Xenon Pharmaceuticals Reports 2020 Financial Results and Provides Corporate Update

March 1, 2021

XEN1101 Phase 2b "X-TOLE" Clinical Trial in Adult Focal Epilepsy on Track for Topline Data in Third Quarter of 2021

Conference Call at 4:30 pm ET Today

BURNABY, British Columbia, March 01, 2021 (GLOBE NEWSWIRE) -- Xenon Pharmaceuticals Inc. (Nasdaq:XENE), a neurology-focused biopharmaceutical company, today reported financial results for the year ended December 31, 2020 and provided a corporate update.

Dr. Simon Pimstone, Xenon's Chief Executive Officer, said, "With two of our most advanced proprietary product candidates – XEN1101 and XEN496 – currently in Phase 2 and Phase 3 clinical trials, as well as a number of earlier stage clinical and non-clinical epilepsy assets in development, we believe Xenon is advancing one of the most robust epilepsy pipelines in the biopharmaceutical industry. Our focus remains on driving towards the topline data readout expected in the third quarter of this year from our Phase 2b 'X-TOLE' clinical trial examining the use of XEN1101 in adult focal epilepsy."

Mr. Ian Mortimer, Xenon's President and Chief Financial Officer added, "We were excited to present new pre-clinical data and provide a clinical overview of our XEN1101 program at the ASENT 2021 meeting last week. These presentations highlighted our belief that XEN1101 has key "ease-of-use" attributes that could meaningfully differentiate XEN1101 from other anti-seizure medications currently used to treat adult focal epilepsy. Additionally, we announced that we intend to support the initiation of a Phase 2 proof-of-concept clinical trial in 2021 with academic collaborators at the Icahn School of Medicine at Mount Sinai examining XEN1101 in major depressive disorder and anhedonia."

Highlights and Anticipated Milestones

Proprietary Programs

- XEN1101 is a differentiated Kv7 potassium channel modulator being developed for the treatment of epilepsy and potentially other neurological disorders. Designed as a randomized, double-blind, placebo-controlled, multicenter study, Xenon's "X-TOLE" study is an ongoing Phase 2b clinical trial to evaluate the clinical efficacy, safety, and tolerability of XEN1101 administered as adjunctive treatment in approximately 300 adult patients with focal epilepsy. The primary endpoint is the median percent change in monthly focal seizure frequency from baseline compared to treatment period of active versus placebo. Xenon anticipates that patient randomization will be completed in the first half of 2021, with topline data anticipated in the third quarter of 2021, dependent upon ongoing patient enrollment rates. At ASENT 2021, the virtual annual meeting of the American Society for Experimental Neurotherapeutics, Xenon presented new pre-clinical data combining XEN1101 with commercially approved anti-seizure medications (ASMs) – including lacosamide, levetiracetam, cenobamate, phenytoin, and valproic acid – showing that combining sub-efficacious doses of XEN1101 and other ASMs provided robust efficacy in animal models. This pre-clinical work suggests that XEN1101 may be well suited for use as a monotherapy or applied in a rational polypharmacy setting to treat seizures. Additional pre-clinical data were presented that support the potential benefit of XEN1101 to treat depression and anhedonia. Xenon expects to support the initiation of a Phase 2 proof-of-concept clinical trial in 2021 with academic collaborators at the Icahn School of Medicine at Mount Sinai examining XEN1101 in major depressive disorder and anhedonia.

- XEN496, a Kv7 potassium channel modulator, is a proprietary pediatric formulation of the active ingredient ezogabine being developed for the treatment of KCNQ2 developmental and epileptic encephalopathy (KCNQ2-DEE). Xenon has received Fast Track designation and Orphan Drug Designation for XEN496 for the treatment of seizures associated with KCNQ2-DEE from the U.S. Food and Drug Administration (FDA), as well as orphan medicinal product designation from the European Commission. Xenon has initiated a Phase 3 randomized, double-blind, placebo-controlled, parallel group, multicenter clinical trial, called the "EPIK" study, evaluating the efficacy, safety, and tolerability of XEN496 administered as adjunctive treatment in approximately 40 pediatric patients aged one month to less than 6 years with KCNQ2-DEE.

