrants, which are exercisable within 60 days of April 3, 2017 held by Excel Venture Fund II, L.P.

(5) Mr. Sassine is a member of our Board. Represents (a) 136,264 shares of Common Stock held by Mr. Sassine, (b) 43,312 shares underlying options to purchase Common Stock that are exercisable within 60 days of April 3, 2017 and (c) 15,840 shares underlying the Warrants, which are exercisable within 60 days of April 3, 2017.

(6) Mitchell P. Kopin ("Mr. Kopin") and Daniel B. Asher ("Mr. Asher"), each of whom are managers of Intracoastal Capital LLC ("Intracoastal"), have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Exchange Act of the securities reported herein that are held by Intracoastal.

Mr. Asher, who is a manager of Intracoastal, is also a control person of a broker-dealer. As a result of such common control, Intracoastal may be deemed to be an affiliate of a broker-dealer. Intracoastal acquired the Common Stock being registered hereunder in the ordinary course of business, and at the time of the acquisition of the Common Stock and Warrants described herein, Intracoastal did not have any arrangements or understandings with any person to distribute such securities.

(7) Kingsbrook Partners LP ("Kingsbrook Partners") is the investment manager of Kingsbrook Opportunities Master Fund LP ("Kingsbrook Opportunities") and consequently has voting control and investment discretion over securities held by Kingsbrook Opportunities. Kingsbrook Opportunities GP LLC ("Opportunities GP") is the general partner of Kingsbrook Opportunities and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Opportunities. KB GP LLC ("GP LLC") is the general partner of Kingsbrook Partners and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Partners. Ari J. Storch, Adam J. Chill and Scott M. Wallace are the sole managing members of Opportunities GP and GP LLC and as a result may be considered beneficial owners of any securities deemed beneficially owned by Opportunities GP and GP LLC. Each of Kingsbrook Partners, Opportunities GP, GP LLC and Messrs. Storch, Chill and Wallace disclaim beneficial ownership of these securities.

(8) Mr. Lichtinger is a member of our Board. Represents (a) 59,833 shares of Common Stock held by Mr. Lichtinger, (b) 35,297 shares underlying options to purchase Common Stock that are exercisable within 60 days of April 3, 2017 and (c) 7,920 shares underlying the Warrants, which are exercisable within 60 days of April 3, 2017.

(9) P. Kent Hawryluk is a member of our Board. Represents (a) 81,889 shares of Common Stock held by the P. Kent Hawryluk Revocable Trust (the "Trust"), of which Mr. Hawryluk is the trustee and (b) 18,750 shares underlying the Warrants, which are exercisable within 60 days of April 3, 2017 held by the P. Kent Hawryluk Revocable Trust, of which Mr. Hawryluk is the trustee.

Relationships with the Selling Stockholders

Directors and Affiliated Funds

Pedro Lightinger and Andrew Sassine, who are members of our Board of Directors, are Selling Stockholders. The Trust, of which Mr. Hawryluk, a member of our Board of Directors, is the trustee, is a Selling Stockholder. Excel Venture Fund II, L.P. is an affiliate of Excel, of which Dr. Gullans, a member of our Board of Directors, is a Manager. Excel is also a holder of greater than 5% of our outstanding Common Stock. Cormorant Asset Management, LLC, a holder of greater than 5% of our Common Stock, is also a Selling Stockholder.

PLAN OF DISTRIBUTION

We are registering the shares of Common Stock issued to the Selling Stockholders and issuable upon exercise of the Warrants issued to the Selling Stockholders to permit the resale of those shares of Common Stock by such holders of Common Stock and Warrants from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the Selling Stockholders of the shares of Common Stock. We will bear all fees and expenses incident to our obligation to register the shares of Common Stock.

The Selling Stockholders may sell all or a portion of the shares of Common Stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of Common Stock are sold through underwriters or broker-dealers, the Selling Stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of Common Stock may be sold on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market or in transactions otherwise than on these exchanges or systems or in the over-the-counter market and in one or more transactions at fixed prices, at prevailing

market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions. The Selling Stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether such options are listed on an options exchange or otherwise;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The Selling Stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, as permitted by that rule, or Section 4(a)(1) under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of those provisions.

Broker dealers engaged by the Selling Stockholders may arrange for other broker dealers to participate in sales. If the Selling Stockholders effect such transactions by selling shares of Common Stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the Selling Stockholders or commissions from purchasers of the shares of Common Stock for whom they may act as agent or to whom they may sell as principal. Such commissions will be in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with FINRA Rule 2121 and Supplementary Material .01 and Supplementary Material .02 thereto.

