

# Jason R. Cannon, Ph.D.

## *Curriculum Vitae*

February 2023

### Purdue Office

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[http://www.purdue.edu/hhs/hsci/directory/faculty/cannon\\_jason.html](http://www.purdue.edu/hhs/hsci/directory/faculty/cannon_jason.html)

<https://www.purdue.edu/gradschool/pulse/groups/profiles/faculty/cannon.html>

NCIB: <https://www.ncbi.nlm.nih.gov/myncbi/jason.cannon.1/bibliography/public/>

Google Scholar: [https://scholar.google.com/citations?user=l3f\\_ixcAAAAJ&hl=en](https://scholar.google.com/citations?user=l3f_ixcAAAAJ&hl=en)

ORCID: <https://orcid.org/0000-0003-1907-4555>

Place of Birth: Flint, MI, USA

Nationality: U.S. Citizen

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## EXPERTISE

Dr. Cannon is trained in toxicology and neuroscience. He is an expert on how toxic exposures adversely affect the nervous system. Dr. Cannon teaches the following subjects: general toxicology, analytical toxicology (quantification of drugs of abuse, environmental and industrial toxicants), biochemical toxicology (mechanisms of toxic action) toxicologic pathology, neurotoxicology, neurodegeneration. Dr. Cannon conducts research on how toxic exposures impact neurologic function and may influence the onset and progression of neurological diseases. He provides scientific expertise on toxicology and neurodegeneration to government, nonprofit, industry, and legal sectors.

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## EDUCATION

### **2006-2011 Postdoctoral Fellowship**

Pittsburgh Institute for Neurodegenerative Diseases, University of Pittsburgh, Pittsburgh, PA 15260

Postdoctoral Mentor: J. Timothy Greenamyre, M.D., Ph.D.

### **2001-2006 Doctorate of Philosophy in Toxicology (December, 2006)**

University of Michigan, Ann Arbor, MI, 48109

Dissertation Title: "Thrombin preconditioning in a 6-hydroxydopamine rat model of Parkinson's disease"

Dissertation Committee:

Richard F. Keep, Ph.D. (Co-Chair and Cognate)

Rudy J. Richardson, Sc.D. (Co-chair)

Guohua Xi, M.D. (Member)

Martin A. Philbert, Ph.D. (Member)

Timothy J. Schallert, Ph.D. (External Advisor)

- 2000-2001** Occupational and Industrial Health Sciences (Industrial Toxicology, no degree), Wayne State University, Detroit, MI, 48202
- 1994-1998** **Bachelor of Science with Honor, Physiology (May, 1998)**  
Lyman Briggs School of Science, Michigan State University, East Lansing, MI, 48824

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**PROFESSIONAL EXPERIENCE and ACADEMIC APPOINTMENTS**

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- 08/2022-present **Professor of Toxicology** (tenured), School of Health Sciences, Purdue University
- 08/2022-present **Consultant (toxicology)**, Forensic Psychology Consultants, LLC
- 08/2021-present **Co-leader**, Healthy Lifestyles and Vital Longevity – College of Health and Human Sciences Signature Area, Purdue University
- 06/2021-present **Mentor**, National Institute of Health (NIH) funded Toxicology Mentoring and Skills Development Training Program (ToxMSDT)
- 07/2020-present **Courtesy Appointment**, Department of Public Health, Purdue University
- 07/2020-present **Member**, Neurotoxicity Technical Working Group, Botanical Safety Consortium (BSC), Health and Environmental Sciences Institute (HESI)
- 04/2019-present **Member**, Fulbright Specialist Roster, U.S. Department of State’s Bureau of Educational and Cultural Affairs (ECA) and World Learning
- 12/2018-12/2019 **Fellow**, Faculty Leadership Academy for Interdisciplinary Research, Office of the Executive Vice President for Research and Partnerships, Purdue University
- 07/2017-present **Head**, Purdue University Interdisciplinary Life Science Program (PULSe)
- 09/2016-08/2017 **Chair, Integrative Neuroscience Training Group**, Purdue University Interdisciplinary Life Science Program (PULSe)
- 08/2016-present **Director of Toxicology Graduate Program**, School of Health Sciences, Purdue University
- 08/2016-12/2018 **Director of Graduate Studies**, School of Health Sciences, Purdue University
- 08/2016-08/2022 **Associate Professor of Toxicology** (tenured), School of Health Sciences, Purdue University
- 01/2016-present **Faculty Associate**, Integrative Neuroscience Center, Purdue University
- 06/2013-present **Faculty Associate**, Center on Aging and Life Course, Purdue University
- 02/2012-present **Administrative Member**, Integrative Neuroscience Training Group, Purdue University Interdisciplinary Life Science Ph.D. program (PULSe)
- 01/2012-07/2016 **Assistant Professor of Toxicology**, School of Health Sciences, Purdue University
- 09/2010-12/2011 **Research Associate**, Pittsburgh Institute for Neurodegenerative Diseases, Department of Neurology, University of Pittsburgh
- 09/2010-12/2011 **Research Associate**, Department of Veteran’s Affairs, VA Pittsburgh Healthcare System
- 09/2006-09/2010 **Postdoctoral Associate**, Pittsburgh Institute for Neurodegenerative Diseases, Department of Neurology, University of Pittsburgh
- 09/2005-08/2006 **Graduate Student Research Assistant**, Department of Neurosurgery, University of Michigan
- 09/2001-08/2005 **NIEHS Predoctoral Research Trainee**, Environmental Health Sciences, Toxicology Program, University of Michigan
- 09/2001-05/2003 **Polysomnographic Research Analyst**, University of Michigan School of Nursing

- 07/2000-08/2001 **Lead Research Polysomnographic Technologist**, General Clinical Research Center, Medical School, University of Michigan
- 08/1999-01/2000 **Teaching Assistant**, Capstone laboratory in Physiology, Physiology Department, Michigan State University
- 06/1998-07/2000 **Polysomnographic Technologist**, Ingham Regional Medical Center, Lansing, MI

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## ACADEMIC AND PROFESSIONAL HONORS

