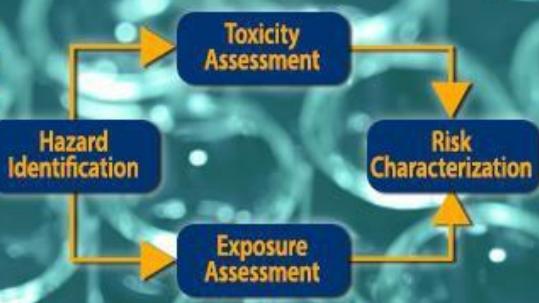




# Risk Assessment Specialty Section

of the Society of Toxicology



## Past President's Message

### RASS OFFICERS 2023-2024

President  
**Cecilia Tan, MBA, PhD**

Vice President  
**Bernard Gadagbui, PhD**

Past President  
**Daniele Wikoff, PhD, DABT**

Vice President-Elect  
**Anne Loccisano, PhD, DABT**

Secretary/Treasurer  
**Katy Goyak, PhD**

Councilors  
**Kimberly Zaccaria, PhD, DABT**

**Sarah Burnett, PhD**

Student Representative  
**Alyssa Bellomo**

Newsletter Editors  
**Miao Li, PhD, DABT**  
**Daniele Wikoff, PhD, DABT**  
**Jessica Wignall, MSPH**  
**Kimberly Zaccaria, PhD, DABT**

I was very excited to see so many of you in Nashville for the Annual Meeting. We appreciate all your contributions to the field – so many novel and interesting risk assessment abstracts and presentations in the program. This was highlighted by the large number of abstracts and papers reviewed for the annual awards. Major thanks are due to all of the volunteers who helped in the review process.

I am proud of the many RASS activities ongoing throughout the year. These opportunities to learn about new risk assessment techniques and applications via the RASS webinars, or to learn about fundamental concepts in risk assessment via the RASS Syllabus activities, continue to be flagship offerings of this Specialty Section. Annie Jarabek has done an amazing job leading the webinar series and coordinating cross-discipline webinars with other specialty sections. I look forward to seeing the ever-increasing momentum of the RASS Syllabus efforts as well. I offer a special thank you to all of the RASS members that have contributed to the organization and presentation of these activities, as well as to the members for attending!

It has been a great pleasure to work with the 2022-2023 Executive Committee. Their dedication and hard work were apparent at each meeting. Collectively we have been generating a “RASS EC Manual” in the hopes that future ECs can benefit from when leading one of the largest and most active specialty sections. I would also like to thank all of the candidates who ran for the EC, we had quite a robust ballot! Congratulations to the incoming officers, I have no doubt that next year will be great.

Thank you,

Daniele Wikoff  
RASS Past President 2023-2024  
[dwikoff@toxstrategies.com](mailto:dwikoff@toxstrategies.com)



## 2023 RASS ELECTION RESULTS

Thank you to everyone who volunteered to run for an officer position and for casting your ballot. Based on the results of the recent election for RASS officers, the incoming officers for 2023-2024 are:

*Vice President-Elect* *Secretary/Treasurer* *Councilor* *Student Representative*



Anne Loccisano



Katy Goyak



Sarah Burnett



Alyssa Bellomo

## OUTGOING RASS OFFICERS

*Past President*

*Secretary/Treasurer*

*Councilor*

*Student Representative*



Laura Plunkett



Jessica Wignall



Miao Li



Alan Valdiviezo

## **RASS WEBINAR SERIES AND OTHER UPCOMING WEBINARS**

RASS webinars are held from Fall through Spring, generally on the 2<sup>nd</sup> Wednesday of each month. If you cannot participate in any of the live RASS webinars, links to the past webinar slides and recordings are available on the RASS website:

<https://www.toxicology.org/groups/ss/RASS/downloads.asp>

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**May 25, 2023**

**An Introduction to Chemical Exposure Estimation**

**Co-Hosted by Exposure and Risk Assessment Specialty Sections**

**Exposure data are required for chemical risk and safety assessment for the general population, consumers, and workers. This webinar introduces general exposure estimation**

**Jon Arnot, PhD**

Arnot Research and Consulting Inc

[Register Here](#)

