

Winter 2021

Dear Neurotoxicology Specialty Section (NTSS) Members:

2020 was, mildly-stated, challenging! 2021 is, however, here and on behalf of the NTSS Executive Committee we wish that the New Year for all of you is Healthy, Happy, and Prosperous. Following the disappointment of the cancellation of the SOT Annual Meeting in Anaheim, we are gearing up for the SOT 2021, which will be virtual. The NTSS Executive Committee would like to update you on the activities of our Specialty Section from the past several months, and remind you of deadlines and important award information. We would like to thank our members for their patience and flexibility over the past year, and we look forward to seeing you at the upcoming 2021 SOT Virtual Annual Meeting.

Summary of Important Deadlines for 2020-2021 NTSS Awards:

Abstract and Awards	Deadlines	Eligibility requirements
SOT Abstract	(Now Closed)	All members of SOT
Toshio Narahashi Neurotoxicology SS Trainee Virtual Conference Endowment Award	January 18, 2021	Graduate and Postdoctoral trainees must be members of NTSS or show evidence of application for membership. Undergraduates and Post-Baccalaureates need not be members, but abstracts must be neurotoxicology focused. Applicants must be presenting at the 2021 virtual meeting.
Distinguished Neurotoxicologist Award	Not Soliciting New Nominations This Year	Full, Retired, or Emeritus members of NTSS nominated by two full SOT members, one of whom must be a NTSS member
Toshio Narahashi Neurotoxicology SS Graduate Student and Postdoctoral Scholar Virtual Poster Competition Award	February 21, 2021	Graduate students and postdoctoral research scholars who are NTSS members or show evidence of application for membership, and must be presenting at the 2021 virtual annual meeting

Renew Your NTSS Membership When You Pay Your SOT Dues - Before Dec 31, 2020!

While we are past the December, 31st deadline, you still have time to renew before the early registration deadline and to assure that you can participate in voting and other activities of the NTSS! Your membership provides the financial support to keep our Specialty Section running. NTSS seeks to promote neurotoxicology as a vibrant specialty of toxicology. The NTSS Executive Committee actively seeks to enhance and promote neurotoxicology themed sessions at the annual meeting. It also offers its members a place to meet with colleagues at the NTSS annual SOT reception (virtual in 2021). In addition, NTSS supports the growth of the field with the endowed Toshio Narahashi Fellowship Award program. As this endowment grows it enables NTSS to provide even more opportunities to support the next generation of neurotoxicologists. Membership continues to be the largest financial foundation of the section, so please renew today, and encourage your colleagues who are not members to join!

***Remember to register for the SOT Virtual Annual Meeting as soon as possible! The 2021 Early Bird Registration Deadline is January 22, 2021.**

Congratulations to NTSS Member Dr. Deborah Cory-Slechta!

We would like to congratulate long-standing NTSS member **Dr. Deborah Cory-Slechta** for being awarded the **2021 SOT Distinguished Toxicology Scholar Award!**



Deborah Cory-Slechta, PhD, has been awarded the 2021 SOT Distinguished Toxicology Scholar Award in honor of her scientific achievements and contributions to public health in the fields of environmental health sciences and toxicology. Dr. Cory-Slechta is currently a Professor of environmental medicine, pediatrics, and public health sciences at the University of Rochester Medical Center, where she trains and mentors a number of scholastically recognized students via hands-on, project-oriented teaching, as well as offering support and mentorship to junior faculty members. She also is the Deputy Director of the Environmental Health Sciences Center at the University of Rochester Medical Center.

Congratulations to the 2020 Toshio Narahashi Trainee Conference Award Winners!

Congratulations to the Winners and Thank You to Everyone Who Participated!



Shreesh Raj Sammi
Purdue University



Asha Rizor
Florida A&M University



Faith Anderson
Dartmouth College



John Kim
Vanderbilt University

Shreesh R. Sammi— Purdue University; Mentor: Jason R. Cannon

*Abstract: Mitochondrial Mechanisms of Harmane-Induced Dopaminergic Neurotoxicity in *C. elegans**

Asha Rizor— Florida A&M University; Mentor: Eunsook Lee

Abstract: Mechanism of Mn-Induced YY1 Activation via Aurora B Kinase and Casein Kinase II in Astrocytes

Faith Anderson— Dartmouth College; Mentor: Matthew C. Havdra

Abstract: Mechanisms of Chlорpyrifos-Driven Programmed Cell Death in Neurons

John Kim— Vanderbilt University; Mentor: Ned A. Porter

Abstract: Highly Prescribed Antipsychotics Perturb Cholesterol Biosynthesis in hiPSC-Derived Human Cortical and Dopaminergic Neural Precursors

Congratulations to the 2020 Toshio Narahashi Poster Competition Winners!

