

News from EURL ECVAM - December 2018

14/12/2018

Highlights

• A Tale of Two Toxicologies - new book on the history of alternative methods

JRC scientists have contributed to the editing and writing of a book on the history of alternative methods in toxicology and chemical safety assessment.

• Pooling resources to promote alternative methods to animal testing

The annual conference of the European Partnership for Alternative Approaches to Animal Testing (EPAA) took place on 20 November 2018 in Brussels. The event showcased recent EPAA achievements and included an expert panel session, with the participation of the JRC, that discussed how new types of safety data derived from alternative methods can be exploited in regulatory decision making.

• Increasing confidence in computational safety assessment of chemicals

JRC scientists are part of an international initiative developing principles and protocols for the consistent use of computational models in chemical safety assessment to promote greater acceptance in regulatory applications.

• Novel in vitro tools for the assessment of neurotoxicity induced by nanoparticles

JRC contributed to research carried out by Italian research organisations in Pavia and Milan. This work demonstrated that new 3D in vitro cell based models can be applied to assess the neurotoxicity of magnetite nanoparticles. 3D cultures may represent good "near-to-in-vivo" models leading to better interpretation of toxicological effects to humans.

• <u>Promoting JRC activities on alternative methods at the 20th international congress on in vitro toxicology</u>

Highlights of the JRC work presented include using Adverse Outcome Pathways to guide in vitro method development, the recently published OECD guidance on good in vitro method practices, results of an international survey on validating complex in vitro models, and an update of the JRC validation study of in vitro methods for identifying thyroid disrupters.

• JRC Summer School on Non-Animal Approaches in Science: applications are now open

The European Commission's Joint Research Centre (JRC), which runs the EU Reference Laboratory for alternatives to animal testing (EURL ECVAM), is organising a JRC Summer School on "Non-Animal Approaches in Science: Challenges and Future Directions", to be held from 21 to 24 May 2019 at the JRC site in Ispra (Italy).

• Reducing the number of control animals in aquatic toxicity testing

JRC scientists have contributed to the revision of OECD Guidance Document 23 "Aqueous-Phase Aquatic Toxicity Testing of Difficult Test Chemicals" that addresses good practices to be applied in aquatic toxicity testing.

• Chemical mixtures - EU research consortia take stock of the science-policy landscape

The JRC has worked with five EU funded research consortia, EC department for Research and Innovation, the European Environment Agency and the European Food Safety Authority to produce a paper which identifies research and policy needs to deal with the assessment and management of potential risks posed by chemical mixtures to human health and the environment.

• Alternative methods in biomedical research: second call for tender reviewing methods in 5 new areas

The JRC's EU Reference Laboratory for alternatives to animal testing (EURL ECVAM) has launched a second call for tender to review alternative methods and models being used for research in the areas of cardiovascular diseases, breast cancer, immunogenicity testing for advanced therapy medicinal products, autoimmune diseases and immune oncology models.

• How do chemicals cause acute oral toxicity via organ-specific mechanisms?

JRC scientists collected and analysed mechanistic information on the effects of chemicals on eight organs identified as relevant for acute systemic toxicity in humans. The ultimate aim is the replacement of the use of animals in the regulatory assessment of acute oral toxicity.

• New approaches needed to assess the effects of inhaled substances on human health

JRC scientists contributed to a review of the state-of-the-science on available mechanisms and assays to assess acute inhalation toxicity with a focus on non-animal testing approaches.

• Improving ways of predicting the bioconcentration of environmental chemicals in fish

JRC scientists have contributed to two new OECD Test Guidelines that describe how to measure in vitro fish hepatic clearance. This information is key for making more reliable predictions of bioconcentration of chemicals in fish when combined with mathematical models.

More highlights >

Other news

• EDQM welcomes WHO recommendation to discontinue innocuity test in guidelines on vaccines and biologicals

The EDQM has welcomed the recommendation of the WHO Expert Committee on Biological Standardization (ECBS)

to omit the abnormal toxicity test (also called the innocuity test) in all future WHO documents on vaccines and other biological products, and to disregard the inclusion of this test in previously published WHO Technical Report Series documents.

• EU 'fully committed' to ending animal testing, insists Commissioner

The EU remains "fully committed" to phasing out testing on animals, Internal Market and Industry Commissioner Elżbieta Bieńkowska told delegates at the annual conference of the European Partnership for Alternative Approaches to animal testing on 20 November.

• Endocrine disruptors: A strategy for the future that protects EU citizens and the environment

The Commission has adopted a Communication, confirming its commitment to protecting citizens and the environment from hazardous chemicals. The Communication also outlines how the Commission intends to ensure that the EU approach remains the most modern and fit-for-purpose in the world.

• The eChemPortal v2.0 aligned to the OECD Harmonised Templates and GHS

The OECD is pleased to announce the eChemPortal v2.0 has been released! This new version includes changes to align to the OECD Harmonised Templates version Nov. 2017 and the GHS Rev.5 (2015) & GHS Rev.7 (2017).

• SCCS revised notes of guidance for testing of cosmetic ingredients

The European Commission's (EC) Scientific Committee on Consumer Safety (SCCS) published the 10th revision of the SCCS Notes of Guidance for the Testing of Cosmetic Ingredients and Their Safety Evaluation.

Recent publications

- One science-driven approach for the regulatory implementation of alternative methods: A multisector perspective
- Assessing uncertainty in read-across: Questions to evaluate toxicity predictions based on knowledge gained from case studies
- Grouping of multi-walled carbon nanotubes to read across genotoxicity: a case study to evaluate the applicability of regulatory guidance
- Principles underpinning the use of new methodologies in the risk assessment of cosmetic ingredients
- **Editorial: Developmental Neurotoxicity**
- Capturing the applicability of in vitro-in silico membrane transporter data in chemical risk assessment and biomedical research
- **Contact hypersensitivity: Integrated Approaches to Testing and Assessment**
- Grouping of nanomaterials to read-across hazard endpoints: from data collection to assessment of the grouping hypothesis by application of chemoinformatic techniques
- A framework to establish credibility of computational models in biology
- Investigating cell type specific mechanisms contributing to acute oral toxicity

More publications >

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