



Comparative Toxicology, Pathology, and Veterinary Specialty Section



Fall 2022

PRESIDENT'S MESSAGE

Dear CTPVSS colleagues:

Fall is in full swing with its beautiful colors all around us. Hope you all had a fun summer. It is great to see a semblance of normalcy return to our lives post-COVID. BBQ with friends and family never tasted better. I am grateful to have met several of you in San Diego at the SOT meeting back in March this year.

I am thrilled to present the Fall edition of CTPVSS newsletter. I would like to thank our newsletter committee members, Elizabeth Roberts, Sonika Patial and Catherine Rojas, for their wonderful efforts in putting together this newsletter.

At this year's SOT meeting, CTPVSS luncheon and Mentorship outings were a rousing success. We had an unofficial record for most attended luncheon this year! It was great to see interest among so many members and future members of CTPVSS. Dr. Satya Achanta played a crucial role in the success of these events as a president, and I thank him for his contributions to CTPVSS.

It is great to see the evolution of CTPVSS as a unifier of the group objectives of veterinary, comparative toxicology and pathology specialties and as an enabler of wider audience reach at SOT. I am truly humbled to be leading a group of passionate and talented executive committee members that take time out of their busy professional lives to further CTPVSS's mission. I will be closely working with Katherine Horzmann as Vice President, Sunish Mohanan as VP-elect, Debaprata Mahapatra as Secretary/Treasurer, Sonika Patial and Elizabeth Roberts as Councilors, Catherine Wise as Postdoctoral Rep and Catherine Rojas as Graduate Student Rep. Satya will serve as a past president.

The mission of our Specialty Section is to provide a focused platform for the interaction of SOT members interested in comparative toxicology, veterinary toxicology, and 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.

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.

Enjoy reading this newsletter!

Gopinath Palanisamy

President, CTPVSS (2022-2023)

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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](https://www.toxicology.org/groups/ss/ctpvss/)



Comparative Toxicology, Pathology, and Veterinary Specialty Section



Congratulations 2022-2023 CTPVSS Officers!



President:
Gopinath Palanisamy, DVM,
PhD, DACVP

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Councilor:
Sonika Patial, DVM,
PhD, DACVP

patialso@gmail.com



Vice President:
Katherine Horzmann, DVM,
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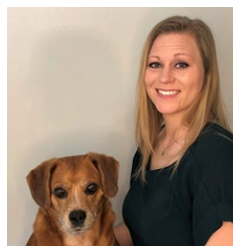
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Vice President Elect:
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PhD, DACVP

sunishmp@gmail.com



**Postdoctoral
Representative:**
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Secretary/Treasurer:
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DVM, PhD, DACVP, DABT

Debabrata.Mahapatra@inotivco.com



**Graduate Student
Representative:**
Catherine Rojas

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Past President & Councilor:
Satya Achanta, DVM, PhD, DABT

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thank you!

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



Comparative Toxicology, Pathology, and Veterinary Specialty Section



Interview with Dr. Roger O. McClellan **Winner of the 2022 CTPVSS Lifetime Achievement Award**



This Member Highlight reviews the experiences and thoughts of the 2022 Comparative Toxicology, Pathology and Veterinary Specialty Section Lifetime Career Achievement awardee, Dr. Roger O. McClellan. As you will read below, Dr. McClellan is an internationally recognized authority in the fields of inhalation toxicology, aerosol science, comparative medicine, and human health risk analysis. He received his Doctor of Veterinary Medicine degree in 1960 with Highest Honors from Washington State University. His Honors Thesis was based on the toxicity of radio-zinc research he conducted at the Hanford Nuclear Laboratories. He received a Master of Management Science degree from the University of New Mexico in 1980. In 2005, The Ohio State University awarded him an Honorary Doctor of Science Degree. He is a Diplomate of the American Board of Toxicology and the American Board of Veterinary Toxicology and a Fellow of the Academy of Toxicological Sciences. He has also been awarded Fellow status by the American Association for Aerosol Research, American Thoracic Society, Health Physics Society, Society for Risk Analysis, International Aerosol Research Assembly and the American Association for Advancement of Science. In 1990, he was elected to the U.S. National Academy of Medicine.

During his career, he has worked as a Scientist at the Hanford Nuclear Laboratories operated by the General Electric Company in Richland WA, as a Scientist with the U.S. Atomic Energy Commission (now the Department of Energy) in Washington, DC, as Director of the Lovelace Inhalation Toxicology Research Institute and President of the Lovelace Biochemical and Environmental Research Institute in Albuquerque, NM and the President and Chief Executive Officer of the Chemical Industry Institute of Toxicology in Research Triangle Park, NC. He has served as an Adjunct Faculty Member at 8 universities and has served on senior advisory committees for all the major U.S. federal agencies concerned with human health. Since 1999, he has served as an Independent Advisor to private and public organizations on issues of air quality and health in the ambient environment and workplace.

