SOT Society of Toxicology
POSTDOCTORAL SCIENTIST

Spring 2026

Newsletter for the SOT Postdoctoral Assembly

THE POST-Y

From the Chair:
Embracing Innovation and New Horizons in Toxicology

Dear Postdoctoral Assembly,

Spring is a season of renewal, and across the Postdoctoral Assembly, that energy is unmistakable. Over the past year, our community has continued to push the boundaries of what a toxicology career can look like, embracing innovation, interdisciplinary thinking, and new models of scientific impact. As Chair, I am continually inspired by the dedication and foresight of each of you.

That spirit was at the heart of our recent 2025-2026 PDA webinar series, "Exploring Entrepreneurial Paths: Turning Your Scientific Training into a Business Venture." The sessions highlighted something many postdocs feel but rarely say aloud: the skills we build in the lab, including problem-solving, resilience, creativity, and the ability to navigate uncertainty, are the very same skills that drive successful ventures. Our esteemed speakers shared invaluable insights into how they identified unmet needs, built robust teams, secured crucial funding, and seamlessly translated scientific insights into real-world solutions. Their stories powerfully reinforced a message I deeply believe in: our rigorous training equips us not only to contribute significantly to existing systems, but also to boldly build entirely new ones.

As we eagerly look ahead to the SOT Annual Meeting, I strongly encourage all postdocs to carry that entrepreneurial mindset with them. The meeting is truly one of the richest environments for discovery, connection, and opportunity within our field. I have personally found these events to be transformative, and I urge you to take full advantage of the diverse offerings. Here are a few highlights to keep prominently on your radar:

- PDA Luncheon and Networking Events: These are ideal spaces to meet peers, future mentors, and influential leaders who can profoundly help shape your next steps and open doors to unforeseen possibilities.
- Career Exploration and Mentoring Activities: Whether you are curious about industry, government, academia, or innovative nontraditional paths such as consulting or entrepreneurship, these sessions offer direct access to seasoned professionals who have successfully navigated these very paths.
- Trainee-Focused Scientific Sessions: Many symposia and workshops this year place special emphasis on emerging technologies, translational science, and interdisciplinary approaches, all critical areas where postdocs can truly shine and make significant contributions.
- Poster and Platform Sessions: Presenting your hard work is not just about gaining visibility; it is a vital chance to practice your scientific narrative, refine your message for diverse audiences, and spark exciting new collaborations that can propel your research forward.

The PDA remains steadfastly committed to supporting you through every stage of your training. We do this by actively elevating trainee voices, continuously expanding our vital mentorship networks, and creating dynamic programming that truly reflects the full spectrum of exciting opportunities available to early-career scientists today.

Thank you for your continued engagement, your exemplary leadership, and your insatiable curiosity. I genuinely look forward to seeing many of you at the Annual Meeting and celebrating the innovative, entrepreneurial spirit that so uniquely defines our remarkable community.

Warm regards,
Esther Omaiye, PhD
Chair, SOT Postdoctoral Assembly

2025-2026 SOT PDA Board

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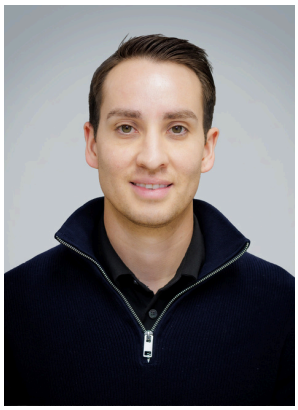
Table of Contents

Congratulations to the Best Postdoctoral Publication Awardees!

Haoxuan Chen, PhD
UCLA
Los Angeles, CA

A Ventilated Three-Dimensional Artificial Lung System for Human Inhalation Exposure Studies

Environmental Science & Technology Volume 58, Issue 52 (December): 22919-22929.



Marcus A. Garcia, PharmD
University of New Mexico
Albuquerque, NM

Bioaccumulation of Microplastics in Decedent Human Brains

Nature Medicine Volume 31, (April): 1114-1119.

David Leuthold, PhD
Helmholtz Centre for Environmental Research
Leipzig, Germany

Multi-behavioral Phenotyping in Early-Life-Stage Zebrafish for Identifying Disruptors of Non-associative Learning

Environmental Health Perspectives Online ahead of print.

