Lantern Pharma Announces Filing of Seven Patent Applications Globally on Novel DNA-Damaging Agent with Anticancer Properties

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DALLAS, March 17, 2021 /PRNewswire/ -- Lantern Pharma Inc. (NASDAQ: LTRN), a clinical stage biopharmaceutical company using its proprietary RADR® artificial intelligence ("A.I.") platform to transform oncology drug discovery and development today announced that it has filed seven patent applications globally on a novel DNA-damaging agent with anticancer properties. These patent applications include claims directed to a newly synthesized compound with promising in-vitro anticancer activity in a range of indications that are distinct from LP-184. This compound, newly designated as LP-284, is believed to act through mechanisms that are related to DNA-damage and DNA-repair inhibition in certain cancer cells.

LP-284 is a small molecule drug candidate currently in preclinical development for certain cancers that have shown sensitivity to the compound. LP-284 is the stereoisomer (enantiomer) of LP-184 and has the potential for development as monotherapy and also as a synergistic agent in combination with other drugs. Stereoisomers can have differing and unique characteristics from one another and can be viewed as distinct pharmaceutical agents. These unique characteristics may allow LP-284 to also be considered for inclusion in Lantern Pharma's antibody drug conjugate (ADC) program.

The individual stereoisomers of a biologically active molecule may often differ in potency, pharmacological action, metabolism, toxicity, and kinetics. This phenomenon applies to chiral anticancer agents such as LP-184 and LP-284.

The enantiomers, which are different molecules, possess distinct cancer cell-killing activity. Due to these differences, we can expand the range of potential cancer indications that can be addressed by the Lantern portfolio. These differences can be better understood though the use of data-driven methodologies, such as large-scale genomic analysis and in-silico studies. Lantern expects to apply these insights to develop LP-284 in cancer indications that are different and complementary to those being targeted by LP-184.

"The insights and developments from our team are rapidly leading to new therapy opportunities in a targeted and cost-effective manner. The designation of LP-284 as a new drug candidate demonstrates our continued ability to efficiently advance and expand Lantern's portfolio of targeted therapies," stated Panna Sharma, CEO & President of Lantern Pharma.

LP-284 will be advanced using Lantern's proprietary RADR$^®$ A.I. platform that leverages over 1.2 billion 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 cancers and in cancer patients.

Based on Lantern's previously filed PCT ("Patent Cooperation Treaty") patent application, Lantern has filed national stage patent applications to seek protection for LP-284 in major market countries throughout the world. The national stage patent applications allow, if granted, for patent protection of LP-284. The filed, multi-national patent applications are directed to both the composition and manufacture of LP-284. Lantern previously licensed patents related to LP-184 from AF Chemicals, LLC. Lantern has also filed an additional 8 patent applications that include method and use claims directed to LP-184 in specific solid tumors and also in combination with other drug compounds in specific tumors. Lantern's patent applications also include claims related to the manufacture of LP-184 in a fully synthetic manner.

"Our patent strategy will continue to be highly focused on protecting our insights and developmental pathways for our drug candidates on a global basis. These seven patent applications are consistent with our focus on becoming a leader in the global development of precision oncology therapies," said Mr. Sharma of Lantern Pharma.

About Lantern Pharma

Lantern Pharma (LTRN) is a clinical-stage biopharmaceutical company leveraging advances in genomics, artificial intelligence, and machine learning by using our proprietary RADR$^®$ A.I. platform to discover biomarker signatures that identify patients most likely to respond to our pipeline of cancer therapeutics. Lantern is currently developing three drug candidates and an ADC program across seven disclosed targets, including two phase 2 programs, all focused on cancers with unique and unmet clinical needs. 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. More information at **www.lanternpharma.com** and 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. These forward-looking statements include, among other things, statements relating to: our strategy and plans regarding our patents and patent applications; 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; 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 that use words such as "anticipate," "believe," "contemplate," "could," "estimate," "expect," "intend," "seek," "may," "might," "plan," "potential," "predict," "project," "target," "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 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 patents and patent applications may not provide the protection we seek; (iii) the risk that changes to patent laws in the United States and other jurisdictions could diminish the value of patents in general; (iv) 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; (v) the risk that 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 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 our Annual Report on Form 10-K for the year ended December 31, 2020 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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