NEWS RELEASE

Lantern Pharma Enters into Strategic Collaboration with Deep Lens -- Partnership Expected to Accelerate Enrollment in Upcoming Phase 2 Clinical Trial for Never-Smokers with Non-Small Cell Lung Cancer

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Partnership designed to leverage artificial intelligence solutions to identify eligible patient subgroups faster and with more accuracy, complementing Lantern Pharma's RADR® A.I. platform

Collaboration to create an end-to-end A.I. drug development enabled pathway from drug rescue to patient recruitment

DALLAS and COLUMBUS, Ohio, Sept. 28, 2021 /PRNewswire/ -- Lantern Pharma (NASDAQ: LTRN), a clinical stage biopharmaceutical company using its proprietary RADR® artificial intelligence ("A.I.") platform to transform the cost, pace, and timeline of oncology drug discovery and development and Deep Lens, a digital healthcare company focused on enabling faster recruitment of the best-suited cancer patients for clinical trials at the time of diagnosis, today announced that they have entered into a strategic collaboration that will leverage Deep Lens' artificial intelligence clinical trial matching solution, VIPERÔ, creating an end-to-end A.I. enabled drug development pathway that is expected to accelerate trial enrollment for Lantern's planned Phase 2 clinical trial for never-smokers with non-small cell lung cancer (NSCLC), utilizing LP-300 in combination with chemotherapy.

Lantern is developing oncology therapies by leveraging its proprietary RADR® A.I. platform and machine learning to discover biomarker signatures that identify patients most likely to respond to its pipeline of therapeutics. Deep Lens' proprietary A.I.-based platform, VIPER, identifies, triages and matches cancer patients to clinical trials in real

time for which they may be eligible. Together, the companies are addressing two of the most complex and time-consuming parts of the drug development process: matching a novel molecule with a relevant indication and identifying the right patients to participate in clinical trials.

Panna Sharma, President & CEO of Lantern Pharma, stated, "The current drug development model is extremely expensive, with an estimated **$2.6 billion in drug development costs** for each Food and Drug Administration (FDA)-approved drug. Moreover, based on the estimated **5.3% success rate for oncology drugs**, most therapies, will fail to reach commercialization, despite showing efficacy in certain subgroups. Not only do the majority of therapies in development fail to meet safety or efficacy endpoints, but an equally large number, **75% of clinical trials, fail to meet recruitment deadlines**, due in large part to enrollment challenges. It is quite apparent that cancer treatment requires a lower cost of care and an increase in the choice and efficacy of precision therapies, which we believe we can deliver through a combination of A.I., machine learning, and large-scale biomarker analytics, with a goal of ultimately crushing the cost of cancer therapy development. For this reason, we are very excited to partner with Deep Lens and create an end-to-end A.I. enabled pathway from drug rescue to patient recruitment."

Mr. Sharma continued, "Our existing A.I. platform allows us to predict drug outcomes and response in very specific patient subsets, while Deep Lens' VIPER serves as a tool to find and accelerate the enrollment of appropriate patients for clinical trials. We believe this accelerated and efficient process will help more cancer patients to have access to the right medicine at the right time. We hope to leverage this solution across additional trials and combine it with other advanced A.I. technologies that align with our mission of accelerating the timeline and reducing the costs of oncology drug discovery and development."

Lantern Pharma's approach is to in-license and develop oncology therapies using genomic data, machine learning, and computational biology modeling to identify the patient groups most likely to respond to a therapy, and to clarify the potential underlying mechanisms of action. Lantern's LP-300 is a small molecule entity that has been studied in multiple randomized, controlled multi-center NSCLC trials. In retrospective analyses of a multi-country Phase 3 trial, LP-300 with chemotherapy demonstrated substantial improvement in overall survival in the never-smoker subgroup. LP-300 is currently in preparation to enter a phase 2 clinical trial for use of LP-300 as a combination therapy for never-smoking NSCLC patients with histologically defined adenocarcinoma. Deep Lens will utilize the patient enrollment criteria identified by Lantern to find this subgroup of patients and match them to the LP-300 clinical trial across Deep Lens' network of community oncology sites.

"Precision medicine has changed the way we think about treating and identifying certain types of cancer, but it has also significantly increased the complexity of clinical trials. Trials often have very narrow eligibility criteria, making enrollment objectives difficult to meet, and unfortunately, many companies will fail to move along the development path successfully," said Dave Billiter, Chief Executive Officer and Co-Founder of Deep Lens. "Deep Lens leverages

their A.I. platform, VIPER, and supporting services to automate the patient identification and screening process, so that trials enroll faster and more efficiently. We believe that leveraging A.I. across multiple phases of drug development will decrease overall time-to-market timelines as well as associated costs. We look forward to partnering with Lantern to help them achieve their trial enrollment goals and to provide access to LP-300 to patients in need as quickly as possible."