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**August 3, 2023**

**Risk Assessment Syllabus: Basics of Exposure Assessment**

**In this presentation on the "Basics of Exposure Assessment," participants will be provided with a basic foundation in the concepts and principles of human exposure assessment. Participants will be introduced to the various components of an exposure assessment as well as relevant key terminology. Fundamentals that will be covered include: intake, uptake, and dose; applied, potential, internal, and biologically effective dose; acute dose, average daily dose, and average lifetime dose; and dermal, oral, and respiratory dose.**

**Nicolle Tulve, PhD, US EPA**

**Dan Vallero, PhD, US EPA**

[Register Here](#)



## 62nd Annual Meeting & ToxExpo Nashville, TN • March 19–23, 2023

### ***CONGRATULATIONS TO RASS MEMBERS RECEIVING 2023 SOT AWARDS***

#### ***Arnold J. Lehman Award***



Elaine M. Faustman

### ***2023 STUDENT AND POSTDOCTORAL AWARD WINNERS***

#### ***Perry J. Gehring Graduate Best Graduate Student Abstract Award***

##### **Haley Moyer**

Texas A&M University

Evaluating Mechanistic Underpinnings of Environmental Chemical Effects on Feto-Maternal Interface Using a Human Organ-On-Chip Model.

Poster Board P108 – Mar 20, 9:00 am–10:45 am



#### ***John Doull Risk Assessment Endowment Award – Graduate Student***

##### **Lucie Ford**

Texas A&M University

Hazard Characterization and Grouping of PFAS using a Compendium of Human Cell Lines from Different Organs.

Poster Board P242 – Mar 22, 10:45 am – 12:30 pm



### ***John Doull Risk Assessment Endowment Award – Postdoctoral Fellow***

**Pavani Gonnabathula**

US FDA

Development and Application of a Paxlovid PBPK Model for Modeling-Based Dose Recommendations in the Pediatric Population.

Poster Board P189 – Mar 22, 9:00 AM –10:45 AM



### ***RASS-BMSS joint Andersen-Clewell Trainee Award***

**Elise Hickman**

University of North Carolina at Chapel Hill

Interindividual Variability Assessments through Benchmark Dose-Response Modeling of Primary Human Bronchial Epithelial-Fibroblast Co-Culture Responses to Acrolein

Poster Board P320 – Mar 21, 2:30 PM –4:15 PM



### ***RASS-MechSS joint Robert J. Rubin Student Travel Award***

**Arthur Stem**

University of Colorado Anschultz Medical Campus

Sugarcane Ash and Sugarcane Ash-Derived Silica Nanoparticles Alter Cellular Metabolism in Human Proximal Tubular Kidney Cells

Poster Board P157 – March 21, 10:45 AM – 12:30 PM



## ***2023 BEST ABSTRACT AWARD***

**Lisa Yang**

Cardno ChemRisk

Risk Assessment Framework to Evaluate Persistent Organic Pollutant Contaminations in Dietary Supplements. [P415]



## ***TOP 9 ABSTRACTS***

- [P598] **Ernest Fung** et al. Cardno ChemRisk. In Silico Occupational Exposure Banding Framework for Data-Poor Compounds in Biotechnology.
- [P134] **Cindy Woodland** et al. Health Canada. Government of Canada Commitment to Uphold the 3Rs of Replacing, Reducing, and Refining Animal Toxicity Tests in Chemical Risk Assessment (CRA) through the Use of Refined Juvenile and Adult Zebrafish Models as New Alternative Toxicity Assays (NATAs) for Use in Quantitative Human Health and Environmental CRAs.
- [P203] **Srijit Seal** et al. University of Cambridge. PKSmart: A Public Tool to Predict *In Vivo* Pharmacokinetics of Small Molecules.
- [P403] **En-Hsuan Lu** et al. Texas A&M University. Assessing the Concordance of *In Vitro* and *In Vivo* Protective Points-of-Departure: A Case Study of ATSDR Substance Priority List Chemicals.

