International collaboration aims to reduce animal testing

By Catherine Sprankle

Governments around the world require chemical and chemical product testing to identify potential hazards, so that appropriate labeling for safe handling, use, and disposal may be applied. The U.S. shares an interest with other countries to discover more efficient testing methods that reduce or eliminate animal use.

The International Cooperation on Alternative Test Methods (ICATM), (http://ntp.niehs.nih.gov/?objectid=62A650A4-DD4B-DoA8-C26C7AE0A57F82E8) an international partnership promoting the replacement, reduction, and refinement of alternatives for animal testing, met Nov. 26-27, 2013, at the European Commission Institute for Health and Consumer Protection (IHCP) in Ispra, Italy. NTP Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM) (http://ntp.niehs.nih.gov/?objectid=720160EB-BDB7-CEBA-F4A143D4AFF4B28) Director Warren Casey, Ph.D., represented the Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM) (http://ntp.niehs.nih.gov/?objectid=61BA4EF0-C8B6-1850-EE321D717F291020) at the meeting. NICEATM provides support for ICCVAM activities, and Casey is an ICCVAM committee member.

"This was an extremely productive meeting," notes Casey. "The attendees reached some agreements that should facilitate U.S. regulatory agencies' adoption of methods that have undergone peer review outside the United States, which will result in more efficient testing and less animal use."

Linked Video

Watch a European union video released in January on the science behind development of 21st century safety testing using alternative methods (11:23)

Advancing international adoption of alternative test methods

ICATM facilitates international cooperation in validation, peer review, and development of recommendations on use of new test methods. Casey and the other participants at the meeting made some key decisions to support those goals, including the following agreements.

- Use of the European TSAR (http://tsar.jrc.ec.europa.eu/) (Tracking System for Alternative Test Methods Review, Validation, and Approval) as the common tracking database for new test methods developed by ICATM partners.
- The need to define best practices for validation study activities, such as chemical selection, the composition and role of study management teams, and consideration of international classification systems.
- The need to establish and adhere to best practices for compiling data from traditional animal studies for use in validation of new methods, with NICEATM skin sensitization (http://ntp.niehs.nih.gov/?objectid=40AFDD51-D2B6-1850-EF321D717F291020) and endocrine disruptor databases to serve as trial cases.

In addition to the procedural discussions, the November meeting included updates on current test method evaluation and validation activities in Europe, Japan, Korea, and the U.S.

Casey provided two updates on U.S. activities. One focused on the reinvention of ICCVAM, as outlined by NIEHS and NTP Director Linda Birnbaum, Ph.D. (see story).
The other summarized recent NICEATM and ICCVAM activities, including evaluations of acute toxicity and eye safety tests; a workshop focused on reduction and replacement of animal use for Leptospira vaccine testing; and activities supporting Tox21 and development of high-throughput screening tests. Attendees at the meeting also had the opportunity to tour the Joint Research Centre's Good Laboratory Practice facility used to conduct high-throughput screening experiments.

ICATM currently includes member organizations from the European Union, U.S., Japan, Canada, and South Korea. ICATM coordination meetings take place several times a year and provide an opportunity for the five member organizations to discuss activities in their major areas of cooperation. Regular interactions allow the ICATM partners to develop good communications and working relationships, which support collaborations on test method development.

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