



## President's Message

Dear Fellow RASS Colleagues:

In this season of reflection and thanksgiving, it is with great pleasure that I share with you some of the remarkable work that our Executive Committee (EC) has accomplished over the last six months in service of our membership.

Our EC has diligently reviewed 32 scientific session proposals, with 19 of the endorsed proposals being accepted by the SOT. A detailed set of instructions on how to submit proposals for future pre-review and formal review has been created and is now readily available on our website, aimed at reducing confusion and streamlining the process.

I give a heartfelt thanks to our dedicated councilor, Sarah Burnett, for her exceptional efforts in updating our website. If you have any suggestions for additional information to include on the website or share on our [LinkedIn](#) page, please do not hesitate to contact us.

Thank you to Annie Jarabek for her unwavering commitment as the Webinar Coordinator. Please take a moment to peruse the newsletter and discover the exciting lineup of the 2023–2024 webinar series. Additionally, we recently held a successful webinar titled “Basics of Exposure Assessment”. The turnout and feedback were exceptionally positive. This achievement reflects the hard work and dedication of the Risk Assessment Syllabus Committee in serving our membership and advancing knowledge in the field of risk assessment.

Finally, it is time to recognize and celebrate excellence within our community. I encourage you to explore the list of available [awards](#) on our website. Don't miss the chance to apply for these prestigious awards before the deadlines pass. Moreover, I invite you to consider volunteering as a reviewer for these award applications—an opportunity to contribute to the recognition of outstanding achievements in our field.

In closing, I would like to extend my warmest wishes to all of you as we approach the holiday season. May this time be filled with joy and the company of loved ones.

Warm regards,  
Cecilia Tan, MS, MBA, PhD  
RASS President, 2023–2024



Cecilia Tan,  
RASS President

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## 2024 RASS OFFICER NOMINATIONS

RASS is one of the largest SOT Specialty Sections. Our members have a broad spectrum of scientific experience and influence and participate in many of the most important decisions in applying toxicology for the greater good. This standing is and will continue to be only as strong as the RASS leadership. If you or someone you know might be interested in helping direct RASS' continuing presence in the field, then there are several officer opportunities for which you may be a terrific fit. Serving as an officer presents a great opportunity to get involved with our Specialty Sections and the wider Society, and most importantly, serving on the Executive Committee is fun!

There are three upcoming RASS officer vacancies for which nominations are being received: Vice President-Elect (Presidential chain: 4-year commitment), Junior Councilor (2-year commitment), and Postdoctoral Representative (2-year commitment). This year's RASS officer nominations committee is headed by our RASS immediate Past President, Dr. Danielle Wikoff. Please submit your nomination of yourself or a colleague via the official RASS email ([sotrassawards@gmail.com](mailto:sotrassawards@gmail.com)) as soon as possible (**deadline is November 10, 2023**).

NOTE: All candidates must be RASS members. All candidates in the presidential chain must be Full, Associate, Retired, or Emeritus members of SOT, and Postdoctoral Representatives must be Postdoctoral members of SOT.

If anyone is interested in reviewing the roles and responsibilities of each position before committing, these can be found on the [RASS webpage](#).



## RASS ENDOWMENT FUNDS

RASS has five Endowment Fund-supported awards for students and postdocs: The John Doull Risk Assessment Endowment Award, The Perry J. Gehring Risk Assessment Student and Postdoctoral Endowment Awards, The Robert J. Rubin Student Travel Award, and The Andersen-Clewell Trainee Award. 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, 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 toxicologists. Please visit the [SOT website](#) to see current contributors and learn more about the Endowments.

