UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): April 12, 2018

GEMPHIRE THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 001-37809 (Commission File No.) 47-2389984 (IRS Employer Identification No.)

17199 N. Laurel Park Drive, Suite 401 Livonia, Michigan 48152 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (734) 245-1700

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Dere-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company \boxtimes

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \boxtimes

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Amendment to Inducement Plan

On April 9, 2018, Gemphire Therapeutics Inc. (the "*Company*") adopted the Amendment (the "*Amendment*") to the Gemphire Therapeutics Inc. Inducement Plan (the "*Inducement Plan*"), increasing the aggregate number of shares of common stock that may be issued pursuant to equity incentive awards under the Inducement Plan from 300,000 shares to 450,000 shares (the "*Share Reserve*"). The Amendment was approved by the Compensation Committee of the Company's Board of Directors without stockholder approval pursuant to Rule 5635(c)(4) of the NASDAQ Listing Rules. Other than the increase in the Share Reserve, the terms and conditions of the Inducement Plan were not changed.

The forgoing description of the terms of the Amendment is qualified in its entirety by reference to the actual terms of the Amendment, which is attached hereto as Exhibit 10.1 and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d)	Exhibits.	
	Exhibit	Description
	10.1	Amendment to Inducement Plan.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

GEMPHIRE THERAPEUTICS INC.

Dated: April 12, 2018

By: /s/ Jeffrey S. Mathiesen

Jeffrey S. Mathiesen Chief Financial Officer

AMENDMENT NO. 1

TO THE

GEMPHIRE THERAPEUTICS INC.

INDUCEMENT PLAN

The Gemphire Therapeutics Inc. Inducement Plan (the "*Plan*") is hereby amended in the following respects, effective April 9, 2018, in accordance with Section 2(b)(vi) of the Plan.

The first sentence of Section 3(a) of the Plan is deleted in its entirety and replaced with the following sentence:

"Subject to the provisions of Section 9 relating to adjustments upon changes in stock, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards after the Effective Date shall not exceed, in the aggregate, 450,000 shares (the *"Share Reserve"*)."