Lantern is focused on developing LP-300 as a potential first-in-class combination therapy for never smoking NSCLC patients with histologically defined adenocarcinoma. NSCLC among never smokers has a distinct molecular profile and according to the American Cancer Society, **as many as 20% of people who die from lung cancer in the United States every year have never smoked or used any other form of tobacco**. Leading researchers have started to classify lung cancer in never and non-smokers as having unique and distinct clinical, biological and pathological characteristics that have the potential to be impacted by new therapeutic options. According to market research and data analytics firm, GlobalData, approximately $10 billion was spent on NSCLC therapies in 2020, across the leading eight markets (by annual drug sales), with approximately $4 billion of this drug spend in the U.S. alone.

About Deep Lens

Deep Lens is a digital healthcare company focused on a groundbreaking approach to faster recruitment of the best-suited cancer patients to clinical trials. VIPER, Deep Lens' integrated cloud platform, provides care teams with visibility and workflows that combine lab, EMR, and genomic data to match cancer patients to clinical trials and precision therapies at the time of diagnosis, accelerating recruitment and compressing study timelines to bring game-changing therapies to market sooner. Growing with sponsors, providers, and strategic partners, Deep Lens challenges the status quo so that patients can get the best therapies. For more information, visit **www.deeplens.ai**.

About Lantern Pharma

Lantern Pharma (LTRN) is a clinical-stage oncology-focused biopharmaceutical company leveraging its proprietary RADR® A.I. platform and machine learning to discover biomarker signatures that identify patients most likely to respond to its pipeline of genomically targeted therapeutics. Lantern is currently developing four drug candidates and an ADC program across eight disclosed tumor targets, including two phase 2 programs. By targeting drugs to patients whose genomic profile identifies them as having the highest probability of benefiting from the drug, Lantern's approach represents the potential to deliver best-in-class outcomes. More information is available at: **www.lanternpharma.com** and Twitter @lanternpharma.

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 Lantern's future financial performance; the potential advantages of Lantern's RADR® platform in identifying drug candidates and patient populations that are likely to respond to a drug candidate; Lantern's strategic plans to advance the development of its drug candidates and antibody drug conjugate (ADC) development program; estimates regarding the development timing for Lantern's drug candidates and ADC development program; Lantern's research and development efforts of its internal drug discovery programs and the utilization of its RADR® platform to streamline the drug development process; Lantern's 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 Lantern's drug candidates and its plans to discover and develop drug candidates and to maximize their commercial potential by advancing such drug candidates itself or in collaboration with others. Any statements that are not statements of historical fact (including, without limitation, statements that use words such as "anticipate," "believe," "contemplate," "could," "estimate," "expect," "intend," "seek," "may," "might," "plan," "potential," "predict," "project," "target," "goal," "objective," "aim," "should," "will," "would," or the negative of these words or other similar expressions) should be considered forward-looking statements. There are a number of important factors that could cause actual results to differ materially from those indicated by the forward-looking statements, such as (i) the impact of the COVID-19 pandemic, (ii) the risk that none of Lantern's product candidates has received FDA marketing approval, and Lantern may not be able to successfully initiate, conduct, or conclude clinical testing for or obtain marketing approval for its product candidates, (iii) the risk that no drug product based on Lantern's proprietary RADR A.I. platform has received FDA marketing approval or otherwise been incorporated into a commercial product, and (iv) those other factors set forth in the Risk Factors section in Lantern's Annual Report on Form 10-K for the year ended December 31, 2020, filed with the Securities and Exchange Commission on March 10, 2021. You may access Lantern's Annual Report on Form 10-K for the year ended December 31, 2020 under the investor SEC filings tab of its website at **www.lanternpharma.com** or on the SEC's website at **www.sec.gov**. Given these risks and uncertainties, neither Lantern nor Deep Lens can give any assurances that such forward-looking statements will prove to be accurate, or that any other results or events projected or contemplated by such forward-looking statements will in fact occur, and investors are cautioned not to place undue reliance on these statements. All forward-looking statements in this press release represent the respective judgment of Lantern and Deep Lens as of the date hereof, and, except as otherwise required by law, Lantern and Deep Lens disclaim any obligation to update any forward-looking statements to conform the statement to actual results or changes in their expectations.

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SOURCE Lantern Pharma

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