



2022 Undergraduate Educator Award Goes to Kristine Willett



Kristine Willett, PhD, will be recognized at the 2022 SOT Annual Meeting as the recipient of the Undergraduate Educator Award for her exemplary undergraduate teaching contributions and her support of undergraduate educators—both in her classroom and in the greater scientific community. The award is sponsored by the SOT Endowment.

Dr. Willett received her PhD in toxicology in 1997 and conducted postdoctoral fellowships at Indiana University and Duke University. She then joined the University of Mississippi School of Pharmacy, where she now serves as Chair of the Department of Biomolecular Sciences and as a Professor of pharmacology and environmental toxicology. Her undergraduate degree in chemistry

is from the University of North Carolina, Chapel Hill.

Since joining the University of Mississippi in 2000, Dr. Willett has been the instructor of record for all undergraduate toxicology courses, developing and subsequently updating the undergraduate Introduction to Toxicology and Introduction to Environmental Toxicology curricula. In the past five years alone, Dr. Willett has taught more than 200 undergraduate students.

A tenured professor, Dr. Willett also has taught for many years in the Sally McDonnell Barksdale Honors College, including presenting a conversations class in environmental health and a new experiential learning course on drinking water access and safety. Highly regarded among her colleagues, Dr. Willett has been recognized in the University of Mississippi School of Pharmacy with the Instructional Innovation Award and was a Distinguished Teaching Scholar. The university also recognized her with the Faculty Achievement Award.

Dr. Willett's mentorship of the diverse undergraduates who have worked in her laboratory is equally impactful to her classroom activities. She has hosted research experiences for 65 high school and undergraduate students, exposing them to her federally funded research, and has mentored 56 undergraduate students. Undergraduates are part of all Dr. Willett's research projects with specific funding for undergraduate research from multiple mechanisms, and she has received two National Institutes of Health supplements—totaling more than \$97,000—for summer research experiences for undergraduate students.

Dr. Willett's excellence as an undergraduate educator also is exemplified through the caliber of her students, who have received both scientific meeting travel awards and presentation awards and are co-authors of several of Dr. Willett's publications. Many of Dr. Willett's students have gone on to medical and pharmacy schools, and others are continuing their careers in toxicology and forensic toxicology.

An SOT member since 2001, Dr. Willett has been a champion for undergraduate educators within the Society, including through her service as a member of both the Undergraduate Education Resources Task Force and the Faculty United for Toxicology Undergraduate Recruitment and Education (FUTURE) Committee. In addition to these appointments, Dr. Willett served as Co-Chair of the Undergraduate Education Subcommittee. In her roles within SOT, Dr. Willett contributed to publicly available education resources, including a series of Undergraduate Educator Network webinars and the Eminent Toxicologist Lecture Series, strengthening the Society's impact in undergraduate education. In addition to this service, Dr. Willett is a Past President of the South Central Regional Chapter and Molecular and Systems Biology Specialty Section, a member of the SOT Membership Committee, and an inaugural Deputy Editor of Toxicological Sciences.

Question and Answer with Kristine Willett, PhD

The great state of Mississippi is known for its magnolias, catfish, blues music, and southern hospitality. It's known for a host of famous musicians born there including Muddy Waters, BB King, Elvis Presley, and Jimmy Buffet. It's also where Pulitzer Prize winning author Eudora Welty was born, as well as the place where TV personality Oprah Winfrey, actor James Earle Jones, and civil right leader Medgar Evers were born. It's also the place where Dr. James D. Hardy performed the world's first human lung transplant at the University of Mississippi Medical Center in 1963. Now Mississippi can boast of yet another achievement, being the home of Professor Dr. Kristie Willett of University of Mississippi, the newest recipient of SOT's prestigious Undergraduate Educator Award! *Congratulations, Professor Willett!*

When not in the lab or classroom teaching toxicology, Kristie is highly active in promoting undergraduate toxicology not just in Mississippi, but also regionally through SESOT and nationally through SOT itself (e.g., as the former chairperson of the SOT Undergraduate Education Subcommittee, now the FUTURE committee). Dr. Willett graciously accepted our request for a Q & A for the newsletter.

Question 1: Please describe your toxicology journey from student to faculty member?

