Comparative Toxicology, Pathology, and Veterinary Specialty Section

Fall 2025

PRESIDENT'S MESSAGE

Dear CTPVSS colleagues:

Fall is upon us, bringing cooler days, vibrant colors, and a season of reflection and renewal. I hope you are finding moments to enjoy the beauty of autumn amidst your professional and personal commitments.

I am delighted to share the Fall edition of our CTPVSS newsletter! In this issue, we celebrate the **remarkable accomplishments of our members** and recognize the CTPVSS awardees from the SOT 2025 Annual Meeting. Their contributions continue to inspire and strengthen our CTPVSS community, and I encourage you to take a moment to read about their successes in this edition.

Looking ahead, we have an important update to our awards program: **the deadline for award applications has been moved to December 15**. Students, postdoctoral fellows, and professionals alike are strongly encouraged to apply. These awards provide a wonderful opportunity to highlight the excellent work being done across our field and to support the next generation of scientists. Please also help us spread the word and encourage your colleagues and trainees to submit their applications.

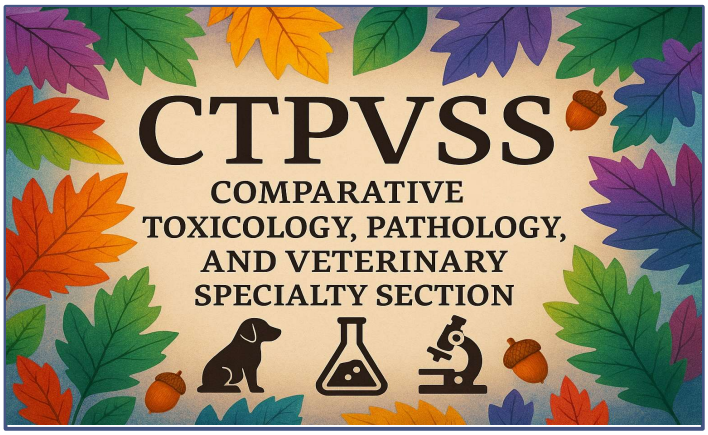
We have several awards that recognize outstanding students, trainees, and professionals. Find them at: https://www.toxicology.org/groups/ss/ctpvss/award-details.asp
Please consider applying and encourage others to apply.

As the season reminds us of change and growth, I encourage each of you to stay engaged with CTPVSS – whether through awards, mentoring, or participation in our upcoming events. Together, we can continue to advance the mission of our specialty section and build a supportive, collaborative community.

I would like to recognize our newsletter committee members, particularly Gina Capece, for her efforts in putting together this newsletter! Your time and dedication help us connect, celebrate, and move forward as a group.

Wishing you a wonderful fall season,

Sonika Patial
President, CTPVSS (2025-2026)



Inside this Issue

Our mission is to provide a focused platform for the interaction of SOT members interested in comparative toxicology, veterinary toxicology, experimental pathology, and the use of ***in vivo*** animal models in toxicology. We aim to establish scientific and educational programs that emphasize current advances, pressing issues, and policies of interest to members and relate those developments to regulatory policy and risk assessment practices. CTPVSS is also a resource for the Society of Toxicology in the areas of veterinary and comparative toxicology, toxicologic exploratory pathology and ***in vivo*** animal modeling.

Check it out today: CTPVSS website

Comparative Toxicology, Pathology, and Veterinary Specialty Section

Congratulations 2025-2026 CTPVSS Officers!

President:
Sonika Patial, DVM, MS, PhD, DACVP

Councilor
John Buchweitz, MS, PhD, DABT, FADLM, FATS

Vice President:
Tracey Papenfuss, DVM, MS, PhD, DACVP, FIATP

Councilor:
Christina Wilson-Frank MS, PhD, DABT

Vice President-Elect
Vacant*

Graduate Student Representative:
Gina Capece, BS

Secretary/Treasurer
Debabrata Mahapatra, DVM, MS, PhD, DACVP, DABT

Past President and Councilor
Sunish Monahan, BVSc, MS, PhD, DACVP

thank you!

Sunish for your dedication and hard work to the comparative, toxicology, and veterinary sciences!

