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Humanigen Signs Agreement With MD Anderson Cancer Center to Begin Research Investigating Lenzilumab as CAR-T Support

BRISBANE, Calif., April 16, 2018 (GLOBE NEWSWIRE) -- Humanigen, Inc. (OTCQB:HGEN), a biopharmaceutical company pursuing cutting-edge science to develop its proprietary monoclonal antibodies for immunotherapy and oncology treatments, today announced it has signed an agreement with The University of Texas MD Anderson Cancer Center to begin investigator-led research on lenzilumab and its potential to support chimeric antigen receptor T cell (CAR-T) therapy. Lenzilumab is a first-in-class Humaneered® recombinant monoclonal antibody that targets and is an antagonist of soluble granulocyte-macrophage colony-stimulating factor (GM-CSF).

Preclinical work assessing lenzilumab's action on one of the mechanisms in the inflammatory cascade induced by CAR-T will proceed in parallel with a planned study that could potentially qualify as a registration study, testing lenzilumab as a potential prophylaxis for neurotoxicity induced by CAR-T therapy. Neutralization of circulating GM-CSF has the potential to blunt or prevent an inflammatory cascade that can result in serious and life-threatening CAR-T-induced side effects – neurotoxicity and Cytokine Release Syndrome.

"With this agreement, we are excited that the team at MD Anderson Cancer Center is beginning to investigate lenzilumab's potential to make groundbreaking CAR-T therapy safer, better and more routine," said Cameron Durrant, M.D., chairman and chief executive officer of Humanigen. "CAR-T science has moved quickly in the past few years with the two currently marketed CAR-T therapies having been approved based on single Phase 1/2 studies. We look forward to adding to the burgeoning, cutting-edge science studying lenzilumab as a potential critical CAR-T support therapy."

The preclinical study will measure the ability of lenzilumab to block patient CD19-CAR-T cells-treatment-derived GM-CSF induction of human leukocyte antigen-DR (HLA-DR) expression on CD14+ monocytes. It will assess the inhibitory effect of lenzilumab on GM-CSF-induced HLA-DR expression on CD14+ cells, plus other phenotypic and functional monocyte assays.

About Lenzilumab

Lenzilumab is a first-in-class, novel Humaneered® recombinant monoclonal antibody designed to target and neutralize circulating granulocyte-macrophage colony-stimulating

factor (GM-CSF), the myeloid inflammation factor involved in the recruitment of myeloid cells to a tumor and a central actor in leukocyte differentiation, autoimmunity and inflammation. There is also extensive evidence linking GM-CSF expression to serious and potentially life-threatening side effects in chimeric antigen receptor T-cell (CAR-T) therapy, such as neurotoxicity and Cytokine Release Syndrome (CRS). Humanigen is working with leading CAR-T experts to develop lenzilumab as a potential prophylactic treatment to minimize neurotoxicity associated with CAR-T cancer therapy. In addition, lenzilumab is currently being evaluated as a potential treatment for rare leukemias in a phase 1 trial (NCT02546284) in patients with chronic myelomonocytic leukemia (CMML) with additional potential in juvenile myelomonocytic leukemia (JMML), a rare pediatric cancer. In previous clinical trials, lenzilumab has shown to be safe and well-tolerated in more than 100 patients, including those with rheumatoid arthritis, asthma and healthy volunteers. It is a potent inhibitor of GM-CSF *in vivo*.

About Humanigen

Humanigen, Inc. is a biopharmaceutical company pursuing cutting-edge science to develop its proprietary monoclonal antibodies for immunotherapy and oncology treatments. Derived from the company's Humaneered® platform, lenzilumab and ifabotuzumab are monoclonal antibodies with first-in-class mechanisms. Lenzilumab, which targets GM-CSF, is in development as a potential medicine to make CAR-T therapy safer and more effective, as well as a potential treatment for rare hematologic cancers such as chronic myelomonocytic leukemia (CMML) and juvenile myelomonocytic leukemia (JMML). Ifabotuzumab, which targets Ephrin type-A receptor 3 (EphA3), is being explored as a potential treatment for glioblastoma multiforme (GBM) and other deadly cancers, as well as a backbone for a novel CAR-T construct and bispecific antibody platform. For more information, visit www.humanigen.com.

Forward-Looking Statements

This release contains forward-looking statements that are intended to be subject to protection afforded by the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Forward-looking statements reflect management's current knowledge, assumptions, judgment and expectations regarding future performance or events. Although management believes that the expectations reflected in such statements are reasonable, they give no assurance that such expectations will prove to be correct and you should be aware that actual events or results may differ materially from those contained in the forward-looking statements. Words such as "will," "expect," "intend," "plan," "potential," "possible," "goals," "accelerate," "continue," and similar expressions identify forward-looking statements, including, without limitation, statements regarding our expectations for executing on the key priorities and anticipated milestones described above in regard to phase 1b/2 trial of lenzilumab for the prevention of neurotoxicity associated with CAR-T and phase 1 study as a potential treatment for CMML, and the investigator-sponsored phase 0/1 radio-labeled imaging trial of ifabotuzumab as a potential treatment of GBM. Forward-looking statements are subject to a number of risks and uncertainties including, but not limited to, the risks inherent in Black Horse Capital and its affiliates owning more than 50% of our outstanding common stock, including their ability to control the company; our lack of profitability and the need for

additional capital to operate our business as a going concern; the uncertainties inherent in the development and launch of any new pharmaceutical product; the outcome of pending or future litigation; and the various risks and uncertainties described in the "Risk Factors" sections and elsewhere in the Company's periodic and other filings with the Securities and Exchange Commission.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You should not place undue reliance on any forward-looking statements, which speak only as of the date of this release. We undertake no obligation to revise or update any forward-looking statements made in this press release to reflect events or circumstances after the date hereof or to reflect new information or the occurrence of unanticipated events, except as required by law.

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