## RASS OFFICERS

### President

**Cecilia Tan, PhD**

### Vice President

**Bernard Gadagbui, PhD,  
DABT, ERT**

### Past President

**Daniele Wikoff, PhD, DABT**

### Vice President-Elect

**Anne Loccisano, PhD, DABT**

### Secretary/Treasurer

**Katy Goyak, PhD**

### Councilors

**Kim Zaccaria, PhD, DABT  
Sarah Burnett, PhD**

### Postdoc Representative

**Anna Kreutz, PhD**

### Student Representative

**Alyssa Bellomo, BS**

### Newsletter Editors

**Kim Zaccaria, PhD, DABT  
Sarah Burnett, PhD  
Katy Goyak, PhD  
Cecilia Tan, PhD**

## RASS WEBINAR SERIES

RASS webinars are held from Fall through Spring, generally on the second 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. Information on both upcoming and recordings of past webinars are on our [events page](#).

Below are the recent and upcoming webinars in the 2023-2024 series.

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### *December 13, 2023 - Joint Webinar with Biological Modeling Specialty Section and American Association of Chinese in Toxicology Special Interest Group*

**Integrating machine learning and quantitative structure activity relationship (QSAR) modeling approaches to develop artificial intelligence (AI)-assisted interactive physiologically based pharmacokinetic (iPBPK) modeling web dashboard**

**Zhoumeng Lin, PhD**  
**Wei-Chun Chou, PhD**  
University of Florida

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### *November 8, 2023*

**A New Approach Methodology (NAM) Based Assessment of Butylated hydroxytoluene (BHT) for Endocrine Disruption Potential**

**Nadira DeAbrew, PhD**  
Procter & Gamble

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### *October 11, 2023 ([See Recording](#))*

***In Silico* Tools for Prediction and Mechanistic Interpretation of Systemic and Topical Toxicity**

**Alexander Tropsha, PhD**  
K.H. Lee Distinguished Professor, Division of Chemical Biology and Medicinal Chemistry, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill

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### *September 30, 2023 - Joint Webinar with Mixtures Specialty Section ([See Recording](#))*

**Mixture Toxicity in the 21st Century: Assessment Methods Presentations**

**Kristin Eccles, PhD,**  
Health Canada, Healthy Environments and Consumer Safety Branch  
**Paul S. Price, PhD**  
Risk Sciences International, Inc.

# RISK ASSESSMENT SYLLABUS

The Society of Toxicology RASS leadership committee has continued the development of a dedicated “Risk Assessment Syllabus,” that was initiated in 2022. This training series complements the existing RASS webinar series and other RASS-related mentoring initiatives.

The objective of this syllabus is to provide participants with an introduction to the fundamental concepts and terminology associated with chemical risk assessment, as well as a practical perspective on the application of risk assessment principles to inform decision making. Each event in the series will be focused on a selected risk assessment-related topic, and will have speakers from academia, government, and/or industry, with each speaker providing their perspective on what risk assessment means in their respective sector.

Trainees will be provided with valuable insights that will enhance their awareness of the potential importance and sector-specific aspects of risk assessment in their professional careers as well as required skills for the respective job profiles. For current professionals, the syllabus will provide an opportunity to refresh and advance their understanding of risk assessment principles and an opportunity to develop sector-specific perspectives on contemporary topics in human and environmental health sciences.

RASS currently envisions a web-based format to maximize attendance; combining webcasts with local in-person events may be considered for future training events. Individual events may be structured to contain a formal presentation focusing on a specific aspect relevant to risk assessment, followed by an open panel discussion with invited experts in the field. Our most recent webinar “Basics of Exposure Assessment” was held in August 2023; details on this presentation and a link to the recording can be found below.

RASS is currently seeking experts in any of the disciplines associated with chemical risk assessment to consider volunteering to participate as panelists and share their experiences and perspectives in one of the open discussions. In addition, we would like to use this opportunity to collect feedback on additional input and suggestions from the RASS membership.

