December 14, 2016

Genocea Announces Research Collaboration with Checkmate Pharmaceuticals in Advanced Melanoma

- Genocea's ATLAS technology to profile the T cell responses of patients enrolled in ongoing Phase 1b CMP-001/pembrolizumab clinical trial against library of common melanoma antigens -

- Collaboration aims to identify antigens associated with therapeutic T cell responses -

CAMBRIDGE, Mass., Dec. 14, 2016 (GLOBE NEWSWIRE) -- Genocea Biosciences, Inc. (NASDAQ:GNCA), a company developing T cell-directed vaccines and immunotherapies, today announced a research collaboration with Checkmate Pharmaceuticals, Inc. (Checkmate). The goal of the collaboration is to characterize the T cell responses of patients in the ongoing Checkmate Phase 1b clinical trial and to identify antigens associated with protective T cell responses.

ATLAS™, Genocea's proprietary rapid antigen identification screening system, will be used to profile the T cell responses of approximately 20 patients enrolled in Checkmate's ongoing Phase 1b clinical trial of CMP-001 in combination with the checkpoint inhibitor pembrolizumab to a library of tumor-associated antigens common to patients with advanced melanoma. The T cell response signatures of those patients who respond to CMP-001 / pembrolizumab combination therapy will be compared to the signatures of those who do not respond, thereby potentially identifying antigen-based signatures associated with positive or negative patient outcomes.

"This collaboration with Checkmate is an exciting opportunity to apply ATLAS's unique ability to comprehensively profile patients' T cell responses to a cancer," said Jessica Baker Flechtner, Ph.D., chief scientific officer at Genocea. "Understanding how T cell responses are associated with different clinical outcomes together with the dynamics of epitope spread, where effective tumor killing leads to broader immune responses against new antigens in the tumor, is fundamental to the design of new cancer vaccines and the selection of patients most likely to benefit from different cancer treatments."

Genocea's proprietary ATLAS technology re-creates a patient's individual T cell immune responses to cancer *ex vivo*. This means ATLAS can potentially identify - not just guess or predict - targets to which patient T cells are responding to kill a tumor. It may also allow ATLAS to distinguish between antigen candidates that stimulate productive T cell responses and those that are irrelevant or are associated with inhibitory responses. It may also enable the future development of a non-invasive assay to determine patients suited for therapy.

"We look forward to collaborating with Genocea to profile the T cell responses of patients enrolled in our current Phase 1b CMP-001 / pembrolizumab clinical study," said Art Krieg, CEO of Checkmate. "We believe the ability of ATLAS to differentiate between responsive and refractory patients in this trial could inform both patient selection and clinical trial design going forward."

About ATLAS
ATLAS is a first of its kind proprietary rapid antigen identification screening system designed to find targets of protective T cell responses. The technology solves challenges to date associated with finding targets of T cell responses. ATLAS can examine T cell responses from large, diverse human populations, and comprehensively screen every potential antigen from a pathogen or target indication in a rapid, high-throughput manner, taking weeks versus years to find relevant antigens. Because targets identified by ATLAS are based on actual human immune responses to all potential antigens, with no guesswork or predictions, by the time these candidates reach clinical trials there may be a greater likelihood of success in clinical development. This approach provides the ability to identify smarter targets for use in developing vaccines and immunotherapies to treat infectious disease, cancer and autoimmunity.

About Genocea
Genocea is harnessing the power of T cell immunity to develop life-changing vaccines and immunotherapies. T cells are increasingly recognized as a critical element of protective immune responses to a wide range of diseases, but traditional discovery methods have proven unable to identify the targets of such protective immunity. Using ATLAS™, its proprietary technology platform, Genocea identifies these targets to potentially enable the rapid development of medicines to address critical patient needs. Genocea's pipeline includes GEN-003, a novel T cell-enabled immunotherapy for genital herpes in Phase 2 clinical development, and earlier-stage investments in immuno-oncology. For more information, please visit the company's website at www.genocea.com.

Forward-Looking Statements

Statements herein relating to future business performance, conditions or strategies and other financial and business matters, including expectations regarding clinical developments, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Genocea cautions that these forward-looking statements are subject to numerous assumptions, risks and uncertainties, which change over time. Factors that may cause actual results to differ materially from the results discussed in the forward-looking statements or historical experience include risks and uncertainties, including Genocea's ability to progress any product candidates in preclinical or clinical trials; the ability of ATLAS to identify promising product candidates in oncology; the scope, rate and progress of its preclinical studies and clinical trials and other research and development activities; anticipated clinical trial results; current results may not be predictive of future results; even if the data from preclinical studies or clinical trials is positive, regulatory authorities may require additional studies for approval and the product may not prove to be safe and efficacious; Genocea's ability to enter into future collaborations with industry partners and the government and the terms, timing and success of any such collaboration; risks associated with the manufacture and supply of clinical and commercial product; the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; Genocea's ability to obtain rights to technology; competition for clinical resources and patient enrollment from drug candidates in development by other companies with greater resources and visibility; the rate of cash utilized by Genocea in its business and the period for which existing cash will be able to fund such operation; Genocea's ability to obtain adequate financing in the future through product licensing, co-promotional arrangements, public or private equity or debt financing or otherwise; general business conditions; competition; business abilities and judgment of personnel; the availability of qualified personnel and other factors set forth under "Risk Factors" in Genocea's Annual Report on Form 10-K for the fiscal year ended December 31, 2015 and other filings with the Securities and Exchange Commission (the "SEC"). Further information on the factors and risks that could affect Genocea's business, financial conditions and results of operations is contained in Genocea's filings with the SEC, which are available at www.sec.gov. These forward-looking statements speak only as of the date of this press release and Genocea assumes no duty to update forward-looking statements.

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Source: Genocea Biosciences

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