UNITED STATES

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

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

the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

accounting standards provided pursuant to Section 13(a) of the Exchange Act. $\ \boxtimes$

Emerging growth company $\ oxtimes$

SECURIT	WASHINGTON, D.C. 20549	11551UN
	FORM 8-K	
	CURRENT REPORT	
Pursuant	t to Section 13 or 15(d) of the Securities Exchange Act of	f 1934
Date of	Report (Date of Earliest Event Reported): August 10, 2	017
	KemPharm, Inc. Exact Name of Registrant as Specified in Its Charter)	
Delaware (State or Other Jurisdiction of Incorporation)	001-36913 (Commission File Number)	20-5894398 (IRS Employer Identification No.)
2500 Crosspark Road, Suite E126 Coralville, IA (Address of Principal Executive Offices)		52241 (Zip Code)
Registra	nt's Telephone Number, Including Area Code: (319) 665	-2575
(Forme	Not Applicable er Name or Former Address, if Changed Since Last Rep	ort)
Check the appropriate box below if the Form 8-K filing is i General Instructions A.2. below):	intended to simultaneously satisfy the filing obligation of	the registrant under any of the following provisions (see
☐ Written communications pursuant to Rule 425 under the	e Securities Act (17 CFR 230.425)	
☐ Soliciting material pursuant to Rule 14a-12 under the E	xchange 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))	
☐ Pre-commencement communications pursuant to Rule 3	13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))	

Item 2.02 Results of Operations and Financial Condition.

On August 10, 2017, KemPharm, Inc., a Delaware corporation, or KemPharm, issued a press release announcing its corporate and financial results for the quarter ended June 30, 2017, as well as information regarding a conference call and live webcast presentation to discuss these corporate and financial results. A copy of the press release and presentation are furnished as Exhibits 99.1 and 99.2, respectively, to this Current Report on Form 8-K. The information contained in the press release and presentation furnished as Exhibits 99.1 and 99.2, respectively, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and is not incorporated by reference into any of KemPharm's filings under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, except as shall be expressly set forth by specific reference in any such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release titled "KemPharm, Inc. Reports Second Quarter 2017 Results" dated August 10, 2017.
99.2	Presentation titled "Second Quarter 2017 Results" dated August 10, 2017.

SIGNATURES

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 thereunto duly authorized.

KemPharm, Inc.

Date: August 10, 2017

By: /s/ R. LaDuane Clifton

R. LaDuane Clifton, CPA

Chief Financial Officer, Secretary and Treasurer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release titled "KemPharm, Inc. Reports Second Quarter 2017 Results" dated August 10, 2017.
99.2	Presentation titled "Second Quarter 2017 Results" dated August 10, 2017.





KemPharm, Inc. Reports Second Quarter 2017 Results

Conference Call and Live Audio Webcast with Slide Presentation Scheduled for Today at 4:30 p.m. ET

Clinical Development & Regulatory Highlights:

- PK415.109 Pharmacokinetics Phase 1 Trial Completed
- Held KP415 End-of-Phase 1 Meeting with U.S. Food and Drug Administration (FDA)
- Initiated Development of KP484, A Super-Extended Release Attention-Deficit/Hyperactivity Disorder (ADHD) Methylphenidate Product Candidate
- Presented Clinical Data for KP511 at the International Conference on Opioids
- Granted First Patent for KP746, a Novel Prodrug of Oxymorphone

Financial Highlights:

- Net loss of \$0.44 per basic and diluted share for the quarter ended June 30, 2017
- Quarterly operating expenses decreased \$1.1 million, as compared to Q2 2016, driven primarily by decreases in G&A spending
- Total cash and security-related amounts were \$65.8 million at June 30, 2017, which includes cash, cash equivalents, restricted cash, marketable securities and long-term investments balance

Coralville, IA – **August 10, 2017** – KemPharm, Inc. (NASDAQ: KMPH), a clinical-stage specialty pharmaceutical company engaged in the discovery and development of proprietary prodrugs, today reported its corporate and financial results for the second quarter ended June 30, 2017, including an update on clinical and regulatory events involving its prodrug development pipeline.