- XEN007 (active ingredient flunarizine) is a CNS-acting Cav2.1 and T-type calcium channel modulator that is being studied in treatment-resistant childhood absence epilepsy (CAE) and potentially other neurological disorders. A physician-led, Phase 2 proof-of-concept study is ongoing to examine the potential clinical efficacy, safety, and tolerability of XEN007 as an adjunctive treatment in pediatric patients diagnosed with treatment-resistant CAE. A presentation of promising interim data collected from a small number of patients was presented at the virtual annual meeting of the American Epilepsy Society in December 2020. Given the impact of COVID-19 on recruitment, Xenon continues to work with its collaborator to expand the study to include additional sites and expects that topline results from a larger data set will now be available in the second half of 2021. Xenon expects to make a decision in 2021 regarding the future development of XEN007 in CAE.

Partnered Programs

- Xenon has an ongoing collaboration with Neurocrine Biosciences to develop treatments for epilepsy. Neurocrine Biosciences has an exclusive license to XEN901, now known as NBI-921352, a clinical stage selective Nav1.6 sodium channel inhibitor with potential in SCN8A developmental and epileptic encephalopathy (SCN8A-DEE) and other forms of epilepsy. The FDA has provided feedback on an Investigational New Drug (IND) application submitted by Neurocrine Biosciences in support of a Phase 2 clinical trial in SCN8A-DEE patients. Based on this feedback, Neurocrine Biosciences anticipates initiating a Phase 2 clinical trial in adolescent patients (aged 12 years and older) with SCN8A-DEE in the third quarter of 2021, and the trial protocol will be amended to include younger pediatric patients (aged 2-11 years) with SCN8A-DEE as soon as the FDA has reviewed and approved additional non-clinical information. In parallel, Neurocrine Biosciences is advancing clinical plans to develop NBI-921352 for the treatment of adult focal epilepsy and expects to initiate a Phase 2 clinical trial in 2021. Upon IND or equivalent regulatory acceptance for NBI-921352 in adult focal epilepsy, Xenon is eligible to receive a $10.0 million milestone payment; upon FDA acceptance of a protocol amendment for NBI-921352 in pediatric patients (aged 2-11 years) with SCN8A-DEE, Xenon is eligible to receive a $25.0 million milestone payment, or a $15.0 million milestone payment if the IND acceptance for adult focal epilepsy occurs first. Both milestone payments are in the form of 45% cash and a 55% equity investment in Xenon at a 15% premium to Xenon's 30-day trailing volume weighted average price at that time.

- Flexion Therapeutics acquired the global rights to develop and commercialize XEN402, a Nav1.7 inhibitor also known as funapide. Flexion's FX301 consists of XEN402 formulated for extended release from a thermosensitive hydrogel. The initial development of FX301 is intended to support administration as a peripheral nerve block for control of post-operative pain. In February 2021, the FDA cleared an IND for FX301, resulting in a $1.0 million milestone payment due to Xenon, and Flexion anticipates initiating a Phase 1b proof-of-concept clinical trial of popliteal fossa block with FX301 in patients undergoing bunionectomy in the first half of 2021. Topline results from that trial could potentially be available in late 2021. Pursuant to the terms of the agreement, Xenon is eligible to receive up to an additional $7.0 million in milestone payments through initiation of a Phase 2 clinical trial.

