

Fragrance Safety Begins Here

59th Annual Meeting



RIFM[®]
RESEARCH INSTITUTE FOR
FRAGRANCE MATERIALS



59th ANNUAL MEETING

Fragrance Safety Begins Here

Welcome to RIFM's 59th Annual Meeting

The journey begins here.

3:00 PM | Registration

3:30 PM | Business Meeting

4:30 PM | Roundtable

5:15 PM | Cocktail Reception & Networking

6:15 PM | Dinner & Raffle for Charity

Roundtable

Advancing the science of safe use

Moderator

RIFM President Anne Marie Api, PhD, Fellow ATS

Participants

RIFM Principal Scientists Aurelia Lapczynski, Gretchen Ritacco, MS, and Yax Thakkar, PhD, RIFM Director of Scientific Operations Danielle Botelho, PhD, and Founder & CEO of Creme Global Cronan McNamara

Raffle for Charity

- ▶ One lucky winner will receive \$500 for their favorite charity.
- ▶ The raffle will take place during dessert.
- ▶ The winner must be present.

THE 2025 ROBERT BEDOUKIAN EXCELLENCE IN SCIENCE AWARD

G. Frank Gerberick, PhD, is internationally recognized for his pioneering work in the fields of skin sensitization, photosafety, and respiratory allergy. With over three decades of experience in immunology, microbiology, and toxicology, he has played a pivotal role in advancing non-animal methods and innovative approaches to safety assessment for consumer products and fragrance ingredients.

Trained in immunology and microbiology, Dr. Gerberick holds a PhD in Microbiology and Immunology from West Virginia University School of Medicine, an MS in Microbiology from Duquesne University, and a BS in Biological Sciences from PennWest Edinboro. He completed his postdoctoral fellowship in Immunology at the Johns Hopkins University School of Medicine.

Dr. Gerberick spent 31 years at The Procter & Gamble Company, where he served as a Victor Mills Society Research Fellow, the company's highest scientific distinction. During his tenure, he developed and validated novel methods for assessing skin allergy, respiratory allergy, and phototoxicology risks, including the groundbreaking Direct Peptide Reactivity Assay (DPRA), a cornerstone of today's animal-alternative approaches to

**Excellence
in safety
begins here.**

evaluating skin sensitization potential. His work has shaped international testing guidelines and regulatory frameworks, and his research continues to influence dermatotoxicology and immunotoxicology across industries.

Following his retirement from P&G in 2018, Dr. Gerberick founded GF3 Consultancy, LLC, providing scientific guidance worldwide to organizations advancing alternative testing strategies. He also continues to mentor researchers and helps drive the development of the next generation of in vitro toxicology methods.

In recent years, Dr. Gerberick has worked closely with the Research Institute for Fragrance Materials (RIFM), lending his expertise to ongoing research on skin sensitization, respiratory allergy, and the development of New Approach Methodologies (NAMs) for photoallergy. Known for his calm, methodical approach and collaborative spirit, he is widely admired as both a scientific innovator and a generous mentor.

The Robert Bedoukian Excellence in Science Award honors Dr. Gerberick's enduring contributions to the science of fragrance safety

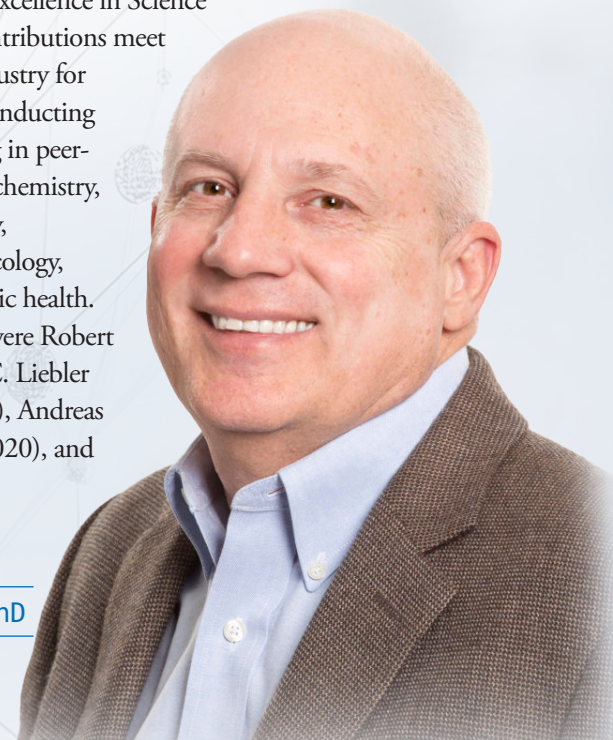
and his commitment to advancing rigorous, humane, and innovative toxicological methods. He has received numerous international honors in addition, including the SmithKline Beecham Laboratory Animal Welfare Prize, the Society of Toxicology's Animal Welfare Award, the William and Eleanor Cave Award, and the Lush Black Box Prize, and was further recognized as the 2017 Alexander A. Fisher Lecturer by the American Contact Dermatitis Society and the 2019 recipient of the Vos Award for Career Achievement in Immunotoxicology from the Society of Toxicology.