Kristie: Hmm, how far back do you want to go? Toxicology was in my blood from an early age, and I attended my first SOT meetings as a kiddo (e.g., 1978) with my father, a now retired Ohio State Professor of Animal Science/Toxicology. I was privileged that my first publication was with him when I was still in high school on the topic of PCB metabolism by rumen microorganisms. I knew about CIIT/Research Triangle Park in high school and decided to attend the University of North

Carolina and work at CIIT in their summer undergraduate internship programs. My undergraduate chemistry honors work was done at Oak Ridge National Lab about mercury leaching. So, by the end of undergrad, I was pretty committed to toxicology and headed off to Dr. Safe's lab at TAMU where I got to do environmental toxicology, particularly in marine environments. I have been working with fish ever since. I did two postdoctoral fellowships at Indiana University and Duke University where I learned lots about mass spectrometry and PAH metabolism, respectively, before joining UM in 2000 as an Assistant Professor in the School of Pharmacy. Fast forward 22 years, I now serve as Department Chair of BioMolecular Sciences and the Graduate Program Coordinator for Environmental Toxicology.

Question 2: In a few sentences, which is difficult to do, please tell us about your research?

Kristie: The thing I have always loved about toxicology is its interdisciplinarity. I currently have ongoing collaborative projects ranging from developmental basis of adult disease from cannabinoids and benzo[a]pyrene exposure in zebrafish, oyster restoration in the face of climate change and environmental stressors, and community-engaged research on the problem of lead in drinking water.

Question 3: What are some of your biggest challenges in teaching toxicology to undergraduates and capturing their interest?

Kristie: Actually, I think it is pretty easy to capture undergraduates' interest in toxicology... toxicology is all around them. That is one of the main things I try to achieve in my undergraduate classes is to get them to recognize it. We do frequent "toxicology in the news" -based discussions. I teach primarily pharmacy and forensic chemistry students so all the drugs of abuse that we cover are directly related to their careers. For the first time this year, in the first week of class I invited back four of my former students for a career panel (representing graduate school, law school, a forensic lab, and risk assessment firm perspectives). It actually turned out to be one of the highlights of the class for me (I was so proud of the alums) and the students (many hadn't even considered graduate school, for example). We referred back to the alums' perspectives the rest of the semester.

Question 4: What was your most memorable SOT meeting?

Kristie: That's a hard question but probably the ones I attended in graduate school. TAMU always had a large and fun student contingent. The Dallas meeting in 1994 was especially neat because both my father and I had poster presentations that year.

Question 5: Would you be willing to share some thoughts regarding how to increase diversity and inclusivity in the field of academic toxicology?

Kristie: I think the pipeline is important starting as young as possible. Like I mentioned toxicology is all around us, so it is, I think, easier to excite students about our field. We mentor high school research experiences and give lots of lab tours and for many this is the first time they are seeing what science looks like up close. Once we have recruited diverse students, we need to be vigilant about ensuring our labs and classrooms are welcoming and their perspectives are valued. Increasing DEI in academic toxicology needs to be a core value because diverse perspectives are needed so we do toxicology-relevant research that drives public health policies with appreciation of the existing health and access inequities.

Question 6: Do share some thoughts regarding the challenges that women in the field of toxicology face today and some advice on how you continue to achieve despite the many claims upon your time. Are there any resources or networks you can recommend as good support for new faculty who are looking to contribute to the greater good through scholarship?

Kristie: I think women, at least in academic toxicology, fall into the previous question as they are an important aspect of diversity. The same issues of pipeline, inclusion, and perspectives valued are true. I am the only tenured female professor in my department, but we have recruited four others in the past six years including another toxicologist, so mentoring and creating a supportive work environment for them is an important daily aspect of my job.

We thank Dr. Kristie Willett for taking the time to share with us!

The SOT ToxScholar Program Brings Toxicologists to Classrooms: Inspire future toxicologists! Apply for a SOT ToxScholar Outreach Grant



ToxScholar visit in Moldova

The [SOT ToxScholar program](#) provides support for visits of toxicologists to undergraduate classrooms to present toxicology concepts and recruit students to careers related to toxicology. Up to \$500 is available to defray event and travel costs for toxicologists to visit an institution in the same country, and up to \$1250 when a toxicologist travels to a country participating in the [SOT Global Support Economy Programs](#). Applications are accepted at any time if funds remain. FUTURE Committee also welcomes applications for virtual ToxScholar visits.

Recent Webinars

Approaching Scientific Controversies in Toxicology and Public Health

Undergraduate Educator Network Webinar

[Recording](#)

Is use of marijuana safe? Is climate change driven by human activity? Are vaccines

safe? Scientific reporting in the mainstream media may drive undergraduate interest in toxicology but teaching the science behind these seemingly contentious issues requires an understanding of the rhetoric used in media reporting as well as access to knowledge bases that support evaluation of the existing evidence for hazard and risk. In this Undergraduate Educator Network webinar, hosted by the FUTURE Committee and moderated by Katie Paul Friedman and Jaime Mirowsky, experts discuss how to analyze scientific "controversies" in the news and approach risk communication in science for public health issues. Lessons from this webinar will also be helpful for nonacademic toxicologists who communicate about science with various audiences. The two presentations will be followed by discussion.