In connection with sales of the shares of Common Stock or otherwise, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of Common Stock in the course of hedging in positions they assume. The Selling Stockholders may also sell shares of Common

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Stock short and if such short sale shall take place after the date that this Registration Statement is declared effective by the Commission, the Selling Stockholders may deliver shares of Common Stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The Selling Stockholders may also loan or pledge shares of Common Stock to broker-dealers that in turn may sell such shares, to the extent permitted by applicable law. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). Notwithstanding the foregoing, the Selling Stockholders have been advised that they may not use shares registered on this registration statement to cover short sales of our Common Stock made prior to the date the registration statement, of which this prospectus forms a part, has been declared effective by the SEC.

The Selling Stockholders may, from time to time, pledge or grant a security interest in some or all of the Warrants or shares of Common Stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended, amending, if necessary, the list of Selling Stockholders to include the pledgee, transferee or other successors in interest as Selling Stockholders under this prospectus. The Selling Stockholders also may transfer and donate the shares of Common Stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The Selling Stockholders and any broker-dealer or agents participating in the distribution of the shares of Common Stock may be deemed to be "underwriters" within the meaning of Section 2(a)(11) of the Securities Act in connection with such sales. In such event, any commissions paid, or any discounts or concessions allowed to, any such broker-dealer or agent and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Selling Stockholders who are "underwriters" within the meaning of Section 2(a)(11) of the Securities Act will be subject to the applicable prospectus delivery requirements of the Securities Act including Rule 172 thereunder and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

Each Selling Stockholder has informed the Company that it is not a registered broker-dealer and does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the Common Stock. Upon the Company being notified in writing by a Selling Stockholder that any material arrangement has been entered into with a broker-dealer for the sale of Common Stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such Selling Stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such the shares of Common Stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by

reference in this prospectus, and (vi) other facts material to the transaction. In no event shall any broker-dealer receive fees, commissions and markups, which, in the aggregate, would exceed eight percent (8.0%).

Under the securities laws of some states, the shares of Common Stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of Common Stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any Selling Stockholder will sell any or all of the shares of Common Stock registered pursuant to the registration statement of which this prospectus forms a part.

Each Selling Stockholder and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of Common Stock by the Selling Stockholder and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of Common Stock to engage in market-making activities with respect to the shares of Common Stock. All of the foregoing may affect the marketability of the shares of Common Stock and the ability of any person or entity to engage in market-making activities with respect to the shares of Common Stock.

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We will pay all expenses of the registration of the shares of Common Stock pursuant to the registration rights agreement, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, that each Selling Stockholder will pay all underwriting discounts and selling commissions, if any, and any related legal expenses incurred by it. We will indemnify the Selling Stockholders against certain liabilities, including some liabilities under the Securities Act, in accordance with the registration rights agreement, or the Selling Stockholders will be entitled to contribution. We may be indemnified by the Selling Stockholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the Selling Stockholders specifically for use in this prospectus, in accordance with the related registration rights agreement, or we may be entitled to contribution.

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby and certain legal matters in connection with this offering will be passed upon for us by Honigman Miller Schwartz and Cohn LLP, Kalamazoo, Michigan.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2015 and 2016 and for the three years in the period then ended, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP’s report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file reports, proxy statements and other information with the SEC in accordance with the Exchange Act. You may read and copy our reports, proxy statements and other information filed by us at the public reference room of the SEC located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the public reference rooms. Our reports, proxy statements and other information filed with the SEC are available free of charge to the public over the Internet at the SEC’s website at http://www.sec.gov.

INFORMATION INCORPORATED BY REFERENCE

SEC rules allow us to “incorporate by reference” into this prospectus 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 is considered to be part of this prospectus. These documents may include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements. You should read the information incorporated by reference because it is an important part of this prospectus.

This prospectus incorporates by reference the documents listed below, other than those documents or the portions of those documents deemed to be furnished and not filed in accordance with SEC rules:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC on March 21, 2017 (including information specifically incorporated by reference therein from our Proxy Statement filed with the SEC on April 6, 2017);
- our Current Reports on Form 8-K filed with the SEC on February 7, 2017, March 10, 2017 and March 13, 2017; and
- the description of our Common Stock contained in our registration statement on Form 8-A filed on June 20, 2016, including any amendments or reports filed for the purpose of updating such description.

Any statement contained in any document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You can obtain any of the filings incorporated by reference in this prospectus on our website at www.gemphire.com. Information contained in, or accessible through, our website is not a part of this prospectus.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all reports or documents referred to above which have been or may be

incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those reports or documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address.

Gemphire Therapeutics Inc.
17199 N. Laurel Park Dr., Suite 401
Livonia, Michigan 48152 (734) 245-1700
Attention: Jeffrey S. Mathiesen
Chief Financial Officer