

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM S-8
REGISTRATION STATEMENT**
UNDER
THE SECURITIES ACT OF 1933

KemPharm, Inc.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
Incorporation or organization)

20-5894398
(I.R.S. Employer
Identification No.)

2656 Crosspark Road, Suite 100
Coralville, IA 52241

(Address of principal executive offices) (Zip code)

2014 Equity Incentive Plan

(Full title of the plan)

Travis C. Mickle, Ph.D.
President and Chief Executive Officer
KemPharm, Inc.
2656 Crosspark Road, Suite 100
Coralville, IA 52241
(319) 665-2575

(Name and address of agent for service) (Telephone number, including area code, of agent for service)

Copies to:

Brent B. Siler
Matthew P. Dubofsky
Cooley LLP
380 Interlocken Crescent, Suite 900
Broomfield, CO 80021
(720) 566-4000

R. LaDuane Clifton
Chief Financial Officer
KemPharm, Inc.
2656 Crosspark Road, Suite 100
Coralville, IA 52241
(319) 655-2575

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee(3)
Common Stock, par value \$0.0001 per share	579,638 shares	\$13.20	\$7,651,221.60	\$770.48

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "*Securities Act*"), this Registration Statement shall also cover any additional shares of the Registrant's common stock, par value \$0.0001 (the "*Common Stock*") that become issuable under the 2014 Equity Incentive Plan (the "*2014 Plan*") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant's outstanding shares of Common Stock.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) and Rule 457(c) promulgated under the Securities Act. The offering price per share and the aggregate offering price are based upon the average high and low prices of the Registrant's Common Stock as reported on the NASDAQ Global Market on March 17, 2016. The chart below details the calculations of the registration fee:

Securities	Number of Shares	Offering Price Per Share(2)	Aggregate Offering Price
Additional shares reserved for future grant under the 2014 Plan	579,638	\$ 13.20(2)	\$7,651,221.60
Proposed Maximum Aggregate Offering Price			\$7,651,221.60
Registration Fee			\$ 770.48(3)

- (3) In connection with the registration of unsold securities pursuant to a Registration Statement on Form S-1 (Registration No. 333-208633), which was

initially filed on December 18, 2015, the registrant previously paid \$6,312, a portion of which fee shall be applied to offset this registration fee in its entirety in accordance with Rule 457(p) promulgated under the Securities Act.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering an additional 579,638 shares of the Registrant's Common Stock to be issued pursuant to the Registrant's 2014 Plan.

INCORPORATION BY REFERENCE OF CONTENTS OF REGISTRATION STATEMENT ON FORM S-8

The Registrant is hereby registering an additional 579,638 shares of the Registrant's Common Stock to be issued pursuant to the Registrant's 2014 Plan. The contents of the Registration Statement on Form S-8 (File No. 333-203703), as filed with the Securities and Exchange Commission (the "**Commission**") on April 29, 2015, are incorporated herein by reference and made a part of this Registration Statement.

ITEM 8. EXHIBITS

<u>Exhibit Number</u>	<u>Description</u>
4.1(1)	Amended and Restated Certificate of Incorporation, as currently in effect.
4.2(2)	Amended and Restated Bylaws, as currently in effect.
4.3(3)	Specimen stock certificate evidencing shares of Common Stock.
4.4(4)	2014 Equity Incentive Plan.
4.5(5)	Form of Stock Option Grant Notice and Stock Option Agreement under 2014 Equity Incentive Plan.
4.6(6)	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement under 2014 Equity Incentive Plan.
5.1	Opinion of Cooley LLP.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2	Consent of Cooley LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page of this Form S-8).

- (1) Previously filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-36913), filed with the Commission on April 21, 2015, and incorporated by reference herein.
- (2) Previously filed as Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-36913), filed with the Commission on April 21, 2015, and incorporated by reference herein.
- (3) Previously filed as Exhibit 4.2 to Amendment No. 2 to the Registrant's Registration Statement on Form S-1 (File No. 333-202660), filed with the Commission on April 9, 2015, and incorporated by reference herein.
- (4) Previously filed as Exhibit 4.7 to the Registrant's Registration Statement on Form S-8 (File No. 333-203703), filed with the Commission on April 29, 2015, and incorporated by reference herein.
- (5) Previously filed as Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 (File No. 333-202660), filed with the Commission on March 11, 2015, and incorporated by reference herein.
- (6) Previously filed as Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (File No. 333-202660), filed with the Commission on March 11, 2015, and incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Coralville, State of Iowa, on this 23rd day of March, 2016.

KEMPHARM, INC.

By: /s/ Travis C. Mickle

Travis C. Mickle, Ph.D.

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Travis C. Mickle, Ph.D. and R. LaDuane Clifton, and each or any one of them, his lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Travis C. Mickle</u> Travis C. Mickle, Ph.D.	President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	March 23, 2016
<u>/s/ R. LaDuane Clifton</u> R. LaDuane Clifton, CPA	Chief Financial Officer and Secretary <i>(Principal Financial and Accounting Officer)</i>	March 23, 2016
<u>/s/ Danny L. Thompson</u> Danny L. Thompson	Director	March 23, 2016
<u>/s/ Matthew R. Plooster</u> Matthew R. Plooster	Director	March 23, 2016
<u>/s/ Richard W. Pascoe</u> Richard W. Pascoe	Director	March 23, 2016
<u>/s/ Joseph B. Saluri</u> Joseph B. Saluri	Director	March 23, 2016
<u>/s/ David Tierney</u> David Tierney	Director	March 23, 2016

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Matthew P. Dubofsky
T: +1 720 566 4244
mdubofsky@cooley.com

EXHIBIT 5.1

March 23, 2016

KemPharm, Inc.
2656 Crosspark Road, Suite 100
Coralville, Iowa 52241

Ladies and Gentlemen:

You have requested our opinion, as counsel to KemPharm, Inc., a Delaware corporation (the “**Company**”), in connection with the filing by the Company of a Registration Statement on Form S-8 (the “**Registration Statement**”) with the Securities and Exchange Commission covering the offering of up to 579,638 shares (the “**Shares**”) of the Company’s Common Stock, par value \$0.0001 per share (“**Common Stock**”), pursuant to the Company’s 2014 Equity Incentive Plan (the “**Plan**”).

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and the related prospectus, (b) the Company’s Amended and Restated Certificate of Incorporation, and the Company’s Amended and Restated Bylaws, each as currently in effect, (c) the Plan and (d) the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals and the conformity to originals of all documents submitted to us as copies thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought to independently verify such matters.

Our opinion is expressed only with respect to the federal laws of the United States of America and the General Corporation Law of the State of Delaware. We express no opinion as to whether the laws of any particular jurisdiction other than those identified above are applicable to the subject matter of this opinion. We are not rendering any opinion as to compliance with any federal or state antifraud law, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plan, the Registration Statement and the related prospectus, will be validly issued, fully paid and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

COOLEY LLP

By: /s/ Matthew P. Dubofsky
Matthew P. Dubofsky

380 INTERLOCKEN CRESCENT, SUITE 900, BROOMFIELD, CO 80021-8023 T: (720) 566-4000 F: (720) 566-4099 WWW.COOLEY.COM

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 pertaining to the 2014 Equity Incentive Plan of KemPharm, Inc. of our report dated March 15, 2016, with respect to the financial statements of KemPharm, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Minneapolis, Minnesota
March 23, 2016