Best Postdoctoral Publication Award

Haoxuan Chen, PhD
University of California Los Angeles, Los Angeles, CA

Chen, Haoxuan, Airi Harui, Yu Feng, Liqiao Li, Saagar Patel, Jacob Schmidt, Michael D. Roth, and Yifang Zhu. 2024.
A Ventilated Three-Dimensional Artificial Lung System for Human Inhalation Exposure Studies
Environmental Science & Technology
Volume 58, Issue 52 (December): 22919–22929.

What was your reaction upon receiving this award, and how will it help you pursue your research?
I was deeply honored and grateful to receive this recognition from the Society of Toxicology. It is an encouragement that affirms the value of my work and the many years of interdisciplinary effort behind it. This award strengthens my motivation to continue advancing inhalation toxicology through innovative experimental models that bridge engineering and health sciences. It also enhances the visibility of my research program as I transition toward an independent academic career, helping me build new collaborations and attract support to expand this line of research.

In non-technical terms, describe your research and work, including your future goals. Also, provide details on the specific research for which you won this award.
My research focuses on understanding how the air we breathe, whether from air pollutions or using inhalable substances, affects our lungs. I combine engineering and biology to build laboratory models that mimic how the human lung breathes and responds to airborne substances. The study recognized by this award describes a “breathing” artificial lung that I designed and built to realistically simulate how the human lung takes in, transforms, and reacts to inhaled particles and vapors. Using this system, we studied electronic cigarette aerosols and discovered how their size and composition change once they enter the warm, humid environment of the lung and cause biological effects on airways. Looking ahead, I plan to use this artificial lung technology to study other real-world exposures, such as wildfire smoke and indoor air contaminants, and to develop better ways to protect people from respiratory health risks.

Best Postdoctoral Publication Award

Marcus A. Garcia, PharmD
University of New Mexico College of Pharmacy, Albuquerque, NM

Nihart, Alexander J., Marcus A. Garcia, Eliane El Hayek, Rui Liu, Marian Olewine, Josiah D. Kingston, Eliseo F. Castillo, Rama R. Gullapalli, Tamara Howard, Barry Bleske, Justin Scott, Jorge Gonzalez-Estrella, Jessica M. Gross, Michael Spilde, Natalie L. Adolphi, Daniel F. Gallego, Heather S. Jarrell, Gabrielle Dvorscak, Maria E. Zuluaga-Ruiz, Andrew B. West & Matthew J. Campen
Bioaccumulation of microplastics in decedent human brains
Nature Medicine
31 (April): 1114–1119.

What was your reaction upon receiving this award, and how will it help you pursue your research?
I am genuinely honored and grateful to receive this award. This award is a meaningful acknowledgement of the work that I have been doing to understand how micro- and nanoplastics move throughout the body and what that means for human health. This recognition will help strengthen my trajectory as I continue building upon my current research, open doors for new collaborations, and support the next steps towards advancing this emerging area of toxicology.

In non-technical terms, describe your research and work, including your future goals. Also, provide details on the specific research for which you won this award.
My research focuses on understanding how micro- and nanoplastics make their way into the human body, where they end up, and ultimately what roles they play on human health. My goal is to build a research program that helps answer these primary questions and also to find ways in which policies around waste and use of these plastic materials can be managed to prevent future environmental and human exposure. The research recognized by this award examined how different types of micro- and nanoplastics accumulate in biological tissues such as the brain, liver, and kidney. Using advanced analytical techniques, we discovered clear evidence that micro- and nanoplastics accumulate in these tissues and worked to raise important questions about long-term exposure and neurological health. My future goals are to continue to develop new methods to more precisely measure micro- and nanoplastics in human tissues and uncover specific mechanisms of how they travel throughout the body and deposit in specific tissues. My long-term goal is to translate this science into public health knowledge that can provide valuable insights for communities to make policies around plastics exposure.

Best Postdoctoral Publication Award

David Leuthold, PhD
Helmholtz Centre for Environmental Research, Leipzig, Germany

Leuthold, David. Nadia K. Herold, Jana Nerlich, Kristina Bartmann, Ilka Scharkin, Stefan J. Hallermann, Nicole Schweiger, Ellen Fritsche, and Tamara Tal.