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### Awards

- 2022 Travel Award (\$1,000), Incoming Mobility Commission, Office of Science and Art, University of Rijeka
- 2019 Purdue Research Foundation International Travel Grant
- 2017 University Faculty Scholar (2017-2022), total award of \$100k in discretionary funds
- 2017 Showalter Faculty Scholar (2017-2022) – subset of University Faculty Scholars (excellence in life sciences)
- 2016 Seed for Success Award, Purdue University (external sponsor award >\$1M)
- 2015 Travel award (\$1700), Elucidating Environmental Dimensions of Neurological Disorders and Disease: Understanding New Tools from Federal Chemical Testing Programs, Environmental Defense Fund, NIEHS/NTP
- 2015 Outstanding Reviewer – Elsevier (top 10th percentile, number of reviews completed for *Neurobiology of Disease* in the past two years)
- 2014 Early Career Reviewer (2<sup>nd</sup> selection), Clinical Neuroplasticity and Neurotransmitters Study Section, Center for Scientific Review, National Institutes of Health
- 2013 Early Career Reviewer 1<sup>st</sup> selection, Clinical Neuroplasticity and Neurotransmitters Study Section, Center for Scientific Review, National Institutes of Health
- 2013 Appointed as Faculty Associate, Center on Aging and Life Course, Purdue University
- 2013 Certificate of Excellence in Reviewing, *Experimental Neurology*
- 2011 NIH (NIEHS) Individual Career Development Award (K99/R00)
- 2011 AstraZeneca Travel Award (100% funding for travel and attendance), Gordon Research Conference, Cellular & Molecular Mechanisms of Toxicity Understanding Innovative Mechanistic Toxicology in the Post-Genomic Era
- 2011 Abstract chosen for oral presentation. Gordon Research Conference, Cellular & Molecular Mechanisms of Toxicity Understanding Innovative Mechanistic Toxicology in the Post-Genomic Era
- 2011 1<sup>st</sup> place in poster competition. Gordon Research Conference, Cellular & Molecular Mechanisms of Toxicity Understanding Innovative Mechanistic Toxicology in the Post-Genomic Era
- 2010 Best Overall Poster, 2010 Annual Spring Meeting, Allegheny-Erie Society of Toxicology
- 2008 Postdoctoral Fellowship, American Parkinson's Disease Association, Inc.
- 2007 Institutional Postdoctoral Training Fellowship, NIMH Training Grant the Neurobiology of Psychiatric Disorders, University of Pittsburgh
- 2006 Rackham Travel Award, Society of Toxicology's 45<sup>th</sup> annual meeting, Rackham Graduate School, University of Michigan
- 2005 Rackham Travel Award, Society of Toxicology, Society of Toxicology's 44<sup>th</sup> annual meeting, Student Scholarship, 13<sup>th</sup> International Symposium on Brain Edema and Conference on Intracerebral Hemorrhage
- 2004 Rackham Travel Award, Society of Toxicology's 43<sup>rd</sup> annual meeting, Rackham Graduate School, University of Michigan
- 2003 Rackham Travel Award, Society of Toxicology's 42<sup>nd</sup> annual meeting, Rackham Graduate School, University of Michigan
- 2001 Institutional Predoctoral Training Fellowship (3 competitive renewals), NIEHS Environmental Toxicology Research Training Grant, The University of Michigan
- 1998 Bachelor of Science Degree, *with honor*
- 1996 Tower Guard: Sophomore Honor Service Society, Michigan State University

## **Society Memberships**

2006-Present Society for Neuroscience  
2002-Present Society of Toxicology, Neurotoxicology Specialty Section  
2002-Present International Neurotoxicology Association

## **Professional Activities**

### *Associate Editor*

*Frontiers in Toxicology* (2019-)

*NeuroToxicology* (2019-)

### *Editorial Board Membership*

*Journal of Biochemical and Molecular Toxicology* (2021- present)

*Toxicology*, (2019-present)

*Toxics*, Editorial Board Member (2019 – present)

*NeuroToxicology* (2018-2019)

*Neurotoxicology & Teratology* (2018-present)

*Frontiers in Environmental Science*, Toxigenomics section, Review Member, Editorial Board (2017 – 2019)

*Frontiers in Genetics*, Toxicogenomics section, Review Member, Editorial Board (2017 – present)

*Toxicological Sciences*, Editorial Board Member (2015 – present)

*Experimental Biology and Medicine*, Member, Pharmacology & and Toxicology Section (2013-2016)

### *Guest Editor*

*Neurotoxicology and Teratology* (2019-2020), Special Issue entitled, “Leveraging non-mammalian models for developmental neurotoxicity testing”

### *Editorial Review for Scientific Journals*

*Aging Cell*

*Analytical Methods*

*Archives of Toxicology*

*Biochemical Pharmacology*

*Biological Trace Element Research*

*Biomedicine & Pharmacotherapy*

*BMC Neurology*

*BMC Neuroscience*

*Brain Research*

*Cell Death & Disease*

*Chemical Communications*

*Clinical Neurology & Neurosurgery*

*Current Cancer Drug Targets*

*Disease Models & Mechanisms*

*Environmental Pollution*

*Environment International*

*Experimental Biology and Medicine*

*Experimental Brain Research*

*Experimental Neurology*

*Food & Function*

*Frontiers in Genetics*

*Frontiers in Immunology*

*Frontiers in Neuroscience*

*Free Radical Biology and Medicine*

*Glia*  
*Gerontology & Geriatric Medicine*  
*IBRO Reports*  
*International Journal of Developmental Neuroscience*  
*International Journal of Environmental Research and Public Health*  
*Journal of Functional Foods*  
*Journal of Integrative Neuroscience*  
*Journal of Neural Transmission*  
*Journal of Neurochemistry*  
*Journal of Neurogenetics*  
*Journal of Neuroinflammation*  
*Journal of the Neurological Sciences*  
*J Neuropath and Experimental Neurology*  
*Journal of Nervous and Mental Disease*  
*Journal of Neuroscience Research*  
*Journal of Toxicology*  
*Marine Pollution Bulletin*  
*Meat Science*  
*Metabolic Brain Disease*  
*Metallomics*  
*Molecular and Cellular Neuroscience*  
*Neurobiology of Aging*

*Neurobiology of Disease*  
*Neurochemical Research*  
*Neurochemistry International*  
*Neuropharmacology*  
*Neuroscience*  
*Neuroscience Letters*  
*Neurotoxicity Research*  
*Neurotoxicology*  
*Neurotoxicology & Teratology*  
*Organic & Biomolecular Chemistry*  
*Pesticide Biochemistry and Physiology*  
*Pharmacology & Therapeutics*  
*Physiology & Behavior*  
*PLoS ONE*  
*PNAS*  
*PNAS Nexus*  
*Psychopharmacology*  
*Scientific Reports*  
*Toxicology*  
*Toxicology & Applied Pharmacology*  
*Toxicology Research*  
*Toxicological Sciences*

*Editorial Review for Textbooks*

Jones and Bartlett Learning

*Grant Review*

- 2023 Toxic Exposures Research Program, Congressionally Directed Medical Research Programs, Department of Defense
- 2022 Purdue Reviewer, Overseas Visiting Doctoral Fellowship (OVDF) Program, Purdue and India's Science and Engineering Research Board
- 2022 F03A-E (20) L, *Fellowships: Neurodevelopment, Synaptic Plasticity and Neurodegeneration*, Fall, 2022
- 2022 Dutch research foundation ParkinsonNL, Fall, 2022
- 2022 ZRG1 F03B-L (20) L, *Fellowships: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience*, Summer, 2022
- 2022 ZRG1 F03B-L (20) L, *Fellowships: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience*, Winter, 2022
- 2021 *Open Competition Domain Science*, Dutch Research Council, Netherlands, Fall, 2021
- 2021 NIEHS P42 Superfund Research Program – Phase I and Phase II review, National Institutes of Health, Fall, 2021
- 2021 ZRG1 F03B-R (20) L, *Fellowships: Biophysical, Physiological, Pharmacological and Bioengineering Neuroscience*, Center for Scientific Review, National Institutes of Health, *ad hoc*, Summer, 2021
- 2021 *Showalter Review Panel*, Purdue Research Foundation, Spring, 2021
- 2021 Core Pilot review, Translational Research Development Program, Indiana Clinical and Translational Sciences Institute (CTSI), Spring, 2021
- 2021 National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), United Kingdom, *Ad hoc Reviewer*, Spring, 2021
- 2020 Investigating Environmental Risk Factors, The Michael J. Fox Foundation, Fall, 2020
- 2020 ZRG1 F03A-E (20) L, *Fellowships: Neurodevelopment, Synaptic Plasticity and Neurodegeneration Fellowship Panel (F03A)*, Center for Scientific Review, National Institutes of Health, *ad hoc*, Summer, 2020
- 2020 *Showalter Review Panel*, Purdue Research Foundation, Spring, 2020
- 2020 ZRG1 F03A-E (20) L, *Fellowships: Neurodevelopment, Synaptic Plasticity and Neurodegeneration Fellowship Panel*, Center for Scientific Review, National Institutes of Health, *ad hoc*, Spring, 2020

