

Risk Assessment Specialty Section

ANNUAL REPORT: 2020-2021

May 1, 2020 to April 30, 2021

I. Officers/Committees:

<u>Officers</u>	<u>2020-2021</u>	<u>2021-2022</u>
President:	Barbara A. Wetmore	Laura M. Plunkett
Vice President:	Laura M. Plunkett	Daniele Wikoff
Vice President-Elect:	Daniele Wikoff	Cecilia Tan
Secretary:	Nathan R. Pechacek	Jessica Wignall
Treasurer:	Nathan R. Pechacek	Jessica Wignall
Past President:	Gary D. Minsavage	Barbara A. Wetmore
Councilors:	Gary D. Minsavage Li Yang Fabian A. Grimm	Barbara A. Wetmore Miao Li Li Yang
PDA Representative:	Kiara Fairman	Yizhong Liu
Grad Student Representative:	Vacant	Alan Vadviezo

Committees and Key Volunteers:

Volunteer Pool Coordinator: Alea Goodmanson

RASS Webinar Series Coordinator: Annie Jarabek

RASS Endowment Fund Steward Committee

- Anne Loccisano
- Tami McMullin
- Chiedu Onwordi
- David Szabo

Student and Postdoc Award Committee

- Virunya Bhat
- Kiara Jasmine*
- Logeswari Ponnusamy
- Elaine Freeman
- Kim Zaccaria
- Alberto Tohme
- Marie Bourgeois
- Nathan Pechacek*
- Anne Loccisano
- Bindu Prabhakar
- Laura Markley
- Senthilkumar Kuppusamy
- Alea Goodmanson
- Daniele Wikoff (Chair)*

* RASS Executive Committee Representatives

RASS Best Abstract Awards Committee

Alea Goodmanson

Brittany Baisch

David Szabo

Mary Francis

Matthew Wolter

Norm Healey

Li Yang

Fabian Grimm

Logeswari Ponnusamy

Daniele Wikoff (Chair)*

* RASS Executive Committee Representative

Best Papers Awards Committees

- **Demonstrating the Application of Risk Assessment**

- - Divinia Ries

- - Caroline Ring

- - Jon Urban

- - Laura Plunkett (Chair)*

- - * RASS Executive Committee Representative

- **Advancing the Science of Risk Assessment**

- - Penelope Fenner-Crisp

- - Allison Franzen

- - Elizabeth Vancza

- - Barbara Wetmore (Chair)*

- - * RASS Executive Committee Representative

III. 2020 Membership total: 810

IV. Key Outcomes in 2020-2021:

- A key outcome in the 2020-2021 term is thanks to our RASS Endowment Fund Steward Committee for their successful efforts in fundraising RASS was able to increase our Endowment Funds by 15%. We owe a debt of gratitude to the leadership and efforts of Anne Loccisano, Tami McMullin, Chiedu Onwordi, and David Szabo.

Endowment Fund \$ Allocations:

- John Doull Student Award: \$56,761 (an increase of 15% over March 2020 numbers)
- Perry J. Gehring Risk Assessment Award: \$57,318 (an increase of 13%)
- Robert J. Rubin Student Travel Award: \$56,680 (an increase of 18%)
(held jointly with the Mechanisms Specialty Section)
- Andersen-Clewel Trainee Award: \$64,247 (an increase of 15%)
(held jointly with the Biological Modeling Specialty Section)

Total in RASS Endowment Funds: \$235,006

- B. Despite the challenges of coordinating remotely in 2020-2021, RASS was able to actively engage with both our general and trainee membership during the year. During our 2021 Annual Meeting virtual reception, interactions with guest speaker Dr. Scott Ratzan of City University of New York School of Public Health were quite productive and will lead to further engagement with Dr. Ratzan as RASS focuses on the critical need for science communication in current times. Proposed plans involve further engaging the membership through our webinar series.
- C. Although the actual RASS syllabus event was not held until the 2021-2022 term, the majority of the planning and trainee engagement occurred during 2020-2021. Outreach to the larger SOT trainee community made this event a resounding success, with over 365 attendees participating in the Inaugural session. Plans are underway for how to best engage trainees and members seeking further professional development in the upcoming year.

