Xenon Pharmaceuticals Reports Second Quarter 2018 Financial Results and Provides Corporate Update

August 7, 2018

Novel Epilepsy Product Candidates – XEN1101 and XEN901 – Continue to Advance in the Clinic

New XEN1101 Phase 1b TMS Pharmacodynamic Data to be Presented at upcoming European Congress on Epileptology

BURNABY, British Columbia, Aug. 07, 2018 (GLOBE NEWSWIRE) -- Xenon Pharmaceuticals Inc. (Nasdaq:XENE), a clinical stage biopharmaceutical company, today reported its financial results for the quarter ended June 30, 2018 and provided a corporate update.

Dr. Simon Pimstone, Xenon's Chief Executive Officer, said, "As I reflect upon the first half of this year, we achieved a number of important milestones and continue to see exciting advancements in Xenon's clinical-stage epilepsy programs. Over the last quarter, we presented encouraging preliminary clinical data from both of our ongoing XEN1101 and XEN901 Phase 1 clinical trials. We expect to announce results from the XEN1101 Phase 1b randomized TMS pharmacodynamic study at a scientific symposium at the end of this month."

Dr. Pimstone continued, "Our strengthened balance sheet supports our strategic goals and the continued development of our innovative therapies to address epilepsy and other indications, and allows us to evaluate and potentially add new programs into our pipeline. Looking to the second half of the year, we anticipate a number of important catalysts, including: the XEN1101 Phase 1b clinical data; the complete results from the Phase 1 clinical trials for XEN1101 and XEN901; the initiation of an XEN1101 Phase 2 clinical trial in adult patients with focal seizures; and continued progress to advance XEN901 into a Phase 2 clinical trial."

Achievements and Anticipated Milestones

- XEN1101 is a Kv7 potassium channel opener being developed by Xenon for the treatment of epilepsy including: treatment-resistant adult and pediatric focal seizures; rare, pediatric forms of epilepsy, such as EIEE7, an early infantile epileptic encephalopathy associated with mutations in the KCNQ2 gene that cause loss-of-function in the Kv7.2 potassium channel; and potentially other neurological disorders.

  In October 2017, following acceptance of a clinical trial application, or CTA, for XEN1101 by the Medicines & Healthcare products Regulatory Agency, or MHRA, in the United Kingdom, Xenon initiated a randomized, double-blind, placebo-controlled Phase 1 clinical trial to evaluate the safety, tolerability and pharmacokinetics of both single ascending doses, or SAD, and multiple ascending doses, or MAD, of XEN1101 in healthy subjects. The XEN1101 Phase 1 clinical trial includes a pharmacodynamic biomarker read-out from a transcranial magnetic stimulation, or TMS, study, designed to assess XEN1101's ability and potency to modulate cortical excitability, thereby demonstrating activity in the target CNS tissue.

  On May 15, 2018, Xenon presented interim data from the ongoing XEN1101 Phase 1 clinical trial at the 14th Eilat Conference on New Antiepileptic Drugs and Devices, or Eilat, including data from five SAD cohorts and one MAD cohort. Highlights from the presentation included pharmacokinetic data confirming a half-life consistent with once daily dosing, drug exposure levels at doses tested above the EC_{50} in preclinical models and safety data supporting further development of XEN1101. The XEN1101 Eilat presentation also included data from the TMS Phase 1a pilot study which included 8 male subjects where three doses were tested (10mg, n=2; 15 mg; n=3; 20 mg, n=3). When measuring the resting motor threshold, or RMT, in the TMS-EMG assay, the mean change (standard deviation) in RMT at 4 hours was 1.5% (±2.1), 1.33% (±0.58) and 4.33% (±0.58) for the 10 mg, 15 mg and 20 mg doses, respectively. This compares to a literature publication of ezogabine (Ossemann et. al) where in a double-blind, placebo-controlled cross-over study in 15 healthy subjects at a single dose of 400 mg, ezogabine increased the RMT by 2.4% (±3.6). In the TMS-EEG portion of the study, all three subjects at the 20 mg dose showed statistically significant ($p<0.01$) modulating activity at 4 hours post dose when compared to baseline.

  Xenon has completed enrollment in the XEN1101 Phase 1 clinical trial and a Phase 1b double-blind, placebo-controlled, randomized cross-over TMS study in 20 subjects. The results from the Phase 1b TMS study are expected to be announced at the 13th European Congress on Epileptology taking place in Vienna, Austria from August 26 to August 30, 2018. Xenon plans to publish the complete XEN1101 Phase 1 clinical trial results at a scientific meeting and anticipates initiating a Phase 2 clinical trial evaluating XEN1101 as a treatment for adult focal seizures in the fourth quarter of 2018.

- XEN901 is a potent, highly selective Nav1.6 sodium channel inhibitor being developed by Xenon for the treatment of epilepsy including treatment resistant adult and pediatric focal seizures, as well as rare, pediatric forms of epilepsy, such as EIEE13, an early infantile epileptic encephalopathy due to gain-of-function mutations in the SCN8A gene that encodes

the Nav1.6 sodium channel.

