Merus Announces Publication in Nature Cancer on Petosemtamab's (MCLA-158) Unique Mechanism of Action

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UTRECHT, The Netherlands and CAMBRIDGE, Mass., April 25, 2022 (GLOBE NEWSWIRE) -- Merus N.V. (Nasdaq: MRUS) ("Merus", "the Company", "we", or "our"), a clinical-stage oncology company developing innovative, full-length multispecific antibodies (Biclonics® and Triclonics®), today announced publication of a preclinical report on petosemtamab (Peto, MCLA-158: LGR5 x EGFR Biclonics®) in the journal *Nature Cancer*. The publication will be available at 11:00 a.m. ET today. The report describes the use of the company's Biclonics® platform to perform a large-scale functional screen of bispecific antibodies resulting in selection of Peto, a bispecific antibody targeting the epidermal growth factor receptor (EGFR) and the leucine-rich repeat containing G protein-coupled receptor (LGR5). Peto displayed potent growth inhibition of colorectal cancer (CRC) organoids, blockade of metastasis initiation and tumor outgrowth in preclinical models of different tumor types. Peto specifically triggered EGFR degradation in organoids expressing LGR5, while showing minimal toxicity towards normal LGR5-expressing organoids.

In October 2021, Merus reported early, interim clinical data in an ongoing trial of Peto in patients with head and neck squamous cell carcinoma (HNSCC).

"This publication demonstrates the potential of our Biclonics® platform to generate large numbers of diverse panels of antibodies, undertake high throughput functional screening of in-format bispecifics, and identify drug candidates that possess specific biology and characteristics for therapeutic applications," said Cecile Geuijen, Ph.D., Senior Vice President and Chief Scientific Officer. "We are encouraged by the preclinical and clinical data we have obtained to date, and look forward to the further clinical development of Peto."

The results published in *Nature Cancer* further describe Peto's results in preclinical models of solid tumors, including the following highlights:

- Peto exhibits unique therapeutic properties such as potent growth inhibition of KRAS mutant CRC organoids, blockade of metastasis initiation, and inhibition of tumor outgrowth in preclinical models of different tumor types
- Peto shows superior growth inhibition relative to cetuximab, an EGFR inhibitor used for treatment of metastatic CRC and HNSCC, in subcutaneous xenografts generated from inoculation of C31M, a patient-derived CRC organoid bearing a KRAS G12D mutation
- Unlike cetuximab, Peto triggers EGFR internalization and degradation through LGR5
- Peto shows *in vivo* anti-tumor activity in other tumor types that express LGR5 such as esophageal squamous cell carcinoma, gastric carcinoma and HNSCC

Peto is currently enrolling in a phase 1 open-label, multicenter study in patients with solid tumors. Merus is planning a clinical update for the second half of 2022.

Merus is the sponsor of the clinical trial, investigating Peto, and certain preclinical work described in the *Nature Cancer* paper was generated in conjunction with the suppresSTEM consortium, among other institutions and organizations cited in the publication.

About Petosemtamab (Peto, MCLA-158)
Peto is an ADCC-enhanced human IgG1 Biclonics® designed to bind to cancer stem cells (CSCs) expressing leucine-rich repeat-containing G protein-coupled receptor 5 (Lgr5) and epidermal growth factor receptor (EGFR). In preclinical models, Peto binding triggers EGFR degradation in LGR5+ CSCs and is designed to have two different mechanisms of action. The first entails blocking of growth and survival pathways in cancer initiating cells. The second exploits the recruitment and enhancement of immune effector cells to directly kill cancer initiating cells that persist in solid tumors and can cause relapse and metastasis.

About Merus N.V.
Merus is a clinical-stage oncology company developing innovative full-length human bispecific and trispecific antibody therapeutics, referred to as Multiclonics®. Multiclonics® are manufactured using industry standard processes and have been observed in preclinical and clinical studies to have several of the same features of conventional human monoclonal antibodies, such as long half-life and low immunogenicity. For additional information, please visit Merus' website and follow Merus on Twitter and LinkedIn.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation, statements regarding the content and timing of clinical trials, data readouts and clinical updates for our product candidate, MCLA-158 or Peto; the potential of our Biclonics® platform to generates large numbers of diverse panels of antibodies, undertake high throughput functional screening of in-format bispecifics, and identify drug candidates that possess specific biology and characteristics for therapeutic applications; the potential of the design, activity and efficacy of Peto as described in preclinical studies and the impact, if any, on the development and clinical evaluation; the advancement of the phase 1 trial for Peto and the planned update in second half of 2022. These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: our need for additional funding, which may not be available and which may require us to restrict our operations or require us to relinquish rights to our technologies or antibody candidates; potential delays in regulatory approval, which would impact our ability to commercialize our product candidates and affect our ability to generate revenue; the lengthy and expensive process of clinical drug development, which has an uncertain outcome; the unpredictable nature of our early stage development efforts for marketable drugs; potential

delays in enrollment of patients, which could affect the receipt of necessary regulatory approvals; our reliance on third parties to conduct our clinical trials and the potential for those third parties to not perform satisfactorily; impacts of the COVID-19 pandemic; we may not identify suitable Biclonics® or bispecific antibody candidates under our collaborations or our collaborators may fail to perform adequately under our collaborations; our reliance on third parties to manufacture our product candidates, which may delay, prevent or impair our development and commercialization efforts; protection of our proprietary technology; our patents may be found invalid, unenforceable, circumvented by competitors and our patent applications may be found not to comply with the rules and regulations of patentability; we may fail to prevail in potential lawsuits for infringement of third-party intellectual property; our registered or unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks; and risks related to our ceasing to qualify as an emerging growth company and a smaller reporting company in 2022.

These and other important factors discussed under the caption “Risk Factors” in our Annual Report on Form 10-K for the period ended December 31, 2021, filed with the Securities and Exchange Commission, or SEC, on February 28, 2022, and our other reports filed with the SEC, could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management’s estimates as of the date of this press release. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change, except as required under applicable law. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this press release.

Investor and Media Inquiries:
Sherri Spear
Merus N.V.
VP Investor Relations and Corporate Communications
617-821-3246
s.spear@merus.nl

Kathleen Farren
Merus N.V.
IR/Corp Comms
617-230-4165
k.farren@merus.nl

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