



August 22, 2018

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street, N.E.  
Washington, D.C. 20549  
Attention: Sasha Parikh  
Kevin Vaughn

**Re: Gemphire Therapeutics Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2017  
Filed March 20, 2018  
File No. 001-37809**

Dear Ms. Parikh and Mr. Vaughn:

On behalf of Gemphire Therapeutics Inc. (the "Company"), this letter sets forth the response of the Company to the comment contained in your letter dated August 13, 2018.

The Company respectfully acknowledges to the Staff that it inadvertently omitted paragraph 4(b) from the certifications filed as Exhibits 31.1 and 31.2 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2017 (File No. 001-37809) (the "Annual Report"). In response to the Staff's comment and as required by Item 601(b)(31) of Regulation S-K and Regulation S-K C&DI 246.13, the Company is concurrently filing Amendment No. 1 on Form 10-K/A to the Company's Annual Report including revised certifications filed as Exhibits 31.1 and 31.2 that include the statements required by Item 601(b)(31) of Regulation S-K in the introductory portion of paragraph 4 and in paragraph 4(b).

If you have any questions or comments concerning this response or the revised certifications, please do not hesitate to call the undersigned at 612-961-7875.

Sincerely yours,

/s/ Jeffrey S. Mathiesen

Cc: Dr. Steven Gullans, Gemphire Therapeutics Inc.

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