Allarity Therapeutics Announces Phase 2 Trial of Stenoparib in Combination with Temozolomide for Recurrent Small Cell Lung Cancer Fully Funded by the US Veterans Administration

- *Trial to explore novel combination therapy for patients with recurrent Small Cell Lung Cancer who have failed frontline treatment*

- *Fully funded by the U.S. Veterans' Administration Special Emphasis Panel on Precision Oncology*

- *Trial builds on promising clinical evidence supporting a PARP inhibitor and temozolomide combination in Small Cell Lung Cancer*

Boston (March 6, 2025)—Allarity Therapeutics, Inc. ("Allarity" or the "Company") (NASDAQ: ALLR), a Phase 2 clinical-stage pharmaceutical company dedicated to developing stenoparib—a differentiated dual PARP/Wnt pathway inhibitor—today announced plans for a Phase 2 trial evaluating the combination of stenoparib with temozolomide, a DNA-alkylating chemotherapy agent, for the treatment of recurrent Small Cell Lung Cancer (SCLC). The trial is fully funded by the U.S. Veterans Administration (VA) through the Special Emphasis Panel on Precision Oncology and is being led by the VA and Academic Medical Oncologists at Indianapolis and Pittsburgh VA Medical Centers.

This phase 2 trial builds on the compelling mechanistic synergy of temozolomide with a PARP inhibitor and selection of patients most likely to respond to this combination. Prior clinical studies had shown that PARP inhibitors combined with temozolomide provide clinical benefit as evidenced by ~40% response rates in recurrent SCLC patients but that these prior clinical studies showed dose-limiting hematologic toxicity.

Stenoparib, a novel dual PARP and tankyrase inhibitor, may offer a more favorable tolerability profile while providing additional therapeutic advantages. Its inhibition of PARP prevents DNA repair, possibly increasing temozolomide-induced cancer cell death, while its tankyrase inhibition uniquely impacts the Wnt pathway, which is known to be implicated in SCLC progression and treatment resistance. Given these properties, stenoparib could provide a next-generation approach to overcoming temozolomide resistance while potentially avoiding the severe toxicity observed with other PARP inhibitors when combined with temozolomide.

This phase 2 study aims to evaluate the safety and efficacy of stenoparib in combination with temozolomide to determine whether this approach could offer improved therapeutic options

for SCLC patients who have relapsed following frontline therapy, a population with a dire need for additional treatment options. Moreover, many patients with metastatic SCLC present with brain metastases. Importantly, stenoparib can cross the blood brain barrier, making it a promising option for treating both systemic tumors and brain metastases.

Thomas Jensen, CEO of Allarity Therapeutics, stated, “We are excited to see stenoparib being investigated in additional cancer indications, especially this trial for recurrent SCLC, a patient population with a significant unmet medical need. This trial fits perfectly with our long-term strategy for stenoparib- to leverage the unique clinical benefit we have seen from stenoparib in advanced ovarian cancer for additional cancer indications and our deeper appreciation of its differentiated mechanism of therapeutic action. Given the safety profile of stenoparib we have seen thus far, this study—the first to explore a stenoparib-based combination treatment—may help to establish stenoparib as the PARP inhibitor of choice for therapeutic combinations. This study will further allow Allarity to build out the stenoparib franchise and to drive enterprise value for the whole of Allarity Therapeutics. Importantly, our recently completed drug product campaign more than covers the amount of stenoparib needed for our clinical plans in ovarian cancer, in this combination trial and in others.”

Clinical Study Design

The trial is expected to enroll approximately 65 extensive-stage SCLC patients on the drug combination treatment across 11 VA medical centers. It will assess progression-free survival, as well as determine the recommended Phase 2 dose for the combination in an initial safety lead-in phase.

Clinical Study Rationale

Stenoparib is a dual PARP/tankyrase inhibitor that blocks DNA repair, making tumor cells more susceptible to DNA-damaging agents like temozolomide. Its tankyrase inhibition also affects the Wnt signaling pathway, which is linked to SCLC progression and treatment resistance, setting stenoparib apart from first-generation PARP inhibitors.

