

Press release

Allarity Therapeutics and Lantern Pharma Enter into Agreement for Future Clinical Development of Irofulven

- *Lantern will reacquire global rights to Irofulven and assume full authority to manage and guide future clinical and commercial development of the program*

Hørsholm, Denmark and Dallas, TX, U.S.A. (July 26, 2021) – Allarity Therapeutics A/S (“Allarity”) and Lantern Pharma Inc. (“Lantern”) today announced that they have entered into an exclusive agreement under which Lantern will reacquire global rights to Irofulven (“LP-100”) and assume full authority to manage and guide future clinical development and commercialization.

Irofulven is a well-studied small molecule that causes bulky single strand DNA adducts that cause DNA damage in cancer cells, which can only be repaired by the transcription coupled nucleotide excision repair (TC-NER) pathway. This DNA modification stalls RNA polymerase II leading to transcription and cell cycle arrest and apoptosis in certain types of cancer cells. The drug was originally developed by MGI Pharma (USA) and Eisai (Japan), through Phase 3 clinical trials. Allarity acquired global exclusive rights to the drug through a license from Lantern in 2015 and initiated a Phase 2 clinical trial in Denmark aimed to benefit late-stage, metastatic, castration-resistant prostate cancer (mCRPC) patients. Lantern plans on pursuing further development and advancement of the drug candidate immediately.

Allarity has previously developed and retrospectively validated a companion diagnostic for Irofulven, using its DRP® technology, which was utilized to select and enroll mCRPC patients in its Phase 2 clinical trial at sites in Denmark. Based, in part, upon early results (unpublished) of that trial ([NCT03643107](https://clinicaltrials.gov/ct2/show/study/NCT03643107)) Lantern has decided to reacquire the Irofulven program and will review the potential to advance clinical development of Irofulven in both bladder and prostate cancer patients who have a key mutation in the ERCC2/3 genes (excision repair cross-complementation group 2/3 genes). The genes encode a crucial TC-NER pathway protein (helicase subunit XPB) necessary for DNA damage repair, and it is postulated that patients having tumors harboring the ERCC2/3 gene mutations, and thus lacking the crucial DNA damage repair protein, may be more responsive to treatment with Irofulven.

Under the agreement, Lantern will purchase assets and reacquire global, exclusive rights to further develop and commercialize Irofulven, and Allarity will discontinue further involvement in the Irofulven program. Allarity will provide Lantern with existing, clinical grade drug inventory, manufacturing trade secrets and know-how, and certain data from Allarity’s current Phase 2 clinical study in mCRPC, along with a developed clinical protocol for the intended ERCC2/3 study. Lantern will also receive a license to utilize, in its sole discretion, Allarity’s Irofulven DRP® companion diagnostic in future clinical development and commercialization of the drug. Allarity will receive an upfront payment from Lantern, development and regulatory milestone fees, which payments together total, if all milestones (including regulatory marketing approval in the U.S. and EU) are met, up to approximately U.S. \$18 million, and tiered royalties on future sales of Irofulven. Further financial terms of the agreement were not disclosed.

Steve R. Carchedi, CEO of Allarity Therapeutics, commented *“We are pleased to announce this promising agreement with Lantern Pharma, in order to build on our prior efforts to explore the clinical potential of Irofulven*

and advance the value of this pipeline asset. Providing Irofulven to selected patients with tumors harboring the ERCC2/3 mutations and resulting DNA damage repair defect represents a novel approach to potentially increasing the therapeutic benefit of Irofulven. Our agreement with Lantern on this program enables Allarity to remain focused on its top priority programs, while at the same time leveraging Lantern's resources, expertise, and commercial position to continue clinically advancing Irofulven."