Multi-behavioral Phenotyping in Early-Life-Stage Zebrafish for Identifying Disruptors of Non-associative Learning

Environmental Health Perspectives
Online ahead of print.

What was your reaction upon receiving this award, and how will it help you pursue your research?
Receiving the Best Postdoctoral Publication Award was a tremendous honor and a deeply motivating experience. It was extremely rewarding to see the impact of the zebrafish multi-behavioral phenotyping platform recognized, particularly as it highlights innovative approaches to understand how chemical exposures can affect brain function and behavior. This recognition will help me expand my research program by opening new opportunities for collaboration, funding, and the application of behavioral phenotyping to diverse scientific questions. For example, it provides momentum for ongoing studies on tire wear particle mixtures, where I am uncovering multi-mechanistic effects of environmental contaminants on sensorimotor function. It also strengthens my efforts in developing high-throughput behavioral screening platforms for insects, which aim to identify new agents for sustainable and biodiversity-friendly plant protection. The award thus supports my continued development as an independent researcher addressing complex biological questions with real-world relevance.

In non-technical terms, describe your research and work, including your future goals. Also, provide details on the specific research for which you won this award.
My research focuses on understanding how chemical exposures influence nervous system development and behavior. More broadly, my work demonstrates how automated behavioral analysis can be used to identify biologically active substances and uncover their mechanisms of action in complex biological systems. Using zebrafish larvae, I developed a multi-behavioral phenotyping platform that detects chemicals with the potential to interfere with basic forms of learning and sensory processing. This approach allows us to observe sensitive changes in behavior, link them to specific molecular pathways, and building hypotheses about how specific chemicals disrupt behavior. We then test those hypotheses mechanistically in zebrafish and evaluate them using complementary human and rodent cell-based models. The study recognized with this award used this platform to identify a widely used antimicrobial chemical as a disruptor of learning behavior. By combining behavioral profiling with mechanistic experiments, we showed that its effects arise from interactions with multiple neural pathways, highlighting how integrated, cross-species behavioral and molecular approaches can reveal mechanisms potentially relevant to human brain function. Building on this work, I am now applying similar behavioral and mechanistic strategies to study complex, environmentally realistic chemical mixtures, such as those derived from tire wear. These mixtures contain diverse components that can accumulate in organisms and collectively alter sensorimotor behavior. By examining both behavioral outcomes and underlying molecular targets, I aim to better understand how complex exposures influence brain function in real-world scenarios. Beyond neurotoxicity research, I am also exploring how high-throughput behavioral methods could be translated to other fields. I am specifically interested in developing automated ethomics in insects to identify natural compounds and RNA-based agents with potential applications in sustainable, biodiversity-friendly plant protection. Together, my work illustrates the value of behavioral phenotyping as a predictive and scalable tool for discovering neuroactive substances, understanding their modes of action, and assessing chemical safety. My long-term goal is to expand these integrative approaches across species and systems to address pressing questions in neurotoxicity, chemical risk assessment, and environmental sustainability. I am deeply grateful to my mentor and co-authors, whose support, guidance, and collaboration were essential for the success of the award-winning study and the development of my research trajectory.

Exploring Entrepreneurial Paths:

PDA's three-part webinar series

The SOT PDA's three-part webinar series, Exploring Entrepreneurial Paths, offered an engaging and practical look at how scientists can translate their formal didactic training into innovative business ventures beyond traditional academic roles. Across Parts 1, 2, and 3, speakers from diverse sectors shared candid insights into launching startups, consulting, and building mission-driven companies rooted in toxicology .

Part 1: Turning Your Scientific Training into a Business Venture featured Lucas Siow, MBA, Co-founder of ProteinQure and Joshua Bartoe, PhD, Vice President of Ophthalmology Services at Northern Biomedical Research

Part 2: Turning Your Scientific Training into a Business Venture featured Michael Johnson, PhD, President of the New Jersey Innovation Institute and Laurie Haws, PhD, Co-founder and Managing Principal Scientist with ToxStrategies

Part 3: From Research Insight to Startup Formation featured Alexander Malinick, PhD, Associate Scientist at Mount Sinai Hospital

Collectively, this webinar series demystified entrepreneurship for early-career toxicologists and reinforced that entrepreneurial pathways are not departures from scientific identity, but extensions of it. By combining scientific expertise with strategic vision, postdoctoral researchers can shape regulatory policy, advance translational science, and create scalable solutions that address pressing public health and environmental challenges.