**Please contact Sonika Patial (sonika.patial@gmail.com) by Nov. 15, 2025, with nominations for the Vice President-Elect Special Election.*

Comparative Toxicology, Pathology, and Veterinary Specialty Section

Interview with Dr. Jim Riviere, DVM, PhD

Winner of the 2024 Roger O. McClellan Lifetime Achievement Award

This Member Highlight reviews the experiences and thoughts of the 2024 Roger O. McClellan Lifetime Career Achievement awardee, Dr. Jim E. Riviere. As you will read below, Dr. Riviere is Distinguished Professor Emeritus from North Carolina State University and Kansas State University. He is an elected member of the National Academy of Medicine, Fellow of the Academy of Toxicological Sciences, and Honorary Diplomate of the American College of Veterinary Clinical Pharmacology.

Dr. Riviere, an NCSU faculty member for 31 years, founded the Center for Chemical Toxicology Research and Pharmacokinetics and directed the Biomathematics Graduate Program, retiring both as an Alumni and Burroughs Wellcome Fund Distinguished Professor. At KSU, he was the McDonald Chair of Veterinary Medicine, University Distinguished Professor, Kansas Bioscience Authority Eminent Scholar, founding Director of the Institute of Computational Comparative Medicine, and co-founder of the KSU/UMKC 1Data Consortium. He also co-founded the Food Animal Residue Avoidance and Depletion (FARAD) program, which was supported by USDA from 1981 to present. Dr. Riviere holds six patents, has authored/edited 12 books, and has 643 scholarly publications in pharmacokinetics, toxicology, food safety, and nanomaterials. He was the Principal Investigator on $21 million of extramural research grants.

His honors include the **American Veterinary Medical Association Lifetime Excellence in Research Award, American Pharmaceutical Association Ebert Prize, FDA Harvey W. Wiley Medal**, and the **UNC System O Max Gardner award**. His global influence in veterinary pharmacology was further acknowledged with **Lifetime Achievement Awards from both the American and European Associations of Veterinary Pharmacology**.

Dr. Riviere earned his BS in biology summa cum laude and MS in endocrinology with distinction from Boston College; a DVM and PhD in Pharmacology from Purdue University as well as an honorary Doctor of Science from Purdue in 2007. Dr. Riviere has three children and lives with his wife Nancy of 49 years in Raleigh. He continues to collaborate with colleagues in pharmacokinetic, nanotoxicology and AI research topics as well as FARAD.

1. **How has the field of toxicology changed since the start of your career?**

This is an easy one. When I started graduate school at Purdue University in 1976, I was in a combined DVM/PhD program. My research was in pharmacokinetics of drugs in animals. This required writing statistical regression programs in Fortran on computer punch cards and then riding my bike to the campus mainframe computer and hoping the cards were in the correct order. A simple analysis took a day, a publication quality plot added another day. My career paralleled the development of computers and now my smart phone can do more than a lot of mainframes could do back then. Searching the literature meant a day at the library digging journals out of the stacks and taking notes. Now you have PubMed and Google Scholar.

2. **Out of all your achievements, what are the accomplishments you are most proud of and why?**

The primary accomplishment I am most proud of is the creation and continued support of the USDA supported Food Animal Residue Avoidance and Depletion Program. FARAD was founded in 1982 with my toxicology colleagues Drs. Art Craigmill of UC Davis and Steve Sundlof at the University of Florida; this program collated and maintained a database of pharmacokinetic data on drugs, chemicals and contaminants that might cause residues in food producing animals. Currently, this program remains funded at its five collaborating universities, and is in the next fiscal year's budget, a run of 45 years. In addition to serving as a hotline to aid veterinarians to avoid residues after extra-label drug use or exposure to contaminants, it has trained numerous students, published scores of publications and books, and developed modern physiological based pharmacokinetic models (PBPK) and mixed-effect PK models to predict chemical tissue depletion in food producing animals.

3. **Do you have any advice for junior scientists that are striving to improve the field of toxicology?**

This question is really field dependent. I am a modeler at heart and thus my advice is to know what makes your program "tick" and develop some "rules of thumb" for validating the results. Modern programs can make very big mistakes very fast. If not caught, these can be embarrassing. One should publish in the best journals possible with a high impact factor. I found it useful to collaborate with other scientists that are outside of your specific area to provide a reality check on what you are doing. I have always found working at the boundaries between disciplines most rewarding.