Corporate Highlights

- On February 23, 2021, Dr. Ernesto Aycardi resigned as the Company's Chief Medical Officer, effective April 23, 2021, to pursue another opportunity leading global development for a pharmaceutical company. Xenon is pleased to announce that it has engaged Dr. Kenneth Sommerville to serve as Interim Chief Medical Officer. Dr. Sommerville is a board-certified neurologist, who has over 20 years of experience in the pharmaceutical industry, including positions at Abbott Pharmaceuticals, GW Pharmaceuticals, Pfizer, Inc., King Pharmaceuticals, UCB, and Schwarz Pharma. He has led Phase 2 and Phase 3 epilepsy trials in the U.S. and made major contributions to multiple successful NDA submissions. He is recognized as a leader in neurology drug development, with a particular focus on anti-epileptic drugs, pain, Parkinson's disease, and abuse-deterrent opioids. He was Adjunct Assistant Professor of Medicine of the Duke University Medical School until June 2019 and was in the private practice of neurology for 11 years (1980-1991) prior to entering the pharmaceutical industry.

Dr. Pimstone commented, "On behalf of the Xenon team, we wish our Chief Medical Officer Dr. Ernesto Aycardi well in his future endeavors as he pursues an opportunity to lead global development for a pharmaceutical company, and we are grateful for his many contributions to our clinical programs. We expect a smooth transition as Ernesto will be staying on with Xenon until late April, by which time we will have concluded patient screening in our XEN1101 X-TOLE study. We are delighted to announce that we have engaged Dr. Kenneth Sommerville to serve as Xenon's interim Chief Medical Officer. We believe Ken is one of the most experienced epilepsy drug developers in the pharmaceutical industry, with more than 20 years of experience in both orphan and larger market indications. In addition to leading the development of Epidiolex to a successful NDA submission for GW Pharmaceuticals, Ken was highly involved in the clinical development of sodium valproate, tiagabine, and lacosamide."

Dr. Ken Sommerville said, "Xenon's broad pipeline of epilepsy drugs with novel, differentiated mechanisms has the potential to improve patient outcomes. Based on the encouraging data generated to date, I am looking forward to the important clinical read-out from the X-TOLE study, as well as supporting the advancement of other clinical programs within Xenon's portfolio."

2020 Financial Results

Cash and cash equivalents and marketable securities as of December 31, 2020 were $177.0 million, compared to $141.4 million as of December 31, 2019. There were 35,012,125 common shares and 1,016,000 Series 1 Preferred Shares, which are convertible into common shares on a one-for-one basis at the option of the holder, subject to certain limitations, outstanding as of December 31, 2020.

Based on current assumptions, which include fully supporting the planned clinical development of XEN1101, XEN496 and XEN007, Xenon anticipates having sufficient cash to fund operations into 2023, excluding any revenue generated from existing partnerships or potential new partnering arrangements.

For the year ended December 31, 2020, Xenon reported total revenue of $32.2 million, compared to $6.8 million for the same period in 2019. The increase was attributable to the recognition of $26.8 million of deferred revenue as well as $5.4 million for research and development services from the license and collaboration agreement with Neurocrine Biosciences, compared to $2.9

and $0.4 million, respectively, in the comparable period. Revenue for the year ended December 31, 2019 also included $3.5 million in connection with the agreement with Flexion.

Research and development expenses for the year ended December 31, 2020 were $50.5 million, compared to $38.8 million for the same period in 2019. The increase of $11.7 million was primarily attributable to increased spending on Xenon's clinical development product candidates XEN1101 and XEN496, and, to a lesser extent, increased spending on pre-clinical, discovery and other internal programs. This was partially offset by decreased spending on XEN901, now known as NBI-921352, as clinical development costs are borne by Neurocrine Biosciences.

General and administrative expenses for the year ended December 31, 2020 were $12.9 million compared to $10.8 million for the same period in 2019. The increase of $2.1 million was primarily attributable to increased stock-based compensation expense, insurance premiums and salaries and benefits, partially offset by a decrease in legal fees for intellectual property protection.

Other income for the year ended December 31, 2020 was $2.2 million compared to $1.2 million for the same period in 2019. The increase was primarily attributable to an increase in foreign exchange gains largely from the translation of cash and cash equivalents and marketable securities denominated in Canadian dollars to U.S. dollars.

Net loss for the year ended December 31, 2020 was $28.8 million, compared to $41.6 million for the same period in 2019. The change was primarily attributable to revenue recognized in the year pursuant to the license and collaboration agreement with Neurocrine Biosciences, partially offset by higher research and development expenses as compared to the same period in 2019.

