

International Conference on **Eye Disorders and Treatment**

July 13-15, 2015 Baltimore, USA

The application of protein array technology to investigations of ocular disease

Valerie Sloane Jones and Ruo-Pan Huang
RayBiotech, Inc., USA

Eye-derived fluids including tears, aqueous humor and vitreous humor often contain molecular signatures of ocular disease states. In particular cytokines, chemokines, growth factors, proteases and soluble receptors. However, the small quantities (<10 μ l) of these fluids severely limit the detection of these proteins by traditional ELISA or western blot. To maximize the amount of information generated from the analysis of these low-volume specimens, we have developed several innovative protein array technologies to profile multiple protein expression levels in a semi-quantitative or quantitative manner. Such technologies have been employed in the study of many complex ocular diseases including diabetic retinopathy, glaucoma, age-related macular degeneration and keratoconus. Our system has demonstrated great promise in advancing our understanding of the molecular mechanisms of these diseases and in the development of clinically useful biomarkers or drug targets.

Biography

Valerie Sloane Jones received her PhD degree in Biochemistry from Louisiana State University in 2004. She then completed 3 years of post-doctoral training at Emory University in the department of Pathology, where she focused on host-pathogen interactions between gut bacteria and the intestinal epithelium. In 2007 she joined RayBiotech Inc., where she is the Marketing and Technical Support Manager. She spearheads RayBiotech's key marketing efforts, leads the technical support team and travels nationally and internationally to deliver technical seminars on RayBiotech's antibody array technology.

valerie@raybiotech.com

Notes: