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## **Data on Allysta Pharmaceuticals' Lead Compound, ADP355, Presented at the Annual Meeting of ARVO in Baltimore MD**

Allysta Pharmaceuticals, Inc. (Allysta) announced that preclinical data in a model of dry eye disease evaluating their lead molecule ADP355, a novel first-in-class peptide analogue of adiponectin with potent anti-inflammatory activity, was presented at the Annual Meeting of ARVO on May 7, 2017, in Baltimore, Maryland. The study was carried out in the laboratory of Prof. Kyung Chul Yoon, Chairman, Department of ophthalmology, Chonnam National University Medical School & Hosp., Gwangju, Korea.

The purpose of the study was to compare the therapeutic effect of topical adiponectin (ADP)-derived short peptides and globular adiponectin in a mouse model of experimental dry eye (EDE) induced by desiccating stress and scopolamine.

Eye drops containing 0.01% globular ADP, 0.01% ADP peptide 355, or balanced salt solution (BSS) were applied. Tear volume, tear film break-up time (TBUT), and corneal staining scores were measured at 5 and 10 days after treatment. Levels of IL-1 $\beta$ , IL-6, IFN- $\gamma$ , CXCL-9, and CXCL-10 were measured in the conjunctiva using a multiplex immunobead assay at 10 days. Flow cytometric analysis for CD4+CCR5+ T cells was also performed.

Results: The globular ADP and ADP355 groups showed a significant improvement in tear volume, TBUT, corneal staining scores, and CD4+CCR5+ T cell infiltration compared with the EDE control and BSS-treated groups. The 0.01% ADP355 peptide treatment group showed significantly decreased levels of IFN- $\gamma$ , IL-1 $\beta$ , IL-6, CXCL-9, and CXCL-10 compared with the EDE control group and IFN- $\gamma$ , IL-6, and CXCL-9 compared with the BSS group. Instillation of a topical peptide analogue of adiponectin (ADP355) significantly improved ocular surface parameters (tear film BUT, corneal fluorescein score) and reduced inflammatory markers (inflammatory cytokines and Th-1 cells). Together with prior studies showing similar activity of adiponectin full-length protein, these results confirmed the activity of this novel anti-inflammatory pathway and provides for the development of a small peptide analogue of adiponectin that can be developed for clinical use.

### **About ARVO**

Association for Research in Vision and Ophthalmology (ARVO) is the largest and most respected eye and vision research organization in the world. ARVO advances research worldwide into understanding the

visual system and preventing, treating and curing its disorders. The Annual Meeting is the largest gathering of eye and vision researchers in the world, attracting over 11,000 attendees from more than 75 countries.

### **About Allysta**

Allysta is a private company developing breakthrough therapies with a focus in eye diseases. The company is advancing next-generation treatments for two major areas in ophthalmology: dry eye disease and glaucoma. Allysta's lead candidates are in late preclinical stage supported by compelling science and pharmacology. For additional information, please contact: [info@allysta.com](mailto:info@allysta.com)