Dr. McClellan is recognized an accomplished scientist, research manager, communicator, and advisor on science and public policy issues. He has published over 350 peer-reviewed papers and reports, numerous book chapters and edited 10 books. Since 1987 he has served as Editor-In-Chief in Critical Review in Toxicology. He has frequently testified before committees of both the US Senate and House of Representatives and has given many presentations to various audiences across the USA and around the world.

Dr. McClellan's substantial accomplishments have been recognized by his receipt of many honors, including many awards from the SOT: the Frank Blood Award (1989), Arnold Lehman Award (1992), Merit Award (2005), Founders Award (2009), Distinguished Service Award (2009) for Chairing the Inaugural Board of the SOT Endowment Fund and Distinguished Toxicology Scholar Award (2018). At its March 2022 meeting the CTPVSS awarded Dr. McClellan the Section's Lifetime Career Achievement Award, which in the future will be designated as the McClellan Lifetime Career Achievement Award.



Comparative Toxicology, Pathology, and Veterinary Specialty Section

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

“At the beginning of my career, I had the good fortune to work with an outstanding mentor, Leo K. Bustad, a research Veterinarian, and a multidisciplinary team of scientists at the Hanford Laboratories. Their approach to research was to identify scientific uncertainties in our ability to assess human health risks of exposure to radionuclides and then conduct research to reduce the uncertainties. This problem-solving approach to conducting research has served me and my collaborators well as we conducted research over the last half-century. The results of our research have helped shape policy and regulations that have minimized the health risks of the use of radiation and chemicals. This has included providing a basis for major technological advances in energy technologies.

I am concerned that many scientists today place excess reliance on letting others, including federal funding agencies shape their research strategy. I am also concerned that many scientists are placing excessive emphasis on using the latest new analytical methods or tools. In my opinion, one should place the emphasis on the scientific question being asked, then select the methods and approaches needed to address the question. I urge scientists to seek funding for research that has a strategic orientation that will yield results that will reduce the uncertainties in assessing the health risks of potentially hazardous agents or technologies.”

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

“Responding to this question prompts me to recall a saying my mentor, Bustad, had posted in his office – ‘Success is a journey, not a destination’. I think my ‘successful journey’ has involved activities in five inter-related areas:

- Identifying scientific uncertainties in assessing the health risks of exposure to radiation and chemicals and creating strategic approaches to reducing the uncertainties;
- Recruiting and mentoring multi-disciplinary teams of scientists and instilling in them a view that you can achieve both individual and collective success by working together;
- Publishing research findings promptly in peer-reviewed journals;
- Promoting participation in professional organizations to serve as a forum for scientists to interact with others in advancing scientific knowledge that will better the health and well-being of Society;
- Participating in Advisory Committees focused on integrating scientific knowledge to inform public policy and regulatory decisions that will have a positive impact on the health and well-being of Society.

A Strategic Orientation

My career in Comparative Medicine and Toxicology began with work on the toxicity of internally deposited radionuclides, such as radio-strontium and radioiodine. This was facilitated by my growing up in Richland, WA, adjacent to the Hanford Nuclear Site that was created to produce plutonium for the Atomic Bombs that helped end WWII. My early research helped provide a basis for improved radiation protection standards.

Bustad encouraged me to build a network of scientists by meeting them at scientific meetings and visiting them at their laboratories and learning their approach to science. In 1960 Bustad arranged for me to visit the Argonne National Laboratory and the University of Chicago. One of the scientists I met became a lifelong friend and mentor, John Doull. The next year I visited the University of Rochester and met many scientists including Harold Hodge, Louis Casarett, Newell Stannard and Paul Morrow. Professor Hodge, who would become the First



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President of the SOT, invited me as a 25-year-old budding Toxicologist to attend a planning meeting for a new Society– the SOT. I joined after I published several papers with sponsorship from Doull and Morrow. A decade later I would serve with Doull and Casarett on the NIH Toxicology Section and they would ask me to write a chapter on Radiation Toxicity for the first edition of their classic Toxicology textbook. Stannard and Morrow became mentors and collaborators. In 1962 I attended the International Radiation Research Congress in England. I originally proposed a 2-week trip with my wife of a month - a week for the meeting and a week for vacationing. Bustad revised the schedule and extended it to 4 weeks so I could meet scientists he thought I should visit in Europe. That early experience emphasized the importance of science as a global endeavor!

Early in my career I learned from the literature about the work of Phillip Abelson, who discovered neptunium, filed the original patent for a nuclear-powered submarine and for a dozen years was editor of “Science”, published by the American Association for Advancement of Science (AAAS). Bustad introduced me to Abelson, who soon became another of my mentors. Over our first lunch together he impressed on me the importance of joining the AAAS, the nation’s premier scientific organization. I did. He also impressed on me the importance of ‘learning the ways of Washington, DC. Again, I followed his advice.