- [P324] **Gang Yan** et al. Procter & Gamble. Refine and Strengthen SAR-Based Read-Across by Considering Bioactivation and Mode of Action.
- [P101] **Lee Ellis** et al. National Research Council Canada. Optimizing Protection for Human Health and the Environment Using Zebrafish Models in an Integrated Approach to Testing and Assessment-IATA for Predicting Endocrine Disruption and Systemic General Toxicity in Quantitative Chemical Risk Assessments.
- [P328] **Shimpei Terasaka** et al. Kao Corporation. Investigating the Uncertainty of Prediction Accuracy for the Application of Physiologically Based Pharmacokinetic Models to Animal-Free Risk Assessment.
- [P666] **G. Rabussier** et al. MIMETAS. 3D Microphysiological Placenta *In Vitro* Model as a Tool for Drug Transport Studies and Risk Assessment.
- [P874] **Martyn Chilton** et al. Lhasa Limited. Assessing whether Expert Knowledge-Based and Statistical *In Silico* Models Can Be Used to Predict the Sensitization Potential of Extractables and Leachables.

## 2023 BEST PAPER AWARDS

### Best Paper Advancing the Science of Risk Assessment Published in 2022

Alves VM, Borba JVB, Braga RC, Korn DR, Kleinstreuer N, Causey K, Tropsha A, Rua D\*, Muratov EN\*. **PreS/MD: Predictor of Sensitization Hazard for Chemical Substances Released from Medical Devices.** Toxicol Sci. 2022 Sep 24;189(2):250-259. doi: 10.1093/toxisci/kfac078.



Diego Rua (corresponding author)

## Best Paper Demonstrating the Application of Risk Assessment Published in 2022

De Abrew KN\*, Natoli T, Lester CC, Wang X, Shobair M, Subramanian A, Daston GP. **A New Approach Methodology (NAM) Based Assessment of Butylated hydroxytoluene (BHT) for Endocrine Disruption Potential.** *Toxicol Sci.* **2022** Nov 23;190(2):227-241. doi: 10.1093/toxsci/kfac099.



Authors' photos

\* Corresponding authors

## 2023 SOT ANNUAL MEETING HIGHLIGHTS

**Workshop: March 21: 11:00 AM – 12:30 PM**

### Establishing Confidence in New Approach Methods for Human Health Risk Assessment: Recent Examples of Context of Use

Chair: Suzanne Fitzpatrick, US FDA; Co-Chair: A. Wallace Hayes, University of South Florida College of Public Health

*Primary Endorser: Risk Assessment Specialty Section*

*Endorser(s): In Vitro and Alternative Methods Specialty Section*

For most regulatory-based human health risk assessments, animal testing is the preferred database. New approach methods (NAMs) are technologies and approaches, including computational modeling, *in vitro* assays, and testing using alternative animal species such as zebrafish, that can support hazard and risk assessment decisions without the use of sentinel species. Several organizations, including expert bodies such as the National Research Council and the National Academies of Sciences, Engineering, and Medicine, the OECD, and national regulatory agencies, have offered recommendations for developing, improving, and validating NAMs including how best to integrate these databases into chemical risk assessments. Given the variety of risk assessment contexts and regulatory needs presented by existing laws, regulations, and practices, this Workshop addresses the following questions: (1) how can the readiness of NAMs be assessed and demonstrated, 2) how can NAMs be integrated into the human health risk assessment process, (3) what are

the tools to overcome the challenges of evaluation, and (4) what are the expectations for the future of NAMs in human health risk assessments? A panel discussion will focus on how to incorporate these concepts into a pathway for establishing confidence in NAMs. Given the rapid pace of change in regulatory toxicology, frequent dialog within the toxicology community is essential. This Workshop continues to foster such dialog between all stakeholders regarding 21st-century regulatory toxicology.

