Mural Oncology Announces Publication Highlighting Promising Clinical Antitumor Activity Shown in its ARTISTRY-1 Clinical Trial of Nemvaleukin, its Lead Engineered Fusion Protein, in the Journal for ImmunoTherapy of Cancer

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Nemvaleukin was generally well tolerated in ARTISTRY-1, a completed phase 1/2 clinical trial, with durable responses observed in both monotherapy and combination therapy across a range of heavily pretreated advanced solid tumors, including in platinum-resistant ovarian cancer (PROC), which does not typically respond to immunotherapies

Safety profile and anti-tumor activity observed in ARTISTRY-1 supported the company's two potentially registrational trials, with readouts expected in late Q1/early Q2 2025 for PROC and Q2 2025 for mucosal melanoma

WALTHAM, Mass. and DUBLIN, Nov. 20, 2024 (GLOBE NEWSWIRE) -- Mural Oncology plc (Nasdaq: MURA), a clinical-stage immuno-oncology company developing novel, investigational engineered therapies targeting cytokine pathways designed to address areas of unmet need for patients with a variety of cancers, today announced the publication of previously reported clinical data demonstrating tolerability and antitumor activity from ARTISTRY-1, a phase 1/2 trial of the company's lead candidate, nemvaleukin alfa (nemvaleukin). The paper, titled "Nemvaleukin alfa as monotherapy and in combination with pembrolizumab in advanced solid tumors: the phase 1/2, non-randomized ARTISTRY-1 trial," was published in the *Journal for ImmunoTherapy of Cancer* (JITC).

"While immunotherapies have marked a paradigm shift in the treatment of some types of cancers, many patients still face challenges, including lack of response, tolerability issues, or resistance to therapy, and there remains a great deal of unmet clinical need. In the ARTISTRY-1 study, notable antitumor activity of nemvaleukin was observed in both monotherapy and combination therapy. What was most striking were the durable and complete responses in platinum-resistant ovarian cancer, which does not usually respond to immunotherapy. These clinical data provide a solid foundation for Mural's ongoing late-stage trials," said Ulka Vaishampayan, MD, Professor, Internal Medicine, Division of Hematology/Oncology at the University of Michigan and the paper's lead author.

Nemvaleukin is a novel, engineered fusion protein designed to leverage the antitumor effects of the IL-2 pathway while mitigating aldesleukin's toxicity. ARTISTRY-1 was a three-part, open-label, phase 1/2 study evaluating the safety, tolerability, and efficacy of both nemvaleukin monotherapy and combination therapy with pembrolizumab. The study was conducted at 32 sites in seven countries, with 286 patients with advanced solid tumors enrolled and treated from July 2016 to March 2023.

ARTISTRY-1 is the foundation of Mural's two ongoing potentially registrational trials, with data readouts expected in late Q1/early Q2 2025 for platinum-resistant ovarian cancer (PROC) and Q2 2025 for mucosal melanoma.

Key Findings:

As previously reported, nemvaleukin was generally well tolerated and demonstrated promising antitumor activity alone and in combination with pembrolizumab across heavily pretreated patients with advanced solid tumors. Robust expansion of CD8+ T cells and natural killer (NK) cells, with minimal expansion of regulatory T (T_{reg}) cells were observed following treatment, thus supporting the design hypothesis of nemvaleukin.

Monotherapy:

- **10% overall response rate (ORR) with nemvaleukin monotherapy** (7/68; 95% CI 4 to 20), with all seven confirmed partial responses (melanoma, n=4; renal cell carcinoma, n=3).
- **33.3% ORR in patients with mucosal melanoma**, with two partial responses (one confirmed, one unconfirmed) in six evaluable patients. All responders had been on prior CPI therapy and progressed.

Combination therapy:

- **13% ORR with nemvaleukin and pembrolizumab** (19/144; 95% CI 8 to 20), with five confirmed complete responses and 14 confirmed partial responses. Six responses were in PD-(L)1 inhibitor-approved and five in PD-(L)1 inhibitor-unapproved tumor types.
- **21% ORR in patients with PROC:** Notably, there were three confirmed responses (two complete, one partial) in 14 evaluable patients with PROC, which does not normally respond to immunotherapy and for which there are no approved immunotherapies. Additionally, there was one unconfirmed partial response.
- **Durable, stable disease for greater than 6 months** was observed in patients with cervical cancer, bladder cancer, non-small-cell lung cancer, PROC, and endometrial cancer.

Safety and Tolerability:

- Nemvaleukin was administered in an outpatient setting throughout treatment and had a manageable safety profile, with a low rate (4%) of discontinuation due to adverse events.
- Most common grade 3-4 treatment-related adverse events (TREAs) were neutropenia and anemia.

About Mural Oncology

Mural Oncology is leveraging its novel protein engineering platform to develop cytokine-based immunotherapies for the treatment of cancer. By combining our expertise in cytokine biology and immune cell modulation and our protein engineering platform, we are developing medicines to deliver meaningful and clinical benefits to people living with cancer. Our mission is to broaden the potential, and reach, of cytokine-based immunotherapies to improve the lives of patients. Our lead candidate, nemvaleukin, is currently in potentially registrational trials in platinum-resistant ovarian cancer and mucosal melanoma reading out in the first half of 2025. Mural Oncology has its registered office in Dublin, Ireland, and its primary facilities in Waltham, Mass. For more information, visit Mural Oncology's website at www.muraloncology.com and follow us on LinkedIn and X.

About Nemvaleukin

Nemvaleukin alfa (nemvaleukin) is an engineered fusion protein designed to leverage IL-2's antitumor effects while mitigating the hallmark toxicities that limit its use. Nemvaleukin selectively binds to the intermediate-affinity IL-2 receptor (IL-2R) and is sterically occluded from binding to the high-affinity IL-2R. Because of this molecular design, nemvaleukin treatment leads to preferential expansion of antitumor CD8+ T cells and natural killer cells, with minimal expansion of immunosuppressive regulatory T cells. Nemvaleukin is currently being evaluated in two potentially registrational late-stage trials.

Forward-Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, statements regarding: the company's pipeline and development programs, including the expected timing of clinical updates from the ARTISTRY-6 and ARTISTRY-7 trials, the potential of the company's product candidates and programs to address unmet medical needs, and the continued progress of its pipeline and programs. Any forward-looking statements in this press release are based on management's current expectations of future events and are subject to a number of 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. Risks that contribute to the uncertain nature of the forward-looking statements include, among others, the inherent risks and uncertainties associated with competitive developments, preclinical development, clinical trials, recruitment of patients, product development activities and regulatory approval requirements; that preclinical or interim results and data from ongoing clinical studies of the company's cytokine programs and product candidates may not be predictive of future or final results from such studies, results of future clinical studies or real-world results; future clinical trials or future stages of ongoing clinical trials may not be initiated or completed on time or at all; the company's product candidates, including nemvaleukin, could be shown to be unsafe or ineffective; changes in the cost, scope and duration of development activities; the U.S. Food and Drug Administration may make adverse decisions regarding the company's product candidates; and those other risks and uncertainties set forth in the company's filings with the Securities and Exchange Commission ("SEC"), including its Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2024 and in subsequent filings the company may make with the SEC. All forward-looking statements contained in this press release speak only as of the date of this press release. The company anticipates that subsequent events and developments will cause its views to change. However, the company undertakes no obligation to update such forward-looking statements to reflect events that occur or circumstances that exist after the date of this press release, except as required by law.

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