FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

5. Relationship of Reporting Person(s) to Issuer

OMB Number: 3235-0287 Estimated average burden hours per response: 0.5

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

1. Name and Address of Reporting Person*

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

2. Issuer Name **and** Ticker or Trading Symbol

Bisgaier Charles PhD							Gemphire Therapeutics Inc. [GEMP]								bie)	X	10% Ow		
(Last) (First) (Middle) 43334 SEVEN MILE ROAD SUITE 1000						3. Date of Earliest Transaction (Month/Day/Year) 08/10/2016									X Officer (give title Other (specify below) Chair & Chief Scientific Off.				
(Street) NORTHVILLE MI 48167						f Ame	ndme	nt, Date of C	riginal I	Filed (N	Month/Day/Ye	Line)	6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person						
(City)	(Sta		Zip)		erivative Securities Acquired, Disposed of, or Beneficially Owned														
1 Title of Co	ourity (Inotr		ble I - No						uired, 3.	_				1	of	6 000	orobin -	7. Nature of	
j`` j					2. Transaction Date (Month/Day/Year)			2A. Deemed Execution Date, if any (Month/Day/Year)		ction Instr.	4. Securities Acquired (A Disposed Of (D) (Instr. 3,		, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s)		6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		ndirect Beneficial Dwnership Instr. 4)	
									Code	V	Amount	(A) or (D)	Price	(Instr. 3 an	d 4)				
Common Stock					08/10/2016						59,561	A	(1)	59,561			I (1)	Held by The Charles C. Bisgaier Trust ⁽²⁾	
Common Stock				08/10/2016					J ⁽³⁾		6,515	A	\$6.7059	66,076			I (1)	Held by The Charles L. Bisgaier Trust ⁽²⁾	
Common Stock					08/10/2016						16,144	A	\$6.7059	82,220			I (1)	Held by The Charles L. Bisgaier Trust ⁽²⁾	
Common Stock					08/10/2016						19,228	A	\$6. 7059	19,228			I I	Held by Bisgaier Family, LLC	
Common Stock 08/10						/2016			P		51,750	A	\$10	1,244,440			D		
			Table II -								sed of, or onvertible			wned					
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution I if any (Month/Day	d 4 Date, 1	4. Transaction Code (Instr. 8)		5. Number of Derivative		6. Date Exer Expiration D (Month/Day/		cisable and	7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Numb derivativ Securitic Benefici Owned Followir Reporte	ve es ally ng	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
					Code	v	(A)	(D)	Date Exercisable		Expiration Date	Amor or Numl of Title Share			Transac (Instr. 4)	tion(s)			
Series A Convertible Preferred Stock	(1)	08/10/2016		С				59,561	(1)	(1)	Common Stock	59,561	\$0	0		I	Held by The Charles L. Bisgaier Trust ⁽²⁾	
8% Convertible Subordinated Promissory Notes	\$6.7059	08/10/2016			С			\$100,000 ⁽⁴⁾	(4)	(4)	Common Stock	16,144	\$0 0		I		Held by The Charles L. Bisgaier Trust ⁽²⁾	
8% Convertible Subordinated Promissory Notes	\$6.7059	08/10/2016						\$125,000 ⁽⁵⁾	(5)		(5)	Common Stock	19,228	\$0 0			I	Held by Bisgaier Family, LLC	
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Explanation of Responses:

immediately prior to the closing of the Company's initial public offering and had no expiration date.

- 2. These shares are indirectly owned by the reporting person as trustee of The Charles L. Bisgaier Trust.
- 3. Represents shares of Common Stock issued for payment of accrued dividends on the Series A Convertible Preferred Stock.
- 4. The notes were issued in the original principal amount of \$100,000. The outstanding principal and \$8,263 of accrued interest on the notes automatically converted into shares of Common Stock immediately prior to the closing of the Company's initial public offering.
- 5. The notes were issued in the original principal amount of \$125,000. The outstanding principal and \$3,945 of accrued interest on the notes automatically converted into shares of Common Stock immediately prior to the closing of the Company's initial public offering.

/s/ Stephanie Swan, by Power of Attorney.

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.