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

George Woodall, RASS President 2018-2019  
Nathan Pechacek, RASS Secretary/Treasurer 2019-2021  
Laura M. Plunkett, RASS President 2020-2021  
Li Yang, RASS Councilor 2020-2022  
Daniele Wikoff, RASS Past President (current)  
Sarah Burnett, RASS Councilor (current)

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

### **Speakers:**


Nicolle Tulve, PhD, US EPA  
Dan Vallero, PhD, US EPA

### **Moderator:**

Linda Birnbaum, PhD, DABT, ATS, NIEHS, Retired  
Past President of SOT 2004-2005

### **Panelists:**

Paul Price, PhD, Risk Sciences International  
Sharada Balakrishnan, MSc, PhD, DABT, California US EPA-DTSC  
Ruthann Rudel, MS, Silent Spring Institute



[Presentation](#)  
[Webinar Recording](#)

## TRAINEE SPOTLIGHT

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

### Lucie Ford: 2023 John Doull Risk Assessment Endowment Awardee

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

During my undergraduate research fellowship, I was assigned to a toxicology lab working with environmental chemicals. Although my initial interests were more aligned with pharmacology, I quickly became fascinated by the question of whether chemicals, particularly environmental contaminants, have any adverse effects on humans. I was curious to explore whether the chemicals to which we are consistently exposed might lead to adverse health effects.



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

My current research contributes to human health risk assessment by integrating *in vitro* data to reduce uncertainties inherent in traditional chemical risk assessments. Currently, a default uncertainty factor of 10 is applied to account for intraspecies variability, considering both toxicokinetics and toxicodynamics. My research aims to replace the default intraspecies uncertainty factor with chemical-specific toxicodynamic variability factors derived from population-based human *in vitro* data. Furthermore, my work contextualizes the *in vitro* data by using the derived points of departure and available exposure data to estimate margins of exposure, identifying any overlap between bioactivity and our actual exposure levels.

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

Outside of work, I have a passion for both competitive and leisurely sailing. I started sailing when I was very young in New Brunswick and competed throughout college. However, since relocating to Texas for grad school, where access to water is limited, I've taken up biking and various outdoor activities whenever the weather allows. I also enjoy baking, and bringing the baked goods to the lab for everyone to try and enjoy. Trying out new recipes and experimenting with alternative ingredients is a bit like conducting experiments where I can change different variables each time.

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

My current ongoing research focuses on per- and polyfluoroalkyl substances (PFAS) and mixtures, both of which I anticipate will continue to pose challenges in the field of toxicology in the years to come. As a graduate student doing research in this area, I find it an exciting and motivating time to be involved in this area! In particular, for mixtures, I believe there is a need to enhance exposome characterization and subsequently identify potential risks associated with those exposures.

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

The SOT Annual Meeting is an excellent opportunity for graduate students to explore potential graduate programs and job opportunities. It serves as an excellent platform for networking and discovering the diverse career paths within toxicology. I believe that short courses on the fundamentals of risk assessment, along with workshops and seminars demonstrating how professionals from different fields integrate risk assessment into their work, would be highly beneficial resources for graduate students interested in risk assessment.

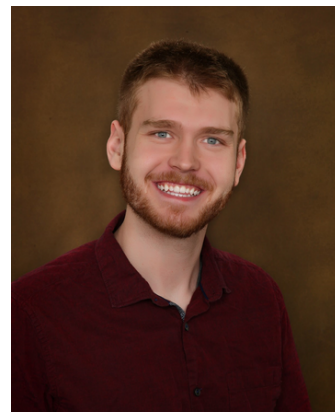


# TRAINEE SPOTLIGHT

## Arthur Stem: 2023 Robert J. Rubin Student Travel Awardee

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

From the start of my undergraduate career, I knew that I wanted to pursue a profession in research. I was quickly drawn towards the biological sciences, finding that it was an area that complemented both my abilities and my interests. Spending time in research labs allowed me to channel my curiosity and refine it into a desire to directly contribute to research that I felt could help people. Toxicology was a natural progression because it not only works to help people in the short term, as exemplified in the discipline of risk assessment, but it also protects them over the long term through mechanistic and exposure research. Beyond this, I consider myself an environmentalist and believe that the study of toxicology offers a clear path to helping protect our precious natural resources.