Contextualizing Controversy: Using Argumentation and Debate in the Science Classroom

Catherine E. Morrison, PhD, Teaching Professor and Director of Debate, Department of Communication Studies, Harrington School of Communication and Media, University of Rhode Island

Pursuing Research with Integrity on Controversial Topics: Marijuana in the Immune System

Barbara Kaplan, PhD, Associate Professor, Comparative Biomedical Sciences, Center for Environmental Health Sciences, Mississippi State University. Previous UEN webinars are linked from the [webinar page](#).

Diversity In Toxicology Discussion

Of Interest to Students!

[Recording link pending here](#)

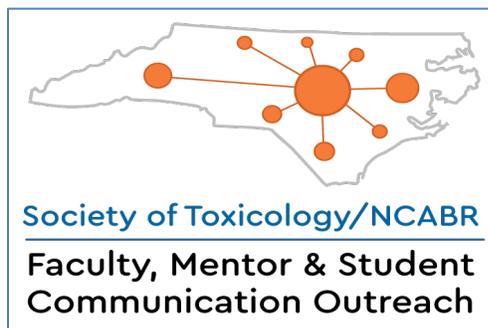
This webinar will feature dynamic toxicologists who will share reflections on their personal career journeys

Faculty are encouraged to share this invitation with colleagues and undergraduate students. We also encourage faculty to share the recording of this program with students to introduce undergraduates to inspiring role models in toxicology.



Panelists

- Antonio T. Baines, PhD, Associate Professor, Dept. of Biological and Biomedical Sciences, North Carolina Central University; Adjunct Associate Professor, Department of Pharmacology, School of Medicine, University of North Carolina at Chapel Hill
- Schantel A. Bouknight, DVM, PhD, Diplomate ACVP, Senior Scientific Director, Charles River Laboratories
- Checo J. Rorie, PhD, Interim Chair, Department of Biology, Associate Professor of Genetics, North Carolina Agricultural and Technical State University
- Kristen Ryan, Ph.D., DABT, Toxicologist, Division of the National Toxicology Program, National Institute of Environmental Health Sciences



Toxicology Curriculum Discussion Series

The North Carolina Higher Education Faculty and Mentor Network hosts a free webinar series in 2021–2022 providing resources and examples to help faculty integrate core principles of toxicology into various undergraduate courses. The series is based on the SOT [Toxicology Learning Framework](#) and co-facilitated by Joshua Gray and Mindy Reynolds, with a guest facilitator for each session as below. Between sessions discussion continues in the ToXchange community.

Webinar 1. [An Introduction to the Core Concepts of Toxicology](#)—Chris Perdan Curran
Toxicology Core Concepts

Webinar 2. [A Focus on Evolution](#)—Jed Goldstone

Webinar 3. [Biological Information—Toxicology and the Genome](#)—Alicia Timme-Laragy

Webinar 4. [Pathways and Transformations of Toxicants, from Dose-Response to ADME](#)—
Kristine Willett

Webinar 5. [Systems Toxicology](#)—Eva Oberdorster

Webinar 6. [Risk Assessment](#)—Annie Jarabek and George Woodall

[Register](#)

Webinar 7. A Culmination of Core Concepts to Teach Toxicology—Nimrat Obhi
April 11, 12 noon ET

The final session in April will review the resources that have been discussed during the series and present additional curricula, such as the green chemistry offerings by [Beyond Benign](#).

Upcoming Webinar for Students



March 1, from 1:00–3:00 PM EST

[Register](#)

This SOT Graduate Student Subcommittee (GSLC) free webinar might be of interest to your students, "How to Become a More Successful YOU!"

Part 1: Presentation and Q&A: Job search skills, creating successful resumes/CVs, using LinkedIn for networking, navigating career choices, and adapting to virtual/pandemic-related challenges in the hiring process

Part 2: Panel and Breakout Room Discussion: Experts from multiple areas of toxicology will provide insight into both the hiring process and day-to-day aspects of their current positions, focusing on early-career expectations, how they landed their first jobs, and what is sought by hiring managers.

