

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

FORM 12b-25

Commission File Number: 001-36913  
CUSIP Number: 488445107

NOTIFICATION OF LATE FILING

(Check One):  Form 10-K  Form 20-F  Form 11-K  Form 10-Q  Form 10-D  Form N-SAR  Form N-CSR

For Period Ended: March 31, 2017

- Transition Report on Form 10-K  
 Transition Report on Form 20-F  
 Transition Report on Form 11-K  
 Transition Report on Form 10-Q  
 Transition Report on Form N-SAR  
 For the Transition Period Ended: \_\_\_\_\_

*Read Instruction (on back page) Before Preparing Form. Please Print or Type.*

**Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.**

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

**PART I -- REGISTRANT INFORMATION**

**KemPharm, Inc.**

Full Name of Registrant

**N/A**

Former Name if Applicable

**2500 Crosspark Road, Suite E126**

Address of Principal Executive Office (*Street and Number*)

**Coralville, IA 52241**

City, State and Zip Code

**PART II -- RULES 12b-25(b) AND (c)**

If the subject report could not be filed without unreasonable effort or expense and the Registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate.)

- (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q, or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

**PART III -- NARRATIVE**

State below in reasonable detail why the Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR or the transition report portion thereof could not be filed within the prescribed time period.

KemPharm, Inc. (the "Registrant") is unable to file its Quarterly Report on Form 10-Q (the "Quarterly Report") for the period ended March 31, 2017 within the prescribed time period without unreasonable effort or expense because additional time is required for completion of the review of its financial results for the period ended March 31, 2017 by its independent registered public accounting firm.

The Registrant currently anticipates filing its Quarterly Report within the period permitted by Rule 12b-25(b).

**PART IV-- OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

R. LaDuane Clifton  
(Name)

321  
(Area Code)

939-3416  
(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s). Yes  No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? Yes  No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

The Registrant is not able to make an estimate of its results of operations until the review of its financial statements for the three months ended March 31, 2017 is complete. However, the Registrant does expect the results of operations for that period will include an additional non-cash charge to fair value adjustment related to changes in the derivative and warrant liability during the period.

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## Forward-Looking Statements

Except for the historical statements contained herein, this notification includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act, as amended, including statements regarding the Registrant's anticipated financial results and condition and the estimated timing for the filing of the Quarterly Report. Actual results could differ materially from these forward-looking statements as a result of certain factors, including, without limitation: the Registrant's inability to complete the work required to file the Quarterly Report in the timeframe that is anticipated or due to unanticipated changes being required in its reported operating results; risks related to the Registrant's ability to finalize the financial statements to be included in the Quarterly Report, including those related to the need to complete the Registrant's internal review and the performance of the requisite procedures by our independent registered public accounting firm; as well as other risks detailed in the Registrant's filings with the Securities and Exchange Commission, including under the heading "Risk Factors" in the Registrant's filings with the Securities and Exchange Commission, including the Registrant's most recent Annual Report on Form 10-K for the year ended December 31, 2016. The Registrant disclaims any obligation or undertaking to update or revise any forward-looking statements contained in this notification.

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KemPharm, Inc.

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 16, 2017

By: /s/ R. LaDuane Clifton

Name: R. LaDuane Clifton

Title: Chief Financial Officer

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be filed with the form.

**ATTENTION**

**Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).**