"The second quarter was highlighted by key advances to our ADHD prodrug portfolio, including the completion of the KP415 End-of-Phase 1 meeting with the FDA and the requisite Phase 1 pharmacokinetics trial, the data of which was announced today and has provided us additional support of the potential early onset and extended duration of therapy that may be provided by KP415," said Travis C. Mickle, Ph.D., President and Chief Executive Officer of KemPharm. "We believe these two events keep us on schedule for the initiation of the pivotal efficacy study and human abuse liability program prior to year-end."

"Importantly, we also were able to announce the development of a new ADHD prodrug product candidate, KP484, a super-extended release d-threo-methylphenidate. We now expect to file the Investigational New Drug (IND) application for KP484 as early as the third quarter of 2017, after which we anticipate initiating an expedited clinical development program in 2018," Dr. Mickle continued. "Should we continue to advance our ADHD prodrug portfolio as expected, KemPharm foresees submitting New Drug Applications (NDAs) for KP415 and KP484 in 2018 and 2019, respectively, enabling the Company to potentially introduce two highly differentiated products to the ADHD market in close succession. Altogether, these completed and anticipated milestones have strengthened our conviction that our ADHD prodrug portfolio is not only KemPharm's most valuable asset, but also has the potential to address important treatment needs across the ADHD patient spectrum."

"In addition to the significant activity with our ADHD portfolio, we anticipate the completion of the Formal Dispute Resolution Request (FDRR) process for ApadazTM, our product candidate combining KP201with APAP, with the FDA in the near future as well," Dr. Mickle concluded. "Collectively, we believe these internal opportunities may add significant value to KemPharm in 2017 and 2018, while serving to highlight the potential of our Ligand Activated Therapy (LAT) prodrug platform. We will continue to leverage this drug discovery engine, which is designed to enhance the performance of an active pharmaceutical ingredient and increase the marketability of the parent drug."

Q2 2017 Financial Results:

KemPharm's reported net loss of \$6.5 million, or \$0.44 per basic and diluted share for Q2 2017, compared to net income of \$9.8 million, or net income per basic share of \$0.59 and net loss per diluted share of \$0.58, for the same period in 2016. Net loss for the Q2 2017 was driven primarily by a loss from operations of \$8.2 million, and net interest expense and other items of \$1.8 million; these expenses were partially offset by fair value adjustment income of \$3.5 million. Loss from operations was \$9.3 million for the same period in 2016. The decrease in loss from operations for Q2 2017 compared to the same quarter in 2016 was primarily due to a decrease in general and administrative costs related to overhead and personnel spending.

As of June 30, 2017, total cash, cash equivalents, restricted cash, marketable securities, and long-term investments was \$65.8 million, which reflected a decrease of \$6.6 million compared to March 31, 2017. Based on the Company's current forecast, existing resources are expected to fund operating expenses and capital expenditure requirements through O2 2019.

Conference Call Information:

The company will host a conference call and live audio webcast with slide presentation on Thursday, August 10, 2017, at 4:30 p.m. ET, to discuss its corporate and financial results for the second quarter 2017. Interested participants and investors may access the conference call by dialing either:

- (866) 395-2480 (U.S.)
- (678) 509-7538 (international)
- Conference ID: 63587183

The live webcast with accompanying slides will be accessible via the Investor Relations section of the KemPharm website http://investors.kempharm.com/. An archive of the webcast and presentation will remain available for 90 days beginning at approximately 5:30 p.m., ET on August 10, 2017.

Second Quarter Activities:

• Initiated Development of KP484, A New, Super-Extended Release ADHD Methylphenidate Product Candidate 1

On June 28, 2017, KemPharm announced the development of a new prodrug product candidate of d-threo-methylphenidate (d-MPH), KP484, for ADHD indications that may benefit from a super-extended duration of treatment. The new therapeutic application was developed during a data analysis of the KP415 Phase 1 study, in which KemPharm observed that the prodrug molecule demonstrated an ability to produce a longer duration release of d-MPH relative to comparator products available on the market today. As a result, KemPharm is now planning to initiate clinical development of KP484 and anticipates filing an IND application for KP484 as early as the third quarter of 2017. KemPharm expects to leverage data from certain clinical and nonclinical trials of KP415 to expedite the development of KP484. KemPharm believes this may enable it to realize key cost and R&D efficiencies and target a NDA submission as soon as 2019.