In February 2018, following acceptance of a CTA for XEN901 by the MHRA in the United Kingdom, Xenon initiated a randomized, double-blind, placebo-controlled Phase 1 clinical trial to evaluate XEN901's safety, tolerability and pharmacokinetics in both SAD and MAD cohorts. On May 15, 2018, Xenon presented interim data from the ongoing XEN901 Phase 1 clinical trial at Eilat, including data from six SAD cohorts. The interim Phase 1 clinical data included a presentation of pharmacokinetic data predicting a half-life consistent with twice daily or better dosing, and multiple dose levels tested yielded drug exposure levels above the efficacy range for EC_{70} in the preclinical Maximal Electroshock Seizure model. The interim Phase 1 clinical data also suggest that overall XEN901 is well tolerated. Upon completion of the Phase 1 clinical trial, a read-out of the final results is anticipated in the fourth quarter of 2018. As soon as feasible thereafter, Xenon expects to initiate a Phase 2 clinical trial evaluating XEN901's efficacy as a treatment for adult focal seizures or for rare, pediatric forms of epilepsy.

- Xenon previously disclosed an additional clinical stage, ion channel modulator, XEN007 (active ingredient flunarizine), to expand its existing neurology-focused product pipeline. XEN007 is a CNS-acting calcium channel inhibitor that directly modulates Cav2.1, which is a critical calcium channel implicated in the pathophysiology of familial hemiplegic migraine, or HM, a rare and debilitating neurological disorder. Xenon's clinical development plans include a proposed strategy to develop XEN007 as the first treatment specifically approved for HM anywhere in the world. Xenon has received Orphan Drug Designation from the U.S. Food and Drug Administration for XEN007 for the treatment of HM. In addition, Xenon has entered into key agreements in order to access regulatory files and manufacturing support to potentially enable the accelerated clinical development of XEN007 directly into a Phase 2 clinical trial. Xenon is currently examining various development strategies for XEN007 with key opinion leaders and leading clinicians, as well as exploring options for potential partnerships for this program.

Second Quarter 2018 Financial Results

Cash and cash equivalents and marketable securities as of June 30, 2018 were $63.3 million, compared to $43.7 million as of December 31, 2017. Included in cash and cash equivalents as of June 30, 2018, are net proceeds of approximately $29.0 million from the sale of 3,440,000 common shares under Xenon's May 2018 at-the-market equity offering, or ATM, as well as $5.0 million funded pursuant to the First Loan Modification Amendment to the Loan and Security Agreement with Silicon Valley Bank, or SVB. Subsequent to June 30, 2018, Xenon has raised additional net proceeds of approximately $14.7 million from the sale of 1,600,000 common shares under a second ATM equity offering.

Effective August 3, 2018, Xenon entered into an Amended and Restated Loan and Security Agreement to its original Loan and Security Agreement with SVB, increasing total outstanding borrowings from $12.0 million to $15.5 million and extending the interest-only period on the loan from September 30, 2018 to March 31, 2020.

Based on additional capital raised and current assumptions, which include fully supporting the planned clinical development of XEN1101 and XEN901, Xenon anticipates having sufficient cash to fund operations into at least mid-2020, excluding any revenue generated from existing partnerships or potential new partnering arrangements.

There were 17,640,951 common shares and 2,868,000 Series 1 Preferred Shares, which Series 1 Preferred Shares are convertible into common shares on a one-for-one basis at the option of the holder, subject to certain limitations, outstanding as of June 30, 2018.

Research and development expenses for the quarter ended June 30, 2018 were $5.4 million, compared to $6.1 million for the same period in 2017. The decrease of $0.7 million was primarily attributable to decreased spending on pre-clinical, discovery and other internal program expenses, partially offset by increased spending on XEN1101, which was acquired in April 2017.

General and administrative expenses for the quarter ended June 30, 2018 were $2.2 million, compared to $1.8 million for the same period in 2017. The increase of $0.4 million was primarily attributable to increased stock-based compensation expense, legal and recruitment fees. These increases were partially offset by decreased costs for business development activities.

Other expenses for the quarter ended June 30, 2018 were $0.2 million, compared to other income of $0.5 million for the same period in 2017. The decrease in other income was primarily driven by a change in foreign exchange gains and losses arising largely from the translation of cash and cash equivalents and marketable securities denominated in Canadian dollars to U.S. dollars and interest expense incurred on term loans.

Net loss for the quarter ended June 30, 2018 was $7.8 million, compared to $7.4 million for the same period in 2017. The change was primarily attributable to foreign exchange losses in the current quarter, higher general and administrative and interest expense, partially offset by a decrease in research and development expenses.

Conference Call Information

Xenon will host a conference call and live audio webcast today at 4:30 p.m. Eastern Time (1:30 p.m. Pacific Time) to discuss its second quarter 2018 financial results and to provide a business update. To participate in the call, please dial (855) 779-9075, or (631) 485-4866 for international callers, and provide conference ID number 1598608. The webcast will be broadcast live on the "Investors" section of Xenon's website at www.xenon-pharma.com and will be available for replay following the call for 30 days.

