



## Undergraduate Educator e-Newsletter

### 2026 Rekha Mehendale Undergraduate Educator Award Recipient:

**Rekha Mehendale Undergraduate Educator Award**  
**Tisha King-Heiden, PhD**  
**University of Wisconsin-La Crosse, La Crosse Wisconsin**

This award, sponsored by the SOT Endowment, recognizes an SOT member who is distinguished by outstanding contributions to the teaching of undergraduate students in toxicology and toxicology-related areas and whose efforts support the Society's strategic efforts to "build for the future of toxicology."

Tisha C. King-Heiden, PhD, is awarded the 2026 SOT Rekha Mehendale Undergraduate Educator Award for her outstanding commitment to undergraduate toxicology education and her innovative efforts to recruit, train, and prepare students for careers and advanced study in toxicology and environmental health.

Dr. King-Heiden earned her BS in Biology (marine biology emphasis; chemistry minor) from the University of Wisconsin–Stevens Point, her MS in Biology from the University of North Carolina–Greensboro, and her PhD in Biology (physiology, endocrinology, and toxicology) from the University of Wisconsin–Milwaukee. She was a Postdoctoral Fellow with the Molecular and Environmental Toxicology Program at the University of Wisconsin before starting her teaching career.

A faculty member at the University of Wisconsin–La Crosse (UWL), Dr. King-Heiden's teaching reaches students across multiple levels of the curriculum. She teaches upper-level toxicology coursework, including a course that was redesigned from Environmental Toxicology to Aquatic Toxicology to better align with an Aquatic Science concentration, and she developed lower-level toxicology courses, Environmental and Human Health Effects of Water Pollution and Water Pollution Field and Lab Methods, to introduce and recruit students into the field. She also integrates toxicology concepts into large-enrollment core biology courses to broaden undergraduate exposure to toxicology across the program.

Beyond individual courses, Dr. King-Heiden has helped expand capacity-building in toxicology education through collaborative program development. She is assisting colleagues at UWL with the development of a Pharmacology and Toxicology concentration or certificate within the Chemistry major, with a longer-term goal of growing that effort into a full program/major.



**Tisha King-Heiden, PhD**  
**University of**  
**Wisconsin-La Crosse**

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## Undergraduate Educator Award (con't)

Dr. King-Heiden is also collaborating with faculty across University of Wisconsin institutions through the Freshwater Collaborative of Wisconsin toward a statewide certificate program in aquatic toxicology that would allow students to take complementary coursework across universities, further strengthening recruitment pathways into aquatic toxicology and human health.

Dr. King-Heiden is recognized for advancing undergraduate research and professional development. She provides students with applied research questions and training, supports career exploration through visits and interactions with toxicology-related organizations, and ensures students can communicate their science through conference presentations, reflecting strong student participation in presentations and publications and continued progression into graduate and health-professions programs. Through her innovative teaching, curriculum development, and dedication to undergraduate mentorship, Dr. King-Heiden has strengthened pathways into toxicology and environmental health. Her sustained commitment to student training and program building exemplifies the impact recognized by the SOT Rekha Mehendale Undergraduate Educator Award.

Please join us in congratulating Dr. King-Heiden for receiving the SOT Undergraduate Educator Award!

## Undergraduate Educator Network Webinar

The Educational and Experiential Opportunities Committee (EEOC) is hard at work developing the 2026 Webinar. This year's topic in development is:

- College Science Teaching Webinar
  - Potential topics include adjunct experiences, formal training, and career satisfaction
  - Plan to coordinate with SOT's Postdoctoral Assembly and potentially the Graduate Student Leadership Committee



Scan this QR code to view the full list of SOT UEN Webinars.

**Have an idea for a Undergraduate Educator Network Webinar?  
Contact EEOC**



### Looking to Network with Amazing Undergraduate Educators? Join ToXchange Undergraduate Educator Network

ToXchange is an excellent venue to exchange ideas, learn about resources and opportunities, and receive SOT announcements for undergraduate faculty. Subscribe to the ToXchange Undergraduate Educator Network (UEN) to harness the power of our community! (1) Log in to ToXchange <https://toxchange.toxicology.org/home>, (2) Click the "Communities" tab, (3) Select "Open Groups," (4) Find "Undergraduate Educator Network" and select the "Join" button.



# SOT Recognizes Outstanding Undergraduate Researchers

EEOC is pleased to announce the 2026 recipients of the SOT Undergraduate Research Award. These nineteen students were selected from a large and impressive pool of applicants. The award recognizes outstanding undergraduates who have not yet received their bachelor's degrees and are presenting research at the SOT Annual Meeting and ToxExpo. The goal is to foster interest in pursuing graduate studies in the field of toxicology. Awardees receive travel support to attend the SOT meeting as well as recognition and pairing with mentors. Congratulations to the students! EEOC also extends a special thank you to the research mentors of the 2026 award recipients! Please add these posters to your schedule and stop by to congratulate the award recipients. The author will be at the poster at the time listed.