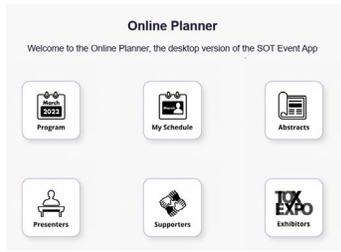
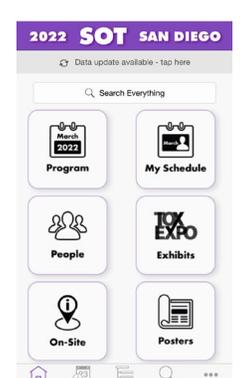
Panelists

- Mamta Behl: Principal Scientist, Neurocrine Biosciences
- Lauren Celano: Founder and CEO, Propel Careers
- Weihsueh Chiu: Professor, Texas A&M University, Former Scientist, US EPA
- Mary Ellen Cosenza: President, MEC Regulatory & Toxicology Consulting, LLC
- Brandy Riffle: Regulatory Toxicologist, BASF Agricultural Solutions
- Todd Stueckle: Research Biologist, Health Effects Lab Division, CDC/NIOSH
- Kary Thompson: Scientific Director, Janssen Pharmaceutical Companies of J & J
- René Viñas: Toxicologist, Regulatory Affairs Team, Upside Foods.

Participants can then join panelists in breakout rooms for more engaging discussions based on their area of interest and participate in a raffle activity.



Use these Resources to Plan SOT Annual Meeting Attendance!

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| <h3><u>On-line Planner</u></h3>  <p>Online Planner</p> <p>Welcome to the Online Planner, the desktop version of the SOT Event App</p> <p>Program, My Schedule, Abstracts, Presenters, Supporters, Exhibitors</p> | <h3><u>Meeting App</u></h3>  <p>2022 SOT SAN DIEGO</p> <p>Data update available - tap here</p> <p>Search Everything</p> <p>Program, My Schedule, People, Exhibits, On-Site, Posters</p> | <h3><u>Meeting Essentials</u></h3>  <p>Meeting Essentials</p> |
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Vaccination Required for Onsite Attendees—[Health and Safety Information](#)

Registrants Not Onsite Can Access Livestreamed and Recorded Sessions

Annual Meeting Registration Fee Waived for Undergraduates

Undergraduate students may request an SOT Annual Meeting and ToxExpo registration fee waiver by completing a meeting [Registration Form](#) and sending it with a copy of their student ID to sotmeetings@toxicology.org. Even if students can't travel to SOT, registrants will have access to livestreamed and recorded sessions. Perhaps there is a meeting session that would fit into the curriculum of a course you are currently teaching?

Sessions for Educators (All times are Pacific Time)

Saturday, March 26

CDI Reunion

7:30 PM-8:30 PM

Meet the 2022 Undergraduate Diversity Program students and greet friends and supporters of the program at this networking event. CC Center Terrace

Monday, March 28

Education-Career Development Session Endorsed by FUTURE

1:45-4:40 PM Publishing Educational Toxicology Exercises in CourseSource: A Step-by-Step Workshop for Preparing Your Manuscript CC Ballroom 6C

Writing Workshop at the Annual Meeting for Preparing Educational Articles for CourseSource

Do you have a fantastic toxicology lesson you'd like to share with fellow educators or an idea for a toxicology lesson that you'd like to pitch and get feedback on before digging deeper? Come to this workshop. Those registered for the meeting can also access the livestreamed or recorded session.

The workshop will kick off with CourseSource Managing Editor Erin Vinson who will describe the online journal, SOT's undergraduate toxicology learning framework, and how to create manuscripts from the process from ideation to completion. Next, three SOT members (Josh Gray, Lauren Aleksunes, and Mindy Reynolds) who've submitted their own manuscripts to CourseSource will discuss their authorship experience and a bit about the lessons they've submitted. For the remainder of the workshop, participants will spend time crafting their lessons and getting feedback from their peers and the speakers as they work. Make sure to bring your notebook or personal computer for the best possible experience. Let us know if you are planning on attending by completing [this form](#).

Whether you have a new idea that you want to toss around with colleagues or have a well-tuned exercise that you've been using for years, this workshop will help you develop your idea and prepare it for submission to CourseSource. The course you're using the lesson in doesn't need to be

Toxicology, so long as it is using Learning Objectives from the Undergraduate Toxicology Learning Framework. We're excited to host this first-ever writing workshop and look forward to seeing you there!