Graduate Student Winners: 1st Place Sponsored by Battelle

1st Place: Kelley Patten— University of California, Davis; Mentor: Pamela Lein

Abstract: Chronic Exposure to Real-Time Traffic-Related Air Pollution Exacerbates and Accelerates Alzheimer's Disease Phenotypes in Wildtype and TgF344-AD Rats

2nd Place: Bianca Yaghoobi— University of California, Davis; Mentor: Pamela Lein

Abstract: RyR-active polychlorinated biphenyls (PCBs) cause neurobehavioral deficits in larval zebrafish

3rd Place: Rachel Foguth— Purdue University; Mentor: Jason Cannon

Abstract: Effects of Developmental Exposure to Perfluoroalkyl Substances on Brain and Heart Innervation in Northern Leopard Frogs

4th Place: Jonas Calsbeck— University of California, Davis; Mentor: Pamela Lein

Abstract: The role of nicotinic receptors in seizure activity and death triggered by acute organophosphate intoxication in a mouse model

Postdoctoral Scholar Winners: 1st Place Sponsored by Elsevier

1st Place: Souvarish Sarkar— Harvard University; Mentor: Mel Feany

Abstract: Multiplex analysis in a Drosophila gene-environment model identifies interactions among LRRK2, rotenone and α -synuclein

2nd Place: Shreesh Sammi— Purdue University; Mentor: Jason Cannon

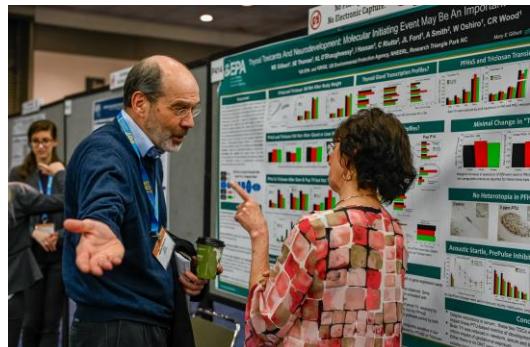
*Abstract: Mitochondrial mechanisms of harmane-induced dopaminergic neurotoxicity in *C. elegans**

3rd Place: Edward Pajarillo— Albert Einstein College of Medicine; Mentor: Eunsook Lee

Abstract: Deletion of astrocytic YY1 protects against Mn-induced dopaminergic toxicity in mice

4th Place: Anna Chelbowski— Western University of Health Sciences; Mentor: Glen Kisby

Abstract: Role of Cycad Toxins in Parkinson-Dementia Complex (PDC) using Induced Pluripotent Cell (iPSC) from Guam patients



Special Thanks to the NTSS Officers and Volunteer Judges Who Made This Competition Possible!

Award winners from both 2020 and 2021 will be recognized at the 2021 NTSS Evening Reception

Tuesday, March 16th 4:15 - 5:45 pm (ET)

Additional News and Events

Congratulations to the 2020 NTSS Distinguished Neurotoxicologist Award Recipient!!



We are pleased to announce that this year **Dr. Michael Aschner (Albert Einstein College of Medicine)** is the recipient of the Distinguished Neurotoxicologist Award. This award recognizes NTSS members who have made important high-impact scientific, regulatory, or service contributions to our field. The review panel (Drs. Michelle Block (chair), Jason Cannon, Jason Richardson, Jim O'Callaghan, Ginger Moser, Debbie Cory-Slechta) carefully evaluated the nominations relative to contributions to the science of neurotoxicology, the use of neurotoxicological science in making risk assessment and regulatory decisions, and service to the NTSS and the field of neurotoxicology.

Past Awardees



2001
Toshio Narahashi
Northwestern
University

2002
Peter Spencer
Oregon Health &
Science Center

2003
Bernard Weiss
University of
Rochester

2006
Herbert Needleman
University of
Pittsburgh

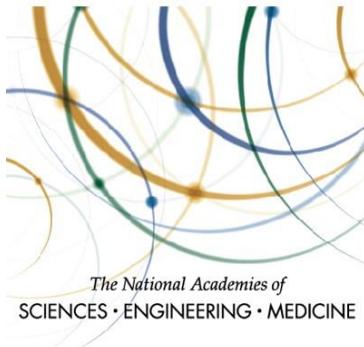
2008
Joan Cranmer
University of
Arkansas for
Medical Sciences