In 1965 I began a year and a half assignment with the US Atomic Energy Commission, AEC (now the U.S. Department of Energy), to ‘learn the ways of Washington, DC’, specifically, how research is funded and how strategic plans are created and implemented. In 1966 I had the good fortune to be asked to lead a major AEC-funded program being initiated at the Lovelace Medical Center in Albuquerque, NM. I jumped at the opportunity! The focus of the new program was to reduce the uncertainties in evaluating the human health risks of a catastrophic nuclear reactor accident such as would occur decades later at Chernobyl in the Ukraine. I was encouraged to take the Lovelace position by the Nobel laureate Glenn Seaborg, then Chair of the AEC, whose team in December 1940 had discovered plutonium using the University of California-Berkeley cyclotron. Seaborg viewed it as an opportunity for me to lead a team that would contribute to the safe use of nuclear energy. In the 1970’s, the Lovelace program was broadened to include concern for airborne chemical pollutants from fossil energy technologies including the use of diesel engines.

In 1988, I was invited to become the third President of the Chemical Industry Institute of Toxicology (CIIT). I succeeded Leon Goldberg CIIT’s Founding President (1974-1981) and Robert Neal, CIIT’s second President (1981-1988). CIIT was a not-for-profit research center created and funded by the Chemical Industry to study widely used commodity chemicals, develop improved methods for assessing effects of exposure to chemicals and train toxicologists. At CIIT, I worked with an accomplished multi-disciplinary team of scientists to develop scientific information that would reduce the uncertainties in assessing the health risks of chemicals.”

Recruitment, Mentoring and Teamwork.

“My primary mentor, Bustad, was a strong proponent of promptly publishing research findings in pre-reviewed journals. When I drafted one of my first papers, I gave it to him to review. When we met to discuss his review of the paper, he had a smile on his face and noted - “not bad for a first draft”. He then frowned and noted - “I’m surprised that you are the only author.” I quickly told him it was a placeholder until the draft was finalized and then I would add the co-authors who contributed to the project. It was a great lesson – teamwork involves working together from the start through to the finish of a project. Successful research projects addressing complex issues are rarely completed by a sole scientist, they require a multi-disciplinary team! Bustad also suggested several “hard-nosed critics” to review the paper, one of those was Abelson. It is remarkable that none of my mentors ever



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said - “work hard and you can be successful like me”. They were all humble. Be cautious of those who give guidance that is overly prescriptive!

At both Lovelace and CIIT, I recruited and mentored multi-disciplinary teams of scientists (Toxicologists, Veterinarians, Physicians, Physical Scientists, Biological Scientists, Engineers, Mathematicians, Statisticians and Computer Specialists). I take special pride in noting that of the more than 50 doctoral degree scientists I recruited many have become well recognized leaders in the science of toxicology and risk analysis. They have made remarkable contributions working in a diverse range of positions in the private sector, academia and government. Multiple career options can provide a successful journey!

At Lovelace I also provided leadership for the development of a Summer Intern Program that ultimately involved over 400 students. It was fashioned after the program I had participated in at Hanford. At CIIT I expanded the educational element of the CIIT Program that had previously focused on Post-Doctoral Fellows to include Graduate Students at Duke University, North Carolina State University and the University of North Carolina-Chapel Hill.

Throughout my career I have strived to build my professional credentials and encouraged my colleagues to achieve Professional Certification in one or more specialties. I was in the initial group of individuals to pass the certification examinations of the American Board of Veterinary Toxicology and the American Board of Toxicology. Over the decades, I also encouraged a number of my colleagues to seek Diplomate status from the American College of Veterinary Pathologists. I encouraged my colleagues to be active participants in SOT and its various Specialty Sections. I have always advocated the need for scientists to have both depth and breadth in the sciences. This can be facilitated by participating in multiple professional organizations with activities that complement those of the SOT. For example, an individual interested in the toxicology of airborne pollutants might find it useful to join the SOT, the American Association for Aerosol Research and the American Thoracic Society.

I am proud of my contributions to over 50 scientific advisory committees throughout my career. These committees helped to organize, synthesize and integrate science so it could be used for the public good. In addition, the committees published reports which help encourage scientific communication and networking and, most importantly, inform the public. Participation on those committees was very instrumental to my growth as a leader in the field."

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

“As I mentioned, the most important advice I have for those striving to improve the field of toxicology is for young scientists to seek out competent mentors and collaborators. I have had many mentors throughout my career, they helped guide and encourage me. I urge young scientists to keep their eyes open for every opportunity possible, whether it is networking with individuals at conferences or joining professional organizations like the American Association for the Advancement of Science and Society of Toxicology. I have also found it useful to participate in organizations like the American Association for Aerosol Research, related to my interest in characterizing air pollutants, and disease-oriented groups like the American Thoracic Society and the American Association for Cancer Research. My involvement in the Society for Risk Analysis from its origin has proved very useful in providing me and my collaborators with concepts to use in planning and interpreting our research and then using the findings to inform public policy decisions. I especially encourage young scientists to prepare for a wide range



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of alternative career options in academia, government and the private sector. There are many paths that can provide a successful journey and career.