## **Nabeelah K. Aregbe**

Vanderbilt University  
#3092: Manganese Exposure Reveals Sex Differences in Stress-Induced Drug Seeking  
Mon 1:45 PM–4:15 PM  
Mentor: Fiona Harrison, PhD



## **Camille Grace Baker**

University of San Diego  
#4442: Germination to Pollination: Effects of Heavy Metals on *Phacelia parryi*  
Wed 9:15 AM–11:15 AM  
Mentor: Wilnelia Recart González, PhD



## **Saraf Jalil Bhuiya**

Purdue University  
#3088: Developmental Lead Exposure and Sex-Specific Glutamatergic Pathways Underlying Convergent Anxiety-Like Phenotypes in Larval Zebrafish  
Mon 1:45 PM–4:15 PM  
Mentor: Jennifer Freeman, PhD



## **Esther Biro**

University of Maine  
#3429: Uncovering the Impact of Common Antimicrobial Cetylpyridinium Chloride on Mast Cell Degranulation-Associated Mitochondrial Dynamics  
Mon 9:15 AM–11:45 AM  
Mentor: Julie Gosse, PhD



## **Jiayang Chen**

University of Pittsburgh  
#3482: Vinyl Chloride Potentiates Liver Injury Caused by Chronic Alcohol Consumption in Mice  
Mon 1:45 PM–4:15 PM  
Mentor: Juliane I. Beier, PhD



## **Ava M Frescura**

Baylor University  
#3369: Beyond Phthalates: Cytotoxicity and Obesogenic Potential of Emerging Alternative Plasticizers  
Mon 1:45 PM–4:15 PM  
Mentor: Ramon Lavado, PhD



## **Christina Alexa Gogzheyan**

Northern Kentucky University  
#3132: Can Exercise Improve Learning and Memory Following Developmental Exposure to Benzo[a]pyrene?  
Mon 9:15 AM–11:45 AM  
Mentor: Christine Curran, PhD



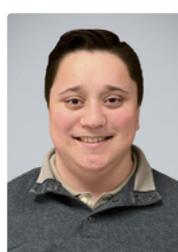
## **Danna Gómez**

Universidad de Cartagena  
#4484: Network Toxicology Applied to Titanium Dioxide Nanoparticles: Implications for Human Health  
Wed 1:45 PM–4:15 PM  
Mentor: Jesus Olivero Verbel, PhD



## **Owen Hildebrand**

McGill University  
#3460: E-Cigarette Modulation of T Helper Cell Subsets: Impaired IL-17 Production in Th-17 Cells  
Mon 1:45 PM–4:15 PM  
Mentor: Koren Mann, PhD



## **Zachary Lewis Kelly**

Michigan State University  
#3229: Investigating the Involvement of Pyroptosis in Cutaneous Nitrogen Mustard Induced Toxicity  
Mon 9:15 AM–11:45 AM  
Mentor: Neera Tewari-Singh, PhD

**Kush Kumar**

University of Miami  
 #3618: Exposure to Polychlorinated Biphenyls (PCBs) Alters Endothelial-Pericyte Crosstalk at the Blood Brain Barrier  
 Mon 1:45 PM–4:15 PM  
 Mentor: Michal Toborek, MD, PhD

**Maxwell Miso Maloney**

University of Arizona  
 #4571: MASH Impairs Renal Anion Transporter Function and Alters Cefazolin Disposition  
 Wed 1:45 PM–4:15 PM  
 Mentor: Nathan Cherrington, PhD, ATS, University of Arizona

**Diana Abarca Palma**

University of Wisconsin–Eau Claire  
 #3158: Investigating Impact of Gene-Environment Interactions on Developmental Toxicology of Methylmercury; Characterizing CRISPR-Induced Mutations in Glutathione Pathway Genes in Zebrafish  
 Mon 1:45 PM–4:15 PM  
 Mentor: Brad Carter, PhD

**Chi Pham**

University of Florida  
 #3133: Multigenerational Neurobehavioral Impacts of Environmental Lead Exposure During Neurosensitive Windows in a Zebrafish Model  
 Mon 9:15 AM–11:45 AM  
 Mentor: Tracie Baker, PhD

**Guilherme Ponciano de Barros**

Universidade de São Paulo  
 #3468: Evaluating the Direct Impact of Heated Tobacco and Cigarette Smoke Exposure on Lung Adenocarcinoma Cell Biology  
 Mon 1:45 PM–4:15 PM  
 Mentor: Sandra Helena Poliselli Farsky, PhD

**Saige Rigby**

Idaho State University  
 #3423: Effects of Asbestos Dosage on Kidney IgG Deposition  
 Mon 9:15 AM–11:45 AM  
 Mentor: Kinta Serve, DA, PhD