2017
Deborah Cory-Slechta
University of
Rochester

2019
William Atchison
Michigan State
University

Workshop Spotlight: The National Academies of Sciences, Engineering, and Medicine

Environmental Neuroscience: Advancing the Understanding of How Chemical Exposures Impact Brain Health and Disease: Proceedings of a Workshop (2020)



On June 25, 2020, the National Academies of Sciences, Engineering, and Medicine's Forum on Neuroscience and Nervous System Disorders hosted a workshop to lay the foundation for future advances in environmental neuroscience. The workshop was designed to explore new opportunities to bridge the gap between what is known about the genetic contribution to brain disorders and what is known, and not known, about the contribution of environmental influences, as well as to discuss what is known about how genetic and environmental factors interact. The presentation and discussion of the workshop are summarized in the publication above.

Predicting Human Health Effects from Environmental Exposures: Applying Translatable and Accessible Biomarkers of Effect (2020)

On August 12–13, 2020, the Standing Committee on the Use of Emerging Science for Environmental Health Decisions of the National Academies of Sciences, Engineering, and Medicine held a 2-day workshop to explore how new biomarker approaches can be applied to understanding the consequences of environmental exposures and improve environmental health decisions. The workshop brought together a multidisciplinary group, including experts in public health, environmental health, clinical medicine, and health disparities to discuss the state of the art in biomarkers and health. The workshop was sponsored by the National Institute of Environmental Health Sciences (NIEHS).

Important Dates and Deadlines

Call for Nominations - Election of New NTSS Officers – December 31, 2020 (Extended)

Call for Nominations: NTSS will elect a new **Vice President-Elect**, a **Councilor**, a **Postdoctoral Representative**, and a **Graduate Student Representative**. It is time to gather nominations for those offices. Dr. Lucio Costa, our Past President, spearheaded this effort this year and we now have an excellent list of Nominees for every position. All nominated candidates should be dedicated to service for NTSS as the future success of the specialty section will be dependent on these people. **Please be on the lookout for a solicitation for voting about the New NTSS Officers and cast our ballots. Election outcomes and the New Officer Slate will be announced/introduced during the 2021 SOT meeting.**

Call for Newsletter Committee Volunteers

Are you interested in becoming more involved in NTSS? Consider volunteering for the Newsletter Committee. Annually, NTSS sends a newsletter with informative updates about the specialty section to the entire membership. As a volunteer, you have access to the most up-to-date info about NTSS! This is also an excellent opportunity to network with fellow NTSS members, as well as gain valuable scientific communication skills. If you have any questions, or are interested in volunteering, please email **Eduardo González (azgonzalez@ucdavis.edu)**, the current NTSS Graduate Student Representative.

Toshio Narahashi Neurotoxicology Fellowship Endowment Fund

NTSS has been highly successful in establishing the Toshio Narahashi Neurotoxicology Fellowship Award Endowment Fund. This endowment fund helps to cover our graduate student and postdoctoral scholar poster competition awards, and will provide support for the trainee conference award.

Kindly Continue to Donate

Please consider renewing or making a new tax-deductible donation to the Toshio Narahashi Endowment Fund this year. For every dollar donated, the Society will match the contribution dollar-for-dollar up to \$400,000, meaning your contribution will go even further. Increasing the endowment fund will enhance the size and number of trainee poster and conference awards that NTSS can grant. Few things that we do, will have such a positive impact on so many young scientists early in their careers, and will continue to do so in perpetuity. To make a donation, please click on <http://www.toxicology.org/ai/csot/contribute.asp>

Supplemental Training for Education Program (STEP) – Next Deadlines: May 1st/October 9th

Doctoral students are encouraged to apply for SOT funding to support **participation in a workshop, training course or event** that facilitates the professional or scientific education needed to achieve future career goals. The activity should be outside the scope of their graduate program and graduate research.

For more info:

<http://www.toxicology.org/education/st/step.asp>



Important Dates and Deadlines (Continued)

2021 Toshio Narahashi Trainee Virtual Conference Award – January 18, 2021

Process: Trainee applicants must submit their SOT abstract, CV, and completed conference award form (<http://www.toxicology.org/groups/ss/NTSS/awards.asp>) by **January 18, 2021**. The NTSS Awards Committee will review these materials, and select recipients based on the scientific merit of their abstract. Awards will be made in the amount of \$250 to cover registrations and other associated costs. Awardees will receive the funds in advance of the 2021 SOT Annual meeting.

