

Annual report on the Japanese Center for the Validation of Alternative Methods (JaCVAM) in 2015

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Summary

In 2015, JaCVAM (Japanese Center for the Validation of Alternative Methods) proposed three test methods accepted by the JaCVAM regulatory acceptance board to the regulatory agency, including: 1) ARE-Nrf2 Luciferase Test Method assay for skin sensitisation testing, 2) Reactive Oxygen Species (ROS) assay for photosafety and 3) Short Time Exposure in vitro test method for assessing ocular irritation.

Furthermore, JaCVAM (Japanese Center for the Validation of Alternative Methods) contributed to establish OECD (Organisation for Economic Co-operation and Development) two Test Guidelines (TGs) and one Guidance document. They are OECD Test No. 491: Short Time Exposure In Vitro Test Method for Identifying i) Chemicals Inducing Serious Eye Damage and ii) Chemicals Not Requiring Classification for Eye Irritation or Serious Eye Damage, OECD Test No. 455: Performance-Based Test Guideline for Stably Transfected Transactivation In Vitro Assays to Detect Estrogen Receptor Agonists and Antagonists and OECD Series on Testing & Assessment No. 231: Guidance Document on the In Vitro Bhas 42 Cell Transformation Assay. In the OECD Work plan, Japan has proposed three test methods: 1) h-CLAT (Human Cell Line Activation Test) assay for skin sensitization testing, 2) the IL-8 Luc assay for skin sensitization testing, and 3) Stable transfected transcriptional activation (STTA) assay for the detection of androgen agonist & antagonist (AR-Ecoscreen). Additionally, JaCVAM is coordinating, along with several other international collaborators, in ongoing validation studies and peer reviews, which include Hand1-Luc EST (Embryo Stem cell Test) for the developmental screening, the IL-8 Luc assay for the skin sensitization testing and SIRC-CVS (Crystal Violet Staining), Vitrigel-EIT (Eye Irritation Test) and LabCyte Cornea-model24-EIT for the eye irritation testing.