## **Workshop: March 22: 11:00 AM – 12:20 PM**

### **21st-Century Agrochemical Evaluation: Discussing a New Vision**

Chair: Gina Hilton, PETA International Science Consortium Ltd., Germany; Co-Chair: Marco Corvaro, Corteva Agriscience, Italy

*Primary Endorser: Risk Assessment Specialty Section*

*Endorser(s): In Vitro and Alternative Methods Specialty Section; Regulatory and Safety Evaluation Specialty Section*

A rapidly growing human population, in parallel with increasing pressures due to a changing world and climate, is increasing the demand on the agrochemical industry and heightening the need for safe and effective crop protection products. Although the existing agrochemical safety evaluation paradigm is well established based on classical toxicology methods, it is unlikely to meet the emerging challenges of a developing and ever-expanding sustainable agriculture. The science underpinning chemical testing methods is advancing at a remarkable pace, and the ability to implement modern tools in assessing safe uses and risks of crop protection chemicals has dramatically increased. New approach methods (NAMs) can help generate robust data for integrated human and ecological safety assessment while decreasing animal use. It has become critical to consider how to incorporate these advancements, leverage existing knowledge, and prioritize the needs for testing in order to better inform human health and environmental risk assessment decisions for agrochemicals. This session will provide a platform to discuss the development of fit-for-purpose safety evaluation for agrochemicals and assess applicability of these approaches to meet changing global and local needs for regulatory decisions. The discussion will help identify existing barriers to progress in the current safety assessment paradigm and the opportunities to overcome these barriers, as well as the potential for developing science to improve the risk assessment of agrochemicals. The first presentation will focus on challenges faced by the agrochemical industry in its attempts to proactively promote regulatory uptake of nonstandard safety assessment approaches, from scientific challenges in the One Health space to stakeholder engagement and perceived conflicts of interest. The second presentation will provide an overview of a multi-sectoral, multidisciplinary project that was recently launched by HESI in order to transform the evaluation of agrochemical safety evaluation. The third presentation will discuss the impact of the classification system under the Globally Harmonized System and a way forward that could enable incorporation of NAMs for that purpose. The fourth presentation will highlight opportunities and challenges on how NAMs could address current regulatory requirements and future chemical testing need. Before opening the dialog to all attendees, a panel will discuss the following questions: (1) what are the barriers to achieving a 21st-century approach to risk assessment, (2) what actions and incentives are needed to facilitate a new paradigm of agrochemical safety assessment that provides the opportunity to fulfill data needs with new approaches, (3) how do we build trust in a 21st-century approach to risk assessment, (4) who are the key actors in implementing change, and how do we foster collaboration?, (5) what type of expertise should we leverage to ensure success, and (6) how should changes be implemented?

***Risk Assessment Poster Session I: March 20, 2:30 PM – 4:15 PM***

Chairs: Laura Markley, US FDA; Leslie Patton, ChemReg Compliance Solutions LLC.

***Risk Assessment Poster Session II: March 21, 2:30 PM – 4:15 PM***

Chairs: Jennifer Rayner, SRC Inc.; Andrew Yeh, Gradient.

***Risk Assessment Poster Session III: March 22, 2:30 PM – 4:15 PM***

Chair: David Saltmiras, Bayer US Crop Science

***Risk Assessment Specialty Section Meeting/Reception: March 22: 6:00 PM – 7:30 PM***

Chairperson: Daniele Wikoff at ToxStrategies, Inc

The event included: a report of section activities in the past year, award announcements, introductions of the 2023-2024 officers, and ample networking opportunities to connect with colleagues. This event was open to all in-person Annual Meeting attendees interested in joining the section, regardless of current membership status with the hosting group.

***Thank You  
Volunteers!  
We couldn't do it without you***

***Student & Postdoctoral Awards Committee 2023***

Kim Zaccaria (Chair)

Alexandra Lobach

Leslie Patton

Juliane Beier

Rebecca McCullough

Kelly Salinas

Rhiannon Hardwick

Archit Rastogi

Lisa Sweeney

Melissa Heinz

Kel Hanson

Miao Li

Gina Hilton

***Best Abstract Awards Committee 2023***

Kim Zaccaria (Chair)

Jennifer Hsieh

Alberto Tohme

Mary Francis

Jalissa Nguyen

Matthew Wolter

Elaine Freeman

Jennifer Rayner

Xiaoling Zhang

***Best Paper Awards Committee 2023***

Cecilia Tan (Chair)

Alberto Tohme

Casey Fisher

Evisabel Craig

Jennifer Rayner

Nathan Pechacek

Kristin Noell

Matthew Wolter

Penelope Fenner-Crisp

Norm Healey

Katy Goyak

Stefanie L. O'Neal

Theresa Onwordi

## VOLUNTEER POOL

There are numerous opportunities for RASS members to get involved with RASS-related activities. Fall and Winter are busy times, as the reviewing and judging of best papers as well as student and postdoc award applications, are in full force. Your help is greatly needed! Benefits of serving as a RASS volunteer include the following:

--**Getting your name and your ability to help recognized.** When you get involved, your willingness to serve and help out get recognized. This is especially important for graduate students and post-docs who are looking to get more involved in SOT.