**Ahmed Shah**

University of Rochester  
 #3570: A Trichloroethylene Metabolite Drives Microglial Aging and Inflammation: Implications for Parkinson's Disease  
 Mon 9:15 AM–11:45 AM  
 Mentor: Souvarish Sarkar, PhD

**Risa Smith**

University of New Mexico  
 #4528: Methodological Framework for Enhancing the Reliability of Polymer Plastic Quantification in Toxicological Research  
 Wed 1:45 PM–4:15 PM  
 Mentor: Eliane El Hayek, PhD

**Nishi Suresh**

Ohio State University  
 #3927: CHEMR23 Signaling Protects Against Ozone-Induced Airspace Inflammation Through RvE1 Signaling  
 Tues 9:15 AM–11:45 AM  
 Mentor: Kymberly Gowdy, PhD



**Don't miss visiting these posters - add them to your [SOT Planner](#) using the [SOT Event App](#)!**

## Undergraduate Activities

### Undergraduate Education Program Sunday, March 22

Undergraduate students learn more about the breadth of science related to toxicology through presentations and a case study, with the opportunity to network with graduate students and toxicologists. Breakout sessions feature tips on applying to and succeeding in graduate school and career opportunities in different employment sectors. The afternoon ends with time to meet with representatives of various graduate programs in toxicology. Room 33B Convention Center, 8:00 am–5:00 pm. Check-in at 7:30 am. **Registration required.**



### Student/Postdoctoral Scholar Mixer Sunday, March 22

This event, which follows the SOT Welcome Reception, is the opportunity for undergraduates to network with other undergraduates, graduate students, and postdoctoral scholars as well as learn more about involvement in SOT component groups. Ballroom 20D, Convention Center, 7:30 pm–9:00 pm. **Free add-on registration required.**

### In Vitro Lecture and Luncheon Monday, March 23

Making New Approach Methods Work for Regulation: Linking Validation and Biological Relevance Through Adverse Outcome Pathways, Helena Hogberg, PhD, NIEHS/NICEATM

During lunch, the speaker will present a case study topic which will then be discussed at each table. Guests at this event include undergraduates, graduate students, postdoctoral scholars, and the toxicologists who serve as hosts and discussion facilitators. Ballroom 20D, Convention Center, 12:00 noon–1:30 pm Limited seats. **Add-on registration required (\$10).**

### Undergrad Gab with a Grad over Grub Tuesday, March 24

All undergraduate students are invited to this informal gathering. Students will connect with peers and learn first-hand from graduate students about the graduate school experience, as well as gain a better understanding of the opportunities offered by SOT. This session includes free lunch. Room 2, Convention Center, 12:30 pm–1:45 pm.

## Activities for Undergraduate Educators

### Undergraduate Development Program Reunion Saturday, March 21

Meet the 2026 Undergraduate Development Program students and greet friends and supporters of the program at this networking event. Center Terrace, Convention Center, 7:30 pm–8:30 pm.

### Undergraduate Educator Network Meeting Monday, March 23

The Undergraduate Educator Network Meeting is for all faculty involved in the teaching of toxicology to undergraduates, trainees thinking about teaching, and for those interested in including toxicology at the undergraduate level. Learn about initiatives for undergraduate faculty, provide your input, network with your colleagues, and discuss shared interests. Room 9, Convention Center, 4:30 pm–5:30 pm.

### Educating Future Toxicologists and Communicating with the Public Poster Session Monday, March 23

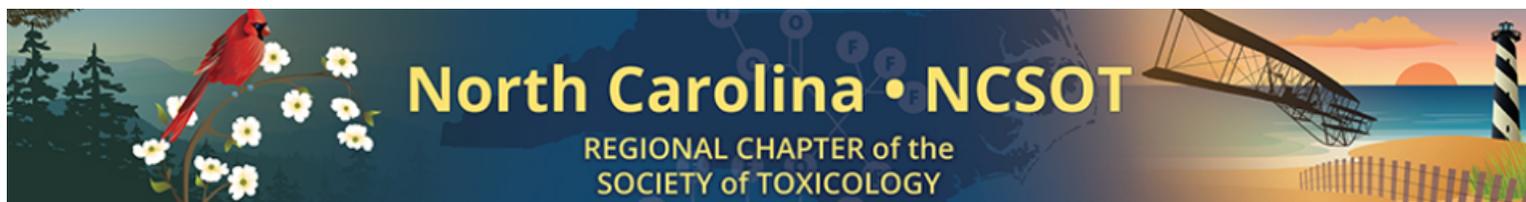
Come to discuss new educational innovations with the presenters and your colleagues. ToxExpo Exhibit Hall B, Convention Center, Poster Board G Section, author attended 1:45 pm–4:15 pm.