Opportunities for Toxicology Educators and Students: Learn How SOT's FUTURE Committee Dedicated to Undergraduate Education Can Help You

Tiny Tox Talk

3:30-3:50 PM

Larissa Williams, FUTURE chair, will outline the SOT resources and FUTURE activities to support faculty and students. CC ToxExpo Theater

Undergraduate Educator Network Meeting

4:30 PM-5:30 PM This informal meeting is the chance to share teaching experiences and ideas with your faculty colleagues and those who are interested in undergraduate education. Room 9

Tuesday, March 29

Education, Ethical, Legal, and Social Issues Posters

9:00 AM-4:30 PM, Author attended 9:00 AM-10:45 AM

Come to discuss new educational innovations with the presenters and your colleagues. ToxExpo

Sessions for Undergraduate Students

The CDI and FUTURE Committee have organized these activities to provide more information about toxicology, assist with career planning, and encourage networking with graduate students and toxicologists.

March 26-March 28

Undergraduate Diversity Program

The 30 students and three SOT non-member faculty advisors who were selected from a national pool of applicants will join mentor groups and participate in the [Undergraduate Diversity Program](#) Saturday evening, March 26, the Undergraduate Education Program on Sunday, and scientific sessions on Monday, March 28.

Sunday, March 27

Undergraduate Education Program

8:00 AM-5:00 PM

Any undergraduate registered for the meeting can request a ticket for the [Undergraduate Education Program](#). Mentors will facilitate discussions of toxicology research presentations and a case study Sunday morning. Students attend breakout sessions about graduate school and career options before an open session to meet with directors of academic toxicology programs.

Student-Postdoctoral Mixer

7:30 PM-9:00 PM

The Graduate Student Leadership Committee hosts this mixer for undergraduates and trainees. Representatives from SOT component groups have posters to highlight the activities of these groups. It is a great way to get to know other meeting attendees and more about involvement in SOT.

Tuesday, March 29

Undergraduate Student Meeting

12:30 PM-1:30 PM

Undergraduate students can meet with their peers over pizza as well as discuss graduate school with graduate students from a diversity of toxicology-related graduate programs. CC Room 9

Mentoring and Networking Activities

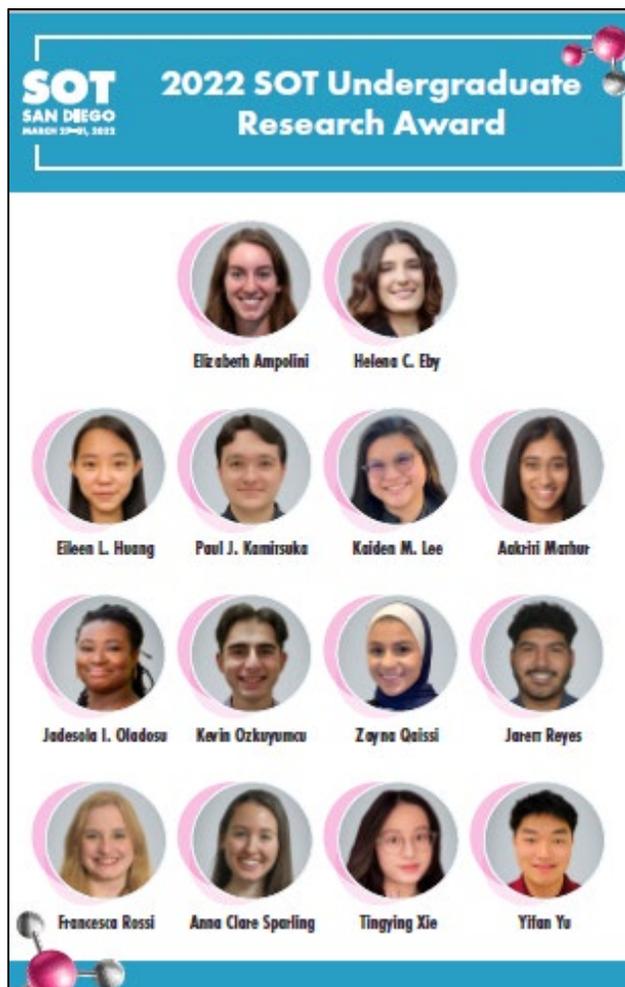
The SOT meeting has a rich selection of networking opportunities including the Sunday evening Student Postdoctoral Mixer and the Regional Chapter, Special Interest Group, and Specialty Section events. For example, the Comparative Toxicology, Pathology, and Veterinary Specialty Section is partnering with the Society of Toxicologic Pathology for a mentoring event explaining how veterinary medicine impacts toxicology careers. Use the [SOT app](#) or [online planner](#) and search on “mentoring” for other sessions or select the filter for “SOT Component Group Events.”