--**Working with colleagues.** In volunteering, you have the opportunity to work on committees with people that you might not otherwise have the opportunity to work with, in a fun and collegial way.

--**It is an AWESOME learning opportunity.** When you review award applications and candidates for best paper, you have the opportunity to learn about recent developments in risk assessment. Helping out and learning about risk assessment—what more can one ask for? Opportunities available:

- Session proposals review committee
- Student Awards selection committee (Jan-Feb)
- Best Abstracts selection committee (Jan-Feb)
- Best Papers selection committee (Jan-Feb)
- Newsletter Committee (Sept-Oct, Jan-Feb)
- Nominating Committee (Nov-Dec)



If you would like to enter your name into the RASS Volunteer Pool, please email Alea Goodmanson ([aleagoodmanson@chevron.com](mailto:aleagoodmanson@chevron.com)).

## RASS ENDOWMENT FUNDS

RASS has five endowments funds supporting awards to students and postdocs – the John Doull Student Award Endowment Fund, Perry J. Gehring Risk Assessment Student and Postdoctoral Award Endowment Funds, Robert J. Rubin Student Travel Award Endowment Fund, and the Andersen-Clewell Trainee Award Endowment Fund. We encourage our members to contribute to our endowment funds, as they provide stipends to graduate student and postdoc members who display excellence in Risk Assessment.

Our goal in the next year is to increase each fund by at least \$2,000 (\$8,000 in total). With your help to reach this goal, the annual RASS merit-based Endowment Fund awards will continue to increase each year. Please help us meet this goal and continue to support the next generation of toxicologist. Please visit the Endowment website to see current contributors and learn more about the endowments. Contributing is easy: <http://www.toxicology.org/endowment/contribute/donate.asp>.

## 2022 Financial Overview SOT/RASS Endowment Funds

Endowment Fund	Joint	Balance* Dec 2021	Balance* Dec 2022
<b>Andersen Clewell Trainee Award Fund</b>	BMSS	64,237	66,302
<b>John Doull Student Award Fund</b>	RASS only	61,277	60,280
<b>Perry J. Gehring Risk Assessment Student Award Fund</b>	RASS only	61,277	57,376
<b>Robert J. Rubin Student Travel Award</b>	MSS	62,651	58,401
<b>Total in RASS Endowment Funds</b>	-	257,678	242,359

\*All amounts in US \$



Initiatives are being undertaken to increase awareness of our endowment funds and share stories about how their contributions help our Trainees:

- The endowment fund committee will be sending out quarterly updates to RASS membership to share status updates and reminding us to consider contributing to our endowment awards. As donations come in, the committee will use a "thermometer" graphic in order to illustrate the progress and target goal for each fund.
- Each member that contributes \$50 or more to the endowment funds will receive a congratulatory "Endowment Contributor Toast" at the annual RASS reception with a group photo posted on the website and in the following RASS newsletter.

### RASS Endowment Fund Steward Committee



Anne Loccisano  
Exponent



Tami McMullin  
CTEH



Chiedu Onwordi  
Lagos State University



David Szabo  
PPG



Laura Plunkett  
BioPolicy Solutions, LLC

## **TRAINEE SPOTLIGHT**

We are spotlighting three trainee members of RASS as they describe the current state of their career and aspirations for next steps. If you would like to be the next trainee in the spotlight, please send Kim Zaccaria ([kzaccaria@srcinc.com](mailto:kzaccaria@srcinc.com)) an email.

We are looking forward to hearing from you!