- 2019 K99/R00 Pathway to Independence Award Panel, National Institute of Environmental Health Sciences, National Institutes of Health, *ad hoc*, Summer, 2019
- 2019 IMM-K (50) *US-Brazil Collaborative Research Program*, National Institutes of Health, Summer, 2019
- 2019 *Swiss National Science Foundation*, *ad hoc* reviewer
- 2019 *Early Life Stressors and Alcohol Use Disorders* [ZRG1 IFCN-C (07) S] Study Section, Center for Scientific Review, National Institutes of Health, *ad hoc*, Spring, 2019
- 2019 *Neurotoxicology and Alcohol* (NAL) Study Section, Center for Scientific Review, National Institutes of Health, *ad hoc*, Spring, 2019
- 2018 *Environmental Factors (EF)*, peer review panel of the 2018 Parkinson's Disease Research Program (PRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP)
- 2018 K99/R00 Pathway to Independence Award Panel, National Institute of Environmental Health Sciences, National Institutes of Health, *ad hoc*, Fall, 2018
- 2018 *Neurobiology – E*, VA Merit Review Panel, Summer 2018
- 2018 *Neurobiology of Alcohol Toxicity and Chemosensation member conflict Special Emphasis Panel* Study Section [2018/05 ZRG1 IFCN-N (03) M], Center for Scientific Review, National Institutes of Health, *ad hoc*, Spring, 2018
- 2017 Department of Defense Congressionally Directed Medical Research Programs, Metals Toxicology, Teleconference
- 2017 *Neurotoxicology and Alcohol* (NAL) Study Section, Center for Scientific Review, National Institutes of Health, *ad hoc*, Fall, 2017
- 2017 Department of Defense Congressionally Directed Medical Research Programs, Metals Toxicology, FP-MT
- 2017 Indiana Alzheimer Disease Center (IADC) Pilot Project Grant Review
- 2017 Department of Defense Congressionally Directed Medical Research Programs, Discovery Metals Toxicology Metals Toxicology
- 2017 Department of Defense Congressionally Directed Medical Research Programs, Pre-application Metals Toxicology Metals Toxicology
- 2017 *Neurotoxicology and Alcohol* (NAL) Study Section, Center for Scientific Review, National Institutes of Health, *ad hoc*, Summer, 2017
- 2017 Reviewer, New R01 Incentive Program, Office of the Executive Vice President for Research and Partnerships
- 2017 *Neuroplasticity & Compensation/Progression & Heterogeneity (NPC-PH)* peer review panel of the 2016 Parkinson's Disease Research Program (PRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP)
- 2016 *Neurobiology – E*, VA Merit Review Panel, Winter 2016
- 2016 *Systemic Injury and Environmental Exposures (SIEE)*, Study Section, Center for Scientific Review, National Institutes of Health, *ad hoc*, Fall, 2016
- 2016 Department of Defense Congressionally Directed Medical Research Programs Metals Toxicology Metals Toxicology (Discovery Award)
- 2016 Department of Defense Congressionally Directed Medical Research Programs, Pre-application Metals Toxicology Metals Toxicology [Investigator-Initiated Research Award (IIRA), Technology/Therapeutic Development Award (TTDA)]
- 2016 *Clinical Neuroplasticity and Neurotransmitters Study Section*, Center for Scientific Review, National Institutes of Health, *ad hoc*, Summer, 2016
- 2016 Target Advancement Panel, The Michael J Fox Foundation
- 2016 Health Research Council of New Zealand
- 2015 Department of Defense Congressionally Directed Medical Research Programs, Metals Toxicology Metals Toxicology [Investigator-Initiated Research Award (IIRA), Technology/Therapeutic Development Award (TTDA)]
- 2015 Department of Defense Congressionally Directed Medical Research Programs, Metals Toxicology (Discovery Award)
- 2015 Department of Defense Congressionally Directed Medical Research Programs, Pre-Application Metals Toxicology [Investigator-Initiated Research Award (IIRA), Technology/Therapeutic Development Award (TTDA)]
- 2015 Parkinson's disease Society – UK; *ad hoc* grant reviewer, Summer, 2015
- 2015 Indiana Spinal Cord and Brain Injury Fund, Indiana State Department of Health, Spring, 2015

- 2014 *Clinical Neuroplasticity and Neurotransmitters Study Section*, Center for Scientific Review, National Institutes of Health, *ad hoc*, Summer, 2014
- 2013 Joint Research Actions, The French Community of Belgium, University of Liège, *ad hoc* Spring, 2013
- 2013 *Clinical Neuroplasticity and Neurotransmitters Study Section*, Center for Scientific Review, National Institutes of Health, *ad hoc*, Spring, 2013
- 2012 The Medical Research Council (MRC) of South Africa – External Grant Reviewer
- 2012 Collaborative Incentive Research Grant (CIRG), CUNY – *ad hoc* External Reviewer, 5/2012
- 2010 Parkinson’s disease Society – UK; *ad hoc* grant reviewer, Fall, 2010

*Program/other External Review*

- 2022 External Reviewer/Focus Group Member, Strategic Plan Review, Lyman Briggs College, Michigan State University

*Consortium Memberships*

- 2012-2015 LRRK2 Biology Program, the Michael J. Fox Foundation

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**ACTIVE/PENDING RESEARCH SUPPORT**

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<b>NAME OF INDIVIDUAL</b>		
Project Number (Principal Investigator) Source Title of Project ( <i>or Subproject</i> ) Major goals	Dates of Approved/Proposed Project Annual Direct Costs	Person Months (Cal/Academic/Summer)

**ACTIVE\***

PD211037 [mPIs, Cannon (contact) and Wells] DOD <i>Role Of Military Relevant Chlorpyrifos Exposure In Parkinson’s Disease Relevant Dopaminergic Neurotoxicity.</i> The goal is to understand whether military-related chlorpyrifos exposure may influence PD risk. Role = PI. <u>Total cost = \$1,199,999.</u>	09/30/2022 – 09/29/2025 ~\$250,000	1.8 Summer
R21AG068787S-1 (Cannon, PI) NIA/NIH <i>PFOS-induced dopaminergic neurodegeneration across nematode, amphibian, and rodent models</i> The goal is to assess relevance of PFAS neurotoxicity to Alzheimer’s disease. Role = PI. <u>Total cost = \$308,499.</u>	09/01/2021 – 05/31/2023 (NCE) \$137,500	1.0 Summer
R21AG068787 (Cannon, PI) NIA/NIH <i>PFOS-induced dopaminergic neurodegeneration across nematode, amphibian, and rodent models</i> The goal is to advance understanding of PFAS neurotoxicity through comparative biology approaches. Role = PI. <u>Total cost = \$409,222.</u>	09/01/2020 – 05/31/2023 (NCE) \$137,500	1.0 Summer

1R01AG080917 (Bowman Yuan, and Zhang, mPIs) 09/22/2022 – 05/31/2027 0.23 Academic  
 NIA/NIH 0.07 Summer  
*Modeling functional genomics of susceptibility to the persistent effects of environmental toxins in an elderly rural Indiana neurodegenerative cohort*  
 The goal is to advance understanding of how gene-environment interactions influence neurodegeneration in rural patients. Role = co-I. Total cost = 3,737,946, \$264,306 to cannon lab.