## Undergraduate Activities in Regional SOT Chapters



At the Southern California Chapter of the Society of Toxicology (SCCSOT) 2025 annual fall meeting, we hosted a lively mentoring roundtable during the lunch hour, connecting over 20 trainees, including several undergrads, with 11 professional mentors from both industry and academia. This event provided students with unique opportunities for intimate discussions, where they received valuable career advice and gained insights from seasoned professionals. This event was followed by an information session held on November 19, 2025, for trainees interested in applying to PhD programs. Faculty members from Southern California universities SDSU, UC Irvine, UCLA, UCR, and USC shared details about their programs, important deadlines, and application requirements. Over 20 undergraduate students from numerous SoCal area universities attended this session. The discussion provided valuable tips on crafting standout applications, including insights on what makes a candidate unique and advice for developing compelling personal statements.



The 2025 annual meeting of the North Carolina Society of Toxicology (NCSOT) was held on September 10, 2025, at the RTI International campus in Durham, North Carolina. The meeting drew more than 200 attendees from across academia, industry, and government, including 60 undergraduate students representing colleges and universities statewide. NCSOT provided free registration for undergraduates, undergraduate advisors, and postbaccalaureate trainees to reduce barriers to attendance and encourage participation from the next generation of toxicologists in NC. An informal networking event, "Lunch With an Expert", provided undergraduates and other trainees the opportunity to discuss different career paths with toxicologists from academia, industry, and government. Bracketing Lunch With an Expert, the meeting also featured two poster sessions in which trainees showcased their latest research and competed for presentation awards. Brendan Yoo (USEPA) received the Undergraduate/Postbaccalaureate Poster Award for his research titled "*Differential Cardiometabolic Impacts of Maternal Ozone Exposure in Adult Long-Evans Offspring.*"

In addition to the annual meeting, NCSOT hosted a networking mixer in July 2025 to foster mentor/mentee connections. It was attended by several undergraduates participating in summer research opportunities at local universities. At the event, prospective mentees and mentors completed a short survey and were then connected based on aligned career interests (mentees) and experience (mentors). NCSOT anticipates building upon this initial success by including the mentor/mentee surveys in future networking events.

## Undergraduate Activities in Regional SOT Chapters (con't)



In February 2025, NorCal SOT once again partnered with the Toxicology Study Association of Berkeley (ToxSA), which is primarily organized by undergraduates, to host Toxicology Career Night at the University of California, Berkeley. This annual event brought together students and early-career scientists with professionals across government, industry, and academia for an evening of career insights, networking, and candid discussions about paths in toxicology and research.



The event featured a panel discussion over dinner followed by informal networking, allowing students to engage with mentors and ask questions about career development. Attendees shared that hearing directly from professionals across sectors was especially impactful. Mentors emphasized the importance of building a strong support network, collaboration, curiosity-driven science, and learning from peers and mentors. Students also appreciated gaining exposure to the wide range of careers within toxicology—from computational toxicology to consulting.



Building on the success of this event, Toxicology Career Night will return to UC Berkeley in March 2026.



In 2025, the Mid-Atlantic Society of Toxicology (MASOT) hosted a virtual Tox Jeopardy Trainee Networking event on November 4th, the evening before its annual fall meeting. The annual meeting program also featured trainee poster competitions and awards, dedicated networking opportunities, and invited speakers who presented impactful research on Novel Approach Methodologies, with a focus on *in vitro* and alternative methods and their regulatory acceptance. In December, MASOT in collaboration with St. John's University Tau Omega Chi (Toxicology Club) hosted a ToxiCarnival to promote toxicology and attract students from all majors to play carnival games, answer toxicology trivia, and win prizes.

## Undergraduate Activities in Regional SOT Chapters (con't)



On July 22, Michigan State University hosted the 2025 Mid-Michigan Symposium for Undergraduate Research Experiences. This symposium showcased undergraduate research across a wide range of scientific disciplines, providing students the opportunity to present their work through poster and oral presentations. The Michigan Chapter of the Society of Toxicology (MISOT) partnered with the Department of Pharmacology and Toxicology to engage students in the environmental and life sciences to promote careers in toxicology. Graduate Student Representative Nana Kwame Kwabi Boateng and Postdoctoral Representative Rachel Morgan served as MISOT's liaisons at the event, offering insights, resources, and guidance for pursuing this career path.



In August, MISOT compiled a list of 18 Michigan universities offering undergraduate programs in environmental and life sciences that provide a strong foundation for careers in toxicology. MISOT identified department chairs at these institutions and sent email invitations encouraging them to share opportunities with their students. These invitations highlighted ways to learn more about toxicology through our regional chapter and the national association, as well as opportunities to present research at regional meetings and attend national meetings through programs such as:

- **SOT Undergraduate Research Award**
- **Undergraduate Development Program Student Travel Award**
- **Experiential Opportunities Career Development Award**

These institutions were also invited to participate in our ToxScholar Program, which offers career information, guest lectures on specific topics, and discussions on research areas of interest.

