

SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. )\*

**Gemphire Therapeutics Inc.**

(Name of Issuer)

**Common Stock, \$0.001 par value**

(Title of Class of Securities)

**36870A 108**

(CUSIP Number)

**December 31, 2016**

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 36870A 108

1 Name of Reporting Person:  
Charles L. Bisgaier

2 Check the Appropriate Box if a Member of a Group:

- (a)
- (b)

3 SEC Use Only:

4 Citizenship or Place of Organization:  
United States of America

Number of Shares Beneficially Owned by Each Reporting Person With: 5 Sole Voting Power:  
1,349,884(1)

6 Shared Voting Power:  
19,228

7 Sole Dispositive Power:  
1,349,884(1)

9 Aggregate Amount Beneficially Owned by Each Reporting Person:  
1,369,112(1)

10 Check if the Aggregate Amount in Row (9) Excludes Certain Shares: o

11 Percent of Class Represented by Amount in Row (9):  
14.7% (See Item 4 herein)

12 Type of Reporting Person:  
IN

- (1) Includes (a) 4,474 shares underlying an option to purchase common stock with an exercise price of \$1.344, and (b) 18,750 shares underlying an option to purchase common stock with an exercise price of \$10.00.

END OF COVER PAGE

2

**Item 1.** (a) Name of Issuer.  
Gemphire Therapeutics Inc.

(b) Address of Issuer's Principal Executive Offices.  
17199 N. Laurel Park Drive, Suite 401, Livonia, MI 48152

**Item 2.** (a) Name of Person Filing (the "Reporting Person").  
Charles L. Bisgaier

(b) Address or Principal Business Office or, if none, Residence.  
The address for the Reporting Person is 17199 N. Laurel Park Drive, Suite 401, Livonia, MI 48152.

(c) Citizenship.  
Mr. Bisgaier is a citizen of the United States of America.

(d) Title of Class of Securities.  
Common Stock, \$0.001 par value

(e) CUSIP No.  
36870A 108

**Item 3.** **If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b), or (c), check whether the person filing is a:**

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E).
- (f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F).
- (g)  A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G).
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3).
- (j)  A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J).
- (k)  Group, in accordance with § 240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution. \_\_\_\_\_

**Item 4. Ownership.**

Name	(a) Amount Beneficially Owned	(b) Percent of Class*	(c) Number of Shares as to which the person has:			
			Sole Power to Vote or to Direct the Vote	Shared Power to Vote or to Direct the Vote	Sole Power to Dispose or to Direct the Disposition of	Shared Power to Dispose or to Direct the Disposition of
Charles L. Bisgaier	1,267,664(1)	13.6%	1,267,664(1)	0	1,267,664(1)	0
The Charles L. Bisgaier Trust(2)	82,220	—	82,220	0	82,220	0
Bisgaier Family, LLC(3)	19,228	—	0	19,228	0	19,228

- (1) Includes (a) 4,474 shares underlying an option to purchase common stock with an exercise price of \$1.344, and (b) 18,750 shares underlying an option to purchase common stock with an exercise price of \$10.00.
- (2) By reason of the provisions of Rule 13d-3 of the Act, Mr. Bisgaier may be deemed to beneficially own the shares beneficially owned by the trust for which he serves as trustee. Mr. Bisgaier disclaims beneficial ownership of the securities owned by the trust except to the extent of his pecuniary interest therein.
- (3) By reason of the provisions of Rule 13d-3 of the Act, Mr. Bisgaier may be deemed to beneficially own the shares beneficially owned by the Bisgaier Family, LLC for which he serves as a member. Mr. Bisgaier disclaims beneficial ownership of the securities owned by the LLC except to the extent of his pecuniary interest therein.

\* As of December 31, 2016 (based on 9,270,255 shares of the Issuer's Common Stock outstanding as reported by the Issuer to the Reporting Person).

**Item 5. Ownership of Five Percent or Less of a Class.**

Not applicable.

**Item 6. Ownership of More than Five Percent on Behalf of Another Person.**

Not applicable.

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.**

Not applicable.

**Item 8. Identification and Classification of Members of the Group.**

Not applicable.

**Item 9. Notice of Dissolution of Group.**

Not applicable.

4

**Item 10. Certification.****SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 14, 2017

/s/ Charles L. Bisgaier

Charles L. Bisgaier

5