Presentation Abstracts and Background Materials

SCIENTIFIC ADVISORY COMMITTEE ON ALTERNATIVE TOXICOLOGICAL METHODS

Session 3: Evolving Approaches to Validation
Wednesday, September 29, 2021

ICCVAM Validation Work Group Update

Presenter: Dr. John Gordon, U.S. Consumer Product Safety Commission

ICCVAM has formed a new work group called the "Validation Workgroup," which will be updating the ICCVAM guidance "Validation and Regulatory Acceptance of Toxicological Test Methods", originally published in 1997. Dr. Gordon will be updating SACATM on the progress of the workgroup and its scope and charge, as well as asking for input from SACATM members on what topics and concepts should be covered in the update.

Background

- Validation and Regulatory Acceptance of Toxicological Test Methods

An OECD Perspective on Building Confidence for New Approach Methodologies

Presenter: Dr. Patience Browne, Organisation for Economic Co-operation and Development

OECD publishes validated, internationally harmonized methods for evaluating chemical safety as part of the Test Guidelines Programme. In addition, the OECD Programme on Good Laboratory Practices provides guidance and standards for data quality assurance. Together, these two products form the pillars of the Mutual Acceptance of Data, an agreement that all OECD member countries with a specific requirement accept data resulting from an OECD Test Guideline that was generated in a GLP lab. While this contributes to substantial savings in cost and animal use in the process of evaluating chemical safety, the principles for GLP and test method validation were initially developed with traditional lab animal data in mind.

Recently, OECD has gained considerable experience with the use of NAMs in a regulatory context in the IATA Case Studies Programme. Case studies address the application of NAMs in a particular regulatory scenario, and the studies are reviewed and discussed by international experts. Each year, case studies, along with an updated "lessons-learned" document are published. A variety of guidance documents and reporting templates have been developed to assist data generators and end users in evaluating and applying NAM data to regulatory decisions. Increased experiences with NAMs have contributed to the development of a Defined Approach guideline, using integrated information sources from more than one non-animal method to replace the need for the animal test. These have also led to considerations of how non-experimental, computational predictions can be used in regulatory setting and covered by MAD. Furthermore, they have led to the development of standards for generating computation predictions to assure the scientific validity and quality assurance, when the circumstances may not directly satisfy the requirements for MAD. Under these circumstances, regulators may accept the computation data or because methods are sufficiently transparent, they may reproduce the prediction de novo. These same principles may be extended to other NAMs that may

not be amenable for inclusions in test guidelines, but nonetheless may be used to evaluate the safety of chemicals in a variety of circumstances.

Background

- OECD Guidance Document on the Validation and International Acceptance of New or Updated Test Methods for Hazard Assessment

Implementing the Metrics Workgroup Recommendations: Use of Validated Alternatives

Presenter: Dr. Suzanne Fitzpatrick, U.S. Food and Drug Administration

This talk will summarize efforts of the ICCVAM Metrics Workgroup, which culminated in February 2021 with the publication of the ICCVAM report, "Measuring US Federal Agency Progress Toward Implementation of Alternative Methods in Toxicity Testing," which will also be summarized. Specific emphasis will be placed on implementing the recommendations included in this report through establishing scientific confidence in new approach methodologies and tracking their usage by ICCVAM agencies and in their various decision contexts.

Background

- Advancing New Alternative Methodologies at FDA
- Measuring Progress

New ICCVAM Activities for 2021-2022

Presenter: Dr. Warren Casey, National Institute of Environmental Health Sciences

This talk will cover the following topics under discussion by ICCVAM:

- Human-based approaches to qualify new approach methodologies (NAMs)
    - Case studies to be provided for eye irritation and skin sensitization
- Improving the incorporation of NAMs into animal-based protocols
- Proposed workshop for developers of NAMs to improve understanding of agency needs

Background

- OECD Guideline on Defined Approaches for Skin Sensitisation
- Human-relevant Approaches to Assess Eye Corrosion/Irritation Potential of Agrochemical Formulations