Dr. Gerberick's work continues to exemplify the leadership, integrity, and curiosity that define excellence in fragrance safety science.

ABOUT THE AWARD

The Robert Bedoukian Excellence in Fragrance Science Award (formerly the RIFM Board of Directors Excellence in Science Award) honors those whose contributions meet the highest standards in the industry for excellence and distinction by conducting original research and publishing in peer-reviewed journals on fragrance chemistry, biochemistry, molecular biology, physiology, biotechnology, toxicology, medicine, psychology, and public health. The previous award recipients were Robert "Bob" Safford (2024), Daniel C. Liebler (2023), Benjamin Smith (2022), Andreas Natsch (2021), Peter Cadby (2020), and David R. Bickers (2019).

G. Frank Gerberick, PhD



LEADING THE CONVERSATION

Dear Colleagues,

As I reflect on my years in the fragrance industry, beginning in the 1980s, I have been privileged to serve on the board of RIFM for almost 20 years and culminating with my tenure as Chairman of RIFM's Board. I am struck by the extraordinary journey this community has taken, and the profound role RIFM has played in it. What began as a shared commitment to science-based safety almost 60 years ago, RIFM has grown into the global standard of excellence for the Fragrance industry, a standard that continues to guide and inspire.

During my time as a Board member and most recently as the Board Chair, I have witnessed remarkable leaps forward. From pioneering New Approach Methodologies to strengthening international collaborations, RIFM has not only kept pace with scientific progress but has often led it. These achievements are not the result of any single effort, but rather the culmination of an enduring spirit of cooperation among fragrance houses, consumer product companies, academics, regulators, and our dedicated staff. Together, we have demonstrated what is possible when an industry prioritizes consumer and environmental safety at its core.

RIFM's leadership has always been characterized by a balance of listening and guiding, from fostering open dialogue among stakeholders and ensuring that the science we produce is rigorous, transparent, and relevant. This has been the key to our global impact: building trust, advancing understanding, and providing a framework for safety assessments that resonates worldwide. As I step away from my role as Chairman, I do so with deep gratitude. Gratitude to the colleagues who have shared this journey, to the generations of scientists and industry leaders who have carried the mission forward, and to the knowledge that RIFM's legacy is both secure and dynamic. The Institute will continue to evolve, leading the conversation on fragrance safety, and I am confident it will remain a beacon for collaboration and scientific integrity.

Thank you for the honor of serving as Chairman of the Board. I look forward to seeing how RIFM's next chapters unfold and to celebrating the continued success of this remarkable organization.

With appreciation,

Robert M. Weinstein, PhD
Chairman of the Board, RIFM



MILESTONES AND MOMENTUM

Welcome to RIFM's 59th Annual Meeting!

As we gather to reflect on another year of scientific progress and collaboration, I am proud to share how far we've come in 2025 and excited for what lies ahead as we approach RIFM's 60th Anniversary in 2026.

This past year, our scientists continued to advance the global science of fragrance safety through innovative research, publications, and outreach. We published five new peer-reviewed papers, including our Environmental Framework, and shared RIFM's work at more than 20 scientific events across 10 countries. Our database now includes more than 8,000 materials, 80,000 references, and 200,000 studies, continuing to serve as the foundation for fragrance safety worldwide.

Celebrating RIFM's 60th Anniversary

The Fragrance Material Safety Resource Center celebrated its 10th anniversary with over 300,000 views and 80,000 downloads, underscoring its impact as a trusted educational hub. Our Ask a RIFM Scientist features, science videos, and global communications have further strengthened awareness of RIFM's research, earning more than one million interactions on RIFM.org and 600,000 LinkedIn impressions since 2020.