4. **Are there any specific roles, research experiences, or mentors that were critical in your growth as a scientist?**

At Purdue, my PhD mentor was Dr. Gordon Coppoc, Harvard trained pharmacologist who pretty much left me alone to create my graduate research in aminoglycoside pharmacokinetic and nephrotoxicity. Dr. Mario Gonzalez from the Pharmacy School introduced me to the basic conceptual framework of clinical pharmacokinetics. My PhD committee member Dr. Bill Carlton, a toxicological pathologist, was instrumental to achieving a critical focus on toxicology, which was strengthened by Dr. Farrel Robinson, my resident advisor in diagnostic toxicology. These individuals showed the many facets of what toxicology actually entailed as all had completely different concepts of research and toxicology. But probably my strongest mentor and colleague was my wife of now 49 years, Dr. Nancy Monteiro-Riviere, a veterinary anatomist and cell biologist trained in electron microscopy of the skin, who had to visualize what a chemical did in contrast to me theoretically modeling the response. To her, a smudge in the wrong place was a lesion, to me it was an outlier. These completely different perspectives tremendously aided our writing of manuscripts and grants as we each would have been our worst reviewers. This scientific partnership allowed us to develop the isolated perfused porcine skin flap (IPPSF) model and supported our skin toxicology and transdermal drug delivery work for decades.

5. Currently, many institutions are moving away from using laboratory animals for investigating human health impacts of potentially hazardous agents, including new drugs. What are your thoughts on these decisions and how they would impact our field?

This is a complex question. Systems biology, PBPK models and AI and machine language algorithms have increased greatly our understanding of toxicology at the molecular, genomic, cellular, organ and whole-body levels without using laboratory animals. The issue is often connecting these different levels as there are complex feedback processes constantly in play. I believe the best use of well-defined laboratory animal models is to validate the whole animal model predictions. In addition, for certain types of longer-term toxicological investigations (reproductive tox, etc.) genetically well-defined or humanized animal models may still have a role to play. In veterinary toxicology, the animals themselves are the endpoint.

Gina Capece

Comparative Toxicology, Pathology, and Veterinary
Specialty Section

Congratulations to all of our 2025 SOT award winners!