We wish to extend our sincere thanks to the distinguished panelists who generously shared their time, expertise, and personal journeys throughout this series. The openness and practical advice from each of these industry experts provided invaluable perspective for trainees considering entrepreneurial paths. We are equally grateful to the many attendees whose thoughtful questions and active engagement enriched the discussions and fostered a dynamic, collaborative learning environment.

Adam Schuller and Angela Dean
PDA Treasurer and PDA Secretary

PDA Guide to

SOT MARCH 22-25 SAN DIEGO

PDA Luncheon

Tuesday, March 24, 12:00 Noon to 1:15 PM, Room 5B, Convention Center

- Casual luncheon to network and relax with your peers
- Recognize awardees of the Best Postdoctoral Publication Awards
- Raffle for participants
- Advertise vacant postdoctoral rep positions in Component Groups

Career Exploration through Speed Informational Interviews

Tuesday, March 24, 1:45 PM to 3:00 PM, Room 5B, Convention Center

- This limited-seating and ticketed event is designed for graduate students and postdocs who want to gain insight into different career sectors in toxicology.
- Groups of trainees rotate through a series of short discussions with career representatives from academia, government, non-profit orgs and industry.

PDA Guide to

SOT MARCH 22-25 SAN DIEGO

Additional PDA Relevant Events

Sunday, March 22nd

Student/Postdoctoral Mixer

7:30 PM - 9:00 PM, Ballroom 20D, Convention Center

Free Add-On Event (Registration Required); Limited Seating; Students and Postdocs Only

OTA Social Event

7:30 PM - 9:30 PM at Garage Kitchen and Bar (655 4th Avenue)

Complimentary food and beverages will be provided while supplies last

MWSOT Social and Arizona Night

8:00 PM - 10:00 PM at Union Kitchen and Tap (333 5th Avenue)

Complimentary food and beverages will be provided while supplies last

Monday, March 23rd

NetworX Night

7:30 PM - 9:00 PM, Marriott Marquis, Grand Ballroom 4

Free Add-On Event (Registration Required); Limited Seating; Students and Postdocs Only

Tuesday, March 24th

Engagement/Education-Career Development Session

4:30 PM - 6:00 PM, Room 7B, Convention Center

No registration required

Inhalation and Respiratory Specialty Section Mentoring Event

5:00 PM - 6:00 PM, Marriott Marquis, San Diego Ballroom C

Walk-ins are welcome; plan to arrive 5-10min before start time to allow sign-in and seating

Monday, March 23rd-Wednesday, March 25th

Poster Tours for Trainees - Various Times - Sign-up required!

Welcome to the new 2026-2027 PDA Executive Board!

Dr. Angela Dean
Chair
University of Illinois Urbana-Champaign

Dr. Idoia Meaja
Vice Chair
University of Louisville

Dr. Rama Ungarala
Secretary
The Pennsylvania State University

Dr. Xing Chen
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NIH

Dr. Sydney Boney
Councilor
NIEHS

Dr. Anik Tuladhar
Councilor
AbbVie

Dr. María Carmen Rubio-Armendáriz
Council Contact

Becoming a Postdoctoral Leader:
Opportunities and Resources

- **Society of Toxicology Postdoc Representatives**
  - Regional Chapter Representatives
  - Special Interest Group Representatives
  - Specialty Section Representatives
  - https://toxchange.toxicology.org/volunteeropportunities/i-volunteer

- **SACNAS Postdoc Leadership Institute**
  - Society for the Advancement of Chicanos/Hispanics and Native Americans in Science: https://www.sacnas.org/
  - Leadership Training for STEM Professionals in SACNAS

- **Alan Alda Center for Communication**
  - Women in STEM Leadership Program
  - https://aldacenter.org/professional-development/WiSLP.php

- **Torrey Pines Leadership Development Programs at Stanford Burnham Prebys**
  - sbpleaders.org

- **Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS)**
  - Volunteer to serve as an in-person judge or a virtual abstract or travel award reviewer
  - https://abrcms.org/index.php/become-a-judge