It is important to achieve both depth and breadth. If your primary background is in biochemistry, you will find it useful to learn the basic concepts of pathobiology and use concepts such as risk assessment to integrate your knowledge with that from complementary fields to address important societal questions. A great dilemma in the field of toxicology is impatience in getting results that can be published. It is essential to have a long-term perspective and not become impatient. For example, some of the most significant findings from research I and my colleagues conducted at Hanford, Lovelace and CIIT came from life-span studies in rats with a lifespan of about 2.5 years and dogs with a lifespan of 16 years. These studies took time to conduct. Respect the biological clock of nature! Many of the diseases of concern, like cancer, are of a chronic nature and primarily develop late in life. Time is an important component of their pathogenesis!"

4. Given your experience in all sectors of toxicology (i.e., government, academia, industry), can you share your perspective on each sector?

"I have always supported the role of science for the Society at Large. In my opinion, it is important for individuals from government, academia and industry to work together to integrate their knowledge of science for the public good. I strongly believe that we need to break down divisions between different disciplines in science including divisions within toxicology. We need more teamwork and participation in cross-disciplinary efforts. In my opinion, the major health-related issues that need to be addressed today are extraordinarily complex and are best addressed by multi-disciplinary teams including individuals educated and experienced in the Physical Sciences, the Biological Sciences, Engineering, Medicine and the Social Sciences. Working together we can create the scientific knowledge needed to improve the health and betterment of Society at Large."

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?

"A strong push for the regulation of animals used in research and testing began in the middle of the 20th century in England. In the U.S. this movement also took hold and ultimately led to the passage and signing of the Animal Welfare Act (AWA) in 1966. I recall attending key Congressional Hearings on this bill when I worked for the AEC. The AWA continues to have a strong impact on science and society today, with many scientists striving to implement the three R's (Replacement, Reduction, and Refinement) of animal usage. New Approach Methodologies (NAMs) such as computational modeling and *in vitro* assays are being regularly reported. These NAMs are seen by many individuals as the new tools for tomorrow replacing many traditional '*in vivo*' animal models.

It is my opinion, Society is not yet ready to move completely away from animal models. Indeed, I think *in vivo* studies in laboratory animals will continue to have an important role in ensuring the safety of products for the foreseeable future. While there is a push to stop the use of animal testing by many groups, I think the current state of science is not sufficient for determining whether or not a chemical is safe relying solely on information acquired from *in vitro* models. The mammalian body is very complex. It is difficult to predict with models, like the organ-on-a-chip, health outcomes in the whole mammal whether it be a human or an experimental animal. The *in vitro* assays and NAMs certainly have an important role in informing judgments on human hazards and,



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ultimately broader health risk decisions. I advocate a multi-pronged approach that uses epidemiological findings from ‘past misfortunes’, results from *in vitro* studies of cells, tissues and organoids, focused *in vivo* studies using carefully selected species of laboratory animals and modeling. Further, when we have shown the agent is unlikely to have adverse effects in humans it is appropriate to conduct carefully designed studies in human volunteers. The two paradigms shown below are taken from an Editorial I recently published (McClellan, 2021). They provide a useful conceptual guide for exploring scientific uncertainties, identifying research opportunities, planning research, analyzing and interpreting findings and synthesizing scientific knowledge of how different chemicals, including pharmaceuticals and various technologies may impact human health and the well-being of humankind around the world!”