V. Activities:

- A. 2021 SOT Virtual Annual Meeting Activities (e.g., courses, scientific sessions, or virtual receptions):

Risk Assessment Specialty Section Virtual Meeting

Date and Time: Monday, March 15, 2021 from 4:30 pm – 5:30 pm ET

Summary: The RASS virtual event included a guest speaker, Dr. Scott Ratzan from the City University of New York School of Public Health, who discussed vaccine communication and education. In addition, RASS highlighted new initiatives to support mentorship, introduced new officers, provided budget and endowment updates, and announced the 2021 award recipients.

B. 2021 Awards Information:

Perry J. Gehring Student Award Winner – Brianna Rivera, Oregon State University, Corvallis, OR. Advisor: Susan Tilton. “A Novel Framework to Form Sufficiently Similar Mixtures from Environmental Exposure Data”

Perry J. Gehring Postdoctoral Student Award Winner – Katie O’Shaughnessy, US EPA, Research Triangle Park, NC. Advisor: Mary Gilbert. “Bypassing the Brain Barriers: Identification of Serum microRNAs Reflective of Developmental Neurotoxicity”

John Doull Risk Assessment Endowment Award – Long Yuan, Kansas State University, Manhattan, KS. Advisor: Zhoumeng Lin. “Development of a Physiologically Based Pharmacokinetic (PBPK) Model for Meloxicam in Broiler Chickens and Laying Hens”

Andersen-Clewel Trainee Award (given jointly with the Biological Modeling Specialty Section) – Md Mahbubul Huq Riad, Kansas State University, Manhattan, KS. Advisor: Zhoumeng Lin. “Development and Application of a Physiologically Based Pharmacokinetic Model to Predict Oxytetracycline Tissue Distribution and Withdrawal Intervals in Market-Age Sheep”

Robert J. Rubin Travel Award (given jointly with the Mechanisms Specialty Section) – Two winners awarded:

Itishree Kaushik, Texas Tech University, Abilene, TX. Advisor: Sanjay Srivastava “A novel anthelminthic drug suppresses the growth of medulloblastoma tumors by inhibiting PKA/Gli1 signaling axis”

Shengjie Xu, Rutgers, The State University of New Jersey. Advisor: Joseph Jude. “Inhibition of Glycolysis Attenuates Excitation Contraction Coupling in Human Airway Smooth Muscle Cells”

2021 Best Abstract Awards

2020 Best Paper Awards

Best Paper Demonstrating the Application of Risk Assessment Published in 2020:

“A Next-Generation Risk Assessment Case Study for Coumarin in Cosmetic Products”

Toxicological Sciences (2020) 176: 236-252

Maria T. Baltazar, S. Cable, P.L. Carmichael, R. Cubberley R, T. Cull, M. Delagrange, M.P. Dent, S. Hatherell, J. Houghton, P. Kukic, H. Li, M.Y. Lee, S. Malcomber, A.M. Middleton, T.E. Moxon, A.V. Nathaniel, B. Nicol, R. Pendlington, G. Reynolds, J. Reynolds, A. White, C. Westmoreland

Best Paper Advancing the Science of Risk Assessment Published in 2020:

Note: two winners were recognized:

“Development of an *In Vitro* Human Thyroid Microtissue Model for Chemical Screening”

Toxicological Sciences (2020) 174: 63-78

Chad Deisenroth, V.Y. Soldatow, J. Ford, W. Stewart, C. Brinkman, E. LeCluyse, D.K. MacMillan, and R.S. Thomas

AND

“Identifying and Characterizing Stress Pathways of Concern for Consumer Safety in Next-Generation Risk Assessment”

Toxicological Sciences (2020) 176: 11-33

Sarah Hatherell, M.T. Baltazar, J. Reynolds, P.L. Carmichael, M. Dent, H. Li, S. Ryder, A. White, P. Walker, A.M. Middleton

C. Other Educational Activities Conducted (e.g., webinars, in person meetings):

Co-sponsored Webinar with MixSS: Organizing Mechanism-related Information on Chemical Interactions Using a Framework based on the Aggregate Exposure and Adverse Outcome Pathways

Date: September 9, 2020

Duration: 1.5 hours

Speaker: Paul S. Price, PhD, US EPA (Retired)

Attendees: 82

RASS Webinar: The COVID-19 Vulnerability Index (PVI) Dashboard: Monitoring County-level Vulnerability Using Visualization, Statistical Modeling, and Machine Learning

Date: October 14, 2020

Duration: 1.5 hours

Speaker: David M. Reif, PhD, North Carolina State University

Attendees: 44

Co-sponsored Webinar with MechSS: Two presentations on advancing New Approach

Methodologies (NAMs)