SOT Undergraduate Research Awards Announced

FUTURE is pleased to announce the 2022 recipients of the SOT Undergraduate Research Award. These fourteen students were selected from a large and impressive pool of applicants and will receive travel support to attend the March SOT meeting as well as recognition and pairing with mentors. Congratulations to the students!

FUTURE would like to extend a special thank you to the research mentors of the 2021 and 2022 award recipients





for their dedication, creativity, and adaptability in creating impactful student research opportunities during the pandemic. Their efforts continue the sustained grassroots efforts of so many to recruit more scientists to the toxicology field. FUTURE appreciates the efforts of all educators that have created ways to engage undergraduates. Thank you all!!

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.

Monday, March 28

9:00 am–10:45 am #3301 Sulfur Mustard Vapor Alters Epidermal Growth and Differentiation in Göttingen Minipig Skin. **Kevin Ozkuyumcu, Rutgers, The State University of New Jersey**. Advisor: Laurie Joseph, Rutgers, The State University of New Jersey

9:00 am–10:45 am #3124 Evaluation of Sex-Dependent Effects Caused by Polychlorinated Biphenyl Exposures on Cancer Endpoints Using an ‘Omics Approach. **Zayna Qaissi, University of Louisville**. Advisor: Banrida Wahlang, University of Louisville.

10:45 am–12:30 pm #3137 Evaluating the Anti-Proliferative Effects of a PPAR β/δ Ligand Isosteric Selenium Replacement in a Human Melanoma Cell Line. **Helena Eby, Bloomsburg University of Pennsylvania**. Advisor: Michael G. Borland, Bloomsburg University of Pennsylvania.

10:45 am–12:30 pm #3134 Novel Keap1-Nrf2 Direct Inhibitors Reduce Estrogen-Induced Effects in Estrogen-Receptor Positive Breast Cancer. **Tingying Xie, Rutgers, The State University of New Jersey**. Advisor: Nanjoo Suh, Rutgers, The State University of New Jersey.

2:30 pm–4:15 pm #3246 Effects of Arsenic on Host Susceptibility to Bacterial Infection. **Aakriti Mathur, Johns Hopkins University**. Advisor: Sangeeta Khare, USDA NCTR.

2:30 pm–4:15 pm #3391 Association of Ergot Alkaloid Profiles with Insect Tolerance in Grass Cultivars. **Francesca Rossi, Oregon State University**. Advisor: Jennifer M. Durringer, Oregon State University.

10:45 am–12:30 pm #3618 Polyploidy Confers Protection from Chemotherapy Drug Toxicity in *Caenorhabditis elegans*. **Elizabeth Ampolini, Medical University of South Carolina**. Advisor: Jessica Hartman, Medical University of South Carolina.

Tuesday, March 29

10:45 am–12:30 pm #3747 Huntingtin and Vanadium Cooperatively Induce Mitochondrial Dysfunction and Inhibit Compensatory Neuroprotective Mechanisms in a Striatal Cell Model. **Paul Kamitsuka, Oberlin College**. Advisor: Gunnar Kwakye, Oberlin College.

2:30 pm–4:15 pm #3651 Ti Deposition in Fetal Tissue Evaluated against Uterine Position and Fetal Sex after Maternal Inhalation of Nano-TiO₂ during Pregnancy. **Jarett Reyes George, Rutgers, The State University of New Jersey**. Advisor: Phoebe Stapleton, Rutgers, The State University of New Jersey.

Wednesday, March 30

9:00 am–10:45 am #4271 JUUL E-liquids Impact on Human Osteoblast-Like Cells: Unmineralized and Mineralized Bone Markers. **Kaiden Lee, College of Idaho**. Advisor: Sara Heggland, College of Idaho.

10:45 am–12:30 pm #4394 The Mechanism of Immune Cell Clearance during the Resolution Phase of Acetaminophen-Induced Liver Injury in Mice. **Eileen Huang, Case Western Reserve University**. Advisor: Hartmut Jaeschke, University of Kansas Medical Center.

10:45 am–12:30 pm #4393 RNA-Binding Protein HuR Protects Mice against Western Diet-Induced Hepatic Steatosis, Inflammation, and Fibrosis. **Yifan Yu, University of Kansas Medical Center**. Advisor: Yuxia Zhang, University of Kansas Medical Center.

2:30 pm–4:15 pm #4275 Characterizing Environmental Mixtures and Their Contribution to Breast Cancer Risk: State of the Evidence. **Jadesola Oladosu, North Carolina Central University**. Advisor: Suzanne Fenton, National Toxicology Program.