In 2025, RIFM scientists were also honored worldwide for their contributions, receiving six awards and recognitions for their published and presented research. Each achievement reflects the dedication and excellence that define our Institute.

As we look toward our 60th Anniversary, we celebrate not only what we've achieved but also the scientific legacy we continue to build, grounded in innovation, collaboration, and transparency. I invite you to explore RIFM's 2025 milestones and accomplishments (see Excellence in Action, below), and to join us next year as we mark six decades of leadership in fragrance safety science.

With appreciation and anticipation,

Anne Marie Api, PhD, Fellow ATS
President



EXCELLENCE IN ACTION

2025 marked a watershed year for RIFM's scientific recognition and global impact. With new advances in non-animal testing, exposure modeling, and environmental assessment, RIFM continued to drive the science of fragrance safety forward, earning international acknowledgment for the quality, transparency, and real-world relevance of our work. Our researchers were honored at leading conferences, published groundbreaking and award-winning studies, and shared their expertise in classrooms and symposia worldwide.

ACKNOWLEDGEMENTS & AWARDS

RIFM Postdoctoral Researcher **Marissa Guttenberg, PhD**, received a [2025 AJRCMB Junior Investigator Award and SOT's 2025 Best Paper of the Year Award](#).

RIFM Principal Scientist **Aurelia Lapzynski** and colleagues were honored as one of the [10 Exceptional Papers](#) of 2024 by Environmental Toxicology and Chemistry (ET&C), published by Oxford Academic.

RIFM Senior Scientist **Holger Moustakas, PhD**, and RIFM Senior Associate Scientist **Jake Muldoon, PhD**, were selected to [present their latest research during the prestigious Sci-Mix Poster Session](#) at the American Chemical Society's (ACS) Fall 2025 Meeting.

RIFM Postdoctoral Researcher **Kayla Farrell, PhD**, received the Environmental Mutagenesis and Genomics Society (EMGS) 2nd Place Award for Early Career Poster Presentation.

APPEARANCES IN THE MEDIA

RIFM Principal Scientist **Isabelle Lee, PhD**, was [interviewed on advancements in skin sensitization testing in Cosmetics Design USA](#).

RIFM Principal Scientist **Kaushal Joshi, PhD, DABT**, was [interviewed on dermal absorption of salicylates in Cosmetics Design USA](#).

CosmeticsDesign USA also [interviewed RIFM Principal Scientist Yax Thakkar, PhD](#), on physiologically based pharmacokinetic, or PB/PK, modeling for genotoxicity.

Independent toxicologist Rani Ghosh called out RIFM's fragrance safety science leadership [in a Refinery29 article](#).

EDUCATIONAL SHORT VIDEOS

How Allergic Contact Dermatitis Happens at the Cellular Level (2:05)

How Can I Tell if a Fragrance Ingredient Is Safe? (1:35)

How Chicken Eggs Can Save Animals' Lives (1:50)

How RIFM's Fragrance Safety Science Protects the Environment (2:04)

INFOX 2025: A Must-Attend Event for Fragrance Safety Stakeholders (0:48)

EDUCATIONAL LONG-FORM VIDEOS

The Strength of Chemical Clustering and the Legacy of Read-Across (30:00)

The Strength of What We Know: RIFM's Next-Generation Risk Assessments and Real-World Exposure (28:01)

MAJOR MILESTONES

RIFM celebrated **10 years of open access** to all its peer-reviewed fragrance safety publications.