Date: November 11, 2020

Duration: 1.5 hours

Speaker 1: Russell Thomas, PhD, US EPA

Speaker 2: Tim Shafer, PhD, US EPA

Attendees: 55

Co-sponsored Webinar with BMSS: Assessing the Impact of Multi-route Co-exposures on Human Variability in Toxicokinetics of Drinking Water Contaminants in binary and Quaternary Mixtures

Date: December 9, 2020

Duration: 1.5 hours

Speakers(s):

Mathieu Valcke, PhD

Sami Haddad, PhD

Number of Attendees: 42

Co-sponsored Webinar with MixSS: Characterization of Developmental Toxicity and Adverse Outcome Pathways (AOPs) for Emerging PFAS – Individual Compounds and Mixtures

Date: January 13, 2021

Duration: 1.5 hours

Speakers: L. Earl Gray, Jr., PhD and Justin M. Conley, PhD

U.S. Environmental Protection Agency

Attendees: 140

Co-Sponsored with the International Society of Exposure Science (ISES) and ESS: Composite Scores, Social Embodiment and Risk of CVD: Evidence from the UK Biobank Cohort

Date: February 10, 2021

Duration: 1.5 hours

Speaker: Marc Chadeau-Hyam, PhD, Imperial College, London

Attendees: 46

RASS Webinar: Evaluating Quantitative Structure Activity Relationships as a Strategy for Rapid Development of Physiologically Based Pharmacokinetic Models of Inhaled Industrial Chemicals for Humans

Date: May 12, 2021

Duration: 1.5 hours

Speaker: Lisa M. Sweeney, PhD, Air Force Research Laboratory (AFRL)

Wright-Patterson Air Force Base (WPAFB)

Attendees: 54

Risk Assessment Specialty Section (RASS) Syllabus - Introduction to Human Health Risk Assessment

Date: June 9, 2021

Duration: 2.0 hours

Speaker 1: George Woodall, PhD, US EPA

Speaker 2: Jessica Hawes, PhD, US EPA

Panelist 1: David Reif, PhD, North Carolina State University

Panelist 2: Jessica Hawes, PhD, US FDA

Panelist 3: Daniele Wikoff, PhD, ToxStrategies, Inc.

Attendees: 365

D. Communication Activities:

1. Newsletter publication frequency: *December 2020 and April 2021*
2. New or Significant Announcements/blogs: *RASS LinkedIn Account; RASS Membership Survey to develop a dedicated "Risk Assessment Syllabus"*
3. Highlight of Website enhancements: *Steps were taken to update the RASS website during the 2020-2021 term.*
4. RASS actively distributed other Specialty Section webinar announcements that were of interest to the RASS membership.

E. Mentoring activities:

Survey of RASS trainee and SOT GSLC and postdoctoral assembly to evaluate training needs and desires, RASS syllabus planning

V. Feedback and Ideas:

A. In what ways is your group fostering and maintaining an inclusive environment?

RASS EC strives to foster and maintain an inclusive environment by maintaining open communication with our membership. We periodically survey our membership to identify areas that we can best engage and support them. Typically, that has focused on professional development activities, but these efforts can be expanded in the future to ensure inclusivity is an important value of our Specialty Section.

B. How might SOT better support your group's activities (perhaps something the Society should be doing that we currently do not do, or do not do effectively, that would be of importance/benefit to the members of your component group?):

Note: If funding is listed, please provide detail on the membership need that the funding would support.

At this point in time, we have nothing to recommend that needs to be changed. Our SS liaison has been an excellent, responsive, and respectful partner and deserves recognition for that. We would caution that SOT be mindful of email communications – how they are disseminated. The digests seem to work well currently but be sure and request feedback from members as government and organizational IT security practices are constantly evolving. What works now may require adjustment in the not-so-distant future.

C. What is one thing that the Society is currently doing that impacts your component group that should be changed (e.g., stopped, modified, etc.)?

ToXchange has historically been a challenge to navigate. One suggestion would be to offer a video that EC officers can view to familiarize themselves with how to use it.

D. What changes do your component group anticipate making in the way in which it operates in the coming year?

The RASS EC recently initiated the RASS syllabus, which is designed to provide educational and networking resources to our membership in a semi-regular manner. It is designed to be separate from the webinar series to ensure its focus on professional development stays intact. With over 365 attendees during our inaugural event, we feel we have addressed and unmet need and are planning more future events. Other than this offering, there are no significant changes to our annual activities.