April 13, 2023

# Lantern Pharma Receives Notice of Allowance for Composition of Matter Patent Covering Drug Candidate LP-284

DALLAS--(BUSINESS WIRE)-- Lantern Pharma Inc. (NASDAQ: LTRN), a clinical-stage biopharmaceutical company using its proprietary RADR® artificial intelligence ("AI") and machine learning (“ML”) platform to transform the cost, pace, and timeline of oncology drug discovery and development, today announced that the United States Patent and Trademark Office (USPTO) has issued a notice of allowance for U.S. patent application no. 17/192,838 directed to Lantern Pharma’s drug candidate LP-284 ((+)N-hydroxy-N-(methylacylfulvene)urea). The allowed application entitled “Illudin Analogs, Uses Thereof, and Methods for Synthesizing the same” covers the molecule LP-284, including claims covering the new molecular entity itself. A notice of allowance is issued after the USPTO determines that the prosecution on the merits of a patent has been completed and grants the patent upon payment of the patent issuance fee.

“Our growing intellectual property portfolio strengthens the long-term market position for LP-284 and further validates that novel oncology drug development can be done rapidly and cost-effectively when leveraging data-driven insights,” said Panna Sharma, Lantern Pharma’s CEO and President. “LP-284 is an exciting new molecule for non-Hodgkin’s lymphomas and perhaps other hematological malignancies that we developed from initial AI insights from our RADR® platform to a first-in-human clinical Phase 1 trial, which we are planning to launch later this year, in around two years and at significantly reduced costs,” continued Sharma.

Lantern expects the resulting LP-284 patent will be Orange Book-listable with an anticipated expiration of early 2039. Lantern intends to continue to prosecute additional patent applications, including patent applications directed to manufacturing methods and methods of use, to further enhance its existing patent estate protecting LP-284. Lantern anticipates receiving similar patent rights for LP-284 in Europe, Japan, India, China, Australia, Canada, and Korea.

Lantern is currently completing the investigational new drug (IND) enabling studies for LP-284 and anticipates submitting the IND application for LP-284 to the U.S. Food and Drug Administration (FDA) in mid-2023. A first-in-human Phase 1 clinical trial launch is anticipated in 2023 for B-cell non-Hodgkin’s lymphomas (NHL), where LP-284 has shown nanomolar potency across multiple in vitro and in vivo studies, including mantle cell lymphoma (MCL), double hit lymphoma (DHL), and other NHL cancer subtypes. Nearly all MCL patients relapse from current MCL standard-of-care agents and there is an urgent and unmet need for novel improved therapeutic options for these patients. In the U.S. and Europe, MCL and DHL are diagnosed in approximately 9,000 patients each year and have an estimated annual market potential of $1.2 billion.

LP-284 was also recently granted an Orphan Drug Designation (ODD) by the U.S. FDA for the treatment of MCL. The ODD strengthens LP-284's clinical development path and provides the future potential opportunity for additional market exclusivity and commercial protection. In addition to the ODD granted for LP-284 in MCL, Lantern was previously granted ODDs by the FDA for its drug candidate LP-184 for the treatment of malignant gliomas, pancreatic cancer, and atypical teratoid rhabdoid tumors (ATRT). Lantern has also been granted a Rare Pediatric Disease Designation for LP-184 in ATRT.

**About Lantern Pharma:**

Lantern Pharma (NASDAQ: LTRN) is a clinical-stage oncology-focused biopharmaceutical company leveraging its proprietary RADR® AI and machine learning platform to discover biomarker signatures that identify patients most likely to respond to its pipeline of genomically-targeted therapeutics. 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.

Please find more information at:
Website: www.lanternpharma.com
LinkedIn: https://www.linkedin.com/company/lanternpharma/
Twitter: @lanternpharma
Lantern Pharma Newsletter – The Spark: Sign-up here

**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 and antibody drug conjugate (ADC) development program; estimates regarding the development timing for our drug candidates and ADC development program; expectations and estimates regarding clinical trial timing and patient enrollment; 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 patient populations, 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 that use words such as "anticipate," "believe," "contemplate," "could," "estimate," "expect," "intend," "seek," "may," "might," "plan," "potential," "predict," "project," "target," "model," "objective," "aim," "upcoming," "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 our 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 our research and the research of our collaborators may not be successful, (iii) the risk that none of our product candidates has received FDA marketing approval, and we may not be able to successfully initiate, conduct, or conclude clinical testing for or obtain marketing approval for our product candidates, (iv) the risk that no drug product based on our proprietary RADR® AI platform has received FDA marketing approval or otherwise been incorporated into a commercial product, and (v) those other factors set forth in the Risk Factors section in our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission on March 20, 2023. You may access our Annual Report on Form 10-K for the year ended December 31, 2022 under the investor SEC filings tab of our website at www.lanternpharma.com or on the SEC's website atwww.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 source version on businesswire.com:
https://www.businesswire.com/news/home/20230413005250/en/

Nicole Leber
Investor Relations Associate
ir@lanternpharma.com

Source: Lantern Pharma Inc.