PR21136 (PI, Little) 09/15/2022 – 09/14/2026 0.5 Academic  
 DOD \$400,000 0.5 Summer  
*Role Of Comorbid Military-Relevant Stressors In Osteoarthritis. The goal is to investigate psychological stress-induced mechanisms of accelerated development of end-stage post-traumatic knee osteoarthritis (OA). Role = co-I. Total cost = \$2,431,591, \$363,735 to Cannon lab.*

1937986 02/15/2020 - 01/31/2023 0.23 Summer  
 NSF (Webb, PI) \$104,000  
*Super-resolution in vivo optical imaging as a window to Parkinson's disease pathogenesis.* The goals are to identify and image novel pathogenetic mechanisms to PD. Role = co-I. Total cost = \$400,000, ~\$105,000 to Cannon lab.

**SUBMITTED/PENDING**

R01 ES025750-06A1 (Cannon, PI) 09/01/2022 – 08/31/2027 1.0 Academic  
 NIEHS/NIH \$448,464 3.0 Summer  
*Mechanisms of PhIP-induced dopaminergic neurotoxicity*  
 The major goals are to test whether the heterocyclic amine PhIP induces selective dopaminergic toxicity and determine mechanisms of action. Role: PI. Total cost = \$3,011,066. Competitive renewal resubmitted on 03/21/2022; Impact = 32; Percentile = 18; awaiting post-council decision.

R01 ES035019 (Cannon and Foti - mPIs) 04/01/2023 – 03/31/2028 2.0 Summer  
 NIEHS/NIH ~\$410,178  
*PFAS induced alterations in reward processing*  
 The goal is to determine whether PFAS exposure may be a risk factor for anhedonia through translationally connected animal and human studies. Role = PI. Total cost = \$3,050,037. Impact = 44; Percentile = 32. Will revise and resubmit.

R01ES035502 (Cannon, PI) 07/01/2023 – 06/30/2028 2.0 Academic  
 NIEHS/NIH \$452,218 1.0 Summer  
*Neuromelanin modulation of heterocyclic aromatic amine neurotoxicity*  
 The major goals are to determine how neuromelanin impact heterocyclic aromatic amine neurotoxicity and relevance to Parkinson's disease. Role: PI. Total cost = \$3,030,924



RM1NS132973 [Bowman, Cannon, Huber (contact), Rajwa, Rochet – mPIs]  
07/01/2023 – 06/30/2028 1.4 Academic  
NINDS/NIH \$1,193,696 1.0 Summer  
*Pathogenic mechanisms of the locus coeruleus-noradrenergic system underlying vocal communication deficits in PD.* The goal is to identify the neuropathological correlates of vocal communication deficits that occur in Parkinson's disease, with a focus on damage to the locus coeruleus. Role = mPI, Total cost = 8,963,438.

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#### **PREVIOUS RESEARCH SUPPORT**

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No number (Rochet, PI) 07/01/2021-12/31/2022

Branfman Foundation

*Neuroprotective efficacy of XJB-5-131 in rodent Parkinson's disease models.*

The goal is to test a novel therapeutic approach in PD. Role = co-I. Total cost = \$112,019, \$60,071 to Cannon lab.

R03NS108229 (Rochet, PI) 05/15/2020-04/30/2022

NINDS/NIH

*Role of endosulfine-alpha expression and phosphorylation in Parkinson's disease*

The goal is to understand the neurobiology of endosulfine, relative to Parkinson's disease. Role: co\_I. Total Cost = 155,000. \$8,613 to Cannon lab.

R01ES025750 (Cannon, PI) 06/01/2016 – 05/31/2022 (NCE)

NIEHS/NIH

*Mechanisms of PhIP-induced dopaminergic neurotoxicity*

The major goals are to test whether the heterocyclic amine PhIP induces selective dopaminergic toxicity and determine mechanisms of action. Role: PI. Total cost = \$1,683,647.

R01ES025750-S1 (Cannon, PI) 09/01/2018 – 05/31/2022 (NCE)

NIA,NIEHS/NIH

*Mechanisms of PhIP-induced dopaminergic neurotoxicity – Alzheimer's disease supplement*

The major goals are to test whether heterocyclic amines may produce neuropathology indicative of Alzheimer's disease. Role: PI. Total cost = \$336,582

No Number (Cannon, PI) 07/01/2019 – 12/31/2021

Office of the Executive Vice President for Research and Partnerships, Purdue University

*NIH Competing Renewal Program - Mechanisms of PhIP-induced dopaminergic neurotoxicity*

The goal is to develop a novel animal model to elucidate mechanisms of heterocyclic amine neurotoxicity. Development of this model is expected to increase competitiveness of NIH applications. Total cost = \$30,000.

No Number (Rochet, PI) 08/01/2019 - 12/31/2020

Branfman Family Foundation

*Role of alpha-synuclein-mediated membrane permeabilization in the propagation of PD neuropathology*

The goal was to determine how aSyn aggregates in Parkinson's disease. Role: co-I. Total cost = \$101,638; \$30,762 to Cannon Lab.

R21 NS105048 (Webb, PI) 10/01/2018 – 09/30/2021

NINDS/NIH

*In Vivo Optical Imaging of Alpha-Synuclein Aggregation*

This project entails the application of a high-resolution whole brain optical molecular imaging method to determine the pathogenic mechanism involved in the temporal and spatial development of Parkinson's disease (PD). Role = co-I. Total cost = \$403,204, \$48,614 to Cannon lab.

R21NS106319 (Tantama, PI) 09/15/2018 – 08/31/2020

NINDS/NIH

*LRRK2 Kinase Activity and Mitochondrial Oxidative Stress*

The goal was to utilize novel probes to image mitochondrial mechanisms of Parkinson's disease relevant neurodegeneration. Role = Co-I (Purdue site PI). Total cost = \$424,301, \$95,380 to Cannon.

No Number (Rochet, PI) 09/01/2018 - 08/31/2019

Branfman Family Foundation

*Role of alpha-synuclein-mediated membrane permeabilization in the propagation of PD neuropathology*

The goal is to determine how aSyn aggregates in Parkinson's disease. Role: co-I. Total cost = \$50,000; \$8,232 to Cannon Lab.

No number (Webb, PI) 05/01/2018 - 12/31/2018

NIH-targeted Funding Opportunities Initiative

Office of the Executive Vice President for Research and Partnerships, Purdue University

*In Vivo Optical Imaging to Solve Mysteries of Parkinson's Disease*

The major goal is to collect preliminary data for an extramural submission on novel imaging approaches to visualize Parkinson's disease pathology. Role: co-I. Total cost = \$30,000. No direct funds to Cannon lab.

No Number (Rochet, PI) 06/01/2018 – 07/31/2019

Michael J. Fox Foundation

*Neuroprotective effects of NFE2L1 in PD models*

The goal is to test whether NFE2L1 modulation is protective in PD models.

Role: co-I. Total cost = \$57,000. ~\$3,000 to Cannon lab.

No Number (Rochet, PI) 11/01/2016 – 06/30/2019

Michael J. Fox Foundation

*Neuroprotective effects of endosulfine-alpha in PD models*

The goal is to test whether endosulfine-alpha alleviates aSyn-mediated neurodegeneration by inhibiting aSyn self-assembly at membrane surfaces. Role: co-I. Total cost = \$66,706. \$3,200 to Cannon lab.

