



## POTENTIAL FOR REDUCTIONS IN ANIMAL USE IN ACUTE TOXICITY TESTING IDENTIFIED

Acute toxicity testing still requires the use of animals in several sectors, and therefore EPAA has focused on this as a key area in which to identify opportunities for maximising the use of 3Rs. Because EPAA brings together a wide range of industry sectors, it has a unique overview of the regulatory and scientific issues in this field, and can recommend approaches that could be adopted widely across different sectors.

Retrospective data analysis conducted by ECVAM, Humane Society International and the UK National Centre for the Replacement, Refinement and Reduction of Animals in Research looked at the possibility of omitting one of the three routes of administration in acute toxicology studies mandated for classification and labelling purposes. EPAA will help to promote the findings of the studies and sponsor a workshop in February 2010 to discuss with regulatory authorities specific proposals for waivers that would deliver direct 3Rs benefits.

An EPAA survey on the drivers and methodology of acute toxicity tests in different sectors obtained a response from 18 companies, and this information has fed into an EPAA paper on the subject which will be submitted for publication in 2009. The survey revealed that the key driver is classification and labelling.

It also showed that certain stated reasons for testing are not supported by the information generated from the studies. And most importantly, most companies confirmed that they would be ready to skip the dermal testing route if a robust set of data supported the possibility. It also became evident that in-depth regulatory dialogue, within and across sectors, is necessary to make best use of the many 3Rs efforts in this field, and to take account of the complexity of the regulatory landscape.

Acute toxicity testing is a requirement in most sectors. The requirement has been successfully challenged within the pharmaceutical sector (Regulat. Toxicol. Pharmacol. 2008; 50, 345-352; ICH M3 R2, Recommended for adoption, 11 June 2009) where it could be established that necessary data are available from other studies. Now, the requirements for acute toxicity testing and 3Rs possibilities are being investigated in other sectors.

## BRINGING NEW EFFICIENCIES TO SPREADING INFORMATION

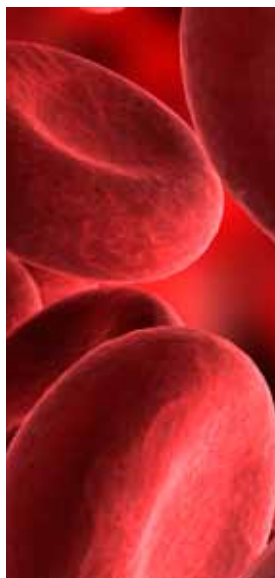
EPAA took as its theme for 2009 the dissemination of 3Rs information. As a first step, it conducted a fundamental review of how to improve targeting and delivery, to speed progress towards adoption of 3Rs, raise the profile of 3Rs research and increase acceptance by the regulators.

A survey commissioned by EPAA in May 2009 assessed the views of target audiences about the dissemination of 3Rs information. It allowed sharper profiling of these audiences, highlighted gaps, and generated recommendations about which further audiences should be addressed, and how. The recommendations included boosting access to information, raising the profile of 3Rs research, and improving the quality of dialogue with regulators.

The potential of networking among webmasters and of developing synergies fostered by EPAA was explored with a view to deliver relevant scientific information to different audiences. These synergies would build on existing information and promote quality sources of 3Rs information, so as to benefit uptake and acceptance.

Instead of investing in expensive web portals of questionable effectiveness, EPAA's preference is to sponsor events promoting scientific dialogue among method developers and users and regulatory authorities, in areas such as acute toxicity, reproduction toxicity or vaccine quality testing.

Other ideas are still in development, including the creation of an EPAA award to attract new scientists/sciences to 3Rs and to raise the profile of 3Rs research and encourage communication about 3Rs.



### Examples of activities that could benefit from wider dissemination

#### Reducing animal use in reproduction toxicity

Companies within EPAA have been examining the feasibility of replacing multi-generational reproduction toxicity tests with a single extended one-generation study. All the work is expected to be completed by early 2010, when a workshop will be held to disseminate the results. The aim is to assess the scope for wider application in testing strategies being developed – particularly for regulatory testing under the EU's REACH legislation. The potential animal welfare benefits include refinement and up to a 40% reduction in the number of animals used compared to the two-generation study.

#### Assuring vaccine quality while reducing animal tests

Preparations advanced for an ECVAM/EPAA workshop in January 2010 to explore how animal testing might be reduced in routine quality control for human and veterinary vaccines, by the use of the so-called consistency approach. Since vaccine quality is the consequence of strict application of a quality system and of consistent production of batches, agreed product characteristics can be tested in vitro during the manufacturing process of a batch and shown to be similar to those of batches demonstrated to be safe and effective in clinical trials. This principle has already been used for some novel human vaccines, and wider deployment could cut animal use substantially, since current tests on each batch of a vaccine involve large numbers of animals.



The European Partnership  
for Alternative Approaches to Animal Testing

# ANNUAL REPORT

# 2009

