JaCVAM’s role on new alternatives to animal testing and International harmonization

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Introduction
In November 2005, the Japanese Center for the Validation of Alternative Methods (JaCVAM) was established as part of the Division of Pharmacology, National Center for Biological Safety and Research, National Institute of Health Sciences (NIHS) in Japan. JaCVAM’s role is to facilitate the validation of alternative methods developed in Japan for safety evaluation, to conduct peer review of alternative methods, and to promote practice of the 3Rs in the area of animal testing in Japan. It is important for JaCVAM to cooperate with other VAMs in the framework of the International Cooperation on Alternative Test Methods (ICATM). JaCVAM will contribute to expanded international cooperation, collaboration and communication with the European Centre for the Validation of Alternative Methods (ECVAM), the National Toxicology Program Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM) and the Interagency Coordinating Committee on the Validation of Alternative Methods (ICVAM) and Health Canada. JaCVAM has a regulatory acceptance board to discuss on the validity of new or revised methods for regulatory purpose. This board reviews reports of new or revised ones prepared by peer review panel and make statements for on the validation of alternative methods developed in Japan

JaCVAM Regulatory Acceptance Board

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<th>No</th>
<th>Name</th>
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Framework for Validation, Peer Review and Regulatory Acceptance of Alternative Methods in Japan

Validation study

Skin sensitisation: hCLAT assay (ECVAM/JaCVAM)
Genotoxicity: In vivo/in vitro Comet assay (ICVAM/ECVAM/JaCVAM)
Endocrine disrupter screening: Stably Transfected Transcriptional Activation (STTA) assay (JaCVAM)
Endocrine disrupter screening: CCl assay (ICVAM/KoCVAM/JaCVAM)
Bhras cell transformation assay (ICVAM/ECVAM/JaCVAM)
Eye irritation: Short Time Exposure (STE) assay (JaCVAM)
Phototoxicity: Reactive oxygen species (ROS) assay (JaCVAM)

On-going study

Skin irritation
LabCyte EPI-MODEL (Japanese)
Eye irritation
Cytotoxicity assays (SIRC or MATREX: Japanese)

Accepted

Bovine Corneal Opacity and Permeability (BCOP) test method for identifying ocular corrosives and severe Irritants (Accepted on December, 2009)
Isolated Chicken Eye (ICE) for identifying ocular corrosives and severe Irritants (Accepted on December, 2009)

In vitro skin irritation testing EPISKIN (Accepted on March, 2010)
Skin Sensitization: LLNA:BrDU-ELISA (Accepted on May, 2010)

On-going

Pyrogenicity
Five in vitro assays (ICCVAM& ECVAM)
Acute toxicity testing
3T3/NRU (ICCVAM)

Japanese Correlation with draft OECD test guideline

New accepted TG for a Stably Transfected Transcriptional Activation (STTA) Assay for the detection of estrogenic activity of chemicals (accepted by April, 2009)

TG 429a, b: Skin Sensitisation for a Non-Radioisotope version of the Local Lymph Node Assay (LLNA:DA, LLNA:BrDU-ELISA accepted by March, 2010)

Ongoing


JaCVAM statements in 2009-2010

JaCVAM statement on the in vivo/in vitro test methods for identifying ocular corrosives and severe Irritants: Bovine Corneal Opacity and Permeability Test Method

At the meeting according the the statement, JaCVAM submitted to MOE (Ministry of Economy, Trade and Industry) on 19 December, 2009 the National Institute of Health Sciences (NIHS). The members of the JaCVAM Regulatory Acceptance Board unanimously endorsed the following statement:

1) Vitrolife-Skin™, a 3-dimensional cultured skin model can be used for distinguishing between corrosive and non-corrosive chemicals
2) LLNA (Local Lymph Node Assay): DA can be used for distinguishing between sensitizer and non-sensitizer chemicals
3) Bovine Corneal Opacity and Permeability (BCOP) test method for identifying ocular corrosives and severe Irritants
4) Isolated Chicken Eye (ICE) for identifying ocular corrosives and severe Irritants
5) In vitro skin irritation testing EPISKIN for distinguishing between skin irritation and non-irritant chemicals

Conclusion
We are preparing a few new statements now. We will continue for many years to publish these statements and work on the regulatory agencies. We are showing these statements to the public on JaCVAM web site.