No Number (Rochet, PI) 08/01/2015 - 01/31/2018

Branfman Family Foundation

*Vesicle permeabilization associated with membrane-induced aSyn aggregation: Role in Parkinson's disease*

The goal is to determine how aSyn aggregates in Parkinson's disease. Role: co-I. Total cost = \$200,000; \$41,989 to Cannon Lab.

No Number (Tantama, PI) 07/01/2015 – 06/30/2018

Showalter Trust

*Imaging mitochondrial oxidative stress in Parkinson's disease*

The major goal was to develop and test novel in vitro and in vivo probes for assessing PD-relevant oxidative stress. Role: co-I. Total cost = \$75,000; \$7,500 to Cannon lab.

No Number (Rochet, PI) 05/01/2015 – 12/31/2016

Purdue University, new R01 program

*Membrane-induced aSyn aggregation in Parkinson's disease*

The goal was to collect preliminary data on mechanisms of neurodegeneration for an R01 submission. Role: co-I. Total cost = \$30,000; \$7,500 to Cannon lab.

R03ES022819 (Cannon, PI) 01/17/2014 - 12/31/2016

NIEHS/NIH

*PhIP-induced neurodegeneration: mechanisms and relevance to Parkinson's disease*

The goal of this proposal was to preliminarily examine the neurotoxicity of PhIP. A major goal is to produce preliminary data for this more expansive R01 proposal to mechanistically examine PD-relevant neurotoxicity. Role: PI. Total cost = \$154,000

No Number; The Michael J. Fox Foundation; 11/01/2012-10/31/2015; PI (Cannon)

*Parkinson's and inflammatory bowel diseases: interaction in LRRK2 transgenic rats*

The goal was to identify immunological links between Parkinson's disease and inflammatory bowel disease mediated by disease causing mutations in LRRK2. Total cost: \$250,000

No number; Showalter Research Trust; 07/01/2013-06/30/2014; PI (Cannon)

*Mechanisms of PhIP-mediated neurotoxicity and relevance to Parkinson's disease*

The goal of this proposal is to preliminarily examine the neurotoxicity of PhIP and generate data for more expansive future studies. Total cost = \$75,000

R00ES019879 (Cannon, PI) 02/10/2012 - 01/31/2017

NIH/NIEHS

*New Approaches to Gene-environment Interaction Modeling in Parkinson's Disease*

The major goals of the project were to develop and characterize new *in vivo* gene-environment interaction models of Parkinson's disease to identify new mechanisms of interactions and therapeutic targets. Role: PI. Total Cost = \$783,978

No number; 08/01/2011-07/31/2013; PI (Cannon)

*Phenotypic Characterization of BAC LRRK2 Transgenic Pre-clinical Models*

The University of Pittsburgh (subcontract from Michael J. Fox Foundation to Greenamyre)

The main goals of this work were to characterize the behavioral, neurochemical, and pathological features of rats expressing LRRK2 mutations. Total cost: \$95,900

1 K99 ES019879; 06/01/2011-02/09/2012; PI (Cannon)

NIEHS/NIH

*New Approaches to Gene-environment Interaction Modeling in Parkinson's Disease*

The purpose of this grant was to develop new-gene environment interaction models of PD and transition Cannon to an independent faculty position. Total cost: \$90,000 utilized, \$180,000 awarded (early transition to independence)

No number; 7/1/2008-12/31/2009; PI (Cannon)

Postdoctoral Fellowship, American Parkinson Disease Association, Inc.

*Genetic and environmental interactions in Parkinson's disease: potential for new therapeutic pathways*

The goal of this project was to develop and test gene-therapy vectors in the rotenone model of Parkinson's disease. Total cost: \$35,000

T32 MH18273; 6/29/2007-6/30/2008; PI (Zigmond)

Institutional Training Grant, NIH

The purpose of this training grant was to support the trainee's postdoctoral training and research.

T32 ES07062; 9/1/2001-8/31-2005; PI (Richardson)

Institutional Training Grant, NIEHS

The purpose of this training grant was to support the trainee's doctoral training and research.

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## **ACTIVE/PENDING SUPPORT FOR OTHER ACTIVITIES**

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### **ACTIVE**

No number (Cannon, PI) 09/20/2019 – present  
International Program and School of Health Sciences, Purdue University  
Study Abroad Intercultural Learning (SAIL) Subsidy Grant  
*Neuroscience and Toxicology in Croatia*  
This grant reduces student costs for this study abroad. Total award = \$10,666

No number (Cannon, PI) 07/01/2017 - present  
Office of Interdisciplinary Graduate Programs  
*Discretionary funding* for effort as Head of Purdue University Interdisciplinary Life Science Program (PULSe). Award: \$3,750, year 1, \$4,000 year 2; total to date = \$7,750  
Discretionary funding deposited to my research incentives account that I use to support new collaborative research initiatives.

### **SUBMITTED**

No number (Cannon, PI) 10/30/2022 – 10/29/2023  
International Program and School of Health Sciences, Purdue University  
Study Abroad Intercultural Learning (SAIL) Subsidy Grant  
*Neuroscience and Toxicology in Croatia*  
This grant reduces student costs for this study abroad. Total award = \$8,000

### **COMPLETED**

No number (Cannon, PI) 07/01/2017 – 06/30/2022  
Office of the Provost/Showalter Trust  
Discretionary funding as *Showalter Faculty Scholar/University Faculty Scholar*. Total award = \$50,000 (\$10,000 dispersed/year)  
Discretionary funding that I use to support new collaborative research initiatives.

No number (Cannon, PI) 09/20/2019 – 09/19/2020  
International Program  
Study Abroad Intercultural Learning (SAIL) Intercultural Pedagogy Grant (IPG)  
*Neuroscience and Toxicology in Croatia*  
This grant provides discretionary funding to add intercultural learning objectives to a study abroad.  
Total award = \$2,000

No number (Cannon, PI) 09/24/2018 – 08/01/2019  
International Program and College of Health and Human Sciences, Purdue University  
Exploratory Study Abroad Intercultural Learning (SAIL) grant  
*Neuroscience and Toxicology in Croatia*  
This grant funds exploratory travel to Croatia to develop of a study abroad program focused on neuroscience and toxicology. Total award = \$4,000

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## PUBLICATIONS

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\*Articles receiving published editorials or commentaries

