

April 22, 2016

**\*FOIA Confidential Treatment Request\***  
**Confidential Treatment Requested by Gemphire Therapeutics Inc. in connection with Registration Statement on Form S-1 (File No. 333-210815)**

Via EDGAR and FedEx

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street, N.E.  
Washington, D.C. 20549Attention: Suzanne Hayes  
Alexandra M. Ledbetter  
Lilyanna Peyser  
Sharon Blume  
Sasha Parikh

**Re: Gemphire Therapeutics Inc.**  
**Registration Statement on Form S-1**  
**Registration No. 333-210815**

Ladies and Gentlemen:

On behalf of our client, Gemphire Therapeutics Inc. (the "**Company**"), in response to a comment from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") received by letter dated October 7, 2015 (the "**Comment Letter**"), relating to the Company's registration statement on Form S-1, originally confidentially submitted with the Commission on September 11, 2015, resubmitted to the Commission on January 19, 2016 and subsequently filed by the Company with the Commission on April 18, 2016 (File No. 333-210815) (the "**Registration Statement**"), we submit this supplemental letter to further address comment 9 of the Comment Letter.

**Confidential Treatment Request**

Due to the commercially sensitive nature of information contained herein, the Company hereby requests, pursuant to 17 C.F.R. § 200.83, that certain portions of this letter be maintained in confidence, not be made part of any public record and not be disclosed to any person as they contain confidential information. The Company has filed a separate copy of this letter, marked to show the portions redacted from the version filed via EDGAR and for which the Company is requesting confidential treatment. In accordance with 17 C.F.R. § 200.83(d)(1), if any person (including any governmental employee who is not an employee of the Commission) should request access to or an opportunity to inspect this letter, we request that we be immediately notified of any such request, be furnished with a copy of all written materials pertaining to such request (including, but not limited to, the request itself) and be given at least ten business days advance notice of any intended release so that the Company may, if deemed necessary or

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appropriate, pursue any remedies available to it. In such an event, we request that you telephone the undersigned rather than rely upon the U.S. mail for such notice.

**Staff Comment and Company Response**

For the convenience of the Staff, we have recited the prior comment from the Staff in italicized type and have followed the comment with the Company's response.

9. We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.

The Company advises the Staff that the Company preliminarily estimates a price range of \$[\*\*\*] to \$[\*\*\*] per share (the “**Price Range**”) for its initial public offering (the “**IPO**”), before giving effect to an anticipated reverse stock split. The preliminary Price Range has been estimated based, in part, upon current market conditions, the Company’s financial condition and prospects and input received from Jefferies LLC and Cowen & Company, LLC, the lead underwriters for the IPO, including discussions that took place on April 21, 2016 between senior management of the Company and representatives of the lead underwriters. The Price Range does not take into account the current lack of liquidity for the Company’s common stock and assumes a successful IPO with no weighting attributed to any other outcome for the Company’s business, such as remaining a privately held company or being sold in an acquisition transaction. The Company and underwriters had not had any specific discussions regarding the Price Range prior to April 21, 2016.

The reverse stock split ratio has not yet been determined. The Company expects to include the post-split Price Range in an amendment to the Registration Statement that would shortly precede the commencement of the Company’s road show. However, due to the recent volatility in the financial markets and the volatilities evident in the market for recent IPO issuers, the Price Range of the common stock may change. The Company confirms to the Staff that in accordance with Item 501(b)(3) of Regulation S-K and CD&I 134.04, the Price Range will not be in excess of 20% of the high end of the range. The parameters of the Price Range will be subject to then-current market conditions, continuing discussions with the underwriters and any business developments impacting the Company.

We are providing this information to the Staff supplementally to facilitate its review process. The Company advises the Staff as follows:

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The following table summarizes stock options granted to the Company’s employees, consultants and non-employee directors during the year ended December 31, 2015 (no options have been granted in 2016 to date).

<u>Grant Date</u>	<u>Number of Options Granted</u>	<u>Exercise Price</u>
May 21, 2015	82,000	\$0.431
June 1, 2015	100,000	\$0.431
June 29, 2015	136,522	\$0.431
August 17, 2015	266,600	\$0.680
September 25, 2015	160,000	\$1.150
November 13, 2015	20,000	\$1.140
November 25, 2015	100,000	\$1.140
December 24, 2015	87,000	\$1.140

In connection with share-based awards under the Company’s 2015 Equity Incentive Plan, the Company’s board of directors (the “**Board**”) has historically set the exercise price of stock options based on a price per share not less than the estimated fair value of the Company’s common stock on the date of grant. Because there has been no public market for the Company’s common stock, the Board has taken into consideration numerous objective and subjective factors to determine the fair value, including:

- valuations of comparable securities transactions;
- sales of convertible preferred stock to unrelated third parties and the rights, preferences and privileges of the Company’s common stock versus preferred stock;
- the Company’s operating and financial performance;
- the Company’s stage of development, current business conditions, projections and business developments;
- the lack of liquidity of the Company’s capital stock; and
- general and industry specific economic outlook.