### ***Rachel Lacroix, University of Calgary***

**2022 Perry J. Gehring Graduate Student Risk Assessment Award Winner**



**1. Why did you choose to study/pursue research in the field of toxicology/RA?**

I chose the field of toxicology because I wanted to understand my passion for research in a larger context. Being a curious person, I was always interested in the sciences, which led me to pursuing scientific research in my post-graduate education. For my PhD thesis, I wanted to pursue a project with the potential to inform the way we as consumers think about or use chemicals in our everyday lives.

**2. How does your research support risk assessment?**

My research focuses on glyphosate, a popular herbicidal chemical, and its potential toxic effects. Glyphosate toxicity is heavily disputed both amongst scientists and intergovernmental bodies, leading to a lack of harmonization where policy and consumer knowledge are concerned. Further, glyphosate is on-market and sold in proprietary formulations called glyphosate-based herbicides, and these unknown ingredients further contribute to the lack of transparency aspect of glyphosate usage. My research is part of a larger collection of glyphosate research that seeks to further understand glyphosate's effects, which will further inform risk assessment practices in the use of this chemical in agriculture.

**3. What do you like to do outside of work?**

Living in Calgary in Alberta, Canada, outside of my research I like to enjoy the outdoors! The Canadian Rockies offer endless powder for skiing and snowmobiling, two activities I enjoy in the winter months. In the summer, I enjoy hiking the trails in the mountains and spending time at the lake or river.

**4. What challenges do you see the area of risk assessment facing in the near future?**

I think a challenge risk assessment faces, especially in recent times, is translatability and how scientific research translates into public discourse. A recent example of this is COVID-19; as a society we were exposed to a wide array of information, and the lines between evidence and fake news became blurred. This was especially influenced by several media sources. For risk assessment, this will especially become a challenge, as the primary targets of risk assessment initiatives, the general public and policy makers, may be influenced by personal bias, media sources, and political beliefs.

**5. How should SOT attract future graduate students and post-docs into the field of risk assessment?**

As I mentioned, what initially attracted me to this field was the translatability of this field into the real world. Whether it be the initiatives to improve the dissemination of toxicology research, career opportunities, or skill workshops, I believe any enterprise that tethers risk assessment to the real world will attract more trainees.

***Chao Ji, Indiana University***

***2022 John Doull Risk Assessment Endowment Award***



**1. Why did you choose to study/pursue research in the field of toxicology/RA?**

My past experience leads me to this field. Back in my sophomore year, I and my best friend Yi discussed the news that the Chongqing Iron & Steel manufacturing company near our campus was relocated because of environmental pollution. Although I did not know risk assessment at that time, I was curious about the potential health effects of the pollutants of the Iron and Steel company on the community. I and Yi took the initiative to write a proposal and got a small funding (~\$500) from Starbucks to start our research. We designed a survey and interviewed residents. I still remember that the former employees told me lots of their co-workers have lung diseases or lung cancer due to

the constant exposure to dust in the Iron & Steel manufacturing company. Although we don't use systematic methods to conduct this research, this experience sparks my interest in protecting human health from pollutants. I am also very lucky to join Dr. James Englehardt's research group at the University of Miami, conducting a Deepwater Horizon oil spill risk assessment project, which opened my door to risk assessment. After graduation, I got more training in Bayesian dose-response modeling in Dr. Kan Shao's computational risk assessment research group at Indiana University.

## 2. How does your research support risk assessment?

My current postdoc project is an NIEHS-funded project to develop a web-based computational system Bayesian Benchmark Dose (BBMD) written in Python for chemical risk assessment using omics data. As the time and labor-consuming laboratory animals-based toxicology experiments limit the capability of the current agency to review chemicals, the National Toxicology Program initiates the practice of genomic dose-response modeling. My work incorporates genomics and dose-response models to help facilitate the toxicity estimates of large-scale toxicity estimation of chemicals such as pesticides and drugs. Much of the research on this topic utilizes the maximum likelihood estimation method for parameter estimates which ignores the uncertainty and may result in over-confident inferences and predictions. But I applied the Bayesian model averaging method to account for the uncertainty that is contrary to received wisdom. My research provides the risk assessment community with an alternative tool to compute reliable BMD.

