Allarity Therapeutics Presents Novel Drug Response Predictor—DRP®—for Daratumumab in Multiple Myeloma at AACR 2025

TARPON SPRINGS, Fla., April 25, 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 and WNT pathway inhibitor—as a personalized cancer treatment using its proprietary, drug-specific Drug Response Predictor (DRP®) patient selection technology today announced the presentation of a poster containing data on a new DRP for the monoclonal antibody drug daratumumab. The poster is to be presented during a session at the 2025 American Association for Cancer Research (AACR) Annual Meeting, taking place April 25–30, 2025, in Chicago, IL. This novel predictor is designed to identify multiple myeloma patients most likely to benefit from daratumumab.

The daratumumab DRP® was developed by correlating gene expression patterns with sensitivity to daratumumab-induced antibody-dependent cellular cytotoxicity (ADCC), based on published in vitro data from multiple myeloma and B-cell lymphoma cell lines. From this analysis, the Company identified a total of 53 genes—27 associated with sensitivity and 26 with resistance—which form the basis of this drug-specific DRP. Using single-cell RNA sequencing data and overall response information from bone marrow samples collected in the KYDAR trial (a study of multiple myeloma patients treated with daratumumab in combination with carfilzomib, lenalidomide, and dexamethasone), the DRP was able to predict treatment outcomes and survival. These findings support the test's potential as a patient enrichment tool.

"This is yet another successful application of our DRP technology beyond our internal clinical program pipeline," said Thomas Jensen, CEO of Allarity Therapeutics. "We already offer an extensive portfolio of DRPs for research use, and the addition of a DRP for daratumumab—our first developed for an antibody therapy—further demonstrates the versatility and flexibility of our DRP platform. Until now, our DRPs have been developed exclusively for small-molecule drugs. This new predictor expands the reach of our technology and positions us even better as a potential strategic partner for any third party seeking to target the right patients with existing cancer therapies. The data to be presented mark another important step toward potential future collaborations aimed at bringing precision diagnostics to more patients."

Poster Details

- Poster Title: An mRNA-based predictor of response to daratumumab in multiple myeloma
- Session Category: Clinical Research
- Session Title: Predictive Biomarkers 2
- Session Time: April 27, 2025 | 2:00 PM – 5:00 PM CT
- Location: Poster Section 31
- Poster Board Number: 10
- Abstract Number: 725

Daratumumab is approved by both the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA) for the treatment of multiple myeloma and marketed under the brand name Darzalex®.

Allarity has already developed DRPs for investigational or research use for dozens of anticancer drugs covering a wide range of cancer types. This includes the company's lead program, stenoparib, which is currently in Phase 2 development for advanced, recurrent, platinum-resistant or platinum-ineligible ovarian cancer, as well as in a combination study with temozolomide for recurrent small cell lung cancer.

The poster will be made available on Allarity's website later today, following 1:00 p.m. ET, in the Scientific Publications section.

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 the Drug Response Predictor – DRP® Companion Diagnostic

Allarity uses its drug-specific DRP® to select those patients who, by the gene expression signature of their cancer, may have a high likelihood of benefiting from a specific drug. By screening patients before treatment, and only treating those patients with a sufficiently high, drug-specific DRP score, the therapeutic benefit rate may be enhanced. The DRP method builds on the comparison of sensitive vs. resistant human cancer cell lines, including transcriptomic information from cell lines, combined with clinical tumor biology filters and prior clinical trial outcomes. DRP is based on messenger RNA expression profiles from patient biopsies. The DRP® platform has shown an ability to provide a statistically significant prediction of the clinical outcome from drug treatment in cancer patients across dozens of clinical studies (both retrospective and prospective). The DRP platform, which may be useful in all cancer types and is patented for dozens of anti-cancer drugs, has been extensively published in the peer-reviewed literature.

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.

Follow Allarity on Social Media

LinkedIn: https://www.linkedin.com/company/allaritytx/

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 related to the development and validation of the DRP® companion diagnostic for

daratumumab, the potential for this DRP® to support patient stratification in multiple myeloma, the expansion of the DRP® platform to antibody-based therapies, and the Company's ability to leverage this technology for future research collaborations or strategic partnerships. 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, the risk that the daratumumab DRP® may not be further validated or accepted for clinical use, that its predictive capabilities may not be confirmed in larger or independent datasets, that the Company may not be able to secure partnerships or commercial applications for the DRP®, and broader risks related to the research-stage nature of the technology, as well as external factors affecting the biopharmaceutical industry and the Company's operational execution. 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 10-K annual report filed with the Securities and Exchange Commission (the "SEC") on March 31, 2025, 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.

###

Company Contact:
investorrelations@allarity.com

Media Contact:
Thomas Pedersen
Carrotize PR & Communications
+45 6062 9390
tsp@carrotize.com