To determine the estimated fair value of the common stock at each grant date in order to set the exercise price of each stock option, the Board considered the factors listed above, as well as the results of various independent third-party valuations of the Company’s common stock. As further described

below, for grants that occurred in fiscal 2015, the Board relied on valuations as of March 31, 2015, June 30, 2015 and September 30, 2015 and received an additional valuation as of September 18, 2015 in connection with an award in September 2015.

At the time of the grants in May and June 2015, the Board relied in part on an independent third-party valuation of the Company's common stock as of March 31, 2015. The March 31, 2015 valuation provided an estimated fair value of the common stock of \$0.431 per share and was approved by the Board in April 2015, prior to the granting of stock options in May 2015. The Board determined the valuation was reasonable and that the estimated fair value of the common stock as of May 21, 2015 was \$0.431 per share. On each of June 1, 2015 and June 29, 2015, the Board determined that no significant business or market developments had occurred since the valuation date that would warrant a change in the fair value of the Company's common stock.

At the time of the grants on August 17, 2015, the Board relied in part on an independent third-party valuation of the Company's common stock as of June 30, 2015. The June 30, 2015 valuation, completed on August 3, 2015, provided an estimated fair value of the common stock of \$0.620 per share. In addition to the valuation, the

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Board considered the Company's efforts focused on preparing for a potential IPO and, for purposes of determining the value of the Company's common stock for the grants in August 2015, decided to increase the value of the Company's common stock from the June 30, 2015 valuation by approximately 10%. Therefore, the Board determined the estimated fair value of the Company's common stock as of August 17, 2015 was \$0.680 per share.

Between August 17, 2015 and September 18, 2015, the Company made significant progress towards the proposed IPO, including by holding the organizational meeting for the IPO, engaging underwriters and submitting the initial draft registration statement to the SEC. In connection with the grants in September 2015, the Board determined that the fair value of the Company's common stock was \$1.15 per share based in part on the results of an independent third-party valuation as of September 18, 2015, completed on September 25, 2015. The Board determined the valuation was reasonable and that the estimated fair value of the common stock as of September 25, 2015 was \$1.15 per share.

For the grants made on November 13, 2015, the Board relied in part on an independent third-party valuation of the common stock as of September 30, 2015. The valuation was completed on October 4, 2015 and provided an estimated fair value of the common stock of \$1.14 per share. The slight \$0.01 decrease in the estimated fair value of the Company's common stock from September 18 to September 30 was due to a minor [\*\*\*]% increase in the discount for lack of marketability ("**DLOM**") as of September 30, 2015 due to an increase in market volatility between the two dates and the negative state of the capital markets at the time. The Board set the exercise price of the options granted on November 13, 2015 at the estimated fair value of the common stock as of September 30, 2015 provided by the independent third-party valuation firm. For the awards made on each of November 25, 2015 and December 24, 2015, the Board determined that no significant business or market developments had occurred since the valuation date that would warrant a change in the fair value of the Company's common stock. No awards have been granted since December 24, 2015.

All of the valuations described above (the "**Valuations**") were conducted based on the guidance set forth by the American Institute of Certified Public Accountants ("**AICPA**"), in the AICPA Accounting and Valuation Guide, *Valuation of Privately-Held-Company Securities Issued as Compensation* (the "**AICPA Practice Aid**"). Given the uncertainty associated with valuing a private company, the Company believes the Board exercised reasonable judgment, considering the results of the Valuations and the objective and subjective factors described above, in connection with establishing the fair value of the Company's common stock on each grant date.

In order to determine the estimated fair value of the Company's common stock, the Company and the independent third-party valuation firm utilized a probability-weighted return methodology ("**PWERM**") to allocate enterprise value.

The Valuations as of March 31, 2015 and June 30, 2015 relied on the indications of value realized in the Company's Series A preferred stock financing that closed in March 2015. The fair value of the common stock was estimated using a hybrid of two market approaches. Specifically, the non-IPO exit scenario valued the Company based on the backsolve calculation of the implied equity value from the Company's recent Series A preferred stock financing, and the IPO exit scenario was based on the post-money calculation of the implied equity value from the Series A preferred stock financing. This later approach considers implied equity value based on a common equivalent capitalization table associated with an IPO exit.

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The Valuations as of September 18, 2015 and September 30, 2015 estimated the fair value of the Company's common stock by using a hybrid of two market approaches: (1) the value of a potential Series B preferred stock financing utilizing the backsolve method and (2) the value of a potential Series B financing post-money as a common stock equivalent for an IPO exit. A non-IPO exit scenario that valued the Company based on the backsolve calculation of the implied equity value from the Company's recent Series A preferred stock financing was also considered in the event that a Series B preferred stock financing or an IPO could not be achieved.

The Company believes that the primary differences between the per share value determined in the Valuations and the estimated Price Range for the IPO are reasonable as a result of the following factors:

The Price Range assumes a successful IPO, with no weighting attributed to any other outcome for the Company's business, such as remaining a privately held company, and that the Company's common stock is listed on an exchange. As a result, the Price Range excludes any marketability or liquidity discount and takes into account that the IPO would provide significant additional cash proceeds to the Company to help fund the development of the Company's product and substantially strengthen its balance sheet.

