Sahar Awwad, Pharm Anal Acta 2016, 7:1 (Suppl)
http://dx.doi.org/10.4172/2153-2435.C1.027

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8th International Conference and Exhibition on

Pharmaceutics & Novel Drug Delivery Systems

March 07-09, 2016 Madrid, Spain

The PK-Eye: A novel *in-vitro* aqueous flow model to evaluate ocular pharmacokinetics

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Much effort globally is focused on developing the next generation of therapeutic antibodies and other long acting therapeutics to treat ophthalmic diseases. Most treatments must be administered by intravitreal injection, so an important goal is to develop medicines with an extended residence time within the eye. The development of prolonged acting protein-based therapies is limited by the formation of anti-drug antibodies (ADAs) in animal models. We have developed and validated a two-compartment, aqueous outflow model called the PK-Eye, to be used for ocular drug development. The model has been designed to aid pre-clinical development by providing an estimate of human ocular pharmacokinetics of protein therapeutics. The model is also appropriate for evaluating long-acting dosage forms, such as suspensions, inserts and devices. This talk will describe new strategies for extending the half-life of drugs for ophthalmic use and their rapid evaluation in the PK-Eye.

Biography

Sahar Awwad completed both her Bachelor's in Pharmacy and MSc in Drug Delivery. She is in the final year of her PhD at UCL School of Pharmacy and UCL Institute of Ophthalmology, under the supervision of Professor Steve Brocchini and Professor Sir Peng Tee Khaw.

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