Lantern Pharma Announces Collaboration with World Leading Brain Cancer Program at Johns Hopkins to Further Develop LP-184 as Therapy for Glioblastoma

2020-12-17

DALLAS, Dec. 17, 2020 /PRNewswire/ -- Lantern Pharma (Nasdaq: LTRN), a clinical-stage biopharma company using its proprietary RADR® artificial intelligence ("A.I.") platform to transform cancer drug development and identify patients who will benefit from its targeted oncology therapeutics, today announced a collaboration and research agreement with the Johns Hopkins Sidney Kimmel Comprehensive Cancer Center and Kennedy Krieger Institute. The collaboration will focus on the further development of Lantern's LP-184 in glioblastoma multiforme (GBM). Based in Baltimore, Johns Hopkins is a leading research center for brain cancers and one of the largest brain tumor treatment and research centers in the world with a focus on treating an extremely large number of patients affected by all types of brain tumors.

The collaboration will focus on advancing the targeted use of LP-184 in defined subtypes of GBM and clarifying the most promising clinical applications for the drug candidate. The goal of the collaboration is to develop a clinically ready program that has characterized the drug candidate with the most biologically relevant and robust genomic or biomarker signature. By having a gene signature that can be used in identifying patients that have the potential for the highest response, Lantern can potentially accelerate future clinical trials and shorten the time to achieving patient benefit for GBM patients.

The research program is at the forefront of translational cancer medicine and will use patient-derived cancer cells

1

that are studied using physiologically relevant in vitro and in vivo models. This innovative approach allows researchers to more precisely understand the biology of what actually happens inside the cancer tumor, which will more accurately establish the precise biomarker signatures and help provide data-driven insight into additional mechanisms that can be leveraged in the fight against brain cancer.

"Collaborations with world-leading cancer centers are an essential part of our strategy to rapidly advance the insights driving our therapeutic programs and grow the power of our RADR® A.I. platform by adding millions of new, unique, and proprietary data points in areas of high unmet need in cancer," said Panna Sharma, CEO of Lantern Pharma. "This relationship with Johns Hopkins is expected to allow us to use state-of-the-art models and biological methods to add more physiologically relevant data and insights into the mechanisms of LP-184, and further shape our algorithms for how our drug candidates interact with specific brain cancer subtypes. We believe the unique insights we gain will equip Lantern with critical advantages in our aim of accelerating LP-184's path to clinical trials and ultimately commercialization while saving millions of dollars in development costs. This data-enabled and biomarker-based approach has the potential to meaningfully bend the cost curve of cancer drug development and help bring personalized cancer therapies to patients with reduced economic burden, and greater efficacy."

The research will be led by John Laterra, MD, Ph.D., an internationally recognized researcher in neurology, oncology, and neuroscience. Dr. Laterra serves as the Co-Director of the Brain Cancer Program and the Director of the Division of Neuro-Oncology at Johns Hopkins School of Medicine where he specializes in investigating mechanisms of brain tumor malignancy, tumor vascular biology, and identification of new therapeutic targets in gliomas.

LP-184 is a DNA-damaging small molecule drug candidate currently in preclinical development for certain genomically defined solid tumors, including glioblastomas. As a next-generation alkylating agent that preferentially damages DNA in cancer cells that overexpress certain biomarkers and can cross the blood-brain barrier, we believe LP-184 has the potential to be used as both monotherapy as well as a synergistic agent in combination with other drugs.

"We are focused on finding how LP-184 can exploit certain molecular mechanisms in gliomas to offer improved disease management and survival for glioblastoma patients," said Dr. Kishor Bhatia, Chief Scientific Officer at Lantern Pharma. Dr. Bhatia continued, "We look forward to our collaboration with Johns Hopkins, the Brain Cancer Program and Dr. Laterra who is at the forefront of GBM research. His approach combines real world patient insights along with advanced methodologies and patient-derived models that can improve the quality of the insight and provide more relevant data on efficacy. We look forward to sharing these results with the broader scientific and clinical community."

Among several objectives, the research goals are to determine whether certain genomic signatures generated with RADR®, Lantern's A.I. platform, can predict response to LP-184 and a more favorable outcome as compared to standard of care agents being used today. LP-184 has been advanced using Lantern's proprietary RADR® A.I. platform that leverages over one billion curated cancer data points, machine learning, genomics, and computational biology to accelerate the discovery of potential mechanisms of action, and biomarker signatures that correlate to drug response in cancer patients.