In contrast, the IPO scenario in the Valuations was weighted at an aggregate probability of [\*\*\*]% and [\*\*\*]% as of March 31, 2015 and June 30, 2015, respectively, and the IPO scenario (with a Series B preferred stock financing) was weighted at an aggregate possibility of [\*\*\*]% in each of the September 18, 2015 and September 30, 2015 Valuations. The probability that the Company would remain private was weighted at [\*\*\*]% and [\*\*\*]% as of March 31, 2015 and June 30, 2015, respectively, and was weighted at [\*\*\*]% (including with the probability of a Series B preferred stock financing at [\*\*\*]% and with no Series B preferred stock financing at [\*\*\*]%) as of each of September 18, 2015 and September 30, 2015.

In the non-IPO exit scenarios, the Valuations used the backsolve method, using the Option Pricing Method to calculate an implied value based on a recent transaction taking into account the economic rights of the recently issued security (i.e., the Series A preferred stock) in relation to the rights of other equity holders. The Valuations estimate that the fair value of the Company's common stock in the non-IPO scenario would be (a) \$[\*\*\*] as of March 31, 2015, (b) \$[\*\*\*] as of June 30, 2015, (c) \$[\*\*\*] in the Series B scenario and \$[\*\*\*] in the no-Series B scenario as of September 18, 2015 and (c) \$[\*\*\*] in the Series B scenario and \$[\*\*\*] in the no-Series B scenario as of September 30, 2015.

The Price Range represents a future price for shares of common stock that, if issued in the Company's IPO, would be immediately freely tradable in a public market, whereas the estimated fair values of the common stock as of the dates of the Valuations represent estimates of the fair value of the shares that were then illiquid, might never become liquid, might be for stock that is never publicly traded and, even if an IPO were to be successfully completed, would remain illiquid at least until the expiration of the 180-day lockup period following the IPO. For instance, the Valuations included a DLOM in the IPO-scenario of [\*\*\*]%, [\*\*\*]%, [\*\*\*]% and [\*\*\*]% as of March 31, 2015, June 30, 2015, September 18, 2015 and September 30, 2015, respectively.

While the increase in the value of the Company's common stock subsequent to the Valuations primarily reflects the factors described above, the Company also notes that it made significant progress in its business from the time of the Valuations through the date of determination of the Price Range, including the following milestones:

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- in July 2015, the Company issued convertible notes for gross proceeds of \$2.8 million;
- the Company expanded its management team to include Jeffery S. Mathiesen, its Chief Financial Officer, in September 2015, and Seth Reno, its Chief Commercial Officer, in August 2015;
- the Company's contract manufacturers commenced manufacturing drug substance and drug product for the Company in third and fourth quarters of 2015;
- in December 2015, the Company submitted an investigational new drug application to the U.S. Food and Drug Administration (FDA) for its product candidate and issued convertible notes for gross proceeds of \$2.7 million;
- the Company submitted protocols for two planned clinical trials to the FDA, and in the first quarter of 2016, the Company was notified by the FDA that such trials may proceed; and
- in April 2016, the Company issued convertible notes for gross proceeds of \$5.0 million.

Moreover, the general status of the capital markets has improved significantly in recent months.

Based on the Price Range estimate and factors provided above, the current status of the financial markets and continued uncertainty as to whether the Company will be able to complete its planned IPO within the proposed Price Range, or at all, the Company believes its Board's determination of the fair value of its common stock as of the grant dates was reasonable and appropriate for the reasons described in the Registration Statement and herein.

We supplementally advise the Staff that the Company anticipates that certain additional equity awards will be approved by the Company's Board, to be granted at the time of effectiveness of the Registration Statement, and, if any options are granted, that the exercise price per share of such options will be equal to the price per share to the public set forth in the final prospectus for the IPO.

We hereby further request, pursuant to Rule 418(b) under the Securities Act of 1933, as amended, the return of the unredacted version of this letter. The Company believes that return of the supplemental information contained in this letter will protect the interests of investors and is consistent with the provisions of the Freedom of Information Act by maintaining in confidence the potential valuation of the Company that may, if disseminated, negatively impact the trading in the stock of the Company following the IPO. The Company advises the Staff that it has not filed the supplemental information subject to this request in electronic format. Please return this letter to the Company, in care of the undersigned, a responsible representative of the Company, at 350 E. Michigan Avenue, Suite 300, Kalamazoo, Michigan 49007.

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If you have any questions or comments concerning this response or the Registration Statement, please do not hesitate to call Phillip D. Torrence at (269) 337-7702.

Yours sincerely,

/s/ Phillip D. Torrence

Phillip D. Torrence

Cc: Mina Sooch, Gemphire Therapeutics Inc.  
David Lowenschuss, Esq., Gemphire Therapeutics Inc.  
Divakar Gupta, Esq., Cooley LLP  
Nicole C. Brookshire, Esq., Cooley LLP  
Charles S. Kim, Esq., Cooley LLP

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