About Xenon Pharmaceuticals Inc.

We are a clinical stage biopharmaceutical company focused on developing innovative therapeutics to improve the lives of patients with neurological disorders. Building upon our extensive knowledge of human genetics and diseases caused by mutations in ion channels, known as channelopathies, we are advancing – both independently and with our collaborators – a novel product pipeline of central nervous system, or CNS, therapies to address areas of high unmet medical need, such as epilepsy, migraine and pain. For more information, please visit www.xenon-pharma.com.

Safe Harbor Statement

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995 and Canadian securities laws. These forward-looking statements are not based on historical fact, and include statements regarding our expectations regarding the sufficiency of our cash to fund operations into at least mid-2020, the timing of and results from clinical trials and pre-clinical development activities, including those related to XEN901, XEN1101 and our other product candidates, the plans of our collaboration partners, the potential efficacy, safety profile, future development plans, addressable market, regulatory success and commercial potential of XEN901, XEN1101 and our other product candidates, the anticipated timing of IND, or IND equivalent, submissions and the initiation of future clinical trials for XEN901, XEN1101 and our other product candidates, the efficacy of our clinical trial designs, our ability to successfully develop and achieve milestones in the XEN901, XEN1101 and other development programs, the potential addition of new programs to our pipeline, the potential to advance XEN007 or other product candidates directly into a Phase 2 or later clinical trial, the anticipated benefits of the unique mechanisms of action of XEN901 and XEN1101, the design of our clinical trials and anticipated enrollment, the progress and potential of our other ongoing development programs, and the timing of our public presentation and potential publication of future clinical data. These forward-looking statements are based on current assumptions that involve risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from those expressed or implied by such forward-looking statements. These risks and uncertainties, many of which are beyond our control, include, but are not limited to: clinical trials may not demonstrate safety and efficacy of any of our or our collaborators' product candidates; our assumptions regarding our planned expenditures and sufficiency of our cash to fund operations may be incorrect; our efforts to expand our current pipeline may not be successful; any of our or our collaborators' product candidates may fail in development, may not receive required regulatory approvals, or may be delayed to a point where they are not commercially viable; we may not achieve additional milestones in our proprietary or partnered programs; regulatory agencies may not permit XEN007 or other product candidates to advance directly into a Phase 2 or later clinical trial; the impact of competition; the impact of expanded product development and clinical activities on operating expenses; adverse conditions in the general domestic and global economic markets; as well as the other risks identified in our filings with the Securities and Exchange Commission and the securities commissions in British Columbia, Alberta and Ontario. These forward-looking statements speak only as of the date hereof and we assume no obligation to update these forward-looking statements, and readers are cautioned not to place undue reliance on such forward-looking statements.

XENON PHARMACEUTICALS INC.
Condensed Consolidated Balance Sheets
(Expressed in thousands of U.S. dollars)

	June 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents and marketable securities	$ 47,435	$ 43,667
Other current assets	15,835	1,154
Other assets	2,166	1,300
Total assets	$ 65,436	$ 46,121
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	3,094	3,383
Loan payable, current portion	—	700
Loan payable, long-term	11,721	6,104
Total liabilities	$ 14,815	$ 10,187
Shareholders’ equity	$ 50,621	$ 35,934

Total liabilities and shareholders' equity	$ 65,436	$ 46,121

XENON PHARMACEUTICALS INC.
Condensed Consolidated Statements of Operations
(Expressed in thousands of U.S. dollars except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	**2017**	**2018**	**2017**
Revenue:				
Collaboration revenue	$ —	$ 15	$ —	$ 31
Operating expenses:				
Research and development	5,408	6,109	10,988	12,012
General and administrative	2,178	1,799	4,416	3,899
Total operating expenses	7,586	7,908	15,404	15,911
Loss from operations	(7,586)	(7,893)	(15,404)	(15,880)
Other income (loss)	(215)	513	3,848	983
Net loss	(7,801)	(7,380)	(11,556)	(14,897)
Net loss attributable to preferred shareholders	(1,303)	—	(996)	—
Net loss attributable to common shareholders	$ (6,498)	$ (7,380)	$ (10,560)	$ (14,897)
Net loss per common share:				
Basic	$ (0.45)	$ (0.41)	$ (0.66)	$ (0.83)
Diluted	$ (0.45)	$ (0.41)	$ (0.66)	$ (0.84)
Weighted-average common shares outstanding:				
Basic	14,306,491	17,997,194	16,055,456	17,971,702
Diluted	14,306,491	18,015,748	16,055,456	17,995,109

Investor/Media Contact:
Jodi Regts
VP, Corporate Affairs & Investor Relations
Xenon Pharmaceuticals Inc.
Phone: 604.484.3353
Email: investors@xenon-pharma.com

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