Panna Sharma, CEO of Lantern Pharma, further commented *"Irofulven has the potential to have a key position in helping extend survival in bladder and metastatic prostate cancers, and potentially other cancers that harbor mutations in ERCC2/3 and other related genes. This program is very synergistic with our other drug candidates that are also focused on DNA damage repair and the NER pathway. Most importantly Irofulven has the potential to be an important compound for several challenging cancers that are impacting patients globally. We are looking forward to advancing and expanding the Irofulven program using our data-driven and precision approach aimed at future patient benefit from this therapy."*

About Allarity Therapeutics

Allarity Therapeutics (Nasdaq First North Growth Market Stockholm: ALLR.ST) develops drugs for personalized treatment of cancer guided by its proprietary drug response predictor technology, the DRP[®] platform. The company has a mature portfolio of six drug candidates, including compounds in the pre-registration stage. The product portfolio includes: Stenoparib (2X-121), a PARP inhibitor in Phase 2 for ovarian cancer; Dovitinib, a pan-TKI advancing towards a U.S. NDA filing for renal cell carcinoma; IXEMPRA[®] (Ixabepilone), a microtubulin inhibitor approved in the U.S. for the treatment of breast cancer; LiPlaCis[®], a liposomal formulation of cisplatin in Phase 2 trials for breast and prostate cancer; 2X-111, a liposomal formulation of doxorubicin under manufacturing for Phase 2 in breast cancer; and Irofulven, a DNA damaging agent in Phase 2 for prostate cancer. For more information, please visit the company's website at www.Allarity.com

About the Drug Response Predictor – DRP[®] Companion Diagnostic

Allarity uses its drug specific DRP[®] to select those patients who, by the genetic signature of their cancer, are found to have a high likelihood of responding to the specific drug. By screening patients before treatment, the response rate can be significantly increased. The DRP[®] method builds on the comparison of sensitive vs. resistant human cancer cell lines, including genomic information from cell lines combined with clinical tumor biology and prior clinical trial outcomes. DRP[®] is based on messenger RNA from the patient's biopsies. DRP[®] has proven its ability to provide a statistically significant prediction of the clinical outcome from drug treatment in cancer patients in nearly 40 clinical studies that were examined, including an ongoing, prospective Phase 2 trial. The DRP[®] platform can be used in all cancer types and is patented for more than 70 anti-cancer drugs.

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Facebook: <https://www.facebook.com/AllarityTx/>

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About Lantern Pharma

Lantern Pharma (LTRN) is a clinical-stage oncology-focused biopharmaceutical company leveraging its proprietary RADR[®] A.I. platform and machine learning to discover biomarker signatures that identify patients most likely to respond to its pipeline of genomically-targeted therapeutics. Lantern is currently developing four drug candidates and an ADC program across seven disclosed tumor targets, including two phase 2 programs. 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. More information is available at: www.lanternpharma.com and Twitter @lanternpharma.

Forward-looking statements

This announcement contains forward-looking statements within the meaning of Section 27A of the United States Securities Act of 1933, as amended, and Section 21E of the United States Securities Exchange Act of 1934, as amended. These forward-looking statements involve risks, uncertainties and other factors, many of which are

outside of Allarity's and/or Lantern's control and which could cause actual results to differ materially from the results discussed in the forward-looking statements. These forward-looking statements include statements concerning Allarity's and/or Lantern's plans, objectives, goals, future events, performance and/or other information that is not historical information, including among other things, statements relating to: future events; strategic plans to develop and advance Irofulven; and potential future clinical testing and treatment indications for Irofulven. There are a number of important factors that could cause 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 clinical testing and development of Irofulven may not be successful and may not yield meaningful results, (iii) the risk that Irofulven may not receive future regulatory marketing approval or otherwise become a commercial product, and (iv) those other factors set forth in the Risk Factors section in Lantern's 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 Lantern's Annual Report on Form 10-K for the year ended December 31, 2020 under the investor SEC filings tab of Lantern's website at www.lanternpharma.com or on the SEC's website at www.sec.gov. Given these risks and uncertainties, neither Lantern nor Allarity can give any assurance that such forward-looking statements will prove to be accurate, or that any other results or events projected or contemplated by such forward-looking statements will in fact occur, and investors are cautioned not to place undue reliance on these statements. All forward-looking statements in this announcement represent the judgment of Lantern and Allarity as of the date hereof, and, except as otherwise required by law, Lantern and Allarity disclaim any obligation to update any forward-looking statements to conform the statement to actual results or changes in their expectations.

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This information is information that Allarity A/S is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for **publication on July 26, 2021**.