Awards

Outstanding Early Career Scientist
Saurabh Vispute

Best Publication Award
Satya Achanta

Roger O. McClellan Student Endowment Award
Richa Lamichhane

CTPVSS/STP Student Award
Rahul Kumar

Zoetis-CTPVSS Veterinary and Postdoctoral Trainee Award
Chander Negi

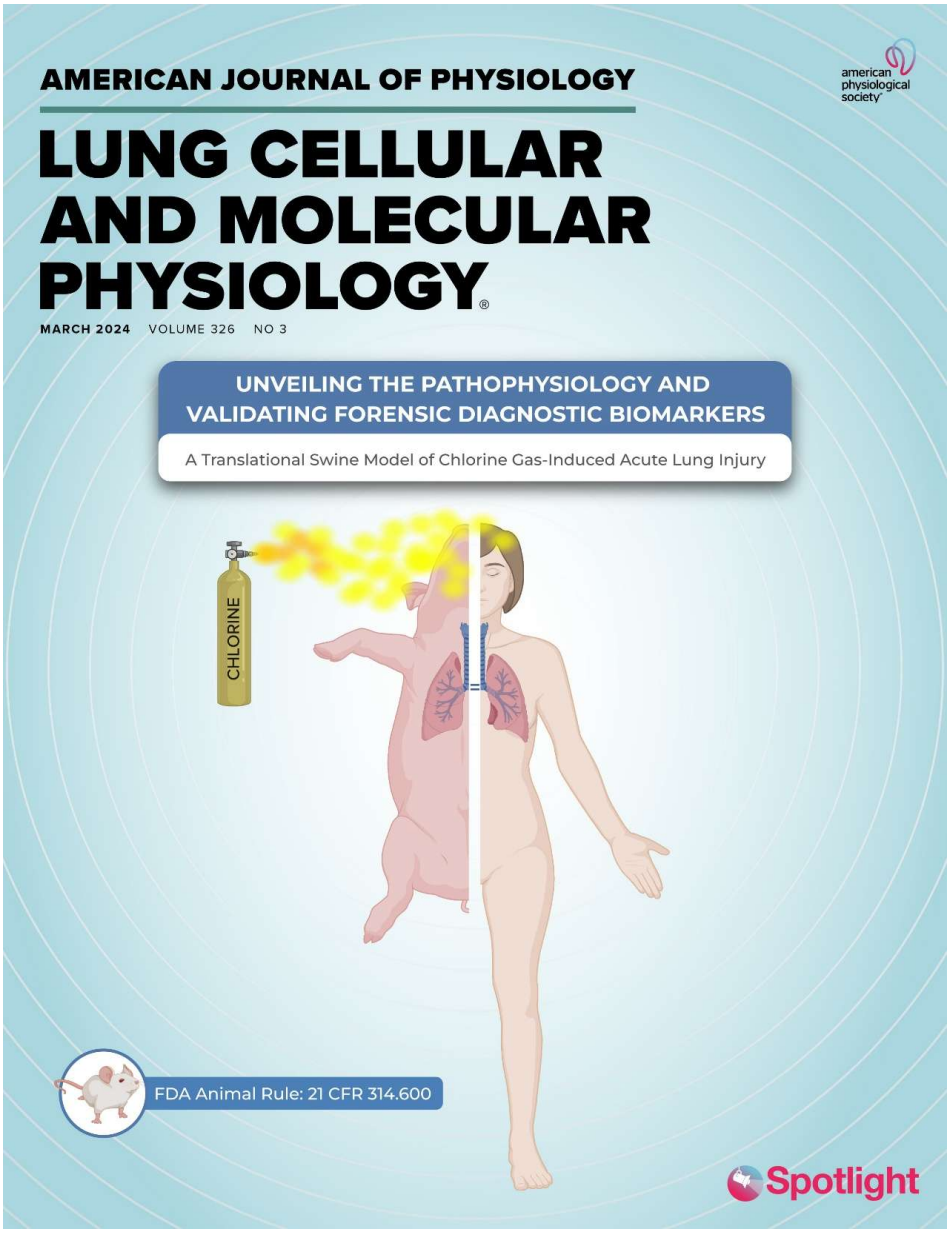
Zoetis-CTPVSS Graduate Student Award
Gina Capece

Comparative Toxicology, Pathology, and Veterinary Specialty Section

CTPVSS Best Publication of the Year

Authors: Satya Achanta, Michael A. Gentile, Carolyn J. Albert, Kevin A. Schulte, Brooke G. Pantazides, Brian S. Crow, Jennifer Quiñones-González, Jonas W. Perez, David A. Ford, Rakesh P. Patel, Thomas A. Blake, Michael D. Gunn, and Sven E. Jordt

You can read the article in its entirety at https://doi.org/10.1152/ajplung.00162.2023



Comparative Toxicology, Pathology, and Veterinary Specialty Section

CTPVSS Member Highlights

Read on for member accomplishments during this past year!

Ahmed Abdelmoneim, BVMS, MS, PhD, DABT

Assistant Professor
Department of Comparative Biomedical Sciences
Louisiana State University
School of Veterinary Medicine
LSU, Baton Rouge, LA

Appointed as:
Toxicology Section Head, Louisiana
Animal Disease Diagnostic Laboratory, School of Veterinary Medicine, Louisiana State University

Received three major Awards:

- LSU SVM 2025 Dean's Teacher Merit Honor Roll
- 2025 Zoetis Award for Research Excellence
- 2025 40 under 40 Recognition Program, American Academy of Environmental Engineers and Scientists

Published Peer -reviewed work in the field of Toxicology:

- Tsai E, Wilson M, Ateia M, **Abdelmoneim A** (2025). Impacts of exposure to leachates from real microplastics on the development and behavior of developing zebrafish (Danio rerio). *Environmental Science: Processes & Impacts*. In press. DOI: 10.1039/D5EM00415B
- Hamed M, **Abdelmoneim A** (2025). Impacts of Pyrogallol on development and neurobehavioral responses investigated using larval zebrafish. Environmental Pollution. 383:126781.
- McAtee D, **Abdelmoneim A** (2025). A peripheral irritant motor response (PIMR) assay to identify chemical-induced locomotor deficits in larval zebrafish (Danio rerio). NeuroToxicology. 108:344–353.
- Wilson MR, Savoie E, Christofferson R, **Abdelmoneim A** (2025). Early developmental exposure to lead (Pb) as a risk factor for stress-related disorders investigated in larval zebrafish (Danio rerio). Toxicological Sciences. 205(2):344-357.