- **National Postdoctoral Association**
  - Check with your institution if they have an affiliate NPA membership available
  - Run for a position on the postdoctoral council or become a committee member
  - Register for monthly *SmartSkills* classes for NPA members which focus on building skills critical to personal and professional success.
  - https://www.nationalpostdoc.org/page/Volunteer

Becoming a Postdoctoral Leader:

PDA Representative Vacancies

- **Regional Chapters:**
  - Allegheny-Erie
  - Lone Star
  - Mid-Atlantic

- **Special Interest Groups:**
  - Toxicologists of African Origin

- **Specialty Sections:**
  - Clinical and Translational Toxicology
  - Computational Toxicology
  - Ethical, Legal, Forensic, and Societal Issues
  - Exposure
  - Immunotoxicology
  - Risk Assessment
  - Stem Cells
  - Sustainable Chemicals through Contemporary Toxicology

The above Component Groups are still seeking postdoctoral representatives as of February 2026. If you are a member of the group and interested in the role, please contact the president of the group.

Postdoc Funding:

New Experiences in Toxicology (NEXT) Program

Postdoctoral scholars are at a critical juncture in their career decision path and would benefit from training to broaden their expertise and prepare them for the competitive job market and a professional position in toxicology. The SOT New Experiences in Toxicology (NEXT) program offers an opportunity for postdoctoral scholars to obtain training outside their current training sector. For example, an academic or industrial postdoc might seek experience in government or regulatory toxicology courtesy of award funds. NEXT provides funding up to $1,000 for training-related expenses. The program has two deadlines, September 30 and April 30.

Applicants will identify professional development workshops, short courses, or other activities that would expand their training. The NEXT experience must be outside the available resources of the applicant's postdoctoral training and research project and be related to their career goals.

SOT Job Search Resources

Join the SOT social network through **Linkedin**, **Facebook**, or **Twitter**.

ToXchange

SOT Job Bank

For those seeking new employment, the Job Bank offers tools such as the Job Search Research Center, which features articles offering tips, advice, and instruction on topics like building and formatting your resume, interviewing, advancing your career, and navigating the digital world. YM Careers also offers a function wherein users can upload their resumes to the site for an expert evaluation to allow for a more influential resume. In addition, job-seekers can browse featured jobs on the Job Bank home page as well as view all listings, which can be sorted according to keyword and location for a tailored search.

Mentor Match

Connecting with a mentor is a valuable way to grow in your profession at any career stage. Mentor Match allows participants to connect with mentors based on topics such as area of expertise, education/career development, leadership, networking, work/life balance, and more! Visit the SOT Mentor Match webpage for information on how to enroll.

Renew Your SOT Membership!

Sadiya Shaikh, PhD, Membership Committee Postdoctoral Representative, 2024-2026

Renewing your Postdoctoral membership provides unparalleled networking opportunities and recognition from your peers, and is a vital component of lifelong learning through continuing education, postdoctoral events, and SOT Annual Meetings. We encourage you to renew your Postdoctoral membership today!

If you have recently completed graduate or postdoctoral studies or achieved the requisite number of years or publications in the field, you may qualify to upgrade to the next level of SOT membership: Associate level. Upgrading requires sponsorship by two Full Members and Membership Services is happy to help.

Benefits for both the Postdoctoral and Associate membership levels:

- Participate in leadership roles within SOT.
- Serve as representatives for SOT Regional Chapters, Special Interest Groups, Specialty Sections, and Committees.
- Educational Opportunities
- Access to SOT Annual Meeting sessions, CE courses, symposia, and workshops.
- Participation in exclusive webinars on emerging topics in toxicology.
- Webinars

Networking

- Engage in SOT Annual Meeting Networking Events
- SOT Regional Chapters
- Access the ToXchange online member community
- Connect with peers through SOT Regional Chapters

Discounted Rates Exclusive to Members

- SOT Annual Meeting registration
- Registration for webinars and other meetings/events

Connection to News and Hot Topics

- Access to the **SOT Communiqué Blog** for the latest updates

Additional benefits of postdoc membership:

- One free Specialty Section and Special Interest Group membership
- Postdoc awards for SOT, Specialty Sections, and Special Interest Groups
- Electronic subscription to *Toxicological Sciences*

Visit the **SOT website** to determine what membership level is right for you. If you have any questions or need assistance renewing your membership, please call Membership Services at: 703.438.3115