• Completed KP415 End-of-Phase 1 Meeting with FDA

Also on June 28, 2017, KemPharm announced the successful completion of an End-of-Phase 1 (EOP1) meeting with the FDA for KP415. KemPharm held the EOP1 meeting with the FDA to discuss the data from the Phase 1 proof-of-concept clinical trial of KP415 (KP415.101), additional nonclinical and manufacturing data sets, and the proposed clinical and nonclinical programs required for eventual submission of an NDA for KP415. Additionally, KemPharm and the FDA discussed the proposed commercial formulation of KP415, which KemPharm plans to develop with a co-formulated product of methylphenidate and the prodrug of KP415 to potentially support a superior early onset profile. Based on the feedback from the FDA, KemPharm believes that its ongoing and anticipated research of KP415, including the pivotal efficacy trial planned to initiate in the second half of 2017, remains on schedule and in alignment with a potential NDA submission as soon as late 2018.

• Announced First Patent Grant for KP746, a Prodrug of Oxymorphone

On June 26, 2017, KemPharm announced the addition of a patent for KP746, a prodrug of oxymorphone. KemPharm was granted U.S. Patent No. 9,682,076 from the United States Patent and Trademark Office for its patent application titled, "Benzoic acid, benzoic acid derivatives and heteroaryl carboxylic acid conjugates of oxymorphone, prodrugs, methods of making and use thereof." The patent, which extends through 2035, provides compositions of matter for treating moderate to severe pain, specifically comprising a compound and compositions of oxymorphone conjugated to 6-diflunisal.

• Presented Clinical Data for KP511 at the International Conference on Opioids

On June 11, 2017, KemPharm presented clinical data from KP511 KemPharm's prodrug of hydromorphone, at the International Conference on Opioids Annual Meeting. The poster, titled, "Pharmacokinetics and Abuse Potential of KP511, a Novel Prodrug of Hydromorphone, after Intranasal Administration in Recreational Drug Users," reported the results of a study designed to assess the pharmacokinetics and abuse potential of equimolar doses of KP511 hydrochloride active pharmaceutical ingredient (API) (16.1 mg) compared with hydromorphone (HM) hydrochloride (HCl) API (8 mg) following intranasal administration in the studied non-dependent, recreational opioid users. Intranasal KP511 demonstrated favorable pharmacokinetics marked by reduced plasma drug exposure compared to HM HCl, as well as statistically significant reductions in FDA-recommended endpoints relating to abuse potential, including "at-the-moment" Drug Liking and Feeling High measures and retrospective measures of Take Drug Again and Overall Drug Liking.

• Promoted Andrew Barrett, Ph.D., to Vice President, Scientific Affairs

On June 1, 2017, KemPharm announced the promotion of Dr. Andrew Barrett as Vice President, Scientific Affairs. Dr. Barrett has contributed to KemPharm's scientific research and development since early 2016, playing a significant role in the clinical/regulatory development of the company's pipeline assets and communicating key scientific findings to the medical and investor communities. As Vice President, Scientific Affairs, Dr. Barrett is responsible for leading KemPharm's medical communications strategies, while continuing to contribute to clinical/regulatory efforts.

About KemPharm

KemPharm is a clinical-stage specialty pharmaceutical company focused on the discovery and development of proprietary prodrugs to treat serious medical conditions through its LATTM (Ligand Activated Therapy) platform technology. KemPharm utilizes its LATTM platform technology to generate improved prodrug versions of FDA-approved drugs in the high need areas of pain, ADHD and other central nervous system disorders. KemPharm's co-lead clinical development candidates are KP415 and KP484, both based on a prodrug of methylphenidate, but with differing extended-release profiles for the treatment of ADHD, and KP201/IR, an acetaminophen-free formulation of the company's immediate release abuse deterrent hydrocodone product candidate, KP201. For more information on KemPharm and its pipeline of prodrug product candidates visit www.kempharm.com.