#Figure chosen for cover art

### Peer-reviewed publications

1. Sammi, S. R., Syeda, T., Conrow, K. D., Leung, M. C. K., and Cannon, J. R. (2022). Complementary biological and computational approaches identify distinct mechanisms of chlorpyrifos versus chlorpyrifos oxon induced dopaminergic neurotoxicity. *Toxicological sciences : an official journal of the Society of Toxicology* doi: 10.1093/toxsci/kfac114.
2. Cannon, J. (2022). Invited Perspective: Long-Lasting Legacy of Banned Contaminants in Alzheimer's Disease Etiology-Convergence of Epidemiological and Toxicological Findings. *Environmental health perspectives* **130**(8), 81303.
3. Brown-Leung, J. M., and Cannon, J. R. (2022). Neurotransmission Targets of Per- and Polyfluoroalkyl Substance Neurotoxicity: Mechanisms and Potential Implications for Adverse Neurological Outcomes. *Chemical research in toxicology* **35**(8), 1312-1333.
4. Sammi, S. R., Jameson, L. E., Conrow, K. D., Leung, M. C. K., and Cannon, J. R. (2022). Caenorhabditis elegans Neurotoxicity Testing: Novel Applications in the Adverse Outcome Pathway Framework. *Front Toxicol* **4**, 826488.
5. Syeda, T., and Cannon, J. R. (2022). Potential Role of Heterocyclic Aromatic Amines in Neurodegeneration. *Chemical research in toxicology* **35**(1), 59-72.
6. Adamson, S. X., Zheng, W., Agim, Z. S., Du, S., Fleming, S., Shannahan, J., and Cannon, J. (2021). Systemic Copper Disorders Influence the Olfactory Function in Adult Rats: Roles of Altered Adult Neurogenesis and Neurochemical Imbalance. *Biomolecules* **11**(9).
7. Syeda, T., and Cannon, J. R. (2021). Environmental exposures and the etiopathogenesis of Alzheimer's disease: The potential role of BACE1 as a critical neurotoxic target. *J Biochem Mol Toxicol* **35**(4), e22694.
8. Lawana, V., Um, S. Y., Foguth, R. M., and Cannon, J. R. (2020). Neuromelanin formation exacerbates HAA-induced mitochondrial toxicity and mitophagy impairments. *Neurotoxicology* **81**, 147-160.
9. Foguth, R., Sepulveda, M. S., and Cannon, J. (2020). Per- and Polyfluoroalkyl Substances (PFAS) Neurotoxicity in Sentinel and Non-Traditional Laboratory Model Systems: Potential Utility in Predicting Adverse Outcomes in Human Health. *Toxics* **8**(2).
10. Foguth, R. M., Hoskins, T. D., Clark, G. C., Nelson, M., Flynn, R. W., de Perre, C., Hoverman, J. T., Lee, L. S., Sepulveda, M. S., and Cannon, J. R. (2020). Single and mixture per- and polyfluoroalkyl substances accumulate in developing Northern leopard frog brains and produce complex neurotransmission alterations. *Neurotoxicology and teratology* **81**, 106907.
11. Syeda, T., Foguth, R. M., Llewellyn, E., and Cannon, J. R. (2020). PhIP exposure in rodents produces neuropathology potentially relevant to Alzheimer's disease. *Toxicology* **437**, 152436.
12. Bentz, B. Z., Mahalingam, S. M., Ysselstein, D., Montenegro, P. C., Cannon, J. R., Rochet, J. C., Low, P. S., and Webb, K. J. (2020). Localization of fluorescent targets in deep tissue with expanded beam illumination for studies of cancer and the brain. *IEEE Trans Med Imaging* doi: 10.1109/TMI.2020.2972200.

13. Lawana, V., Um, S. Y., Rochet, J. C., Turesky, R. J., Shannahan, J. H., and Cannon, J. R. (2020). Neuromelanin Modulates Heterocyclic Aromatic Amine-Induced Dopaminergic Neurotoxicity. *Toxicological sciences : an official journal of the Society of Toxicology* **173**(1), 171-188.
14. Sammi, S. R., Foguth, R. M., Nieves, C. S., De Perre, C., Wipf, P., McMurray, C. T., Lee, L. S., and Cannon, J. R. (2019). Perfluorooctane Sulfonate (PFOS) Produces Dopaminergic Neuropathology in *Caenorhabditis elegans*. *Toxicological sciences : an official journal of the Society of Toxicology* **172**(2), 417-434, 10.1093/toxsci/kfz191.
15. Patel, S. H., Yue, F., Saw, S. K., Foguth, R., Cannon, J. R., Shannahan, J. H., Kuang, S., Sabbaghi, A., and Carroll, C. C. (2019). Advanced Glycation End-Products Suppress Mitochondrial Function and Proliferative Capacity of Achilles Tendon-Derived Fibroblasts. *Sci Rep* **9**(1), 12614, 10.1038/s41598-019-49062-8.
16. Foguth, R. M., Flynn, R. W., de Perre, C., Iacchetta, M., Lee, L. S., Sepulveda, M. S., and Cannon, J. R. (2019). Developmental exposure to perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) selectively decreases brain dopamine levels in Northern leopard frogs. *Toxicology and applied pharmacology* **377**, 114623, 10.1016/j.taap.2019.114623.
17. Sanyal, A., Dutta, S., Camara, A., Chandran, A., Koller, A., Watson, B. G., Sengupta, R., Ysselstein, D., Montenegro, P., Cannon, J., Rochet, J. C., and Mattoo, S. (2019). Alpha-Synuclein Is a Target of Fic-Mediated Adenylation/AMPylation: Possible Implications for Parkinson's Disease. *Journal of molecular biology* **431**(12), 2266-2282, 10.1016/j.jmb.2019.04.026.
18. Weera, M. M., Agim, Z. S., Cannon, J. R., and Chester, J. A. (2019). Genetic correlations between nicotine reinforcement-related behaviors and propensity toward high or low alcohol preference in two replicate mouse lines. *Genes Brain Behav* **18**(3), e12515, 10.1111/gbb.12515.
19. Fernandez, R. F., Kim, S. Q., Zhao, Y., Foguth, R. M., Weera, M. M., Counihan, J. L., Nomura, D. K., Chester, J. A., Cannon, J. R., and Ellis, J. M. (2018). Acyl-CoA synthetase 6 enriches the neuroprotective omega-3 fatty acid DHA in the brain. *Proceedings of the National Academy of Sciences of the United States of America* **115**(49), 12525-12530, 10.1073/pnas.1807958115.
20. Wise, J. P., Jr., Price, C. G., Amaro, J. A., Cannon, J. R., (2018). Autophagy Disruptions Associated With Altered Optineurin Expression in Extranigral Regions in a Rotenone Model of Parkinson's Disease. *Front Neurosci.* **12**, 289.
21. Adamson, S. X., Shen, X., Jiang, W., Lai, V., Wang, X., Shannahan, J. H., Cannon, J. R., Chen, J., and Zheng, W. (2018). Subchronic Manganese Exposure Impairs Neurogenesis in the Adult Rat Hippocampus. *Toxicological sciences : an official journal of the Society of Toxicology* **163**(2), 592-608, 10.1093/toxsci/kfy062.
22. Agim, Z. S., and Cannon, J. R. (2018). Alterations in the nigrostriatal dopamine system after acute systemic PhIP exposure. *Toxicology letters* **287**, 31-41, 10.1016/j.toxlet.2018.01.017.
23. Cruz-Hernandez, A., Agim, Z. S., Montenegro, P. C., McCabe, G. P., Rochet, J. C., and Cannon, J. R. (2018). Selective dopaminergic neurotoxicity of three heterocyclic amine subclasses in primary rat midbrain neurons. *Neurotoxicology* **65**, 68-84, 10.1016/j.neuro.2018.01.009.
24. #Sammi, S. R., Agim, Z. S., and Cannon, J. R. (2018). From the Cover: Harmane-Induced Selective Dopaminergic Neurotoxicity in *Caenorhabditis elegans*. *Toxicological sciences : an official journal of the Society of Toxicology* **161**(2), 335-348, 10.1093/toxsci/kfx223.