On October 3, 2025, MISOT held its annual fall regional meeting, which drew 113 registrants and over 100 attendees, including nine undergraduate students. Four undergraduates presented posters, and awards were presented as follows:

- **First Place:** Ashley Gilbert—"In the Zone: A Transcriptomics Approach to Understanding Zone-Selective Fatty Liver Disease"
- **Second Place (tie): Zachary Kelly**—"Acute Cutaneous Nitrogen Mustard Exposure Induces Pyroptosis"
- **Second Place (tie): Benjamin Nketsiah**—"A Potential Role of Angptl4 in the Malignant Transformation of Keratinocytes: Implications for Obesity-Driven Tumor Promotion"



**Photo (Left to Right): Benjamin Nketsiah, Ashley Gilbert, and Dr. Neera Terawi-Singh (Secretary-Treasurer, MISOT). (Zachary Kelly not pictured.)**

## Undergraduate Activities in Regional SOT Chapters (con't)



The Pacific Northwest Association of Toxicologists (PANWAT) Chapter of the Society of Toxicology is highly focused on supporting trainees, including undergraduate students. Historically, PANWAT has hosted a mentoring session as part of its Annual Meeting. In 2025, the chapter expanded these efforts by holding its first “Tox Career Chat” session on the morning following the main meeting. The approximately four-hour program featured representatives from pharmaceutical companies, consulting firms, academia, and contract research organizations to facilitate informal discussions about career opportunities for toxicologists in their respective organizations. The session also included time for audience questions and individual follow-up with speakers. One of the presenters was Julia Cui of Oregon State University (right, top).



PANWAT’s Annual Meeting also provides opportunities for undergraduate, graduate, and postdoctoral trainees to submit abstracts for platform or poster presentations and compete for “Best in Category” awards that include a cash prize. Rubi Juarez Murguia from Oregon State University received the Best Poster Presentation Award in the Undergraduate Category, presented by Yijie Geng, current Vice President of PANWAT (right, bottom). To further encourage participation, PANWAT waives registration fees for undergraduate members and has a reduced fee for undergraduate nonmembers.



The National Capital Area Chapter (NCAC) of SOT hosted a Trainee Speed Talks competition at their 2025 fall virtual meeting. Malachi Peavey (left), an undergraduate student at the University of Maryland at College Park, received the Undergraduate Speed Talk Trainee Award.

## New Module Release from ToxMSDT: Environmental Exposures

Recently added to the [ToxMSDT curriculum library](#) is “[Environmental Exposures](#).” This module includes historical background on the environmental justice movement, health impacts of environmental exposures to toxicants in the air and water, and examples of disproportionate impact of environmental exposures in lower socio-economic communities. Specific illustrations include pollution from wastewater, coal ash, and particulate matter. A neurotoxicology module will also be released soon. “ToxTutor: Principles of Toxicology,” a valued online resource originated at the National Library of Medicine almost a decade ago, has been extensively updated and will be released in four parts later this year.

The Toxicology Mentoring and Skills Development ([ToxMSDT](#)) program (NIH NIGMS R25GM139200) was a five-year project to support undergraduate students through structured mentoring and professional development in toxicology. The program paired students with toxicologist mentors for monthly virtual meetings, provided site visits to mentors’ workplaces, and the mentees attended the Society of Toxicology (SOT) Annual Meeting. A foundation in toxicology was provided by review of online modules and case studies developed as part of the project. Led by Principal Investigators Wilson Rumbelha (University of California Davis) and Jodi Flaws, (University of Indiana Urbana-Champaign), ToxMSDT guided students toward graduate studies and careers in toxicology, with support from multiple institutional partners, including SOT.

SOT has coordinated the ToxMSDT curriculum project, with Mindy Reynolds (Washington College) as lead, with Joshua Gray (US Coast Guard Academy) and Betty Eidemiller (SOT). Numerous SOT members contributed to the development of the module and case study content. Students who complete the modules with an adequate score on the final exam receive a certificate of completion via email. The modules and case studies can be easily integrated into a wide range of undergraduate courses, from major-level classes to non-majors courses focused on health and the environment, as well as used by independent learners.

### All Modules

- [ToxTutor: Principles of Toxicology](#)
- [Applied Systems Toxicology](#)
- [Biochemistry](#)
- [Developmental and Reproductive Toxicology](#)
- [Genetics](#)
- [Pathophysiology](#)
- [Reproducibility and Rigor in Experimental Toxicology](#)
- [Environmental Exposures](#)

### All Case Studies:

- [Aflatoxin](#)
- [Arsenic and the Case of the Bloody Urine](#)
- [Ethanol](#)
- [Forever Chemicals](#)
- [Lead in Drinking Water](#)
- [Pesticides](#)
- [Toxic Tracks: A Regulatory Toxicology Case Study](#)
- [Vaping](#)



## Resources for Educators



SOT has partnered with [CourseSource](#), an online journal that targets the publication of evidence-based and tested exercises for use by undergraduate educators in the classroom. CourseSource includes several great ideas to incorporate in your teaching.