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

My research is focused on understanding the epidemic of Chronic Kidney Disease of unknown etiology (CKDu), a disease which disproportionately impacts agricultural communities in developing nations. Because sugarcane workers are over-represented among cases, this disease has been hypothesized to be largely driven by occupational exposures. Our group has hypothesized that the burning of sugarcane and inhalation/ingestion of silica within the sugarcane ash is a major contributor to disease pathogenesis. My recent work has found that *in vivo* exposure to silica nanoparticles derived from sugarcane ash greatly perturbs cell health and energy metabolism, as well as evidence of similar patterns among sugarcane agricultural workers. This is extremely important to the field of risk assessment because such amorphous silica has long been considered to be relatively safe and agricultural workers experience a wide range of occupational exposures (heavy metals, pesticides, silica, etc.) with risks that remain poorly understood and not properly accounted for when assessing occupational risk factors.

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

When I'm not working, I enjoy playing with my one-year-old son or running Dungeons and Dragons games with friends. I credit the former with teaching me perspective and the latter with helping me improve my presentation skills.

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

I suspect the main challenges of risk assessment will be the same challenges facing research in general. The ongoing crisis of data reproducibility is one of the most pressing issues of our time; the scientific community must find a way to encourage proper replication and support negative findings rather than just chasing novel publications. The rapidly increasing adoption of high-throughput screening and availability of large-scale datasets is another significant change that I believe will play a key role in how research is conducted moving forward. Ensuring that this change is beneficial and doesn't result in a new wave of misleading results will require promoting a strong bioinformatics education among researchers. I believe that the scientific community will prove itself up to the task of these challenges, but doing so will require embracing the full diversity of thought across disciplines and backgrounds.

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

I think the first step is introducing the concept to people much earlier. It wasn't until my first year as a PhD student that I had any real familiarity with risk assessment. It's also important to demonstrate the value of the field with clear examples of good done by proper utilization of risk assessment. It can be difficult to motivate someone when they can only see their contributions in the abstract, but show them a narrowly avoided train disaster or a superfund site before and after intervention, and then you'll have their attention!

# ANNUAL STUDENT AND POSTDOCTORAL TRAINEE AWARDS



Please contact RASS ([sotrassawards@gmail.com](mailto:sotrassawards@gmail.com)) with questions about any of the following awards:

- Perry J. Gehring Best Graduate Student Abstract Risk Assessment Endowment Award
- Perry J. Gehring Best Postdoctoral Fellow Abstract Risk Assessment Endowment Award
- RASS/MechSS Robert J. Rubin Student Travel Award
- John Doull Risk Assessment Endowment Award
- RASS/BMSS Andersen-Clewell Trainee Award

This year, all applications are being accepted through the new centralized [SOT apply platform](#). The deadline for award applications is December 30th for the Rubin travel award and December 31st for other trainee awards! Application details and links to apply can be found on the [RASS Awards website](#).

Applicants are only eligible to win one award but may apply for multiple awards.

## BEST ABSTRACT AND BEST PAPER AWARDS

Please use the links on the [RASS Awards website](#) to apply for one of the following awards via the new [SOT apply platform](#). The deadlines are December 30th for the best abstract award and January 6th for both best paper awards.

- Best Overall Risk Assessment Abstract Award (given at the 2024 SOT Annual Meeting)
- Best Published Paper Advancing the Science of Risk Assessment Award
- Best Published Paper Demonstrating an Application of Risk Assessment Award

### How are candidate abstracts identified for best abstract awards?

Candidate abstracts are identified from three “sources”:

- Abstracts included in Risk Assessment Poster Sessions
- Abstracts listing “Risk Assessment” as a key word for your abstract (regardless of Poster Session title)
- Abstract nominations sent through SOT Apply are also considered to ensure that no qualified abstracts are missed. The only eligibility criteria are relevance to risk assessment and acceptance by the SOT Scientific Program Committee for presentation at the 2024 Annual Meeting.



