NEWS RELEASE

Lantern Pharma Reports Fourth Quarter and Year End 2020 Financial Results and Operational Highlights

2021-03-10

- RADR® artificial intelligence ("A.I.") platform surpassed 1.2 billion datapoints
- Advanced opportunities for LP-184 in glioblastoma, prostate and pancreatic cancers in collaboration with leading cancer research centers
- Identified and validated additional genomically-driven cancer indications for LP-184
- Advanced the development of LP-300 with a Phase 2 trial launch in NSCLC planned for Q3 2021
- Initiated Antibody Drug Conjugate ("ADC") program with novel linking and conjugation technology
- Strengthened balance sheet following January 2021 public offering of $69.0 million
- Conference call scheduled for 4:00 p.m. ET today

DALLAS, March 10, 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 financial results for the fourth quarter and fiscal year ended December 31, 2020.

"2020 was a pivotal year for Lantern Pharma, marked by a series of financial, operational and drug development achievements. We believe each of these achievements further validates our unique capital-efficient business model that leverages the power of our proprietary RADR® A.I. platform with the knowledge and experience of our scientific team aimed at developing precision oncology drugs," stated Panna Sharma, President and CEO of Lantern Pharma.

"We anticipate 2021 to be a transformational year for Lantern and our shareholders as each of our drug programs progresses towards key milestones, including the initiation of a Phase 2 trial of LP-300 in NSCLC among non-smokers, IND-enabling studies of LP-184 in multiple solid tumors, advancing our ADC program, and continued growth in the biologically-relevant and curated data that powers our RADR® A.I. platform."

"As a result of our rapid development and operational progress after our June IPO, we were able to significantly strengthen our balance sheet with the closing of a $69.0 million public offering in January 2021. Our solid financial position is expected to fuel continued growth and evolution of our RADR® A.I. platform, accelerate the development of our portfolio of targeted oncology drug candidates and allow us to introduce additional targeted opportunities in a capital efficient manner," continued Sharma. "In a very short time since our IPO in June 2020, we have:

- More than doubled the number of programs in development, increasing our "shots on goal" and the number of opportunities for potentially accretive licensing or partnering opportunities.
- Initiated a differentiated Antibody Drug Conjugate (ADC) program with novel linking technologies.
- Grew by over 5x the number of datapoints that fuel our RADR® A.I. platform.
- Added significant additional functionality into our RADR® A.I. platform.
- Initiated multiple research and development collaborations with leading cancer centers, including: Johns Hopkins in GBM and other brain cancers, Georgetown University in prostate cancer, and Fox Chase Cancer Center in pancreatic cancer.

The rapid development and capital-efficient, collaborative approach of our business showcases the power and potential of A.I. and machine learning to transform the pace, risk and cost of oncology drug discovery and development."

Lantern is developing three drug candidates and an ADC program across seven disclosed targets, including:

- LP-100 (Irofulven), in a Phase 2 trial for the treatment of metastatic castration resistant prostate cancer (mCRPC) which is out-licensed to Allarity Therapeutics.
- LP-300, a small molecule candidate that is preparing to enter a Phase 2 trial as a combination therapy in non-smokers with Non-Small Cell Lung Cancer (NSCLC).
- LP-184, a small molecule DNA damaging candidate in preclinical development for genomically-defined prostate, pancreatic, glioblastoma multiforme (GBM), atypical teratoid rhabdoid tumors (ATRT) and other undisclosed tumors defined by overexpression of PTGR1.
- Antibody Drug Conjugate (ADC) program leverages RADR® and is aimed at identifying targeted or therapeutic antibodies, utilizing a unique library of linkers to conjugate with LP-184 and other compounds.

Below, a recap of milestones since the June 15, 2020 IPO that position Lantern for further achievements in 2021:

Drug Development Achievements:

- Expanded the pipeline from three tumor targets in development to seven, including: LP-184 in prostate, pancreatic and multiple CNS tumors where PTGR1 is overexpressed, such as GBM and ATRT. We anticipate disclosing additional programs in the coming year.
- Initiated an Antibody Drug Conjugate platform that adds a key dimension to Lantern's focus on leveraging biological data and innovative platforms to accelerate cancer drug development.
- RADR® A.I. platform grew to over 1.2 billion datapoints at year end 2020 from 275 million at IPO.
- Published several peer reviewed publications at ASCO, AACR and other symposia on the use of our RADR® A.I. platform, including the development of RNA expression signatures for predicting response to our portfolio of oncology drug candidates.
- Advanced LP-300 in NSCLC towards a planned launch of a Phase 2 trial in Q3 2021.

Operational Achievements:

- Established manufacturing network for the company's pipeline of targeted drug candidates.
- Initiated R&D and CRO collaborations to support capital efficient pre-clinical validation and development of novel small molecule oncology drug candidates.
- Initiated collaborations with recognized KOLs in prostate, pancreatic and CNS cancers.
- Strengthened our intellectual property estate with over 15 new patent applications.
- Significantly expanded our data sciences and research teams.