Caution Concerning Forward Looking Statements

This press release may contain forward-looking statements made in reliance upon the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include all statements that do not relate solely to historical or current facts, and can be identified by the use of words such as "may," "will," "expect," "project," "estimate," "anticipate," "plan," "believe," "potential," "should," "continue" or the negative versions of those words or other comparable words. These forward-looking statements include statements regarding the expected features and characteristics of KP415, KP484, KP201/IR and KP511, the expected timing of the initiation and completion of any clinical trials for the Company's product candidates and the expected timing for any submission of an New Drug Application with the FDA for any of the Company's product candidates. These forward-looking statements are not guarantees of future actions or performance. These forward-looking statements are based on information currently available to KemPharm and its current plans or expectations, and are subject to a number of uncertainties and risks that could significantly affect current plans. Actual results and performance could differ materially from those projected in the forward-looking statements as a result of many factors, including, without limitation, the risks and uncertainties associated with: KemPharm's financial resources and whether they will be sufficient to meet KemPharm's business objectives and operational requirements; results of earlier studies and trials may not be predictive of future clinical trial results; the protection and market exclusivity provided by KemPharm's intellectual property; risks related to the drug discovery and the regulatory approval process; the impact of competitive products and technological changes; and the FDA approval process under the Section 505(b)(2) regulatory pathway, including without limitation any timelines for related approval. KemPharm's forwardlooking statements also involve assumptions that, if they prove incorrect, would cause its results to differ materially from those expressed or implied by such forward-looking statements. These and other risks concerning KemPharm's business are described in additional detail in KemPharm's Annual Report on Form 10-K for the year ended December 31, 2016, and KemPharm's other Periodic and Current Reports filed with the Securities and Exchange Commission. KemPharm is under no obligation to (and expressly disclaims any such obligation to) update or alter its forward-looking statements, whether as a result of new information, future events or otherwise.

Investor Contacts:

Jason Rando / Joshua Drumm, Ph.D. <u>Tiberend Strategic Advisors, Inc.</u> 212-375-2665 / 2664 <u>jrando@tiberend.com</u> <u>jdrumm@tiberend.com</u>

Media Contact:

Daniel L. Cohen Executive VP, Government and Public Relations KemPharm, Inc. 202-329-1825 dcohen@kempharm.com

KEMPHARM, INC. UNAUDITED CONDENSED STATEMENTS OF OPERATIONS (in thousands, except share and per share amounts)

	Three months ended June 30,		Six months ended June 30,			ided	
		2017	2016		2017		2016
Revenue	\$		\$ 	\$	_	\$	_
Operating expenses:							
Research and development		4,650	4,988		8,764		8,222
General and administrative		3,574	 4,287		6,840		8,023
Total operating expenses		8,224	9,275		15,604		16,245
Loss from operations		(8,224)	 (9,275)		(15,604)		(16,245)
Other (expense) income:							
Loss on extinguishment of debt		_	_		_		(4,740)
Interest expense related to amortization of debt issuance costs and discount		(390)	(393)		(780)		(835)
Interest expense on principal		(1,443)	(1,475)		(2,884)		(2,625)
Fair value adjustment		3,523	20,763		(3,693)		31,041
Interest and other income, net		13	 144		114		246
Total other (expense) income		1,703	19,039		(7,243)		23,087
(Loss) income before income taxes		(6,521)	9,764		(22,847)		6,842
Income tax benefit (expense)		4	4		8		(8)
Net (loss) income	\$	(6,517)	\$ 9,768	\$	(22,839)	\$	6,834
Net (loss) income per share:							
Basic	\$	(0.44)	\$ 0.59	\$	(1.56)	\$	0.41
Diluted	\$	(0.44)	\$ (0.58)	\$	(1.56)	\$	(1.36)
Weighted average number of shares of common stock outstanding:			= 0 = 0		4.4.6.40.004		
Basic		14,649,586	 14,597,449	_	14,648,291		14,546,576
Diluted		14,649,586	 15,435,322	_	14,648,291	_	15,583,390

KEMPHARM, INC. CONDENSED BALANCE SHEETS

(in thousands, except share and par value amounts)