Conference Call Information

Xenon will host a conference call and live audio webcast today at 4:30 pm Eastern Time (1:30 pm Pacific Time) to discuss the year-end results and to provide a corporate update. The webcast will be broadcast live on the Investors section of the Xenon website. To participate in the call, please dial (855) 779-9075, or (631) 485-4866 for international callers, and provide conference ID number 6061326.

About Xenon Pharmaceuticals Inc.

We are a clinical stage biopharmaceutical company committed to developing innovative therapeutics to improve the lives of patients with neurological disorders. We are advancing a novel product pipeline of neurology therapies to address areas of high unmet medical need, with a focus on epilepsy. 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, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, 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 the anticipated impact and timing of the COVID-19 pandemic on our business, research and clinical development plans and timelines and results of operations; the timing of and results from clinical trials and pre-clinical development activities, including those related to XEN496, XEN1101, XEN007, and other proprietary products, and those related to NBI-921352, FX301, and other partnered product candidates; the potential efficacy, safety profile, future development plans, addressable market, regulatory success and commercial potential of XEN496, XEN1101, XEN007 and other proprietary and partnered product candidates; the anticipated timing of IND, or IND-equivalent, submissions and the initiation of future clinical trials for XEN496, XEN1101, XEN007, and other proprietary products, and those related to NBI-921352, FX301, and other partnered candidates; the efficacy of our clinical trial designs; our ability to successfully develop and achieve milestones in the XEN496, XEN1101, XEN007 and other proprietary development programs; the timing and results of our interactions with regulators; the potential to advance certain of our product candidates directly into Phase 2 or later stage clinical trials; anticipated enrollment in our clinical trials and the timing thereof; the expansion of the X-TOLE clinical trial and the anticipated timing of the topline data therefrom; the progress and potential of our other ongoing development programs; the potential receipt of milestone payments and royalties from our collaborators; our expectation of having sufficient cash to fund operations into 2023; and the timing of potential publication or presentation 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: the impact of the COVID-19 pandemic on our business, research and clinical development plans and timelines and results of operations, including impact on our clinical trial sites, collaborators, and contractors who act for or on our behalf, may be more severe and more prolonged than currently anticipated; 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 ongoing discovery and pre-clinical efforts may not yield additional product candidates; 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 impose additional requirements or delay the initiation of clinical trials; regulatory agencies may be delayed in reviewing, commenting on or approving any of our or our collaborators' clinical development plans as a result of the COVID-19 pandemic, which could further delay development timelines; the impact of competition; the impact of expanded product development and clinical activities on operating expenses; impact of new or changing laws and regulations; 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)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents and marketable securities	$ 176,997	$ 141,358
Other current assets	4,786	3,508
Other assets	7,403	2,831
Total assets	$ 189,186	$ 147,697
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	10,874	8,818
Deferred revenue	3,642	29,743
Term loan	—	4,650
Other current liabilities	265	168
Other liabilities	3,050	12,341
Total liabilities	$ 17,831	$ 55,720
Shareholders' equity	$ 171,355	$ 91,977
Total liabilities and shareholders' equity	$ 189,186	$ 147,697

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

	Year Ended December 31, 2020	2019
Revenue	$ 32,166	$ 6,829
Operating expenses:		
Research and development	50,523	38,845
General and administrative	12,944	10,803
Total operating expenses	63,467	49,648
Loss from operations	(31,301)	(42,819)
Other income	2,207	1,201
Loss before income taxes	(29,094)	(41,618)
Income tax recovery	257	23
Net loss and comprehensive loss	(28,837)	(41,595)
Net loss attributable to preferred shareholders	(824)	(1,568)
Net loss attributable to common shareholders	$ (28,013)	$ (40,027)
Net loss per common share:		
Basic and diluted	$ (0.81)	$ (1.54)
Weighted-average common shares outstanding:		

Basic and diluted	34,542,213	25,939,405

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