

Workshop to Advance Research on Understanding Environmental Effects of UV Filters in Sunscreens

January 23-24, 2023

Keck Center of the National Academies
Room K100
500 Fifth St NW
Washington, DC 20001
With virtual participation

Purpose

- Disseminate findings from the 2022 National Academies report, *Review of Fate, Exposure, and Effects of Sunscreens in Aquatic Environments and Implications for Sunscreen Usage and Human Health*.
- Discuss the knowledge gaps identified in the report related to understanding the potential effects of UV filters on aquatic ecosystems.
- Serve as a forum for sharing progress on this topic from the public, private, and academic sectors to fill priority knowledge gaps and identify areas of opportunity for further efforts across all sectors.

PRERECORDED PRESENTATIONS

The following prerecorded presentations will be available in advance of the workshop at:

<https://www.nationalacademies.org/event/01-23-2023/workshop-to-advance-research-on-understanding-environmental-effects-of-uv-filters-from-sunscreens>

Expected availability January 9, 2023.

Findings and Knowledge Gaps from *Review of Fate, Exposure, and Effects of Sunscreens in Aquatic Environments and Implications for Sunscreen Usage and Human Health*

Charles Menzie, Exponent, Inc., Committee Chair

Information Needs for Environmental Management

Gerry Davis, Pacific Islands Regional Office, National Oceanic and Atmospheric Administration

MONDAY, JANUARY 23, 2023

10:00-10:20 Welcome and Meeting Goals

Charles Menzie, Exponent, Inc., Committee Chair

SESSION 1: UV FILTER CHEMISTRY FOR ACCURATE DOSE-RESPONSE RELATIONSHIPS

10:20–10:45 Environmental Fate of UV Filters

Silvia Díaz-Cruz, Institute of Environmental Assessment and Water Research

10:45–11:05 Analytical Approaches for UV Filters

Michael Gonsior, University of Maryland Center for Environmental Science

11:05–12:35 Panel

Format: Panelists will provide prepared remarks and then participate in discussion regarding progress, opportunities, and outstanding challenges relevant to UV filter analytical chemistry.

Moderator: Scott Belanger, Procter & Gamble (retired), Committee Member

Jon Arnot, ARC Arnot Research & Consulting

Silvia Díaz-Cruz, Institute of Environmental Assessment and Water Research

Michael Gonsior, University of Maryland Center for Environmental Science

Bill Mitch, Stanford University

Kurt Reynertson, Johnson & Johnson Consumer Health

12:35–12:40 Explanation of Breakout Session**12:40–1:40 Lunch Break (transition to breakout rooms)****1:40–3:10 Breakout Session on UV Filter Chemistry**

Format: Workshop participants will break into small groups to address the following questions:

1. *What are the main chemistry challenges encountered when working with (certain) UV filters?*
2. *Are challenges magnified when testing under certain conditions?*
3. *What progress is being made in addressing these challenges?*
4. *What standardizations, innovations, and/or other focused efforts are needed to move forward on addressing these challenges?*
5. *What are existing research programs, capabilities, and infrastructure that can contribute to addressing gaps in research on UV filter chemistry?*

3:10–3:15 Reconvene**3:15–4:00 Breakout Session Report Outs**

END OF DAY 1

TUESDAY, JANUARY 24, 2023

10:00–10:15 Welcome and Review of Day 1

Charles Menzie, Exponent, Inc., Committee Chair

SESSION 2: STANDARDIZING APPROACHES FOR TOXICITY TESTING

10:15–10:40 The Importance of Standardized Toxicological Methods for Aquatic Organisms

Sandy Raimondo, Gulf Ecosystem Measurement and Modeling Division, U.S. Environmental Protection Agency

10:40–11:10 Lightning talks: Methods for Coral Ecotoxicology

Craig Downs, Haereticus Environmental Laboratory

Sascha Pawlowski, BASF

Abigail Renegar, Nova Southeastern University

11:10–12:40 Panel

Format: Panelists will provide prepared remarks and then participate in discussion regarding progress, opportunities, and outstanding challenges relevant to aquatic toxicology of UV filters.

Moderator: Carys Mitchelmore, University of Maryland Center for Environmental Science, Committee Member

Mandy Annis, U.S. Fish and Wildlife Service

Iain Davies, Personal Care Products Council

Craig Downs, Haereticus Environmental Laboratory

Marc Leonard, L'Oréal

Sascha Pawlowski, BASF

Sandy Raimondo, U.S. Environmental Protection Agency

Abigail Renegar, Nova Southeastern University

Jeffrey Steevens, U.S. Geological Survey

Dan Villeneuve, U.S. Environmental Protection Agency

12:40–12:45 Explanation of Breakout Session

12:45–1:45 Lunch Break (transition to breakout rooms)

1:45–3:15 Breakout Session on Standardizing Approaches to UV Filter Toxicology

Format: Participants will break into smaller groups to address the following questions:

1. *What are the main challenges encountered when working with nonstandard organisms or endpoints?*
2. *Are challenges magnified when testing under certain conditions for both standard and nonstandard tests for these chemicals?*
3. *What progress is being made in addressing these challenges?*
4. *What standardizations, innovations, and/or other focused efforts are needed to move forward on addressing these challenges?*
5. *What are existing research programs, capabilities, and infrastructure that can contribute to addressing challenges in gaps in research on UV filter toxicity?*

3:15–3:20 Reconvene

3:20–4:05 Breakout Session Report Outs

SESSION 3: CLOSING

4:05–4:15 Summary Remarks

Charles Menzie, Exponent, Inc., Committee Chair

MEETING ADJOURNS