Do you have a classroom exercise that you've used for years or a new idea that you want to disseminate to the broader toxicology community? Share your efforts with your peers and help advance toxicology education!

- To start, visit the CourseSource website and select the article template for the type of article you want to submit. It helps to download other articles of the same type to get a feel for what is typically included in a CourseSource paper.
- [Joshua Gray](#) and [Wade Powell](#) are the course editors for toxicology and can help guide your paper at any time during the process.
- Here are [5 curriculum articles](#) published in the [toxicology library](#). The most recently published was on the topic of Environmental Justice.

You may also consider signing up as a reviewer for the Toxicology section of CourseSource.

PRESENTED BY SOT

**ADVERSE REACTIONS**

Don't forget to check out the SOT-sponsored podcast *Adverse Reactions* for unique ways to mix-up your lesson plans!

The graphic features a silhouette of a person's head in profile, facing right, with a network of icons connected by lines. The icons include a DNA double helix, a biohazard symbol, a chemical structure, a brain, a microscope, a person, a gear, and a document. The text "ADVERSE REACTIONS" is written in large, bold, blue and orange letters across the bottom of the head silhouette. Below the graphic, there is a call to action in orange text.

**NCCSTS Case Collection**

1,000+ Case Studies Available

FREE Access to Cases

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The banner features a background image of a person holding a tablet, with a globe of the Earth behind them. The text "NCCSTS Case Collection" is in large, white, bold letters. Below it, "1,000+ Case Studies Available" is in blue. To the right, "FREE Access to Cases" is in white text on a blue background. The NSTA logo is in the top right corner.

Discover 1,000+ Science Case Studies for Every Classroom! From elementary through college, National Science Teaching Association's Post's (NSTA's) National Center for Case Study Teaching in Science (NCCSTS) collection brings science to life through real-world learning. Explore interactive case types—debates, dilemmas, role-plays, labs, games, and more—spanning topics like biology, engineering, chemistry, physics, and environmental science. The [cases](#) are free; a [subscription](#) is required to access teaching notes and answer keys.

## Outreach to Graduate Educators: Teaching Toxicology Together

The Education and Experiential Opportunities Committee has brought all toxicology educators back together in a concerted effort to improve the training of the next generation of toxicologists. To better understand the needs of graduate educators and how we can build on the successes of the Undergraduate Educator Network, we are asking for your help. Please encourage your colleagues who teach at the graduate level part-time or full-time to complete our [survey](#).

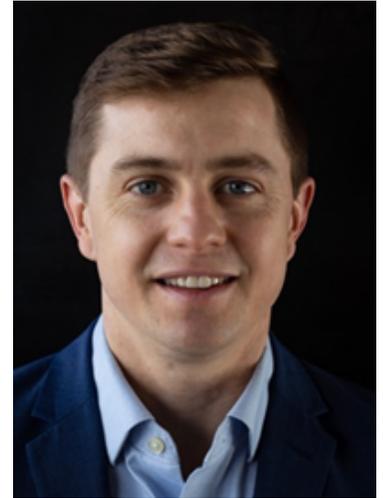


If you are one of those who teach at both the undergraduate and graduate level, please take a few minutes to complete the survey as well. We will use the information gathered to help plan our budget and activities in the next fiscal year. Thanks in advance for your help and support!

## EEOC Spotlight on Dr. AtLee Watson

My name is Christie Sayes, Professor of Environmental Science at Baylor University in Waco, Texas. I had the pleasure of sitting down with Dr. Watson this week to discuss his views on toxicology.

AtLee Watson, PhD, DABT (right), is a board-certified toxicologist and Director of *In Vivo* Operations at Inotiv's Research Triangle Park site, where he provides scientific and operational oversight for nonclinical GLP toxicology and safety assessment programs. Prior to joining Inotiv, Dr. Watson was a Postdoctoral IRTA Fellow at the NIEHS Division of Translation Toxicology (2018-2020), where he developed his passion for designing toxicity studies to inform health-based risk evaluations. He earned his PhD in Toxicology from North Carolina State University (2017) and a BS in Biology from the University of North Carolina at Chapel Hill (2009). In addition, Dr. Watson is actively engaged in the SOT community, serving locally as President of the North Carolina Society of Toxicology and, at the national level, as a member of the EEOC and Membership Committees.



**AtLee Watson,  
PhD, DABT**

### ***We started by reflecting on our toxicology training.***

**Christie:** Describe your journey in toxicology.

**AtLee:** The beginning of my toxicology journey may be familiar to a lot of us. Between junior and senior year of my undergraduate biology major at the University of North Carolina, I decided I was not pursuing a career in medicine and still wanted to be a biologist, perhaps in graduate school. Through a connection from my hometown (Oxford, NC), I met Professor David Hinton at the Duke University, Nicholas School of the Environment, and over a cup of coffee in the Spring of 2008, he introduced me to the field of ecotoxicology. His laboratory investigated early developmental outcomes after embryonic exposure to waterborne contaminants in a small fish model (Japanese medaka), essentially the concept of Developmental Origins of Health and Disease (DOHaD), but from an ecological perspective. I learned about the use of fish models in toxicology research, one of the new approach models! Dr. Hinton offered me a job as a research assistant over the summer, where I scrubbed tanks, collected and screened embryos for developmental anomalies, learned basic histology techniques for fish tissues, and, of course, I cleaned a lot of glassware!

