Lantern Pharma Receives IND Clearance from FDA Enabling Phase 1 Initiation for Drug Candidate LP-284 in Non-Hodgkin's Lymphomas

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- This is the second IND Clearance over the last 100 days for drug candidates that are being developed using guidance from Lantern's AI Platform, RADR®.
- LP-284 is the second of Lantern's synthetic-lethal franchise of molecules that have shown to be synthetically lethal in DNA damage repair deficient cancers and are entering into first-in-human clinical trials.
- Lantern estimates that LP-284 can have the potential to improve outcomes for 40,000 to 80,000 patients with blood cancers annually, with a global annual market potential of $4 Billion USD.

DALLAS--(BUSINESS WIRE)-- Lantern Pharma Inc. (NASDAQ: LTRN), an artificial intelligence (AI) company developing targeted and transformative cancer therapies using its proprietary AI and machine learning (ML) platform, RADR®, with multiple clinical stage drug programs, today announced that the United States Food and Drug Administration (FDA) has cleared the investigational new drug (IND) application for LP-284. LP-284 is being developed for the treatment of relapsed or refractory non-Hodgkin's lymphoma (NHL), including mantle cell lymphoma (MCL) and double hit lymphoma (DHL) and other high-grade B-cell lymphomas (HGBL). Lantern expects to commence enrollment of patients for the first-in-human Phase 1 trial for LP-284 during the fourth quarter of 2023.

"This is now our second novel drug candidate to receive IND clearance from the FDA in the past 100 days, further validating our approach of leveraging AI and machine learning to accelerate the development of our pipeline," stated Panna Sharma, Lantern's President and CEO. "LP-284 holds blockbuster potential, and we have been able to

expedite its journey from a concept to a first-in-human clinical trial in a highly efficient and cost-effective manner - less than 2.5 years and under approximately $2.7 million - underscoring the power and potential of our AI platform RADR® to accelerate oncology drug discovery and development. RADR® was used to unravel the mechanism of action of LP-284, prioritize its cancer indications, and generate machine-learning biomarker signatures that may be pivotal in selecting patients for future phases of the clinical trials. Our success-to-date with LP-284 reaffirms our commitment to harnessing the power of AI to transform cancer treatment and save lives."

LP-284 is a novel small molecule with a synthetically lethal mechanism of action that preferentially damages cancer cells that harbor mutations in DNA damage repair pathways. Lantern's LP-284 program has been accelerated and focused using AI insights and biological modeling powered by RADR®.

NHL is the leading hematological malignancy in the US and remains one of the leading causes of cancer deaths globally, with an estimated 500,000 new cases annually worldwide. Despite advances in NHL using combination and targeted therapies, nearly 20% to 40% of patients with certain subtypes still relapse after treatment. In aggressive subtypes of NHL, like MCL, nearly all patients relapse from standard-of-care (SOC) therapies. Globally, the annual market potential of LP-284 in NHL is estimated to be approximately $4 billion USD.

About Lantern Pharma:

Lantern Pharma (NASDAQ: LTRN) is an AI company transforming the cost, pace, and timeline of oncology drug discovery and development. Our proprietary AI and machine learning (ML) RADR® platform leverages over 34 billion oncology-focused data points and a library of 200+ advanced ML algorithms to help solve billion-dollar, real-world problems in oncology drug development. By harnessing the power of AI and with input from world-class scientific advisors and collaborators, we have accelerated the development of our growing pipeline of therapies including eleven cancer indications and an antibody-drug conjugate (ADC) program. On average, our newly developed drug programs have been advanced from initial AI insights to first-in-human clinical trials in 2-3 years and at approximately $1.0-2.0 million per program.

Our lead development programs include two Phase 2 clinical programs and recently initiated Phase 1 clinical programs for two additional product candidates with potential in multiple important cancer indications. We have also established a wholly-owned subsidiary, Starlight Therapeutics Inc., to focus exclusively on the clinical execution of our promising therapies for CNS and brain cancers, many of which have no effective treatment options. Our AI-driven pipeline of innovative product candidates is estimated to have a combined annual market potential of over $15 billion USD and have the potential to provide life-changing therapies to hundreds of thousands of cancer patients across the world.

Forward-looking Statements:

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