Figure 1. Risk Communication

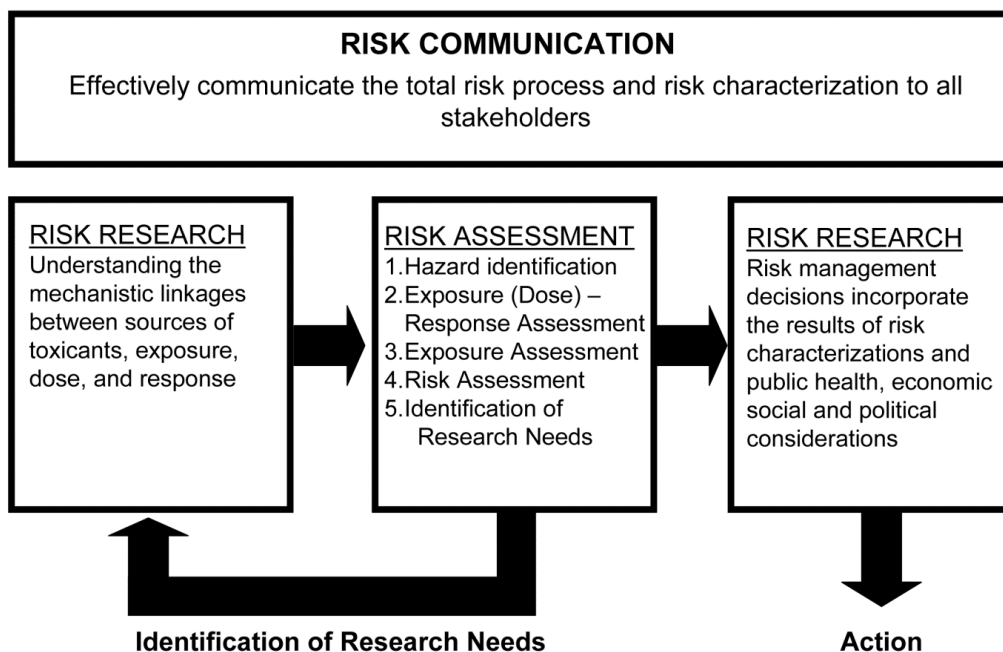
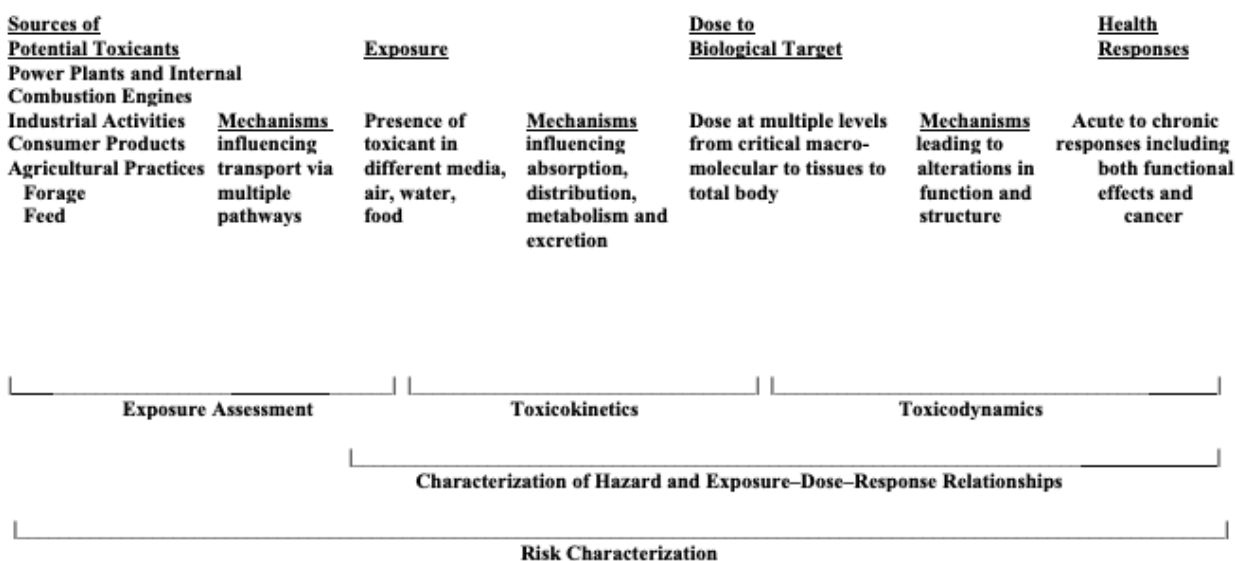




Figure 2. Risk Characterization



McClellan R. O. (2021) The changing world of scientific publishing exemplified by *Critical Reviews in Toxicology* (1971 to 2021). *Critical reviews in toxicology*, 51(10), 789–791. <https://doi.org/10.1080/10408444.2021.2038479>

“As I close this interview it is appropriate to note that all of my highly accomplished mentors shared a common interest, they emphasized the importance of giving back to the scientific community. As role models, they did that throughout their careers. I tried to do the same in my many interactions with young scientists. My wife, Kathleen, and I created the Roger and Kathleen McClellan Fund within the SOT Endowment Fund when it was initiated. The sole purpose of the Fund is to provide a stipend for the McClellan Award given each year to an outstanding young scientist selected by the CTPV Specialty Section. We have been impressed by the exemplary accomplishments of each past awardee and their success in a diverse range of careers. It renews our optimism for the future!

I want to express my gratitude to those who have been an important part of my successful journey. First and foremost, my parents who made a fateful decision in 1943 to become a part of the Hanford project. It certainly introduced me to the world of health risks at a young age. It is a special pleasure to take this opportunity to thank my wife, Kathleen, my partner for over 60 years, our children – Eric, Elizabeth, and Katherine and our grandchildren – Connor, Sean, Rowan and Jillian for their special support on the successful journey.”

My teachers in the Richland, WA schools and at Washington State University and the University of New Mexico deserve special mention. They challenged me, and I in turn, challenged them. It is especially important to recognize the many mentors and colleagues who I have had the pleasure of learning from and working with over the decades, and my colleagues across the USA and around the world who I have had the pleasure of working with on numerous committees.