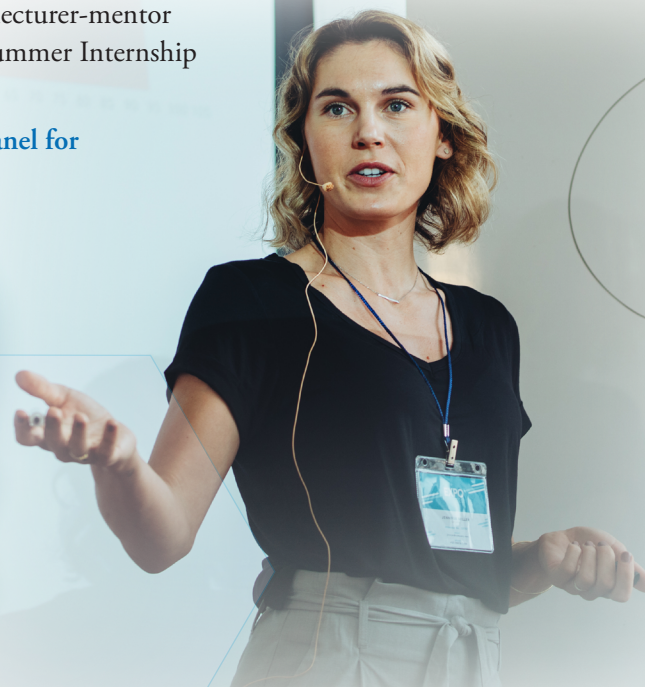
Safety assessments covering more than **2,300 discrete and NCS fragrance ingredients** are now published and available via the **Fragrance Material Safety Resource Center**.

LECTURING, MODERATING, & MENTORING: RIFM IN DEMAND

RIFM Principal Scientist **Nikaeta Sadekar, PhD, DABT**, was tapped to participate as a lecturer-mentor in Rutgers University's **Risk Assessment Bootcamp**. Dr. Sadekar also oversaw RIFM's Summer Internship program.

RIFM Postdoctoral Researcher **Marissa Guttenberg, PhD**, moderated an **SOT career panel for graduate students**.

RIFM Director of Scientific Operations, **Danielle Botelho, PhD**, advanced **RIFM's NCS risk assessment science** for German cosmetics assessors as part of a German Society for Scientific and Applied Cosmetics (DGK) and Industrial Association for Personal Care and Detergents (IKW) seminar for cosmetics safety assessors.



PEER-REVIEWED PUBLICATIONS

Quantitative next generation risk assessment for skin sensitization - application of regression models based on in vitro data to estimate point of departure

Applicability Domain of Peroxidase Peptide Reactivity Assay (PPRA): Chemical Structure Analysis and Grouping of Peptide Depletion Patterns

Aquatic risk of fragrance materials: advancing prioritization in aquatic systems

Updates to the Research Institute for Fragrance Materials, Inc. Confirmation of No Induction in Human Test Standard Protocol

The Chicken Egg Genotoxicity Assay (CEGA): Assessing Target Tissue Exposure and Metabolism in the Embryo-Fetal Chicken Livers

Responses of an In Vitro Coculture Alveolar Model for the Prediction of Respiratory Sensitizers (ALIsens®) Following Exposure to Skin Sensitizers and Non-Sensitizers

A Proof-of-Concept for Safety Evaluation of Inhalation Exposure to Known Respiratory Irritants Using In Vitro and In Silico Methods

Use and limitations of clinical data in the identification and classification of low molecular weight chemicals (LMWCs) as respiratory sensitizers: recommendations for improvement

Incorporating Singaporean habits and practices for cosmetics and personal care products into a global consumer aggregate exposure model

A proposed screening strategy for evaluating the genotoxicity potential of botanicals and botanical extracts

In vitro human skin absorption of ethyl salicylate, pentyl salicylate, and (Z)-3-hexenyl salicylate from topical formulations: Effects on permeation and distribution

PRESENTATIONS & CONFERENCE SPOTLIGHTS

ASIA

China

RIFM Principal Scientist Isabelle Lee, PhD, presented on skin sensitization thresholds at the 2025 IUTOX 17th International Congress of Toxicology.

Korea

RIFM Principal Scientist **Gretchen Ritacco, MS**, presented on the Creme RIFM Aggregate Exposure Model for the 2025 International Symposium for Risk Assessment on Cosmetic Products.

Korea

RIFM President Anne Marie Api, PhD, Fellow ATS, met with representatives of the Korea Cosmetic Industry Institute (KCII) to discuss areas of mutual interest in fragrance safety and research collaboration.

Korea

Dr. Api also participated in the Fragrance Safety & Risk Assessment Workshop in Seoul, organized by the Ministry of Trade, Industry and Energy (MOTIE), the Korean Trade-Investment Promotion Agency (KOTRA), and the Foreign Investment Ombudsman, in collaboration with the European Chamber of Commerce in Korea. The workshop featured two presentations by Dr. Api, highlighting RIFM's Safety Assessment Program and the Quantitative Risk Assessment approach for dermal sensitization of fragrance ingredients.

