

Lab Animal Numbers To Drop

U.S. agencies agree to find animal alternatives in toxicity testing

By Rachael Brugger

Posted: March 31, 2008, 5a.m. EST

Scientists from three government agencies signed an agreement in February, which could reduce the number of animals, such as rats, mice, rabbits and hamsters, used in toxicity testing over the next 10 years.

The National Institute of Environmental Health Sciences (NIEHS), National Human Genome Research Institute (NHGRI), and Environmental Protection Agency (EPA) entered the collaboration in response to reports made by the National Research Council, said Dr. Robert Kavlock of the EPA's National Center for Computational Toxicology.

The 5-year plan draws on the agencies' strengths to expedite what he explained is their goal of making toxicology a more predictive science.

Having focused the last two years on using high throughput screening (HTS) tools to evaluate chemicals, the agreement will establish a formal process for the agencies to work together, Kavlock said.

According to Robin Mackar, NIEHS spokesperson, the agencies' next plan is to prioritize the chemicals to evaluate and develop biological testing.

"As a consequence, a reduction or replacement of animals in regulatory testing is expected to occur," she said.

Animals, including rats, mice, rabbits and hamsters, have traditionally been used to test the effects of chemicals, consumer products, medical devices and new drugs on humans. Out of 185 testing methods evaluated by the Interagency Coordinating Committee on the Validation of Alternative Methods (ICCVAM), 11 were found to use animals in lab experiments.

The ICCVAM, established to act as a coordinator between the three agencies, provides guidelines, recommendations and regulations regarding the new or revised tests.

The ICCVAM will focus on evaluating alternatives to test methods that use a large number of animals or that cause animals a great amount of pain and stress, according to William Stokes, DVM, director of the National Toxicity Program office at NIEHS.

Daniel Marsman, chair elect of the animal welfare committee at the American Veterinary Medical Association, said he thinks the agencies are taking a positive step toward animal welfare.

"I think it's difficult to say what the effects will be in the short term ... but clearly this initiative will allow us to take greater strides toward the more complex issues and end points," he said. "While it's a piece of the puzzle, it's a substantial piece because it brings together the more substantial resources that we have."

In addition to making headway in animal protection, Robert Cassell, spokesperson for the EPA, said the agencies anticipate the new technology to generate more data relevant to humans, expand the number of chemicals that are tested, and reduce time and money involved in testing.