Assets Current acash equivalents \$ 12,385 \$ 16,762 Restricted cash 1,100 \$ 1,00 Marketable securities 1,100 \$ 1,000 Marketable securities 5,003 Trepaid eate receivables 5,003 Prepaid expenses and other current assets 5 5,364 74,357 Proppati expenses and other current assets 5 1,121 8,200 Total current assets 2,148 1,970 Long-term investments 321 360 Other long-term assets 321 360 Total assets \$ 69,048 \$ 84,887 Accounts payable and accrued expenses \$ 6,303 \$ 6,444 Current liabilities 177 157 Accounts payable and accrued expenses \$ 6,303 \$ 6,444 Current portion of capital lease obligation 177 157 Other current liabilities 6,592 6,642 Conwertible notes, net 91,150 91,170 Orner current liabilities 8,311 4,618 Other current liabilities<			As of June 30, 2017 (unaudited)	As	s of December 31, 2016
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Trade date receivables — 5,003 Prepaid expenses and other current assets 571 489 Total current assets 55,34 47,357 Property and equipment, net 2,148 1,970 Long-term investments 11,15 8,000 Other long-term assets 5 69,048 8 6,803 Total assets 5 69,048 8 6,803 Tabilities and stockholders' deficit Urrent liabilities Accounts payable and accrued expenses 5 6,303 5 6,444 Current portion of capital lease obligation 177 157 Other current liabilities 112 41 Total current liabilities 6,592 6,642 Convertible notes, net 91,950 91,70 Derivative and warrant liability 8,311 4,618 Other long-term liabilities 1,472 1,153 Total liabilities 1,472 1,153 Other long-term liabilities 1,472 1,53 Other long-term liabilities 1,472 1,53 Other long-term liabilities	Restricted cash		1,100		1,100
Prepaid expenses and other current assets 771 489 Total current assets 55,364 74,357 Property and equipment, net 2,148 1,970 Long-term investments 11,215 8,200 Other long-term assets 321 360 Total assets 8,040 \$ 8,080 Lisabilities and stockholders' deficit Current liabilities Accounts payable and accrued expenses \$ 6,303 \$ 6,444 Current portion of capital lease obligation 177 157 Other current liabilities 1,77 157 Other current liabilities 6,592 6,642 Convertible notes, net 91,550 91,170 Other long-term liabilities 8,311 4,618 Other long-term liabilities 8,311 4,618 Other long-term liabilities 1,02 1,315 Other long-term liabilities 1,02 1,315 Other long-term liabilities 1,02 1,515 Total liabilities 1,02 1,515	Marketable securities		41,107		51.003
Total current assets 55,364 74,375 Property and equipment, net 2,148 1,970 Long-term investments 11,215 8,000 Other long-term assets 321 360 Total assets \$ 69,048 \$ 84,887 Lisabilities Exercise liabilities \$ 6,303 \$ 6,444 Current liabilities 177 157 Other current liabilities 177 157 Other current liabilities 6,592 6,642 Convertible notes, net 91,950 91,170 Derivative and warrant liabilities 6,592 6,642 Convertible notes, net 91,950 91,170 Other long-term liabilities 1,472 1,513 Total liabilities 1,472 1,513	Trade date receivables		_		5,003
Property and equipment, net 2,148 1,970 Long-term investments 11,15 8,200 Other long-term assets 321 360 Total assets \$6,90,40 \$8,888 Lishilities and stockholders' deficit Urnernt liabilities Accounts payable and accrued expenses \$6,303 \$6,444 Current portion of capital lease obligation 117 157 Other current liabilities 112 41 Total current liabilities 6,592 6,642 Convertible notes, net 91,950 91,170 Derivative and warrant liability 8,311 4,618 Other long-term liabilities 3,112 1,132 Total liabilities 108,325 103,583 Total liabilities 1,147 1,153 Other long-term liabilities 1,147 1,153 Other long-term liabilities 1,147 1,153 Total liabilities 1,147 1,153 Total liabilities 1,147 1,153 Total liabilities 1,147 <td>Prepaid expenses and other current assets</td> <td></td> <td>771</td> <td></td> <td>489</td>	Prepaid expenses and other current assets		771		489
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Liabilities and stockholders' deficit Current liabilities: Accounts payable and accrued expenses \$ 6,303 \$ 6,444 Current portion of capital lease obligation 177 157 Other current liabilities 112 41 Total current liabilities 6,592 6,642 Convertible notes, net 91,950 91,170 Derivative and warrant liability 8,311 4,618 Other long-term liabilities 1,472 1,153 Total liabilities 108,325 103,583 Stockholders' deficit: Common stock, \$0.0001 par value, 250,000,000 shares authorized, 14,657,430 shares issued and outstanding as of June 30, 2017 (unaudited); 14,646,982 shares issued and outstanding as of December 31, 2016 1 1 1 Additional paid-in capital 104,901 102,643 1 1 1 2 4 Preferred stock, \$0.0001 par value, 10,000,000 shares authorized, no shares issued or outstanding as of June 30, 2017 (unaudited) and December 31, 2016 — — — — — — — — — — — —	Other long-term assets		321		360
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Current liabilities: 6,303 6,444 Current portion of capital lease obligation 177 157 Other current liabilities 112 41 Total current liabilities 6,592 6,642 Convertible notes, net 91,950 91,170 Derivative and warrant liability 8,311 4,618 Other long-term liabilities 1,472 1,153 Total labilities 108,325 103,583 Stockholders' deficit: 2 5 Common stock, \$0,0001 par value, 250,000,000 shares authorized, 14,657,430 shares issued and outstanding as of June 30, 2017 (unaudited); 14,646,982 shares issued and outstanding as of December 31, 2016 1 1 Additional paid-in capital 104,901 102,643 Preferred stock, \$0,0001 par value, 10,000,000 shares authorized, no shares issued or outstanding as of June 30, 2017 (unaudited) and December 31, 2016 — — Accumulated deficit (144,179) (121,340) Total stockholders' deficit (39,277) (18,696)	Liabilities and stockholders' deficit				
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Second Quarter 2017 Results