Financial Highlights:

- Successfully completed a $26.3 million IPO on June 15, 2020.
- Strengthened the Balance Sheet with a $69.0 million follow-on public offering in January 2021.
- Extended the cash runway through mid-2025, allowing the company to focus on efficiently developing our portfolio of promising oncology therapeutics.

Fourth Quarter 2020 Financial Highlights

- Cash Position: Cash and cash equivalents were $19.2 million as of December 31, 2020, compared to $20.8 million as of September 30, 2020 and $1.2 million as of December 31, 2019. The quarterly cash burn reflects our capital-efficient, collaborator-centered business model. The year-over-year increase in cash balance reflects proceeds from the June 2020 IPO. On January 20, 2021, we completed a follow-on public offering resulting in gross proceeds of $69.0 million.
- R&D Expenses: Research and development expenses were $1,348,329 for the quarter ended December 31, 2020, compared to $177,467 for the quarter ended December 31, 2019. The increase was primarily

attributable to increases in research studies, expansion of the company's research team, and research and development related stock option compensation expense of $470,401 (a non-cash item) for the quarter ended December 31, 2020.

- G&A Expenses: General and administrative expenses were $1,547,675 for the quarter ended December 31, 2020, compared to $497,700 for the quarter ended December 31, 2019. The increase was primarily attributable to expenses associated with operating as a public company and general and administrative related stock option compensation expense of $554,503 (a non-cash item) for the quarter ended December 31, 2020.
- Net Loss: Net losses were $2,896,004 for the quarter ended December 31, 2020, or $0.47 per share, compared to a net loss of $675,167 for the quarter ended December 31, 2019, or $0.34 per share. The net losses include non-cash expenses related to employee stock options of $1,024,904 for the quarter ended December 31, 2020.

Fiscal Year 2020 Financial Highlights

- R&D Expenses: Research and development expenses were $2,243,225 for the year ended December 31, 2020, compared to $953,185 for the year ended December 31, 2019. The increase was primarily attributable to research and development labor and research study expenses, as well as an increase of $470,401 (a non-cash item) in research and development related stock option compensation expense.
- G&A Expenses: General and administrative expenses were $3,664,965 for the year ended December 31, 2020, compared to $1,475,000 for the year ended December 31, 2019. The increase was primarily attributable to expenses associated with transitioning to and becoming a public company, including corporate insurance expenses, general and administrative labor expenses, and $721,840 (a non-cash item) in general and administrative related stock option compensation expense.
- Net Loss: Net loss was $5,908,190 for the year ended December 31, 2020, or $1.37 per share, compared to a net loss of $2,428,185 for the year ended December 31, 2019, or $1.23 per share. The net loss for the fiscal year ended December 31, 2020 includes non-cash expenses related to employee stock options of $1,192,241.

Mr. Sharma continued, "The golden age of A.I. in medicine is beginning, and Lantern Pharma is among the leaders in this paradigm shift to transform the pace, risk and cost of oncology drug discovery and development. With our RADR® A.I. platform we are demonstrating the opportunity for attainment of significant efficiencies in the time and cost of oncology drug discovery and development. As our growing pipeline of oncology drug candidates demonstrates, the rapid, machine learning enabled identification and validation of molecular drivers of cancer provides the potential for more targeted and more effective oncology therapies. During the fourth quarter of 2020 we were able to identify and validate an entirely new indication for LP-184 in a type of ultra-rare brain cancer, ATRT, that presents primarily in children. This discovery along with additional CNS opportunities that we are in the process of validating was enabled by using our RADR® A.I. platform. As our RADR® A.I. platform grows over the

coming year, we anticipate the identification of additional high value targets and indications as monotherapies, combination therapies or as part of our ADC program."

Conference Call

Lantern will host a conference call and webcast today, Wednesday, March 10 at 4:00 p.m. ET.

- Toll-free Domestic & Canada: 877.830.2592 conference ID: 61024
- International: 785.424.1739 – conference ID 61024
- US and Canada callers one touch dial: +1.877.830.2592,,61024#
- Live audio-only webcast and related presentation materials will be accessible at: **https://www.webcaster4.com/Webcast/Page/2460/40269**.

Replay Details

- A replay of the conference call will be available through 11:59 p.m. ET on April 10, 2021.
- Replay Toll-free Domestic & Canada: 1.800.938.2795 – passcode: 61024
- Replay International: 1.402.220.9029 – passcode: 61024
- US and Canada callers one touch dial: +1.800.938.2795,,61024#

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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. Our collaborator-centered business model seeks out industry partners and leading scientific advisors to capital-efficiently develop our pipeline of genomically-targeted 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**.

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; 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 we may not be able to successfully initiate, conduct, or conclude clinical testing for or obtain marketing approval for our product candidates; (iii) 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 (iv) 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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