### How are candidate papers identified for best paper awards?

- All papers published in SOT’s official journal, *Toxicological Sciences*, between January 1 and December 31, 2023, and authored by at least one SOT member. The search term “assessment” will be used to identify candidate studies.






*Note: Papers will be queried from the journal only; in other words, papers that are published online in 2023 but not in the journal in 2024 will be considered for the best paper award in 2024.*

- Papers published in any journal can be nominated on SOT Apply for a best paper award as long as they are authored by at least one SOT member.

# VOLUNTEERS NEEDED

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! The 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 gets recognized. This is especially important for graduate students and postdocs 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:

- Student Awards selection committee (Jan–Feb)
- Best Abstracts selection committee (Jan–Feb)
- Best Papers selection committee (Jan–Feb)
- SOT Annual Meeting committee (March)
- Session proposals review committee (April–May)



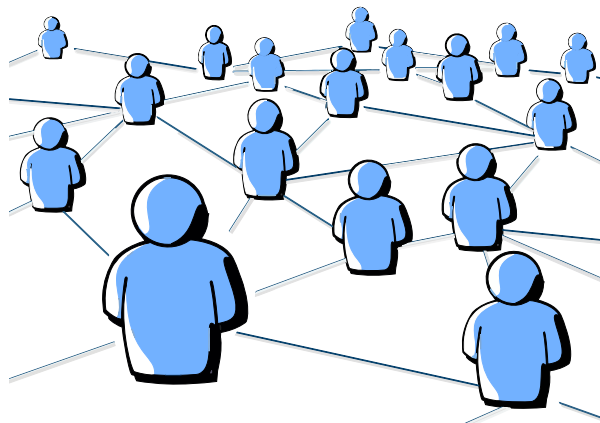
If you would like to enter your name into the RASS Volunteer Pool, please email Alea Goodmanson ([aleagoodmanson@chevron.com](mailto:aleagoodmanson@chevron.com)).

## ANNOUNCING A NEW FORMAT FOR ANNUAL BUSINESS MEETING

Based on feedback from Specialty Sections and members, SOT has given Specialty Sections the option of holding their annual business meetings virtually in February ahead of the SOT Annual Meeting in Salt Lake City. The RASS Executive Committee is very excited to offer this option to the RASS membership for the following reasons:

- Increased access to the business meeting for RASS members who cannot attend the SOT meeting
- More time to focus on networking and honoring awardees during the RASS reception
- Cost savings due to decreased audio-visual needs at RASS reception

Stay tuned for details regarding the date and time of the virtual annual business meeting.





## RASS OFFICERS 2023-2024

### *Past President*



Danielle Wikoff  
ToxStrategies, Inc.

### *President*



Cecilia Tan  
US EPA

### *Vice President*



Bernard Gadagbui  
TERA

### *Vice President-Elect*



Anne Loccisano  
Exponent Inc.

### *Secretary/ Treasurer*



Katy Goyak  
Celanese

### *Councilor*



Kim Zaccaria  
SRC, Inc.

### *Councilor*



Sarah Burnett  
CTEH, LLC

### *Postdoc Rep*



Anna Kreutz  
NIEHS (postdoc)  
Inotiv (current)

### *Student Rep*



Alyssa Bellomo  
Rutgers University

## RASS Needs Your Help!



Consider making a general donation to support RASS activities throughout the year and at the Annual Meeting. Any donation of \$50 or more will be formally recognized at the RASS Reception during the Annual Meeting in Salt Lake City. Any donation of \$100 or more will additionally be acknowledged in the February RASS Newsletter. Donations can also be made anonymously if preferred.

Click [here](#) to make a donation.

To ensure formal recognition, please send RASS ([sotrassawards@gmail.com](mailto:sotrassawards@gmail.com)) proof of donation by January 31st.