August 10, 2017

Cautionary Note Regarding Presentation Information

This presentation contains forward-looking statements, including statements about our plans to develop and commercialize our product candidates, our planned clinical trials for our product product candidates, the timing of and our ability to obtain and maintain regulatory approvals for our product candidates, including expectations about our ability to use the 505(b)(2) pathway and expedited FDA review, the clinical utility of our product candidates and our intellectual property position. These statements involve substantial known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. The forward-looking statements in this presentation represent our views as of the date of this presentation. These and other risks concerning our business are described in additional detail in our Annual Report on Form 10-K filed with the SEC on March 10, 2017, and our other Periodic and Current Reports filed with the SEC. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this presentation. Further, the information contained in this presentation speaks only as the date hereof. While we may elect to update the information in this presentation in the future, we disclaim any obligation to do so except to the extent required by applicable law.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.



Second Quarter 2017 - Conference Call Participants

- Travis Mickle, Ph.D. President & Chief Executive Officer
- R. LaDuane Clifton, CPA Chief Financial Officer, Secretary & Treasurer
- Dan Cohen, M.A.L.S. EVP, Government & Public Relations



Q2 2017 & Recent Updates

Clinical & Regulatory

- Initiated Development of KP484, A New, Super-Extended Release ADHD Methylphenidate Product Candidate
- Completed KP415 End-of-Phase 1 Meeting with FDA
- Presented Clinical Data for KP511 at the International Conference on Opioids
- Granted First Patent for KP746, a Novel Prodrug of Oxymorphone

Corporate & Financial

- Net loss of \$0.44 per basic and diluted share for the quarter ended 6/30/2017
- Total cash was \$65.8 million at 6/30/2017, which includes cash, cash equivalents, restricted cash, marketable securities and long-term investments
- Existing resources expected to fund activities through Q2 2019
- Announced promotion of Andrew Barrett, Ph.D., to Vice President, Scientific Affairs



KemPharm Overview

- Specialty pharmaceutical company discovering and developing novel prodrugs
- Building a pipeline of prodrug product candidates for the treatment of ADHD, pain and CNS disorders
- Leveraging our LAT Platform Technology to improve the attributes of approved drugs in large markets
 - 1) Select FDA-approved and widely prescribed drug for improvement
 - 2) Chemically modify using a ligand to create a prodrug
 - Ligands GRAS or demonstrated to be safe
 - Prodrugs generate composition-based patents
 - 3) Following ingestion, normal human metabolic processes cleave the ligand and release the active drug





ADHD Prodrug Product Pipeline – Addressing Unmet Needs

KP415 – ADHD Product Candidate for Fast Onset and Longer Total Duration

- Extended release prodrug of d-MPH co-formulated with IR d-MPH
- EOP1 meeting with FDA complete; development plan advancing
- Positive PK data announced today;
- Human abuse liability clinical data by year end (IV) as well as in 2018 (oral and IN)
- Pivotal efficacy trial expected to begin in 2H 2017; data expected 1H 2018
- KP415 NDA filing expected as early as 2018

KP484 – ADHD Product Candidate with Super Extended Release Properties

- Newly developed, super extended release prodrug of d-MPH
- Initial data suggest long-acting characteristics similar to Shire's MYDAYISTM (amphetamine-based)
- IND expected to be filed as early as 3Q 2017
- Human abuse liability clinical data as early as year end (IV) and early 2018 (oral and IN)
- Clinical program initiated under KP415 IND; expect benefit from KP415's development program
- Potential NDA as early as 2019



