

## **Ocular Antibacterial and Antiviral Testing in Animal Models: Limitations and Data Interpretation**

E. Romanowski

*Ophthalmology, The Charles T. Campbell Ophthalmic Microbiology Laboratory, UPMC Eye Center, Ophthalmology and Visual Science Research Center, University of Pittsburgh School, Pittsburgh, PA, USA*

Animal models have been used extensively and have proven useful in preclinical and post-FDA approval evaluation of topical ocular antibiotics and antivirals. As with most animal models, bacterial and viral ocular models may not mimic the clinical situation in patients. However, investigators can obtain clinically useful data from these models. A major limitation of the many studies evaluating topical ocular antibiotics and antivirals is that these animal models are not standardized. A number of differences exist among various studies using animal models which can lead to confusing and often contradictory results. This presentation will discuss some differences in the models and help interpret the data from various antibiotic and antiviral studies. The presentation will also discuss the limitations of several animal models used in the evaluation of topical antibiotics and antivirals.