Temozolomide is an oral chemotherapy drug that damages tumor DNA, leading to cell death. However, resistance can develop through the MGMT enzyme, which repairs DNA damage, and mismatch repair (MMR) deficiency, which allows tumors to tolerate the drug. This study will assess whether stenoparib’s dual mechanism can help overcome resistance by disrupting key DNA repair pathways and targeting Wnt signaling.

Regulatory Status and Next Steps

Investigators are in the process of obtaining final regulatory approvals for this stenoparib-temozolomide combination trial from the U.S. Food and Drug Administration (FDA), the VA, and the Institutional Review Board (IRB) before patient enrollment can be initiated..

Funding and Financial Considerations

As previously disclosed on November 14, 2024, Allarity's cash position supports operations into 2026. Since this Phase 2 trial of stenoparib in combination with temozolomide for recurrent SCLC is fully funded by the VA, it will not impact Allarity's financial outlook, its Phase 2 program in advanced ovarian cancer, or its share repurchase plan.

About Stenoparib

Stenoparib is an orally available, small-molecule dual-targeted inhibitor of PARP1/2 and tankyrase 1/2. At present, tankyrases are attracting significant attention as emerging therapeutic targets for cancer, principally due to their role in regulating the Wnt signaling pathway. Aberrant Wnt/β-catenin signaling has been implicated in the development and progression of numerous cancers. By inhibiting PARP and blocking Wnt pathway activation, stenoparib's unique therapeutic action shows potential as a promising therapeutic for many cancer types, including ovarian cancer. Allarity has secured exclusive global rights for the development and commercialization of stenoparib, which was originally developed by Eisai Co. Ltd. and was formerly known under the names E7449 and 2X-121.

About Temozolomide

Temozolomide is an orally available, small-molecule alkylating agent used as the standard-of-care chemotherapy for glioblastoma multiforme and other high-grade brain tumors. As a DNA-methylating agent, temozolomide exerts its cytotoxic effect by inducing DNA damage, primarily through the formation of O6-methylguanine adducts, which trigger cell death in tumor cells lacking functional O6-methylguanine-DNA methyltransferase (MGMT) repair activity. Due to its ability to cross the blood-brain barrier, temozolomide remains one of the few effective systemic therapies for central nervous system malignancies. Originally developed by researchers at Aston University, temozolomide was later licensed by Schering-Plough (now part of Merck & Co.) and has been commercially available since 1999 under the brand name Temodar® (Temodal® outside the U.S.).

About Allarity Therapeutics

Allarity Therapeutics, Inc. (NASDAQ: ALLR) is a clinical-stage biopharmaceutical company dedicated to developing personalized cancer treatments. The Company is focused on development of stenoparib, a novel PARP/tankyrase inhibitor for advanced ovarian cancer patients, using its DRP® technology to develop a companion diagnostic that can be used to select those patients expected to derive the greatest clinical benefit from stenoparib. Allarity is

headquartered in the U.S., with a research facility in Denmark, and is committed to addressing significant unmet medical needs in cancer treatment. For more information, visit www.allarity.com.

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Forward-Looking Statements
This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements provide the Company's current expectations or forecasts of future events. The words "anticipates," "believe," "continue," "could," "estimate," "expect," "intends," "may," "might," "plan," "possible," "potential," "predicts," "project," "should," "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. These forward-looking statements include, but are not limited to, statements regarding the investigator-initiated Phase 2 trial evaluating stenoparib in combination with temozolomide for recurrent SCLC, its potential to inform future clinical development, and the ongoing regulatory process associated with the study.

Any forward-looking statements in this press release are based on management's current expectations of future events and are subject to multiple risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, risks related to the successful execution and outcomes of the Phase 2 trial, potential future clinical development of stenoparib in SCLC, securing necessary regulatory approvals, and other operational and financial risks that could impact the Company's ability to achieve its goals. For a discussion of other risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our Form S-1/A registration statement filed on April 17, 2024, our Form 10-K annual report on file with the Securities and Exchange Commission (the "SEC") and our Form 10-Q quarterly report filed with the SEC on November 14, 2024, available at the SEC's website at www.sec.gov, and as well as discussions of potential risks, uncertainties and other important factors in the Company's subsequent filings with the SEC. All information in this press release is as of the date of the release, and the Company undertakes no duty to update this information unless required by law.

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