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I am especially honored to receive this Award because it was given to me by my peers who I continue to interact with on a regular basis. As we say in the West – “It has been a great ride!”

Catherine Rojas



Looking for targeted research training in your specialty?

The CTSA One Health Alliance is offering **fully funded two-year research fellowships for veterinary specialists** completing residency training.

Choose from a variety of experienced interdisciplinary mentor teams to advance research in your specialty... Application deadline is January 9, 2023; Fellowships start in Fall 2023.

For more info and a menu of searchable training opportunities:

<https://www.ctsaonehealthalliance.org/resources/education-training/2023-fellowship-opportunities>

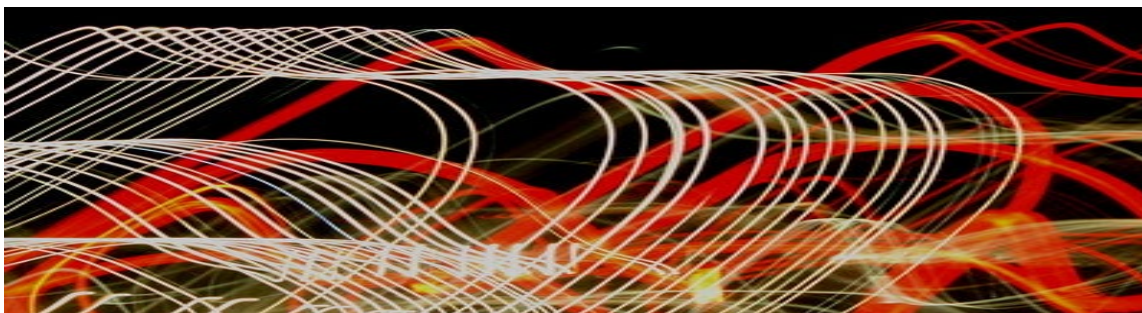
You can also create a mentored experience tailored to your needs, even if the mentor team is not listed on the menu.

Contact Lauren Trepanier at lauren.trepanier@wisc.edu or Rob Rebhun rbrehun@ucdavis.edu for more information.





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Congratulations to all of our 2022 SOT award winners!

CTPVSS Student Award –

Rachel Lacroix
(1st place)

Jaclynn Andres Meshanni
(2nd place)

CTPVSS Trainee Award –

Anna Katherine Founier

Roger O. McClellan Student Award –

Amanda Armijo

CTPVSS Charles River Award –

Emily Stevenson

CTPVSS/STP Student Award –

Danielle Kozlosky

Best Publication of the Year Award –

Dr. Catherine Wise

Outstanding Early-Career Scientist –

Dr. Satya Achanta

Outstanding Mid-Career Scientist –

Dr. Bhanu Singh

Lifetime Achievement Award –

Dr. Roger O. McClellan



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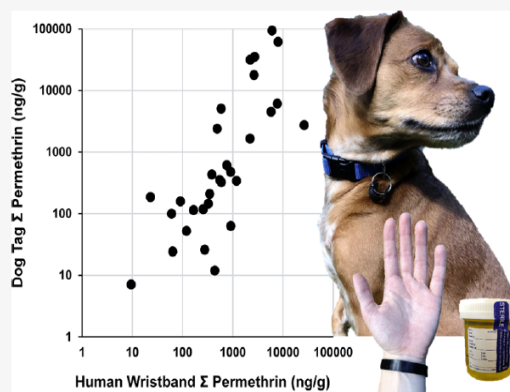


CTPVSS Best Publication of the Year

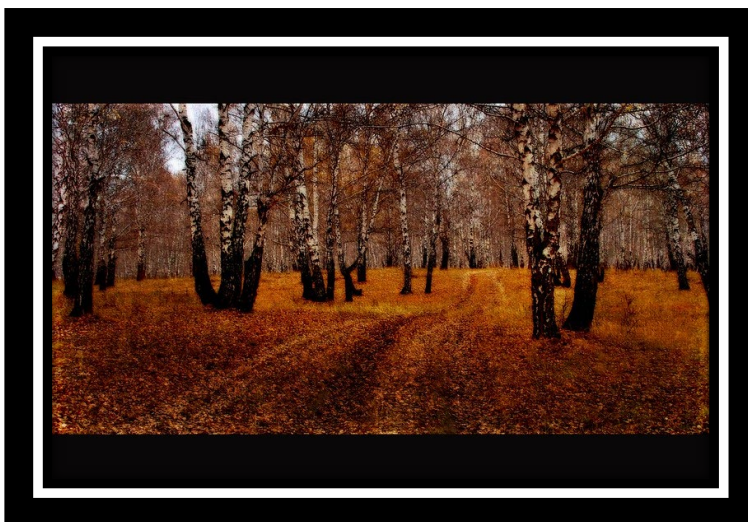
Comparative Exposure Assessment Using Silicone Passive Samplers Indicates That Domestic Dogs Are Sentinels To Support Human Health Research