Austria

RIFM Principal Scientist Aurelia Lapczynski presented environmental safety research at the SETAC Europe 2025 conference.

United Kingdom

RIFM Principal Scientist Nikaeta Sadekar, PhD, DABT, presented on **inhalation safety and NAMs at AIT 2025**.

Greece

Cutting-edge fragrance safety science was advanced at the **59th Congress of the European Societies of Toxicology (EUROTOX 2025)** by RIFM Scientists Chaitra Deodhar, PhD, and Maura Lavelle, MS, and RIFM Senior Associate Scientists Arianna Bartlett, PhD, and Jake Muldoon, PhD.

France

RIFM's INFOX® 2025 in Paris focused on **the legacy and future of innovative fragrance safety science** and featured presentations by RIFM President **Anne Marie Api, PhD**, Fellow ATS, RIFM Director of Scientific Operations, **Danielle Botelho, PhD**, RIFM Executive Director, Technical Information & Services, **Christen Sachse Vasquez**, RIFM Principal Scientists **Aurelia Lapczynski**, **Gretchen Ritacco, MS**, **Kaushal Joshi, PhD**, **DABT**, **Nikaeta Sadekar, PhD**, **DABT**, and **Isabelle Lee, PhD**, and RIFM Senior Scientist **Holger Moustakas, PhD**, as well as Expert Panel for Fragrance Safety Chair, **Donald V. Belsito, MD**, and Expert Panel Members **Aldert H. Piersma, PhD**, and **Professor Wolfgang Dekant, PhD**.

EUROPE

PRESENTATIONS & CONFERENCE SPOTLIGHTS

NORTH AMERICA

Florida

RIFM Principal Scientists **Kaushal Joshi, PhD, DABT**, **Nikaeta Sadekar, PhD, DABT**, Senior Scientist **Holger Moustakas, PhD**, and RIFM Senior Associate Scientist **Jake Muldoon, PhD**, championed **Fragrance Safety Research at the Society of Toxicology's 64th Annual Meeting and ToxExpo**. Dr. **Moustakas** also co-chaired a special workshop session at SOT, titled **"Unlocking the Power of Read-Across for Safety Assessment: Current Practices and Approaches,"** at the same event.

Florida

RIFM Principal Scientist **Isabelle Lee, PhD**, delivered the **keynote address at the 8th World Candle Congress**.

Florida

RIFM Principal Scientist **Isabelle Lee, PhD**, and RIFM President **Anne Marie Api, PhD, Fellow ATS**, presented **animal-free methodology posters** at the American Contact Dermatitis Society's 36th Annual Meeting.

Washington, DC

RIFM took center stage at the American Chemical Society's Fall 2025 "Innovations in Chemistry" meeting with a series of presentations, including **a half-day symposium on chemical toxicology in fragrance safety** presided over by RIFM Senior Scientist **Holger Moustakas, PhD**, featuring presentations by RIFM Principal Scientists **Aurelia Lapczynski, Isabelle Lee, PhD**, and **Gretchen Ritacco, MS**, in concert with colleagues from the US Food & Drug Administration, the Institute for *In Vitro* Sciences, Creme Global, and the Université de Reims Champagne Ardenne.

Maryland

RIFM Principal Scientist **Gretchen Ritacco, MS**, **shared how fragrance botanicals are kept safe at ASCCT**.

Delaware

RIFM Principal Scientist **Yax Thakkar, PhD**, presented on **fragrance genotoxicity** at HESI Global's GTA Annual Meeting.

SOUTH AMERICA

Brazil

RIFM President **Anne Marie Api, PhD, Fellow ATS**, RIFM Director of Scientific Operations **Danielle Botelho, PhD**, RIFM Principal Scientist **Aurelia Lapczynski**, and RIFM Senior Associate Scientist **Isabella Schember, PhD**, **showcased next-generation risk assessment at a special lunch session** at the 13th World Congress on Alternatives and Animal Use in the Life Sciences. At the same event, RIFM Principal Scientists **Kaushal Joshi, PhD, DABT**, and **Nikaeta Sadekar, PhD, DABT**, along with Dr. **Schember** and **Lapczynski**, **highlighted RIFM's NAMs leadership** with presentations covering human health and environmental safety.