February 15, 2023

Lantern Pharma Further Enhances Capabilities of its AI Drug Discovery Platform, RADR®, with Product Development Roadmap for the Development of Antibody Drug Conjugates

- Lantern is expanding RADR®'s product roadmap to enhance the development of novel and effective Antibody Drug Conjugates (ADCs) for the targeted delivery of potent anti-cancer small molecules to cancer cells.
- RADR®'s AI and ML drug development modules have the potential to assist in advancing ADC drug candidates from the discovery phase to first-in-human clinical trials in approximately 2 years or less.
- Lantern anticipates this expansion will significantly add to RADR®'s 25+ billion oncology focused data points and library of over 200+ algorithms.
- The global ADC market is over $4.0 billion and is projected to reach $14.0 billion by 2027.

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 expansions and updates to RADR®'s product roadmap, which will further enhance its oncology drug discovery capabilities. These RADR® advancements will focus on additional innovative AI and ML approaches to develop Antibody Drug Conjugates (ADCs), which are highly specific cancer-targeted antibodies linked to potent anti-tumor small molecules and designed for the treatment of cancer.

"RADR® is an integral component for de-risking and powering the progression of Lantern's drug programs, and our recent advances in moving from program identification through preclinical development have occurred at speeds rarely seen in oncology drug discovery and development," said Panna Sharma, Lantern's CEO and President. "Globally, ADC drug programs are one of the fastest growing drug development markets and are projected to represent a global market potential of over $14 billion by 2027. The expansion of RADR®'s ADC capabilities will not only build on its demonstrated ability to identify synergistic and effective combinations of antibodies and small molecules, but will also facilitate new high-value ADC-focused business development opportunities and collaborations," continued Sharma.

Highlights of RADR®'s ADC Development Roadmap:

Lantern's strategic RADR® roadmap for the development of ADCs was implemented this quarter and will include the following expansions and updates:

- Development of additional algorithms that can boost prediction of optimal combinations of ADC components including antibodies, antibody linkers, payloads, and ADC combinations with other anticancer small molecules.
- Generation of additional ML-based ADC biomarker signatures that can predict a cancer's sensitivity to an ADC and guide future patient selection for clinical trials.
- Use of RADR® guided selection of new molecule payloads with features of synergy or properties to overcome resistance from existing ADC payloads.
- Creation of AI modules to predict the immunogenicity of ADC antibodies to cancer cell surface antigens.
- Expansion of RADR®'s 25+ billion oncology-focused data points with the addition of immuno-oncology (IO) datasets.

The advancement of RADR®'s product development roadmap will be accelerated using RADR®'s library of over 200+ advanced algorithms and automated ML pipelines. This AI strategy will enable the large-scale analysis of thousands of high-performing model features through their SHapley Additive exPlanation (SHAP) scores and can efficiently identify key genes and pathways that are mechanistically important to drug resistance, quality of patient outcomes, and improved delivery of ADC drug payloads. These features can add potential value to ADC programs and prioritize ADC targets. Additionally, this powerful strategy can be leveraged to inform downstream ADC design by identifying ADC components that, when used together, have a high probability of synergy that can lead to therapeutic response.

Lantern's RADR® platform excels at automated, large-scale, biological, and response network analysis, yielding correlations that can be leveraged in both target identification and drug response prediction. This biology-driven AI drug development approach, which leverages over 25 billion oncology focused data points across thousands of data sets, can be used in augmentation with existing structural and bond analysis methodologies to further de-risk ADC drug candidates. This AI-driven approach using RADR® is expected to deliver an improved understanding of potential clinical indications and patient stratification approaches for ADC development.

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's Monthly Newsletter – 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® A.I. 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, 2021, filed with the Securities and Exchange Commission on March 10, 2022. You may access our Annual Report on Form 10-K for the year ended December 31, 2021 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.

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Nicole Leber

Investor Relations Associate
ir@lanternpharma.com

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