

NICEATM Poster Presentation

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Reference Substances for the Validation of *In Vitro* Ocular Toxicity Test Methods for the Evaluation of Ocular Corrosives and Severe Irritants

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NICEATM evaluated four *in vitro* ocular test methods (the Bovine Corneal Opacity and Permeability, the Isolated Chicken Eye, the Isolated Rabbit Eye, and the Hen's Egg Test - Chorioallantoic Membrane) for their ability to identify substances that cause severe irritation or corrosion. During these evaluations, a list of 122 proposed reference substances was developed for potential optimization and/or validation studies with *in vitro* ocular toxicity tests. The substances also may be used for development of performance standards for use in the validation of test methods that are functionally and mechanistically similar to a validated *in vitro* ocular test method and for proficiency testing. Based on the ICCVAM Submission Guidelines, these substances are intended to: 1) represent the range of ocular responses (i.e., corrosive/severe irritant vs. nonsevere irritant/nonirritant) to be detected; 2) represent the classes of chemicals to be tested; 3) represent the range of known or anticipated mechanisms or modes of action to be tested; 4) have produced high quality Draize *in vivo* rabbit eye test method studies and/or in humans; 5) have well-defined chemical composition; 6) be available from commercial sources; and 7) not be associated with excessive hazard or costs (purchase and/or disposal). Based on the United Nations Globally Harmonized ocular hazard classification system, this list contains 79 Category 1, 15 Category 2A, 13 Category 2B, and 15 nonirritating substances (79 liquids, 34 solids), and covers 34 chemical classes and 29 product classes. ILS staff supported by NIEHS contract N01-ES 35504.

SOT Itinerary Information:

ID# 906
Location: Exhibit Hall (Convention Center)
Date/Time: March 7, 2006 / 9:00 am – 12:00 noon
Category: Regulatory/Policy, (Alternatives to Mammalian Models)