Wilson K Rumbeiha, DVM, PhD

Professor
One Environmental Health Toxicology
Department of Molecular Biosciences
UC Davis, Davis, CA

Received two major grants:

- Rumbeiha WK, Haczku A, Kim D. Deciphering mechanisms of hydrogen sulfide-induced susceptibility to influenza A virus infection, NIH. 2025-2026. $437,453.
- Rumbeiha WK, Van Winkle LS. A mentoring and skills development training Program in One Health. NIH. 2025-2030. $2,631,053.

Published Peer -reviewed work in the field:

- Kwizera E, Nishimwe K, Langston JA, **Rumbeiha WK**. Environmental pollution through multiple integrated sources in their shared environment: A case study of

Muvumba Community, Rwanda. *EAJSTI* 6(2), March 2025

- **Rumbeiha WK**, Kim D. Neurological Sequelae of acute hydrogen sulfide poisoning: A literature Review, Controversies, and Knowledge Gaps. *Neur. Int*. 2025, 17,71 https://doi.org/10.3390/neurolint17050071

- Kim DS, Firoz W, Santana Maldonado CM, Gauger PC, Weir A, Baumgarth N, **Rumbeiha WK.** One health: Subchronic exposure to low ambient hydrogen sulfide increases mortality of influenza A virus infection in mice. *Environ Res*. 2025 Feb 1;266:120536. doi: 10.1016/j.envres.2024.120536. Epub 2024 Dec 6. PubMed PMID: 39638025; PubMed Central PMCID: PMC12221871.

- Langston J, Stump S, Filigenzi M, Tkachenko A, Guag J, Poppenga R, **Rumbeiha WK**. Extensive evaluation of a new LC-MS-MS method to quantify monofluoroacetate toxin in the kidney. *J Anal Toxicol*. 2024 May 20;48(4):210-216. doi: 10.1093/jat/bkae032. PubMed PMID: 38581653.

- Kim DS, Santana Maldonado CM, Giulivi C, **Rumbeiha WK**. Metabolomic Signatures of Brainstem in Mice following Acute and Subchronic Hydrogen Sulfide Exposure. *Metabolites*. 2024 Jan 14;14(1). doi: 10.3390/metabo14010053. PubMed PMID: 38248856; PubMed Central PMCID: PMC10819975

- Adkesson MJ, Shlosberg A, Lehner AF, **Rumbeiha WK**, Cárdenas-Alayza S, Cardeña-Mormontoy M, Kannan K. Measurement of persistent organic pollutants, perfluorinated compounds, and toxic metals in the blood of Humboldt penguins (Spheniscus Humboldti) at Punta Juan, Peru using dried blood spots. *J Zoo Wildl Med*. 2024 Jan;54(4):713-720. doi: 10.1638/2023-0047. PubMed PMID: 38251994.

Catherine Wise, PhD

Research Scientist
Duke University Nicholas School of the Environment
Durham, NC

Published Peer -reviewed work in the field:

- **Wise CF,** Breen M, Stapleton HM. Canine on the Couch: The New Canary in the Coal Mine for Environmental Health Research. *Environ Health* (Wash). 2024 May 27;2(8):517-529. doi: 10.1021/envhealth.4c00029. PMID: 39170948; PMCID: PMC11334179.

- **Wise CF,** Herkert NJ, Hoffman K, Vaden S, Breen M, Stapleton HM. Environmental Exposures and Canine Bladder Cancer: A Case Control Study Using Silicone Passive Samplers. *Environ Sci Technol*. 2025 Jan 21;59(2):1121-1132. doi: 10.1021/acs.est.4c09271. Epub 2025 Jan 9. PMID: 39786168.

Zimu (Christine) Wei, BS

Graduate Student, CMIB program
Michigan State University
East Lansing, MI

- Serving as a peer mentor for our graduate program at Michigan State University.

- Gave an invited talk at the *Hemostasis and Thrombosis Research Society,* Annual meeting (March 2025). The topic was plasminogen and liver regeneration.