Authors: Catherine F. Wise, Stephanie C. Hammel, Nicholas Herkert, Jun Ma, Alison Monsinger-Reif, Heather M. Stapleton and Matthew Breen

ABSTRACT: Silicone wristbands are promising passive samplers to support epidemiological studies in characterizing exposure to organic contaminants; however, investigating associated health risks remains challenging because of the latency period for many chronic diseases that take years to manifest. Dogs provide valuable insights as sentinels for exposure-related human disease because they share similar exposures in the home, have shorter life spans, share many clinical/biological features, and have closely related genomes. Here, we evaluated exposures among pet dogs and their owners using silicone dog tags and wristbands to determine if contaminant levels were correlated with validated exposure biomarkers. Significant correlations between measures on dog tags and wristbands were observed ($r_s = 0.38\text{--}0.90$; $p < 0.05$). Correlations with their respective urinary biomarkers were stronger in dog tags compared to that in human wristbands ($r_s = 0.50\text{--}0.71$; $p < 0.01$) for several organophosphate esters. This supports the value of using silicone bands with dogs to investigate health impacts on humans from shared exposures.



You can read the article in its entirety at <https://dx.doi.org/10.1021/acs.est.9b06605>



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Available 2023 SOT awards

AWARDS: Please check this out!! CTPVSS continues to offer awards to broaden our positive impact on the field. **Due date: December 30, 2022**

1. Zoetis Graduate Student Award (1st and 2nd place awards)
2. Zoetis Veterinary and Postdoctoral Trainee Award
3. Roger O. McClellan Student Award
4. Charles River Award
5. STP Student Award
6. Best Publication of the Year
7. Outstanding Early Career Scientist
8. Outstanding Mid-Career Scientist
9. Lifetime Achievement Award

Award Applications 2023: [Awards](#)

Furthering CTPVSS Impact



HELP US RECRUIT EMERGING TOXICOLOGISTS!

SOT ToxScholar program supports presentations to increase awareness of toxicology as a science and as a career field.

At institutions that are

- Primarily undergraduate
- With a high proportion of undergraduates from underrepresented groups
- In countries listed by the World Bank as low or middle income.

We need YOU to be a ToxScholar. Apply for funding.



Faculty United for Toxicology Undergraduate Recruitment and Education (FUTURE) Committee





Comparative Toxicology, Pathology, and Veterinary Specialty Section



If you haven't already, [renew your SOT membership](#)! During the SOT membership renewal process for 2022 you will be able to select the combined (SOT and CTPVSS) membership.

CTPVSS Member Highlights

Read on for member accomplishments during this past year!

Satya Achanta, DVM, PhD, DABT

Assistant Professor

Duke University School of Medicine

- Grant(s):

Pulmonary Cell Fate and Lung Repair in Rodent and Porcine Models of Chlorine and Phosgene Inhalation Injuries. NIH CCRP R01: MPI: Sven-Eric Jordt and Satya Achanta.

An acute porcine model for Cardiac-Synchronized Diaphragmatic Stimulation as a novel extra-cardiac intervention for symptomatic chronic heart failure. Viscardia Inc., PI: Satya Achanta

- Award(s):

Donald E. Gardner Inhalation Toxicology Education Award, Inhalation and Respiratory Toxicology Specialty Section, SOT

International ToxScholar Outreach Grant Award, SOT

- Publication(s):

Marcus AD, **Achanta S**, Jordt SE. Protocol for non-invasive assessment of spontaneous movements of group-housed animals using remote video monitoring. STAR Protoc. **2022** Apr

14;3(2):101326. doi: 10.1016/j.xpro.2022.101326. PMID: 35479115; PMCID: PMC9036393.

Lundstrom JA, Khemani RG, Hotz J, Newth CJL, **Achanta S**, Gentile MA, Hedin DS. Development of a Pleural Pressure Catheter via Continuous Fiberoptic Esophageal Pressure Measurements. Annu Int Conf IEEE Eng Med Biol Soc. 2022 Jul;**2022**:3269-3272.

doi:10.1109/EMBC48229.2022.9871790. PMID: 36086635.

Vijay Kale, DVM, MVSc, PhD, DABT, ERT

Principal Scientist | Project Toxicologist

Nonclinical Safety Portfolio Leadership

Bristol Myers Squibb

- Joined Bristol Myers Squibb, New Brunswick as a Project Toxicologist

- Publication(s):

Vijay Kale, Ilona Bebenek, Hanan Ghantous, John Kapeghian, Bhanu Singh and Lawrence J Thomas. Practical Considerations in Determining Adversity and the No-Observed-Adverse-Effect-Level (NOAEL) in Nonclinical Safety Studies: Challenges, Perspectives and Case Studies. (**2022**) International Journal of Toxicology 41 (2):143.



