



NEWS RELEASE

## Lantern Pharma Announces First Patient Dosed in the Phase 2 Study, Harmonic™, for LP-300 in Never Smokers with Advanced Non-Small Cell Lung Cancer

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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 the dosing of the first patient in the Phase 2 Harmonic™ clinical trial evaluating Lantern's investigational new drug LP-300 in combination with chemotherapy for never smokers with advanced non-small cell lung cancer (NSCLC).

"Never-smokers with non-small cell lung cancer face limited choices in therapy options after treatment with targeted therapies, and we believe there is a great opportunity to introduce a therapeutic regimen designed specifically for this subgroup of cancer patients," stated Reggie Ewesuedo, M.D., M.Sc., MBA, Lantern Pharma's VP of Clinical Development. "These patients show tremendous bravery and resolve in helping to establish signals of efficacy including potential increased survival in this Phase 2 trial that combines LP-300 with standard-of-care treatment. Our team continues to watch and monitor additional patients that are being screened and who, after guidance from their clinicians, may potentially enroll in the Harmonic™ trial," continued Dr. Ewesuedo.

The Harmonic™ trial (**NCT05456256**) is a Phase 2 clinical trial that is assessing the effect of Lantern's investigational new drug LP-300 in combination with standard-of-care (SOC) chemotherapy, pemetrexed and carboplatin, on the overall and progression-free survival of never smoker patients with advanced NSCLC. The study has been designed

as a 90 patient trial with approximately 2/3rds of the patients receiving LP-300 with chemotherapy and the remaining 1/3rd receiving chemotherapy alone. Lantern has activated 5 clinical trial sites, across 12 locations in the US including **Gabrail Cancer Center, Northwest Oncology, New York Cancer and Blood Specialists, Texas Oncology**, and Cancer and Blood Specialty Clinic. Across the 5 Harmonic™ clinical trial sites, there is 1 dosed patient and 14 additional potential patients that have been pre-screened and are being monitored for possible enrollment. Multiple additional trial sites across the US are expected to be activated in the 1st half of 2023 and will bolster patient recruitment and enrollment.

In a previous multi-center Phase 3 clinical trial, a subset of never smoker NSCLC patients who received LP-300 with chemotherapy showed increased overall and two-year survival of 91% and 125%, respectively, compared to patients who only received chemotherapy. In addition, LP-300 has been administered in multiple clinical trials to more than 1,000 people and has been generally well tolerated. Additional information on the Harmonic™ trial can be found at the **Harmonic™ clinical trial website**, on **ClinicalTrials.gov**, or on the first-of-its-kind **Harmonic™ trial iPhone app**, which is focused on education & awareness for never smoker NSCLC patients and the NSCLC community.

## About Lung Cancer in Never Smokers:

NSCLC presents differently in never smokers, which are defined by the CDC as a person who has smoked 100 cigarettes or less in their life, compared to smokers. These differences are believed to be due to a higher percentage of genetic mutations in a family of cancer-promoting genes called Tyrosine Kinases (TK). Changes in TK genes, such as EGFR, ALK, ROS and MET, can contribute to the development of healthy cells into cancer cells, leading to tumor formation and growth. LP-300's intended mechanism is to work together with chemotherapy by strongly interacting in the TK gene pathways, interrupting their activity to slow or prevent tumor growth and spread.

According to the American Cancer Society, lung cancer is the second leading cause of cancer in the US, with over 200,000 patients diagnosed annually. Historically, never smokers with NSCLC make up about 15-20% of all lung cancer patients, representing an approximate annual market potential of \$1.5 to \$2.0 billion.

## 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](http://www.lanternpharma.com)

LinkedIn: <https://www.linkedin.com/company/lanternpharma/>

Twitter: [@lanternpharma](https://twitter.com/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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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 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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