- *Published a first author manuscript:* **Wei Z**, Boateng, NKK, Schmitt, L, Cline H, Fonseca MTF, Newberry, A, Taylor A, Adelmeijer J, Poole, LG, Stravitz, RT, Lee WM, Lisman T, Hansen, KC, and Luyendyk

J. Integrated cross-linking by TG2 and FXIII generates hepatoprotective fibrin(ogen) deposits in injured liver. *Blood. 2025* doi: 10.1182/blood.2024026938. PubMed PMID: 40009455; PubMed Central PMCID: PMC12163735

- Received Journal of Thrombosis and Hemostasis **Annual Editorial Award**

Available 2026 SOT Awards

AWARDS: Please check this out!! CTPVSS continues to offer awards to broaden our positive impact on the field. **Due: December 15, 2025**

1. Zoetis-CTPVSS Graduate Student Award
2. Zoetis-CTPVSS Veterinary and Postdoctoral Trainee Award
3. CTPVSS Roger O. McClellan Student Endowment Award
4. CTPVS-STP Student Award
5. CTPVSS Best Publication of the Year Award
6. CTPVSS Outstanding Early Career Scientist Award
7. CTPVSS Outstanding Mid-Career Scientist Award
8. CTPVSS Roger O. McClellan Lifetime Achievement Award

Award Applications 2025: Awards



Comparative Toxicology, Pathology, and Veterinary Specialty Section

Get involved with CTPVSS

Please Consider Supporting SOT CTPVSS Endowment Funds

Our joint SOT CTPVSS endowment fund, the Roger O. McClellan Student Award Fund, enables the CTPVSS to provide an award for outstanding DVM/PhD Students. We ask that you consider supporting the endowment. Your contribution will enable CTPVSS to recognize an outstanding individual for her/his accomplishment in the Veterinary Toxicology field. To review the fund and to donate, kindly visit the CTPVSS website.

Your support makes a difference!

If you would like to contribute to advancing our Specialty Section's initiatives at the SOT Meeting, please use this form to make a donation.

https://forms.office.com/pages/responsepage.aspx?id=_QFxa-hdKEe7CPV5bzkPrPXZQ7FeaLJJh3giyYCGGCxUNVc3RzJVVDFTSVBSSUUzQkdRWDk3TU9TSiQlQCNoPWcu

Reminder: Update your SOT ToXchange Profile: Now is the time to update your SOT profile on ToXchange! This membership directory serves you and others in many ways, including for potential employers to search for their candidates, networking with current and future members, and for SOT members to reach out to potential mentors. Update your profile and help others!

Furthering CTPVSS Impact

If you haven't already, renew your SOT membership! During the SOT membership renewal process for 2026 you will be able to select the combined SOT and CTPVSS membership.

Comparative Toxicology, Pathology, and Veterinary Specialty Section

SAVE THE DATES

SOT Returns to San Diego

New for 2026, the SOT 65th Annual Meeting and ToxExpo will feature only four days of Continuing Education courses, sessions, posters, and social events. That's right—the meeting will end the evening of Wednesday, March 25.

Where

San Diego Convention Center
111 W. Harbor Drive, San Diego, CA 92101

When

Sunday, March 22, 2026, to Wednesday, March 25, 2026

How to Get Involved with CTPVSS

Finally, there are the various way by which you can get involved:

- Volunteer to serve on a CTPVSS committee
- Nominate yourself for an officer position; nominations for VP-E Special Election must be submitted to Sonika Patial **no later than Saturday, November 15, 2025.** A call for 2026-2027 officers is coming soon!
- Serve as a CTPVSS Mentor
- Attend Annual CTPVSS Luncheon
- Click here to join the SOT Comparative Toxicology, Pathology, and Veterinary Specialty Section!
- Email sothq@toxicology.org to contact us and receive more information about a career in comparative toxicology, pathology, and veterinary research!

SOT MARCH 22-25 SAN DIEGO

Newsletter Committee 2025-2026:

Sonika Patial, DVM PhD DACVP
Gina Capece, BS

See you in San Diego in 2026!

Deadlines for SOT 2026

Early bird registration ends January 30, 2026

Book your housing by February 6, 2026

Submit an abstract by November 13, 2025

Abstract Submissions

Enter Submission Site

View Instructions | Watch Tutorials

Abstract submissions are due November 13 at 11:59 pm (US EST, UTC -5), and there is a fee of $70 per abstract submission.