

Ocugen Presents New Preclinical OCU200 Data at the Association for Research in Vision and Ophthalmology (ARVO) 2021 Annual Meeting

May 6, 2021

- OCU200, a transferrin-tumstatin fusion protein, demonstrates potential to treat DME, DR, and Wet-AMD
- OCU200 reduced neovascularization and damage to retina and demonstrated comparable/slightly improved activity to aflibercept in an animal disease model

MALVERN, Pa., May 06, 2021 (GLOBE NEWSWIRE) -- Ocugen. Inc. (NASDAQ: OCGN), a biopharmaceutical company focused on discovering, developing, and commercializing gene therapies to cure blindness diseases and developing a vaccine to save lives from COVID-19, today announced the presentation of a pre-clinical study to evaluate efficacy of OCU200 in in-vitro and in-vivo models for ocular neovascular diseases. The data will be featured in a virtual poster presentation entitled "OCU200 (transferrin-tumstatin fusion protein): A potential therapeutic for DME, DR, and wet-AMD" at the Association for Research in Vision and Ophthalmology (ARVO) 2021 Annual Meeting, taking place May 1-7, 2021.

OCU200 is a biologic product candidate in preclinical development for treating severely sight-threatening diseases like Diabetic Macular Edema (DME), Diabetic Retinopathy (DR), and Wet Age-Related Macular Degeneration (Wet-AMD). The purpose of this study was to evaluate efficacy of OCU200 in in-vitro and in-vivo models for ocular neovascular diseases. Angiogenesis and neovascularization are hallmarks for DME, DR, and wet-AMD. Most approved therapeutics target vascular endothelial growth factor (VEGF), a pro-angiogenic factor with neurotrophic and neuroprotective effects. However, approximately 50% of Patients do not respond to anti-VEGF/Corticosteroids therapies.

OCU200 inhibited cell proliferation, cell invasion and tube formation by endothelial cells. In an oxygen induced retinopathy (OIR) mice model, OCU200 significantly reduced avascular areas at low dose (68% reduction, P < 0.05) and high dose (68% reduction, P < 0.05), and significantly reduced neovascular tufts (NVs) at low dose (59% reduction, P < 0.05) and high dose (58% reduction, P < 0.05) compared to vehicle-treated eyes. Aflibercept reduced NVs by 77% (P < 0.01). OCU200 (10 ug) showed comparable activity to aflibercept (20 ug). These findings suggest that OCU200 represents a potential therapeutic for the treatment of DME, DR, and wet-AMD.

"These data show that our novel biologic product candidate, OCU200, may offer potential benefits beyond anti-VEGF therapy and could benefit all patients who do not respond to current therapies," said Dr. Shankar Musunuri, Chairman of the Board, Chief Executive Officer, and Co-founder of Ocugen. "We look forward to advancing our programs and are dedicated to making new treatment options available for patient populations affected by these diseases."

Details for the ARVO 2021 presentation are as follows:

Title: OCU200 (transferrin-tumstatin fusion protein): A potential therapeutic for DME, DR, and wet-AMD

Presenter: Dr. Arun Upadhyay, VP and Head of R&D, Ocugen Inc.

Abstract No.: 3542029

Session Title: Cytokines, growth factors, anti-inflammatory
Session Date/Time: May 6, 2021 from 11:15 AM to 12:45 PM EDT

URL: https://arvo2021.arvo.org/meetings/virtual/75NdGrQYwty2WvX96

About Ocugen, Inc.

Ocugen, Inc. is a biopharmaceutical company focused on discovering, developing, and commercializing gene therapies to cure blindness diseases and developing a vaccine to save lives from COVID-19. Our breakthrough modifier gene therapy platform has the potential to treat multiple retinal diseases with one drug – "one to many" and our novel biologic product candidate aims to offer better therapy to patients with underserved diseases such as wet age-related macular degeneration, diabetic macular edema, and diabetic retinopathy. We are co-developing Bharat Biotech's COVAXINTM vaccine candidate for COVID-19 in the U.S. market. For more information, please visit www.ocugen.com.

Cautionary Note on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995, which are subject to risks and uncertainties. Such forward-looking statements within this press release include, without limitation, the intended use of net proceeds from the registered direct offering. We may, in some cases, use terms such as "predicts," "believes," "potential," "proposed," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially from our current expectations, such as market and other conditions. These and other risks and uncertainties are more fully described in our periodic filings with the Securities and Exchange Commission (the "SEC"), including the risk factors described in the section entitled "Risk Factors" in the quarterly and annual reports that we file with the SEC. Any forward-looking statements that we make in this press release speak only as of the date of this press release. Except as required by law, we assume no obligation to update forward-looking statements contained in this press release whether as a result of new information, future events or otherwise, after the date of this press release.

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