Although significant recent advances have been made in the use of targeted and biomarker-based therapies in cancer, GBM remains an area that has not experienced significant improvement in patient outcomes. The overall five-year survival rate for GBM across all stages remains at only 5.5% in the US, and GBM accounts for nearly 52% of all primary brain tumors each year according to the National Cancer Institute.

About Lantern Pharma

Lantern Pharma (LTRN) is a clinical-stage biopharmaceutical company innovating the repurposing, revitalization and development of precision therapeutics in oncology. We leverage advances in machine learning, genomics, and artificial intelligence by using a proprietary A.I. platform to discover biomarker signatures that help identify patients more likely to respond to our pipeline of cancer therapeutics. Lantern's focus is to improve the outcome for patients by leveraging our technology to uncover, rescue and develop abandoned or failed drugs. Our current pipeline of three drugs, with two programs in clinical stages and two in preclinical, focuses on cancers that have unique and unmet clinical needs with a clearly defined patient population. We believe that the use of machine learning, genomics and computational methods can help accelerate the revitalization, refocusing and development of small molecule-based therapies. By targeting drugs to patients whose genomic profile identifies them as having the highest probability of benefiting from the drug, this approach represents the potential to deliver best-in-class outcomes. Our team seeks out experienced industry partners, world-class scientific advisors, and innovative clinical-regulatory approaches to assist in delivering cancer therapies to patients as quickly and efficiently as possible. For more information, please visit the company's website at **www.lanternpharma.com** or follow the company on Twitter @lanternpharma.

Contact:

Marek Ciszewski, J.D.

Director, Investor Relations

628-777-3167

investor@lanternpharma.com

Forward-looking Statements

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. These forward-looking statements include, among other things, statements relating to: future events or our future financial performance; the potential advantages of our RADR® platform in identifying drug candidates and patient populations that are likely to respond to a drug candidate; our strategic plans to advance the development of our drug candidates; estimates regarding the development timing for our drug candidates; our strategic plans to expand the number of data points that our RADR® platform can access and analyze; our research and development efforts of our internal drug discovery programs and the utilization of our RADR® platform to streamline the drug development process; our intention to leverage artificial intelligence, machine learning and genomic data to streamline and transform the pace, risk and cost of oncology drug discovery and development and to identify patient populations that would likely respond to a drug candidate; estimates regarding potential markets and potential market sizes; sales estimates for our drug candidates and our plans to discover and develop drug candidates and to maximize their commercial potential by advancing such drug candidates ourselves or in collaboration with others. Any statements that are not statements of historical fact (including, without limitation, statements to the effect that Lantern Pharma Inc. or our management "believes", "expects", "anticipates", "estimates", "plans" (and similar expressions) should be considered forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated by the forward-looking statements, such as (i) the risk that results of our preclinical studies concerning GBM and blood brain barrier permeability for LP-184 may not be indicative of results obtained in future clinical trials; (ii) the risk that our LP-184 drug candidate may not advance through the preclinical development and clinical trial process on a timely basis, or at all; (iii) the risk that the results of such trials will not warrant submission for approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; (iv) the risk that the Company may not be able to successfully conclude clinical testing or obtain marketing approval for its LP-184 drug candidate, (v) no drug product based on our proprietary RADR A.I. platform has received FDA marketing approval or otherwise been incorporated into a commercial product, and (vi) those other factors set forth in the Risk Factors section in our final prospectus, dated June 10, 2020, for our initial public offering, on file with the Securities and Exchange Commission. You may access our June 10, 2020 final prospectus under the investor SEC filings tab of our website at **www.lanternpharma.com** or on the SEC's website at **www.sec.gov**. Given these risks and uncertainties, we can give no assurances that our forward-looking statements will prove to be accurate, or that any other results or events projected or contemplated by our forward-looking statements will in fact occur, and we caution investors not to place undue reliance on these statements. All forward-looking statements in this press release represent our judgment as of the date hereof, and, except as otherwise required by law, we disclaim any obligation to update any forward-looking statements to conform the statement to actual results or changes in our expectations.

View original content to download multimedia:**http://www.prnewswire.com/news-releases/lantern-pharma-announces-collaboration-with-world-leading-brain-cancer-program-at-johns-hopkins-to-further-develop-lp-184-as-therapy-for-glioblastoma-301194949.html**

Released December 17, 2020