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Lantern Pharma Announces Collaboration and Research Agreement with Fox Chase Cancer Center Focused on Advancing the Development of LP-184 in Pancreatic Cancer

DALLAS, Sept. 22, 2020 /PRNewswire/ -- Lantern Pharma (Nasdaq: LTRN), a clinical-stage biopharma company using its proprietary RADR[®] artificial intelligence ("A.I.") platform to improve drug discovery & development and identify patients who will benefit from its targeted oncology therapeutics, today announced a collaboration and research agreement with Fox Chase Cancer Center for the further development of Lantern's LP-184 in pancreatic cancer. Based in Philadelphia, Fox Chase is a leading research center for pancreatic cancers and one of the four original cancer centers to receive comprehensive cancer center designation from the National Cancer Institute (NCI).



The Fox Chase collaboration will focus on advancing the targeted use of LP-184 in molecularly-defined sub-types of pancreatic cancer. The goal of the collaboration is to create a more biologically relevant and robust gene signature in preparation for future clinical trials, enabling pancreatic cancer patients to potentially benefit from a more effective and personalized cancer therapy.

"Collaborations with world-leading cancer centers are an essential part of our strategy to rapidly advance the insights driving our therapeutic programs and grow our RADR[®] A.I. platform by adding millions of new, unique, and proprietary data points," said Panna

Sharma, CEO of Lantern Pharma. "This relationship with Fox Chase will 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 will further shape our algorithms for how certain compounds interact with specific tumor types. 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 Igor Astsaturov, MD, Ph.D., an internationally-recognized researcher in gastrointestinal cancers at the Molecular Therapeutics Program at Fox Chase where he specializes in investigating signaling pathways that inform the choice of biomarkers and innovative therapy combinations in clinical trials. Dr. Astsaturov is known for his research in a number of cancer indications spanning pancreatic, stomach, liver, and several others, as well as his belief that each individual cancer patient will soon be defined by the molecular makeup of their cancer cells.

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

"We are very pleased to partner with Lantern Pharma in establishing a collaboration that will play an important role in our research," said Igor Astsaturov, MD, PhD, and Associate Professor, Department of Hematology/Oncology at Fox Chase. "Our advanced research approach using patient-derived cancer models will provide us with critical insights into the efficacy of LP-184 in pancreatic cancers. We look forward to sharing these results with the broader scientific community and hopefully bringing this drug to cancer patients that can best benefit from this compound."

The research program is at the forefront of translational cancer medicine and will use patient-derived cancers that are grown in the lab and transformed into physiologically relevant 3D organoids and PDX 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 pancreatic cancer.

Among several objectives, the research will determine whether the overexpression of the gene PTGR1, a biomarker that has been linked to cancer cell proliferation, will indicate heightened sensitivity to LP-184 and a more favorable response rate and efficacy as compared to standard of care agents. LP-184 has been advanced using Lantern's proprietary RADR[®] A.I. platform that leverages over 500 million data points, machine learning, genomics, and computational biology to accelerate the discovery of potential mechanisms of action, and genomic 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, pancreatic cancer remains an area that has not experienced significant improvement in patient outcomes. The overall five-year survival rate for pancreatic cancer across all stages remains at only 10.0% in the US and 8.2% globally, and pancreatic cancer is expected to become the 2nd leading cause of cancer death in the USA in 2020 behind lung cancer according to the National Cancer Institute's SEER Stat Database.

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.

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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. The forward-looking statements in this press release include, among other things, statements relating to: 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 any of 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; 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 the impact of the COVID-19 pandemic, the results of our clinical trials, and the impact of competition. Additional factors can be found 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.

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