2:30 pm–4:15 pm #4685 Sex Differences in Mitochondrial Function and Susceptibility to Mitochondrial Toxicants in *C. elegans*. **Anna Sparling, Duke University**. Advisor: Dillon King, Duke University.

RC4 Undergraduate Travel Award Recipients

SOT Regional Chapters (RCs) foster scientific exchange at a local level. There are 18 Regional Chapters, which host local meetings throughout the year and support awards. Undergraduates are encouraged to join to network, present their research, and learn more about SOT.

The RCs are represented by the Regional Chapter Communication and Collaboration Committee (RC4), an internal advisory council and liaison to the national SOT that works to improve the

promotion of science of toxicology at the regional level. Each year, the [RC4 Undergraduate Travel Award](#) is bestowed to outstanding undergraduate members of RCs whose abstracts have been accepted for presentation at the SOT Annual Meeting. Students who have conducted research in the laboratory of an RC member can apply; each chapter forwards the application packet for consideration by RC4. The application deadline is in October at the time of abstract submission.

The 2022 recipients of this award have conducted impressive independent research projects in the field of toxicology and have received outstanding recommendations from their mentors and Regional Chapter Executive Committees. The RC4 Award recipients also plan to pursue graduate-level degrees and continue research after completing their undergraduate degrees.

We look forward to seeing these presentations in San Diego:

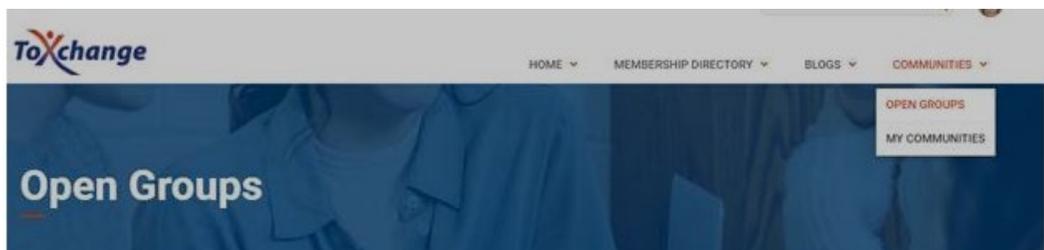
- **Tanvi Banota, Rutgers, The State University of New Jersey**, representing the Mid-Atlantic Regional Chapter, Project: Characterization of Liver and Lung Injury and Inflammation in a High-Fat Diet Mouse Model of Non-alcoholic Steatohepatitis
- **Eleanor Scheeres, Calvin University**, representing the Michigan Regional Chapter, Project: Toxicant-Pathogen Interactions during Pregnancy: Pilot Study of Pregnant Murine Co-exposure to Trichloroethylene (TCE) and Group B Streptococcus (GBS)
- **Kallie Schafner, West Virginia University**, representing the Allegheny-Erie Regional Chapter, Project: Effects of Maternal Inhalation Exposure to Propylene Glycerol and Vegetable Glycerin on Fetoplacental Health

ToXchange Undergraduate Educator Network

ToXchange is an excellent venue to exchange ideas, learn about resources and opportunities, and receive SOT announcements for undergraduate faculty. Join ToXchange to harness the power of our UEN network!

Be sure to tell
your
colleagues
and friends!!

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



Deadline Approaching: Undergraduate Faculty Grants Applications Due April 8

Two grants are available from SOT: 1) [SOT Undergraduate Faculty Research Grant](#) and 2) the [SOT Undergraduate Faculty Development Grant](#). These grants provide up to \$1,500 in support for an undergraduate research project research or a faculty professional development endeavor. SOT provides this funding to support faculty at primarily undergraduate institutions, which are often underresourced for research, to encourage their professional development and engagement in toxicology as well as acknowledge and aid their potential for recruiting students into toxicology. Applications are due **April 8, 2022**, for projects in summer 2022 or in the 2022-2023 academic year. Let's all work to help keep SOT's future bright!

More Information:

[Undergraduate Faculty Research Grant](#)

[Undergraduate Faculty Development Grant](#)



Undergraduate Skills Development: Applications Due April 15



Which of your students would benefit from an extensive professional development activity in toxicology?