In 2009, Dr. Hinton hired me as a Lab Manager, where I continued to build and hone my research techniques in fish models. During this time, I had the pleasure of working with the current SOT President, Dr. Cynthia Ryder, who was a postdoctoral researcher. She was instrumental in my early development as a scientist and continues to be a trusted friend and mentor.

From 2011-2017, I pursued a PhD in Toxicology at North Carolina State University under the direction of Dr. Seth Kullman. My dissertation focused on how environmental toxicants affect skeletal development in fish, using transgenic models to detect changes in osteoblasts (bone-forming cells) and bone formation. I also learned about transgenic models, the confocal laser scanning microscope, cell culture, standard molecular techniques, and RNA-seq.

**Christie:** Was it about this time that you attended an SOT meeting?

**AtLee:** In 2015, I attended my first SOT meeting on my own. It was overwhelming, but I was fortunate to know a few folks from the NC State program and the NIEHS/National Toxicology Program (NTP) who introduced me to new colleagues. While forming those connections over coffee/drinks, I learned about postdoctoral opportunities at the NTP (now the Division of Translational Toxicology, DTT). I was excited to learn about the applied toxicology focus of the research at NTP/DTT. I quickly began seeking additional

## EEOC Spotlight on Dr. AtLee Watson (con't)

experience to strengthen my CV for when I was ready to apply for a postdoctoral position. One year later, at the 2016 SOT Annual Meeting, I participated in the Mentor Match Program, and wouldn't you know it, I was matched with NTP/DTT Toxicologist, Dr Vicki Sutherland, who introduced me to the world of developmental and reproductive toxicology testing in rodents. Looking back, I am so grateful for all the graduate student opportunities SOT supports, which enabled me to meet new friends and colleagues in a welcoming environment.

Fast forward to 2018: I began a postdoctoral fellowship at the NTP/DTT under the direction of Dr. Dori Germolec, where I left benchtop research and served as a study scientist/project leader to address key data gaps for chemicals/agents to inform risk assessments that protect human health. This fellowship opened my eyes to the role of contract research organizations (CROs) in conducting GLP (Good Laboratory Practices)-compliant toxicity studies that generate data used by regulatory bodies to assess potential hazards and risks to human health.

After a formative 3 years with NTP/DTT, I accepted an offer for a Study Director position at Integrated Laboratory Systems, a CRO now part of Inotiv, located in Research Triangle Park, North Carolina. There, I gained experience leading all aspects of GLP-compliant studies intended for submission to the US Food and Drug Administration (US FDA), the US Environmental Protection Agency (US EPA), and other international regulatory bodies and agencies responsible for protecting human health. Recently, I was promoted to Director, *In Vivo* Operations, where I oversee all safety assessment programs at the Inotiv RTP site.

### ***We then moved on to the Society of Toxicology and our reasons for serving on committees.***

**Christie:** How has being a member of the EEOC Committee of SOT helped you in your career?

**AtLee:** It has been a great way to meet colleagues across the Society and build my professional network. Most importantly, it provides an avenue to give back and serve the society that was instrumental in my development during my graduate and postdoctoral years.

### **Turning to toxicology in the real world, we discussed some differences and similarities between directing studies in a CRO versus an academic setting.**

**Christie:** What are some challenging tasks in your job?

**AtLee:** Staying current on the newest drug modalities used to treat cancer and other human diseases is incredibly exciting and challenging. Determining which animal model(s) are best suited to address questions related to human safety and pharmacology, and helping clients design a testing program that provides regulators with the best possible safety assessment, are the most intellectually challenging and rewarding parts of my job.

**Christie:** What are the other areas for toxicology to modernize?

**AtLee:** We have to continue to qualify the NAMs (novel approach methodologies) and their domains of applicability. Dermal testing is a great example of how we validated a set of assays to address a very specific question regarding "hazard," and they are highly predictive of the response observed in animals. Unfortunately, I do not believe that every biological system or response can be addressed using a NAM or set of NAMs, but the work of the international validating committees will be instrumental in driving the regulatory acceptance of those that are highly predictive and can ultimately reduce animal usage. Today, you cannot talk about modernization without mentioning artificial intelligence. This technology holds immense promise, but we have to recognize the glaring limitation that A. is only a model and is only as intelligent as the data used to train it.