25. Park, J., Lee, J. W., Cooper, S. C., Broxmeyer, H. E., Cannon, J. R., and Kim, C. H. (2017). Parkinson disease-associated LRRK2 G2019S transgene disrupts marrow myelopoiesis and peripheral Th17 response. *J Leukoc Biol* doi: 10.1189/jlb.1A0417-147RR, 10.1189/jlb.1A0417-147RR.
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32. Wirbisky, S. E., Weber, G. J., Sepulveda, M. S., Xiao, C., Cannon, J. R., and Freeman, J. L. (2015). Developmental origins of neurotransmitter and transcriptome alterations in adult female zebrafish exposed to atrazine during embryogenesis. *Toxicology* **333**, 156-167, 10.1016/j.tox.2015.04.016.
33. Robison, G., Sullivan, B., Cannon, J. R., and Pushkar, Y. (2015). Identification of dopaminergic neurons of the substantia nigra pars compacta as a target of manganese accumulation. *Metallomics : integrated biometal science* **7**(5), 748-55, 10.1039/c5mt00023h.
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36. O'Neal, S. L., Lee, J. W., Zheng, W., and Cannon, J. R. (2014). Subacute manganese exposure in rats is a neurochemical model of early manganese toxicity. *Neurotoxicology* **44C**, 303-313, 10.1016/j.neuro.2014.08.001.



37. Griggs, A. M., Agim, Z. S., Mishra, V. R., Tambe, M. A., Director-Myska, A. E., Turteltaub, K. W., McCabe, G. P., Rochet, J. C., and Cannon, J. R. (2014). 2-Amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP) is selectively toxic to primary dopaminergic neurons in vitro. *Toxicological sciences : an official journal of the Society of Toxicology* **140**(1), 179-89, 10.1093/toxsci/kfu060.
38. Wirbisky, S. E., Weber, G. J., Lee, J. W., Cannon, J. R., and Freeman, J. L. (2014). Novel dose-dependent alterations in excitatory GABA during embryonic development associated with lead (Pb) neurotoxicity. *Toxicology letters* **229**(1), 1-8, 10.1016/j.toxlet.2014.05.016.
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48. Cannon, J. R., and Greenamyre, J. T. (2010). Neurotoxic in vivo models of Parkinson's disease recent advances. *Prog Brain Res* **184**, 17-33, 10.1016/S0079-6123(10)84002-6.
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### Submitted

1. Sammi, S. R., Syeda, T., Foguth, R., and Cannon, J. (2022). Heterocyclic aromatic amines (HAAs) target mitochondrial physiology. *bioRxiv* doi: 10.1101/2022.03.17.484822, 2022.03.17.484822.

### Book Chapters

1. Foguth, R., and Cannon, J. (2022). Emerging Contaminants as Contributors to Parkinsonism: Heterocyclic Amines. In *Parkinsonism and the Environment* (pp. 19-37. Springer.
2. Lawana, V., and Cannon, J. R. (2020). Rotenone Neurotoxicity: Relevance to Parkinson's Disease. *Advances in Neurotoxicology; In Neurotoxicity of Pesticides* (M. Aschner, and L. G. Costa, Eds.), Vol. 4. Elsevier. 209-254.
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**EDITORIAL** (inclusive of non-peer reviewed)

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1. Volz, D. C., Cannon, J., and Tal, T. (2021). Introduction to leveraging non-mammalian models for developmental neurotoxicity testing. In (Vol. 87, pp. 107001.

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**ABSTRACTS**

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1. Syeda, T., Min, S., Rochet, J., Cannon, J. R., 2022. Perfluorooctane Sulfonate (PFOS) Induce Alzheimer's Disease-Relevant Neurotoxicity *The Toxicologist*. 186, 2057.
2. Sammi, S. R., Cannon, J. R., 2022. Mitochondrial Targets of Perfluorooctane Sulfonic Acid (PFOS)-Mediated Neurotoxicity. *The Toxicologist*. 186, 3071.
3. Brown, J. M., Syeda, T., Cannon, J. R., 2022. Perfluorooctanesulfonic Acid (PFOS)-Induced Catecholaminergic Neurotransmission Changes in Female Mice. *The Toxicologist*. 186, 3074.
4. Rubinchik, A. B., Tukker, A. M., Sammi, S. R., Cannon, J. R., Bowman, A. B., 2022. Chlorpyrifos and Chlorpyrifos-Oxon Exposure Leads to the Dysregulation of Basal Glutamate Release in Human-Induced Pluripotent Stem Cell-Derived Glutamatergic Neurons. *The Toxicologist*. 186, 3854.
5. Jameson, L., Rivera, A., Conrow, K., Pinhasova, N., Jourabchin, S., Johnson, A., Davis, A., Wieggers, T., Sammi, S., Mattingly, C., Afia, I., Orser, I., Cannon, J., Leung, M., 2022. Mechanism of Neurological Hazards from Insecticide Exposure in *Cannibus* *The Toxicologist*. 186, 3861.
6. Sammi, S. R., Syeda, T., Cannon, J. R., 2021. Chlorpyrifos and Chlorpyrifos-Oxon Produce Dopaminergic Toxicity in *C. elegans*. *The Toxicologist*. 180, 2653.
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8. Brown, J. M., Hoskins, T. D., Foguth, R. M., Syeda, T., Perez, M. S., Sepulveda, M. M., Cannon, J. R., 2021. Characterization of the Gray Tree Frog (*Hyla versicolor*) as a Potential Model for Developmental Neurotoxicity. *The Toxicologist*. 180, 2436.
9. Foguth, R., Hoskins, T. D., Clark, G. C., Nelson, M., de Perre, C., Lee, L., Sepulveda, M. M., Cannon, J. R., 2020. Effects of Developmental Exposure to Perfluoroalkyl Substances on Brain and Heart Innervation in Northern Leopard Frogs. *The Toxicologist*. 174, 2439.
10. Lawana, V., Um, S., Chandran, A., Shannahan, J. H., Cannon, J. R., 2020. Mitochondrial and Autophagolysosomal Dysfunction Induced by Heterocyclic Aromatic Amine Exposure Is Modulated by Neuromelanin Formation. *The Toxicologist*. 174, 1450.
11. Sammi, S. R., Nieves, C. S., Cannon, J. R., 2020. Mitochondrial Mechanisms of Harmane-Induced Dopaminergic Neurotoxicity in *C. elegans*. *The Toxicologist*. 174, 1442.
12. Syeda, T., Foguth, R., Cannon, J., 2020. PhIP Exposure: Alzheimer's Disease Relevant Neurotoxicity. *The Toxicologist*. 174, 1429.
13. Lawana, V., Um, S. Y., Shannahan, J., Cannon, J. R., 2019. The potential role of neuromelanin in modulating heterocyclic amine-induced dopaminergic neurotoxicity. Gordon Research Conference, Parkinson's disease: Pathogenesis, Pathophysiology and Experimental Therapeutics in Parkinson's Disease.
14. Syeda, T., Foguth, R., Cannon, J., 2020. PhIP Exposure: Alzheimer's Disease Relevant Neurotoxicity. *The Toxicologist*. 174, 1429.
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## INVITED PRESENTATIONS/SESSION LEADERSHIP

