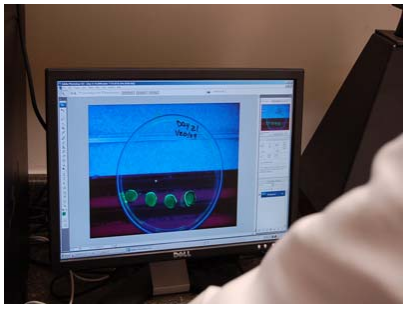
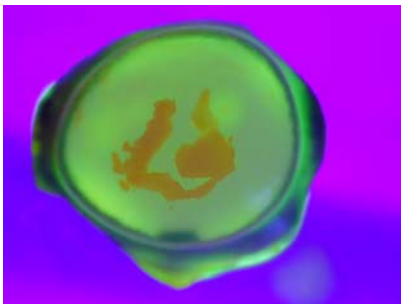
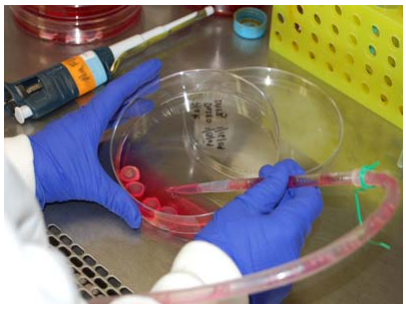
MB Research Labs
Experience and Innovation

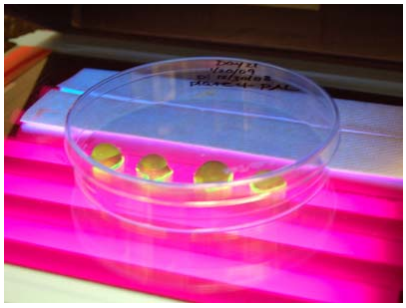
TOXNews

Update: PorCORA – Porcine Cornea Reversibility Assay









We are pleased to announce that MB Research Labs has completed an in-depth validation of the PorCORA testing method, an alternative assay for eye irritancy and reversibility that does not use live animals. The validation, funded by two grants from the Society of Toxicology – Colgate-Palmolive Grant for Alternative Research, provided sufficient data to allow us to submit this assay to ECVAM for consideration as an alternative ocular irritation assay. In a recent correspondence with ECVAM, we were notified that PorCORA will be on the 2009 work schedule and will be considered for full prospective validation after a comprehensive technical review.

Regulatory classification methods of ocular irritancy depend upon the time for an ocular injury to completely heal (OECD, 1967; WHMIS, 1988; HMIS, 1996; EPA, 1997). PorCORA was developed and validated to address this requirement without using live animals. PorCORA measures corneal damage and recovery over extended periods in cultured porcine corneas.

Regulatory decisions that classify the severity of eye irritation use results from the Draize Rabbit Eye test. The most important parameter in these decisions is the extent of corneal opacity and its reversibility; in fact, corneal opacity can be responsible for up to 73% of the total score in calculations of maximum average eye irritation scores (Draize et al., 1944).

PorCORA holds several advantages over other alternative assays because it is mechanistically similar to the Draize Rabbit Eye test. In PorCORA, test substances are placed directly onto living corneal tissues (*ex vivo*, in culture); therefore solubility of the test substance is irrelevant. Opacities or damage to the tissue is visualized by the retention of fluorescein stain. Persistent ocular injuries of the cornea can be repeatedly stained to assess changes in the area of damage for up to 21 days.

For more information about the PorCORA validation study and to receive a copy of the protocol #441C, please contact Client Services – mbinfo@mbresearch.com.

For more information on this new alternative assay, stop by Booth #2863 at SOT or go to http://www.porcora.com

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