## 3. What do you like to do outside of work?

I am an outdoorsy person and enjoy all kinds of outdoor exercises. I am especially bonded with water. I am obsessed with floating and diving in the water. Being in water calms me down and gives me inner peace.

## 4. What challenges do you see the area of risk assessment facing in the near future?

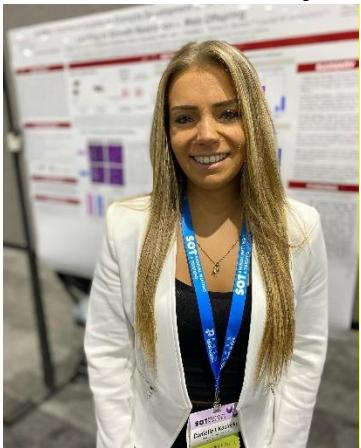
Perhaps the biggest challenge in the risk assessment field is the limited ability to analyze the potential exposure risks of humans to tens of thousands of chemicals and their potential complex mixtures in the environment. Although tens of thousands of chemicals are produced each year, regulations address only a small fraction of these chemicals, and not until many years after they have appeared in the environment. For example, the detection of PFAS in drinking water was as early as 1984 and the US EPA did not regulate and establish lifetime health advisory levels for two types of PFAS in 2016. The other challenge of current regulations is that it only focuses on individual contaminants which ignores the modern chemical mixture context. Regulations fail to protect human health when regulations fail to match the scope and changes in chemical pollution.

## 5. How should SOT attract future graduate students and post-docs into the field of risk assessment?

Risk assessment fits everywhere. A project-orientated risk assessment boot camp that showcases the associations between risk assessment and daily life may let students think more about fundamental risk assessment problems. This boot camp may also provide students with practical and job-ready technical skills that they could apply to real-life problems.

## **Danielle Kozlosky, Rutgers University**

### **2022 RASS-MechSS joint Robert J. Rubin Student Travel Award**



#### **1. Why did you choose to study/pursue research in the field of toxicology/RA?**

**I have always had an interest in pathology and pharmacology. As toxicology is a field which encompasses both areas, I immediately grew interested. I am currently a fifth year PhD candidate with the anticipation to enter the pharmaceutical industry. A strong understanding in risk assessment is imperative for a career in pharmaceuticals; thus, it is of astronomical interest to me.**

#### **2. How does your research support risk assessment?**

**My work identifies the hazard that the ubiquitous heavy metal cadmium may impose toxicity to the placenta resulting in restricted fetal growth and nutrition. I am investigating the protection conferred by a single placental efflux transporter against placental cadmium accumulation and fetoplacental toxicity. Interestingly, the expression of this transporter varies about 7-fold in the human placenta, which potentiates a larger risk to a particular population and may preclude precautions.**

#### **3. What do you like to do outside of work?**

**As a former gymnast, I continue to have a strong drive to workout. I enjoy lifting weights, hiking, and cycling. I also find cooking a nice escape from daily stressors.**

#### **4. What challenges do you see the area of risk assessment facing in the near future?**

**I feel as though arresting a potential problem at its nascent stage is a challenge that we will continually see in the near future. The inability to determine the extent that some issues may pose is difficult to identity despite how vital the action is.**

#### **5. How should SOT attract future graduate students and post-docs into the field of risk assessment?**

**Co-hosting events with specialty sections is a great way to introduce RASS to students and inform them of the field. Potentially hosting an informative event with fun case studies or something similar may also help.**

## **RISK ASSESSMENT SYLLABUS**

**Abstract: #3897 Poster Board: P389**

**Tue, Mar 21 2:30 PM - 4:15 PM**

Risk assessment is a multidisciplinary approach which underpins decision-making processes in protecting human and environmental health. In the risk assessment paradigm, risk management decisions are informed via a risk characterization which uses scientific knowledge to identify potential hazards, determine dose-response relationships, and evaluate exposure potential. While this fundamental paradigm has not changed since first defined in the 1970s, the discipline is evolving in scope and methodology, with an increased need to effectively communicate potential risks (risk communication) to an increasingly skeptical public.