Eligibility requirements: (1) Undergraduates, Post-Baccalaureates, Graduate Students, and Postdoctoral Scholars are eligible to apply. (2) Trainees must attend the 2021 SOT Annual meeting in order to accept the award. (3) Graduate Students and Postdoctoral Scholar must be members of NTSS or show evidence of application for membership. (4) Undergraduates and Post-Baccalaureates need not be NTSS members, but their submitted abstract must be neurotoxicology focused. Advisors or mentors who are not NTSS members are strongly encouraged to join.

Submission requirements: (1) The original abstract submitted to SOT, (2) a CV, and (3) the completed conference award form (<http://www.toxicology.org/groups/ss/NTSS/awards.asp>) must be submitted to **Jason Cannon** (cannonjr@purdue.edu), NTSS Vice President-Elect by **January 18, 2021**. Please note that the conference award form has separate sections that need to be filled out by the trainee or mentor.

Updates on Distinguished Neurotoxicologist Award Nominations

The Distinguished Neurotoxicologist Award recognizes NTSS members who have made important and long-standing, high-impact contributions to our field. Due to the impacts of the COVID-19 pandemic, NTSS will not be soliciting new nominations for the distinguished neurotoxicologist award for the 2021 year. Rather, we will honor our 2020 winner, Dr. Michael Aschner, this coming year and extend the nomination period for our current pool of nominees by one additional year. Current nominees are encouraged to submit an updated CV to NTSS Past President **Lucio Costa** (lgcosta@uw.edu). Detailed information on eligibility and submission requirements is available on the NTSS website: <http://www.toxicology.org/groups/ss/NTSS/awards.asp>

2021 Toshio Narahashi Poster Competition - February 21, 2021

Graduate students and postdoctoral scholars are invited to participate in the 2021 poster competition! Due to the virtual nature of the conference, applicants will submit a letter of support from their mentor and short (~5 minute) video recordings of their presentation alongside their poster by **February 21, 2021**. Applicants are welcome to use the record function of a private Zoom call, a recording function in PowerPoint, a smartphone video recording, or any other means to record their presentations. More detailed information will be sent out to all NTSS members by mid-January.

Submission should be directed to **Lucio Costa** (lgcosta@uw.edu), Chair of the NTSS Student and Postdoctoral Awards Committee by **February 21, 2021**. Participants will no longer be required to send a PDF of their poster prior to the annual meeting.

In addition to recognition certificates for each winner, monetary prizes will be awarded for first, second, third, and fourth place. Winners will be announced at the annual NTSS Virtual Reception.

JUDGES NEEDED!! NTSS members are encouraged to support the Poster Competition Process by volunteering to judge either extended abstracts and/or posters!! Please contact **Lucio Costa** (lgcosta@uw.edu) to offer your services.



Congratulations to the NTSS-Sponsored Sessions for SOT 2021!

Symposium & Workshop Sessions

CE04: Concepts and Approaches for Current and Future Metals Toxicological Research

Symposium: Impaired Brain Barrier Systems: Relationship to Chemical-Induced Neurotoxicities

Informational Session: Turning Over a New Leaf: An Update on the Clinical Toxicology of Synthetic Cannabinoids

Symposium: From Inhaled Particles to Neurodegeneration and Toxicity: Evidence from Studies in Volunteers, Experimental Animals, and Cell-Based Systems

Symposium: Identifying and Communicating Adverse Neurological Outcomes from Parental Cannabis Use

Symposium: Hereditary Disorders of Manganese Metabolism: Mechanisms, Clinical Presentation, and Neurotoxicity

Workshop: Are Aircraft Cabin Fume Releases a Cause for Toxicological Concern?

Symposium: Opportunities for Human-Induced Pluripotent Stem Cell-Derived Neurons in In Vitro Neurotoxicity Safety Testing

Symposium: Pairing Adverse Outcome Pathway Discovery with Advances in Gene Editing to Solve Toxicity Mechanisms

All of the proposals accepted for SOT 2021 can be found at the following website:

<https://www.toxicology.org/events/am/AM2021/program-overview.asp>

Regards from the 2020-2021 NTSS Officers! We hope to see everyone in March!

2020–2021 NTSS Officers



Nick Filipov
President



Jason Richardson
Vice President



Jason Cannon
VP-Elect



Alison Bernstein
Secretary/Treasurer



Marissa Sobolewski
Councilor



Kristen Ryan
Councilor



Carla Garza-Lombo
Postdoctoral Representative



Eduardo González
Graduate Student Representative



Lucio Costa
Past-President



Michelle Block
Past-Past-President