

# 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

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

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**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**

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**TUESDAY, JANUARY 24, 2023**

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

**Charles Menzie**, Exponent, Inc., Committee Chair

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**SESSION 2: STANDARDIZING APPROACHES FOR TOXICITY TESTING**

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**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'Oreal

**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

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**4:05–4:15**

#### **Summary Remarks**

**Charles Menzie**, Exponent, Inc., Committee Chair

### MEETING ADJOURNS