SELECTION OF REFERENCE CHEMICALS FOR THE VALIDATION OF *IN VITRO* CYTOTOXICITY ASSAYS FOR PREDICTING *IN VIVO* ACUTE SYSTEMIC TOXICITY

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SUMMARY

The Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) and NICEATM convened an international workshop in October 2000 to evaluate the validation status of *in vitro* methods for predicting acute systemic toxicity. Workshop participants recommended that *in vitro* basal cytotoxicity methods should be further evaluated. NICEATM and ECVAM subsequently designed a multi-laboratory validation study to evaluate the utility of two *in vitro* cytotoxicity tests for predicting acute oral toxicity in rodents and humans. A critical aspect of the study design was the selection of appropriate reference chemicals. Selection criteria included: 1) representation of chemicals across the full range of acute toxicity, 2) availability of human toxicity data and/or exposure potential, 3) representation of the types of regulated chemicals, and 4) availability of high quality rodent acute toxicity test data. A list of 117 candidates was compiled by mining several publicly available databases, including chemicals from the Multicentre Evaluation of *In Vitro* Cytotoxicity and the Register of Cytotoxicity. Seventy-two chemicals were selected for testing that included 12 chemicals for each of six hazard classification categories. These reference chemicals and data will now be used to evaluate the performance of the proposed *in vitro* test methods. Supported by NIEHS contract N01-ES-85424.

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