[Applications](#) from undergraduates for the next cohort of the Toxicology Mentoring and Skills Development Training program ([ToxMSDT](#)) are due April 15, 2022. Among criteria, eligible applicants are US citizen or permanent resident STEM majors who have completed at least one semester of general biology and general chemistry and are a member of a group underserved in the biomedical sciences (for example, underrepresented racial/ethnic groups; those from disadvantaged backgrounds such as low socioeconomic status, or those who grew up in a rural or inner-city setting). Accepted students engage in a year-long mentoring and learning community, paired with a mentor and participating in a multi-day job shadowing experience. The students receive travel support to attend beginning and culminating workshops and the SOT Annual Meeting, while increasing their understanding of toxicology through online training.

Resources of Interest to Faculty

National Research Mentor Network Releases Research Skills Course for Undergraduates

The NIH-sponsored National Research Mentor Network provides a variety of resources for mentees and for mentors, including the opportunity for trainees to find a mentor outside their institutions and across biomedical disciplines or to post questions in the community. One of the newest resources is the first of three modules for the course “Launching Research.”

“[Part 1: Laboratory Readiness](#)” introduces skills to use throughout their schooling and career. Among topics in subsequent modules are research compliance, welfare of laboratory animals, research ethics, and creating a laboratory notebook. Each module requires about 45 minutes, and a certificate is provided upon course completion.



Undergraduate Research in Online, Virtual, and Hybrid Courses: Proactive Practices for Distant Students

This new book by Jennifer C. Coleman, Nancy H. Hensel, and William E. Campbell and co-published by AAC&U and Stylus Publishing in association with the Council on Undergraduate Research, is a response to increasing recognition that undergraduate research is a high-impact practice and that college instruction is increasingly moving online. Authors provide a framework, guidance from pioneering and seasoned practitioners, and a range of examples across disciplines on how to engage remote students in research.

The Inclusive STEM Teaching Project

[The Inclusive STEM Teaching Project](#) is a free 6-week course designed to advance the awareness, self-efficacy, and the ability of faculty, postdocs, and doctoral students to cultivate inclusive STEM learning environments for all their students and to develop themselves as reflective, inclusive practitioners. The course is offered by edX, a consortium of higher education institutions. The next session begins in March.



Explorer's Guide to Biology: Open Access Textbook



XBio is a project of [The Science Communication Lab](#), and related to the HHMI iBiology; a goal is to present biology as an exciting search for knowledge. A useful tool in their free resource [Explorer's Guide to Biology](#) is the [Bio-Dictionary](#), an alphabetized list of key biological terms with definitions and associated visuals.

SOT FUTURE Committee

The Faculty United for Toxicology Undergraduate Recruitment and Education Committee (FUTURE) is tasked with recruitment, retention, training, and education of undergraduates interested in toxicology. “Faculty” in FUTURE is inclusive, including those outside of academia, who promote toxicology career paths for undergraduate students.

Members (2021–2022)

Larissa Williams, PhD, Chair, Bates College; **Emily Notch Ford**, PhD, Co-chair, Western New England University; **Blase Billack**, PhD, St. John’s University; **Michael G. Borland**, PhD, Bloomsburg University of Pennsylvania; **Robin Bright**, PhD, Fort Valley State University; **Jamie C. DeWitt**, PhD, East Carolina University; **Jodi A. Flaws**, PhD, University of Illinois, Urbana-Champaign; **B. Paige Lawrence**, PhD, University of Rochester Medical Center; **Jaime Mirowsky**, PhD, SUNY ESF; **Katie Paul Friedman**, PhD, US EPA ORD-NCCT; **Wade H. Powell**, PhD, Kenyon College; **Robert Roth**, PhD, Michigan State University (emeritus); **Wilson Kiiza Rumbelha**, PhD, University of California Davis; **Rosie Sneed**, DVM, PhD, University of the District of Columbia; **David Blake**, PhD, Liaison from CDI, Fort Lewis College; **Caroline Moore**, PhD, Postdoctoral Representative, San Diego Zoo; **David Filipovic**, Graduate Student Representative, Michigan State University; **Christine Perdan Curran**, PhD, SOT Council Liaison, Northern Kentucky University; **Robyn Leigh Tanguay**, PhD, SOT Council Liaison, Oregon State University; **Betty Eidemiller**, PhD, SOT Staff, SOT Headquarters.

To those members of FUTURE whose terms in April 2022, we say THANK YOU for your service to FUTURE and your time and efforts! These members include Larissa Williams, Blase Billack, Michael Borland, Jaime DeWitt, Wade Powell, Graduate Student Representative David Filipovic, and Postdoctoral Representative Caroline Moore.

We hope to see you at *future SOT meetings*, no pun intended!



Ideas for the SOT Undergraduate e-Newsletter? Contact:

[Blase Billack](#)—St. John’s University
[Robin Bright](#)—Fort Valley State University

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