ADHD and ER Methylphenidate Market

- ~\$13 billion ADHD market with prescriptions growing at >5% year-over-year
- Methylphenidate accounted for approximately 19.8 million TRx's and \$3.8 billion in sales in 2016
- KemPharm believes ADHD key opinion leaders have significant interest in an ER methylphenidate product with:
 - Earlier onset (KP415)
 - Improved duration of action (KP415 & KP484)
 - Abuse-deterrent properties/Lower abuse potential (KP415 & KP484)
- Branded products are being pressured by patent expirations
 - Vyvanse[™] is the branded market share leader and loses patent exclusivity in 2024
 - o Concerta™, Adderall™, Focalin™ are all brands which are off patent

Source: Symphony Health, PHAST 2016



ADHD Market Dynamics Support Prodrug Portfolio

KP415

- In 2016, the branded ADHD market was ~\$6.4B and more than 95% of these branded products are extended release¹
- Prescribers estimate that MPH is given as preferred first line of therapy for children under 13 approximately 60% of the time
- Prescribers see the following key advantages
 - Duration of action (60%)
 - Lower abuse potential (52%)
 - Early onset of action (43%)
- ✓ If approved, KP415 has the potential to be one of the first differentiated MPH products launched into the ADHD market

KP484

- Approximately 10.5 million adults have ADHD^{1,2}
- Adults are now the largest part of the ADHD market, comprising 53% of total TRx¹
 - However, last 7 new ADHD products launched have been pediatric focused
- Vyvanse[™] averaging 22% YoY growth in adult market since 2009¹
- Mydayis[™] recently approved as a super long acting AXR in the amphetamine space
- ✓ <u>If approved, KP484 would launch into</u> the high growth adult ADHD market
 - Potential for additional indications beyond ADHD



KemPharm Clinical Product Pipeline

Category	Product Candidate	Parent Drug	Development Status	Next Milestone	Potential NDA Submission	
ADHD (Pediatric)	KP415	Methylphenidate (ER)	Clinical PK + Efficacy Data		2018	
ADHD (Adult)	KP484	Methylphenidate (ER)	Clinical	PK + Efficacy Data	2019	
	KP201/IR	Hydrocodone	Clinical	IN HAL Data	2018 with Priority Review	
PAIN	KP511/ER	Hydromorphone	Clinical POC in ER Formulation		2019 with Priority Review	
	KP511/IR Hydromorphone Clinical I		HAL and BE Data	2019 with Priority Review		



Q2 2017 Financial Update

Q2 2017 net loss of \$6.5M, or \$0.44 per basic and diluted share, vs.
 Q2 2016 net income of \$9.8M, or basic net income per share of \$0.59 and diluted net loss per share of \$0.58

Net loss for Q2 2017 was primarily due to loss from operations of \$8.2 million and net interest expense and other items of \$1.8 million; offset by non-cash fair value adjustment income of \$3.5 million.

Loss from operations decreased to \$8.2M in Q2 2017, as compared to \$9.3M in Q2 2016, which was primarily driven by a decrease in G&A costs associated with our deferral of commercial operations in prior-year and related personnel expenses.

• Total cash of \$65.8M as of 6/30/2017, a decrease of \$6.6M vs. 3/31/2017 (includes cash, cash equivalents, restricted cash, marketable securities and long-term investments)

Existing resources expected to meet operating and capital expenditure requirements through Q2 2019



KemPharm Expected ADHD Milestones

	Product	Event
1	KP415	Report Additional PK Data (2H) ✓
2017	KP415	Initiate Pivotal Efficacy Trial (2H)
2017	KP484	IND Filing (3Q)
	KP415/KP484	IV Human Abuse Liability Data (2H)
1	KP415	Pivotal Efficacy Trial Results (1H)
	KP484	Initiate Efficacy Studies
2018	KP415/KP484	Oral and IN HAL Data
	KP415	NDA Submission
1	KP484	Clinical Trial Program Execution / Completion
2019		
	KP484	NDA Submission





Second Quarter 2017 Results

August 10, 2017

Slide 8: KP415 and KP484 Market Data Sources

Symphony Health, PHAST 2011-2016
 Ronald C. Kessler et al. (April 2006). The Prevalence and Correlates of Adult ADHD in the United States: Results From the National Comorbidity Survey Replication, American Journal of Psychiatry 163(5):71

