

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

August 13, 2018

Jeffrey S. Mathiesen Chief Financial Officer Gemphire Therapeutics Inc. 17199 N. Laurel Park Dr. Suite 401 Lavonia, MI 48152

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

Dear Mr. Mathiesen:

We have limited our review of your filing to the financial statements and related disclosures and have the following comment. In our comment, we ask you to provide us with information so we may better understand your disclosure.

Please respond to the comment within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to the comment, we may have additional comments.

Form 10-K for the Fiscal year Ended December 31, 2017

Exhibits 31.1 and 31.2, page 1

1. Refer to the guidance of Item 601(b)(31) of Regulation S-K as well as Regulation S-K C&DI 246.13. We note your disclosure that paragraph 4(b) of the certification was "intentionally omitted." Please provide revised certifications that included paragraph 4(b) of the certification in an amendment to your Form 10-K for the Fiscal Year Ended December 31, 2017.

In closing, we remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Jeffrey S. Mathiesen Gemphire Therapeutics Inc. August 13, 2018 Page 2

You may contact Sasha Parikh at 202-551-3627 or Kevin Vaughn at 202-551-3494 with any questions.

Sincerely,

Division of Corporation Finance Office of Healthcare & Insurance