Unlike other scientific disciplines, risk assessment is not strictly technical in nature due to its location at the interface between science and regulation/policy. Current developments affecting risk assessment are exemplified by the adoption of systematic review techniques into evidence integration strategies, as well as new legislation promoting the use of novel data streams, such as New Approach Methods (NAMs), to support decision-making. Given its inherent complexity and often specific focus, key concepts in risk assessment are frequently not comprehensively addressed in educational programs for individual disciplines such as exposure sciences, toxicology, and epidemiology. As a result, current trainees and post-graduate professionals can benefit from educational opportunities that convey both fundamental concepts of risk assessment, and how these concepts are applied in health evaluations.

The Society of Toxicology Risk Assessment Specialty Section (SOT/ RASS) has developed a dedicated “Risk Assessment Syllabus” series of educational events to convey key concepts and enhance the understanding of contemporary topics in the risk assessment sciences to members of the SOT. This training series complements both the existing RASS webinar series on contemporary topics in the science, and other RASS-related mentoring initiatives. The objectives of the syllabus are to provide participants with an introduction to the fundamental concepts and terminology associated with chemical risk assessment, and to offer perspectives on the application of risk assessment principles to inform decision-making practices.

Trainees are provided with valuable insights of the potential importance of risk assessment in their sector-specific professional careers as well as a knowledge of the skills which would enhance their potential transition into a risk assessment career track. Instructors and panelists are experts and leading practitioners in their fields from academia, industry, and regulatory agencies such as US EPA. For current professionals, the syllabus provides an opportunity to refresh and advance their understanding of risk assessment principles while allowing an opportunity to develop sector-specific perspectives on contemporary topics in human and environmental health sciences. Much of the curriculum being used in the Syllabus comes from the Risk Assessment Training and Experience (RATE) catalog of courses which was designed for training US EPA staff.

### ***RASS Syllabus Planning Committee***

Fabian Grimm, RASS Councilor 2019-2021; Gary Minsavage, RASS Past President 2019-2020

George Woodall, RASS Past President 2018-2019; Nathan Pechacek, RASS Secretary/Treasurer 2019-2021; Laura M. Plunkett, RASS President 2020-2021; Jessica Wignall, RASS Secretary/Treasurer 2021-2023; Li Yang, RASS Councilor 2020-2022

## 2024 SOT ANNUAL MEETING



SOT is returning to Salt Lake City for the first time in more than a decade for its **63rd Annual Meeting and ToxExpo**. The 2024 meeting will feature five days of Featured and Scientific Sessions, poster presentations, and social events, as well as the popular three-day ToxExpo.

More details on these sessions, as well as the official schedule, will be available in the SOT website: <https://www.toxicology.org/events/am/AM2024/index.asp>

### Key dates:

March 29	The 2024 proposal submission site will open
May 1	Deadline for submission to RASS for informal comments
May 15	SOT Proposal Submission Deadline
Late June	SOT Announces Session Acceptance

- Proposals submitted to RASS for informal comment should allow at least 2 weeks for review
- Submissions with less than 2 weeks lead time (i.e., after May 1) may not be provided with substantive comments
- Positive comments from the informal review does not indicate endorsement

## RASS AWARDS

Nominate yourself or a well-deserving Toxicologist for the awards.

Please Contact [RASS](mailto:sotrassawards@gmail.com) ([sotrassawards@gmail.com](mailto:sotrassawards@gmail.com)) to apply for one of the following awards:

- Best Overall Abstract Award
- Best Published Paper Advancing the Science of Risk Assessment Award
- Best Published Paper Demonstrating an Application of Risk Assessment Award
- Perry J. Gehring Best Graduate Student Abstract Risk Assessment Endowment Award
- Perry J. Gehring Best Postdoctoral Fellow Abstract Risk Assessment Endowment Award
- Robert J. Rubin Student Risk Assessment SS Travel Award (Joint with MechSS)
- John Doull Risk Assessment Endowment Award
- Andersen-Clewell Trainee Award (Joint with BMSS)

The deadline for best paper awards is January 6<sup>th</sup>, and deadline for other applications is December 31<sup>st</sup>!

Application details can be found [here](#)

## RASS Executive Council 2023-2024

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