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Tracey Papenfuss, DVM, PhD, DACVP

Senior Pathologist

StageBio

- Started as a Senior Pathologist at StageBio, working as a toxicologic pathologist in discovery and safety assessment with a focus on immunopathology
- Chair of the CDOC-CD (Career Development (CD) Subcommittee within the Society of Toxicologic Pathology's Career Development and Outreach Committee (CDOC)
- Co-Chair of the HESI-ITC Education and Outreach Working Group
- Presentation(s):

Immune System at the Pathology for Non-Pathologist's Course sponsored by the American College of Toxicology and Society of Toxicologic Pathology

Immunopathology: evaluation, assessment, and considerations in the Immunosafety Training course (online) sponsored by the Health and Environmental Sciences Immunosafety Technical

Sonika Patial, DVM, PhD, DACVP

Assistant Professor

Louisiana State University

- Award(s):

LSU Alumni Association Rising Faculty Research Award

Scored at 1st Percentile (NIH R01 Grant)

- Publication(s):

Jian Chen, **Sonika Patial**, and Yogesh Saini. Loss of RNA Binding Protein, ZFP36L1, promotes EMT in Hepatocellular Cancer Cells by regulating ZEB2 (2022). *Cellular Signaling* 100:110462.

Richa Lamichhane, **Sonika Patial**, and Yogesh Saini. Higher susceptibility of males to bleomycin-induced pulmonary inflammation is associated with sex-specific transcriptomic differences in myeloid cells (2022). *Toxicology and Applied Pharmacology* 454:116228.

Brandon Lewis, **Sonika Patial**, and Yogesh Saini. In vitro screening method for characterization of macrophage activation responses (2022). *Methods and Protocols*: 5(5): 68

Chandra Bathula, Jian Chen, Rahul Kumar, Perry Blackshear, Yogesh Saini, and **Sonika Patial**. ZFP36L1 regulates Fgf21 mRNA turnover and modulates alcoholic hepatic steatosis and inflammation in mice (2022). *American Journal of Pathology* 192 (2): 208-225

Ishita Choudhary, Thao Vo, Kshitiz Paudal, **Sonika Patial**, and Yogesh Saini. Ozone exposure upregulates the expression of host susceptibility protein TMPRSS2 to SARS-CoV-2 (2022). *Scientific Reports* 12 (1): 1357.

Sonika Patial, Brook A. Delcambre, Peter DiGeronimo, Gary Conboy, Adriano Vatta, and Rudy Bauer.

Vermineous meningoencephalomyelitis in a Red Kangaroo associated with *Angiostrongylus cantonensis* infection (2022). *Journal of Veterinary Diagnostic Investigation* 34 (1):107-111.



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Comparative Toxicology, Pathology, and Veterinary Specialty Section



Get involved with CTPVSS

SOT CTPVSS Endowment Fund

CTPVSS would like to thank **Norman J Barlow, Vice President of Xencor, Preclinical Sciences**, for the generous donation!

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. Contributions enable CTPVSS to recognize an outstanding individual for their accomplishment in the field of Veterinary Toxicology. ***Please join Dr. Barlow in support of the fund.*** To learn more and to donate, kindly visit the [CTPVSS website](#).

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!

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; candidate biosketches need to be submitted to SOT Headquarters **no later than Tuesday, November 15, 2022**

- Serve as a CTPVSS Mentor
- Attend the 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!



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Job openings:

Multiple postdoctoral and Research Associate Senior positions are immediately available in the laboratory Dr. Satya Achanta at Duke University School of Medicine. Please contact Dr. Achanta (satya.achanta@duke.edu) with any questions.

<https://careers.duke.edu/job/Durham-RESEARCH-ASSOCIATE%2C-SENIOR-NC-27710/940838500/>



Comparative Toxicology, Pathology, and Veterinary Specialty Section



SAVE THE DATES

SOT Brings Toxicology to Nashville in 2023

Taking place in Nashville, Tennessee, the SOT 62nd Annual Meeting and ToxExpo will feature more than 70 Featured and Scientific Sessions, 2,000 presentations, 250 exhibitors, and 5,000 attendees.

Where

[Nashville Music City Center](#)
in downtown Nashville, TN

When

Sunday, March 19, 2023, to
Thursday, March 23, 2023

Deadlines for SOT 2023

Early bird registration January 27, 2023



Book your housing February 14, 2023

Submit an abstract December 1, 2022



Submit an Abstract

Abstract submissions are due at 11:59 pm
(US EST) on December 1, 2022.

See you in Nashville in 2023!



NASHVILLE
March 19–23



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Newsletter Committee 2022-2023:

Sonika Patial, DVM PhD DACVP
Elizabeth Roberts, DVM PhD DABT
Catherine Rojas, BS