

Cabaletta Bio and Artisan Bio Announce Gene Editing Research and Collaboration Agreement to Develop Next-Generation CAAR T Cell Therapies

PHILADELPHIA and DENVER, July 07, 2020 (GLOBE NEWSWIRE) -- Cabaletta Bio, Inc. (Nasdaq: CABA), a clinical-stage biotechnology company focused on the discovery and development of engineered T cell therapies for patients with B cell-mediated autoimmune diseases, and Artisan Bio, Inc., a precision cell therapy engineering company, today announced they have signed a research and collaboration agreement to accelerate development of next-generation CAAR T cell therapies for patients with B cell-mediated autoimmune diseases.

“This collaboration agreement with Artisan provides Cabaletta Labs with the potential to integrate this advanced gene editing and engineering technology into our next-generation CAAR T products as we continue to expand and enhance our CABA platform,” said Gwendolyn Binder, Ph.D., EVP Science and Technology at Cabaletta Bio. “Similar to the engineering and manufacturing developments taking place for CAR T therapies in oncology, gene editing provides Cabaletta with an important tool to develop next-generation CAAR T products with the potential for enhanced manufacturing and/or clinical outcomes in patients with autoimmune disorders.”

“We are excited to launch this new collaboration with Cabaletta and their innovative platform for next-generation CAAR T products,” said Tanya Warnecke, Ph.D., Chief Technology Officer at Artisan Bio. “Cabaletta’s approach for developing improved cell therapies is an excellent match for Artisan’s genome engineering platform, and we look forward to contributing to their efforts to improve patient outcomes”.

Under the terms of the agreement, Artisan will collaborate with Cabaletta to enhance certain Cabaletta pipeline products at specific targets using its platform technology and gene editing expertise. Cabaletta will be responsible for the development, manufacturing, and commercialization of the resulting modified cell therapy products. The financial terms of the agreement were not disclosed.

About CAAR T Cell Therapy

Chimeric AutoAntibody Receptor (CAAR) T cells are designed to selectively bind and eliminate only disease-causing B cells, while sparing the normal B cells that are essential for human health. CAAR T cells are based on the chimeric antigen receptor (CAR) T cell technology. While CAR T cells typically contain a CD19-targeting molecule, CAAR T cells express an autoantibody-targeted antigen on their surface. The co-stimulatory domain and the signaling domain of both a CAR T cell and a CAAR T cell carry out the same activation and cytotoxic functions. Thus, Cabaletta Bio’s CAARs are designed to direct the patient’s T

cells to kill only the pathogenic cells that express disease-causing autoantibodies on their surface, potentially leading to complete and durable remission of disease while sparing all other B cell populations that provide beneficial immunity from infection.

About Cabaletta Bio

Cabaletta Bio is a clinical-stage biotechnology company focused on the discovery and development of engineered T cell therapies for patients with B cell-mediated autoimmune diseases. The Cabaletta Approach to selective B cell Ablation (CABA) platform, in combination with Cabaletta's proprietary technology, utilizes Chimeric AutoAntibody Receptor (CAAR) T cells that are designed to selectively bind and eliminate only specific autoantibody-producing B cells while sparing normal antibody-producing B cells, which are essential for human health. The Company's lead product candidate, DSG3-CAART, is being evaluated in the DesCAARTes phase 1 clinical trial as a potential treatment for patients with mucosal pemphigus vulgaris, a prototypical B cell-mediated autoimmune disease. The FDA granted Fast Track Designation for DSG3-CAART in May 2020. The Company's lead preclinical product candidate, MuSK-CAART, is in IND-enabling studies, and is designed as a potential treatment for patients with MuSK-associated myasthenia gravis. For more information, visit www.cabalettabio.com.

About Artisan Bio:

Artisan's vision is to design, build, and deliver cells and precision engineering processes that advance cellular therapies across a broad range of human health indications. The company's designer cell engineering and data analysis STAR platform enables partners to more rapidly and cost effectively generate safer and more efficacious cell therapies. By engaging in strategic collaborations with innovative partners, Artisan seeks to deliver customizable cell engineering solutions that meet the complexities associated with next-generation cell therapies. Artisan has offices in Denver, Colorado and Copenhagen, Denmark. For more information, please visit <http://artisancells.com/>.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, express or implied statements regarding: our expectations from and ability to capitalize on the research and collaboration agreement with Artisan; expectations regarding the results from our IND-enabling studies for MuSK-CAART and the FDA's review of the results therefrom; expectations regarding the ability of CAAR T cells to treat MuSK-CAART; expectations of the potential impact of COVID-19 on strategy, future operations, and the timing of our clinical trials; the expected timing and progress of preclinical studies and clinical trials for our other product candidates based on our CABA platform, our ability to meet the objectives of our planned preclinical studies and clinical trials and demonstrate the safety and efficacy of our product candidates, and competition from other biotechnology companies, and our guidance regarding the therapeutic potential and clinical benefits of our product candidates, as well as the potential patient population that may be addressed. The words "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this press release are based on

management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, risks and uncertainties related to the impact of public health epidemics affecting countries or regions in which we have operations or do business, such as COVID-19, to the delay of any current or planned preclinical studies or clinical trials or the development of our product candidates, our ability to successfully demonstrate the efficacy and safety of our drug candidates including in later-stage studies and trials, the preclinical and clinical results for our product candidates, which may not support further development of such product candidates, actions of regulatory agencies, any or all of which may affect the initiation, timing and progress of preclinical studies, clinical trials and regulatory development. We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. We disclaim any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements. Any forward-looking statements contained in this press release represent our views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. We explicitly disclaim any obligation to update any forward-looking statements.

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Cabaletta Bio™

Source: Cabaletta Bio