U.S. EPA Office of Research and Development
Board of Scientific Counselors Subcommittee
Chemical Safety for Sustainability and
Health and Environmental Risk Assessment National Research Programs
Virtual Meeting on February 2-5, 2021

CSS National Research Program Review Charge Questions

Introduction: The February 2021 meeting of the CSS-HERA Subcommittee of the Board of Scientific Counselors (BOSC) will review that portion of the CSS portfolio involved in the development and application of New Approach Methodologies (NAMs). The focus of the review is on the implementation of research and development that was outlined at the strategic level in the CSS Strategic Research Action Plan for FY19-22, as previously reviewed by the BOSC.

Charge Question 1
The CSS portfolio advances New Approach Methods (NAMs) across multiple research areas related to chemical evaluation and risk assessment. CSS Session 1 presents selected research activities to highlight NAMs development for hazard evaluation, exposure, ecotoxicology, and human-system models. Please provide specific suggestions or recommendations to improve approaches to advance the development and testing of NAMs conducted under the CSS program.

Charge Question 2
A key long-term objective of the CSS program is to increase the pace of chemical assessment through the incorporation of NAMs into decision making by EPA programs and regions and other stakeholders. CSS Session 2 presents examples of NAMs implementation that address specific, articulated needs of Agency partners. Please comment on the extent to which these selected research activities have the appropriate approach, structure, and components to increase confidence in, and to facilitate use of, NAMs in Agency decision making.

Charge Question 3
CSS continues to develop and evolve multiple publicly-available data resources, analytical tools, and predictive models to facilitate the dissemination and use of chemical-safety information tailored to meeting specific user's needs. The long-term intent is for these CSS-supported platforms to provide a comprehensive resource to support the needs of our partners. CSS Session 3 presents examples of CSS information resources, models, and tools. Please provide suggestions or recommendations regarding how these CSS products can be improved and best implemented to serve EPA partners and external stakeholders?

HERA National Research Program Review Charge Questions

Charge Question 1:
As NAMs' science advances, risk assessors still encounter many chemicals with little-to-no data that require assessment. Research is required to translate and build confidence in the application of these NAMs in HERA science assessment contexts. Building on the case study examples, please provide suggestions or recommendations on how the planned research can best advance the integration of NAM data streams and approaches in HERA science assessments. [Research Area 3, Output 3.1]

Charge Question 2:
Incorporating the principles of systematic review into the HERA portfolio of assessment products has been a goal of the HERA program for the last several years. In order to achieve this goal, the HERA program intends to advance the field of systematic review more broadly. Based on the progress to date and currently planned products, what suggestion(s) or recommendation(s) does the Subcommittee offer on HERA's research to advance methods for systematic review? [Research Area 3, Output 3.4]

Charge Question 3:
Dose-response modeling is a critical step in human health assessment. Existing methods have improved upon older methodologies; however, unresolved issues, uncertainties, and complications remain that require targeted research. HERA has planned research products that will result in dose-response methods that are more precise, robust, and meet varied needs. Noting the examples provided, please comment on the extent to which these planned products address important issues in dose-response modeling for application to risk assessment, and ways this research might be augmented? What suggestion(s) or recommendation(s) does the Subcommittee offer to continue to advance methods in dose-response modeling with an application to risk assessment? [Research Area 3, Output 3.5 and Research Area 4, Output 4.1]