## EEOC Spotlight on Dr. AtLee Watson (con't)

Currently, there is so much scientific data outside the public domain. To truly optimize AI and NAMs, we need a way to share proprietary data for training these models while protecting the intellectual property of those who generated and own the data.

**Christie:** Do you have any thoughts on the future of academic toxicology training?

**AtLee:** Future training needs to draw on interdisciplinary sciences so that when you enter the workforce, you can easily draw on multiple experiences that span NAMs, *in vivo* animal studies, and computational methods and big data. I also believe that graduate programs' curricula should reflect the reality of the job market. Fewer than 10% of PhD scientists pursue careers in academia. Graduate programs should place greater emphasis on developing internships with external partners to provide students with experience working in an interdisciplinary, team-based environment.

**We concluded by chatting about our activities away from work.**

**Christie:** Aside from toxicology, what hobbies or other interests do you pursue?

**AtLee:** When I am not at work, I love spending time with my wife and daughter, backpacking trips with my brother (my best friend), canoe trips through the blackwater swamps of NC, deer hunting, and generally any activity in nature.

## Session Proposals for the 2027 SOT Meeting Due May 15



While we are gearing up for SOT 2026 (hope to see you there!), the deadline for SOT 2027 session proposals is just around the corner! Workshops and symposium sessions at the SOT Annual Meeting provide an opportunity for under-graduate educators to emphasize the importance of training undergraduates in toxicology. There have been many forces influencing toxicology education in the last few years, and these could be highlighted in a workshop or symposium at the 2027 Annual Meeting. Topics could touch on innovative teaching strategies, novel risk communication approaches, affordable toxicology laboratory activities, summer training activities and opportunities for undergrads, active learning and problem-based learning approaches in toxicology, translating toxicology to the public, or any other area or issue that would be of interest to SOT members, especially those involved in training of students or educating laypersons.

The deadline to submit session proposals for the 2027 Annual SOT Meeting is May 15, 2026. It takes time to put together an attractive session proposal, to line up speakers, and to obtain buy-in from one or more component groups before submission, so get together soon with a colleague or two to brainstorm and write a great proposal. Bring your ideas to the Undergraduate Educator Network meeting during SOT or share them with an EEOC member for more discussion.

Helpful information for developing a strong proposal can be found on the [SOT website](#) beginning in March.



## SOT EEOC Committee

Charge: The Educational and Experiential Opportunities Committee (EEOC) will develop and administer opportunities and educational resources for (1) students and postdoctoral scholars to expand their knowledge by attending educational and professional events and (2) graduate and undergraduate educators to enhance their ability to increase awareness of toxicology among the academic community.

### Members (2025–2026)

- **Phillip A Wages**, BS, PhD, EEOC Chair, Estée Lauder Companies
- **Chris Perdan Curran**, PhD, EEOC Co-Chair, Northern Kentucky University
- **Tracie Baker**, BS, DVM, MS, PhD, University of Florida
- **Jamie J Bernard**, PhD, Michigan State University
- **Eva-Maria Schoetz Collins**, PhD, Swarthmore College
- **Kymerly M Gowdy**, BS, MS, PhD, Ohio State University
- **Greg M Landry**, BS, PhD, DABT, Massachusetts College of Pharmacy & Health Sciences
- **Lauren Lewis**, PhD, MBA, Apellis Pharmaceuticals, Inc.
- **Meghan Rebuli**, PhD, University of North Carolina at Chapel Hill
- **Christie M Sayes**, PhD, Baylor University
- **AtLee Watson**, PhD, DABT, Inotiv
- **Kimberly Zaccaria**, PhD, DABT SRC, Inc.
- **Haiyan Lu, MD**, PhD, Postdoctoral Representative, University of Louisville
- **Milica Pavlovic**, MPharm, Student Representative, University of Iowa
- **Jennifer L Rayner**, PhD, DABT, SOT Council Contact, SRC, Inc.
- **Darryl Hood, PhD**, SOT Council Contact, The Ohio State University
- **Shannon Frohm**, SOT Staff Liaison, SOT Headquarters

Thanks to the members completing their terms.  
New committee year begins May 1, 2026.

*Thank  
You*

Phillip Wages, BS, PhD, Chair 2025-2026,  
Member 2023-2026

Tracie Baker, BS, DVM, MS, PhD, Member, 2023-2026

Eva-Maria Schoetz Collins, PhD, Member, 2023-2026

Meghan Rebuli, PhD, Member, 2023-2026

Haiyan Lu, MD, PhD, Postdoctoral Representative, 2025-2026

Milica Pavlovic, MPharm, Student Representative, 2025-2026

Jennifer L Rayner, PhD, DABT, SOT Council Contact 2023-2026

**SOT** | Society of  
Toxicology

**Ideas for the SOT Undergraduate e-Newsletter?**

**Contact [Kim Zaccaria](#), Newsletter Lead;**

**Jamie Bernard, Lauren Lewis, Christie Sayes, or AtLee Watson, Newsletter Subgroup**

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