

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

DIVISION OF CORPORATION FINANCE

Mail Stop 4546

April 18, 2017

Mina Sooch Chief Executive Officer Gemphire Therapeutics Inc. 17199 N. Laurel Park Drive, Suite 401 Livonia, Michigan 48152

> Re: Gemphire Therapeutics Inc. Registration Statement on Form S-1 Filed April 13, 2017 File No. 333-217296

Dear Ms. Sooch:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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.

Please contact Chris Edwards at (202) 551-6761 with any questions.

Sincerely,

/s/ Mary Beth Breslin for

Suzanne Hayes Assistant Director Office of Healthcare and Insurance

cc: Meredith Ervine, Esq. Honigman Miller Schwartz and Cohn LLP