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- 02/01/2023 *"Adverse neurological outcomes of PFAS-induced monoamine alterations"*, Department of Environmental Sciences, University of California, Riverside
- 11/18/2022 *"Critical roles of neuromelanin in the neurobiology and neurotoxicology of Parkinson's disease"*, Department of Anatomy and Neurobiology, Virginia Commonwealth University
- 09/21/2022 *"Translational impact of neurotoxicant-neuromelanin interactions critical to catecholaminergic neurotoxicity"*, Department of Environmental Medicine, University of Rochester.
- 07/03/2022 *"Role of environmentally induced mitophagy alterations in neurodegeneration"*, invited speaker at: Inflammation and Proteinopathy in ALS FTD spectrum Disorder, Joint International Center for Genetic Engineering and Biotechnology (ICGEB) and ALS Society of Canada meeting, Rijeka, Croatia.
- 07/03/2022 Session Chair, Awarded Young Researcher Talks and Online Selected Speed Talks at: Inflammation and Proteinopathy in ALS FTD spectrum Disorder, Joint International Center for Genetic Engineering and Biotechnology (ICGEB) and ALS Society of Canada meeting, Rijeka, Croatia.
- 10/01/2021 *"Linking primary mechanisms of environmentally induced neurotoxicity to human neurological disease relevance"*, Health and Environmental Sciences Institute (HESI)/Combined Interdisciplinary and Translational Expertise (CITE) Keynote Lecture at EUROTOX 2021
- 10/01/2021 *"Translation of mechanistic data into in vivo systems to predict risk for neurodegeneration"*, Symposium entitled *"Predictive systems to identify etiological factors and pathogenic mechanisms of neurodegeneration"*; served as co-Chair, EUROTOX 2021
- 06/17/2021 *"C elegans neurodegeneration/neurotoxicity assays"*, Neurotoxicity Technical Working Group, Botanical Safety Consortium (BSC), Health and Environmental Sciences Institute (HESI)
- 01/19/2021 *"C elegans in neurotoxicity screening"*, Neurotoxicity Technical Working Group, Botanical Safety Consortium (BSC), Health and Environmental Sciences Institute (HESI)
- 02/15/2020 *"Neurodegenerative diseases: identifying risk factors and new treatments"*, Purdue President's Council, Back to Class, Naples, FL
- 02/07/2020 *"Mechanisms of environmentally induced neurodegeneration"*. Purdue University Center for the Environment; Chemical Exposures Signature Research Area Lunch Group Meetings
- 01/31/2020 *"Per- and polyfluoroalkyl substances (PFAS) neurotoxicity in laboratory and sentinel models"*. Department of Biomedical Sciences, Grand Valley State University
- 11/06/2019 *"Mechanisms of heterocyclic aromatic amine-induced dopaminergic neurotoxicity"*. Department of Molecular pharmacology & Neuroscience, Loyola University

- 10/03/2019 Chair, Session at the 2019 International Neurotoxicology Association Meeting. Entitled, *“Immune dysregulation as a primary mechanism of early neurotoxicity – relevance to disease”*. Individual talk entitled, *“Interactions between neuroinflammation and mitophagy in Parkinson’s disease models”*.
- 04/11/2019 *“Environmentally-induced Parkinson’s disease: unique features and overlap with other neurodegenerative diseases”*, Department of Biotechnology, University of Rijeka
- 04/08/2019 *“Parkinson’s disease: environmental factors and pathogenic mechanisms”*, Croatian Institute for Brain Research and Croatian Society for Neuroscience, University of Zagreb
- 04/08/2019 *“Neurotoxicity of per- and polyfluoralkyl substances (PFAS)”*, Institute for Medical Research and Occupational Health and Croatian Society of Toxicology, University of Zagreb
- 06/14/2018 *“Neurotoxicity of Dietary Heterocyclic amines and potential relevance to Parkinson’s disease”*, Department of Pharmacological and Biomolecular Sciences, University of Milan
- 06/11/2018 *“Neurotoxicity of Heterocyclic Amines: Potential Relevance to Parkinson’s Disease”*, Plenary Speaker, World Summit on Toxicology, Rome, Italy
- 06/04/2018 *“Neurotoxicity of Heterocyclic Amines”*, Department of Pharmacology and Toxicology, Michigan State University
- 03/14/2018 *“Potential for Autophagy as a Primary Mechanism of Environmentally-Induced Neurodegeneration”*, Symposium at 2018 Annual Society of Toxicology Meeting – “Mechanisms of Autophagic Function and Dysfunction in Neurotoxicity and Neurodegeneration”
- 03/05/2018 *“Dopaminergic neurotoxicity of heterocyclic amines”*, Environmental Toxicology Department, University of California, Davis
- 01/09/2018 *“Heterocyclic amine-induced dopaminergic neurotoxicity”*, Graduate Seminar, School of Health Sciences, Purdue University
- 12/16/2017 *“Neurotoxicology of Heterocyclic Amines”*, Department of Environmental Health Sciences and Brain Behavior & Environment-FIU Emerging Preeminent Program, Florida International University
- 05/18/2017 *“Identification of new etiological factors and new targetable mechanisms in Parkinson’s disease”*, Inaugural Retreat, Purdue Institute for Integrative Neuroscience, Saint Joseph, MI
- 03/24/2017 *“Environmental and mechanistic Investigations of Early-stage Parkinson’s Disease”*, Center for Urban Responses to Environmental Stressors, Institute of Environmental Health Sciences, Wayne State University
- 09/09/2016 *“Optineurin in preclinical to end-stage Parkinson’s disease models”*, Department of Pharmaceutical Sciences Seminar Series, Northeast Ohio Medical University
- 07/13/2016 *“Mechanisms of environmentally-induced dopaminergic neurodegeneration”*, NeuroNetworking, Purdue Institute for Integrative Neuroscience.
- 03/14/2016 Chair, Workshop at the 2016 Society of Toxicology Annual Meeting. Entitled, *“Dietary exposures to heterocyclic amines as a potential risk factor for neurological disease”*. Individual talk entitled, *“PhIP exposure and dopaminergic neuron toxicity”*.
- 02/05/2016 *“Developmental TCE exposure and Parkinson’s disease”*, P42 External Advisory Team and Members of the P42 team.

- 01/25/2016 *"Behavioral Core at Purdue: Some Possibilities"*, Integrative Neuroscience Center Kickoff, Purdue University
- 12/12/2015 *"Dr. Schallert's Legacy in One LAB: How Lesioned Rats Behave and...How Scientists Should Behave"*, SchallertFest, Symposium honoring Dr. Tim Schallert, University of Texas at Austin
- 03/31/2015 *"Environmentally-induced dopaminergic neurotoxicity"*, Medicinal Chemistry & Molecular Pharmacology Seminar Series, Purdue University
- 02/06/2015 *"Environmental mechanisms of Parkinson's disease"*, College of Health and Human Sciences Dean's Visit, School of Health Sciences Faculty Meeting.
- 01/23/2015 *"Training for Success: Getting the Most Out Of Your Ph.D. and Postdoctoral Fellowship"*, Exposure to Mixtures and the Exposome Symposium, Department of Environmental Health Sciences, The University of Michigan
- 11/19/2014 *"Development and utilization of preclinical models of Parkinson's disease"*, Behavioral Neuroscience Seminar, Department of Psychological Sciences, Purdue University
- 11/04/2014 *"Dietary factors in the development of Parkinson's disease"*, Confronting Our Environmental Health Risks, Ted<sup>x</sup>PurdueU
- 09/17/2014 *"PhIP-mediated Neurotoxicity and Relevance to Parkinson's Disease"*, Showalter Selection Committee Annual Purdue Meeting
- 04/05/2014 *"Neurodegeneration, Neurotoxicity, Gene-Environment Interactions"*, Purdue Student Pugwash, Midwest Regional Conference
- 03/26/2014 *"Accumulation of Manganese in Substantia Nigra and Alterations in Brain Neurochemistry following Subchronic Manganese Exposure in Rats"*, 2014 Society of Toxicology Annual Meeting, Workshop Session - Is Manganese-Induced Parkinsonism Mediated via Dopamine Neuron Degeneration or Dysfunction?
- 02/21/2014 *"The Role of Aging in Susceptibility to Neurotoxic Exposures and Neurodegenerative Diseases"*. Center on Aging and the Life Course Colloquium, Purdue University
- 10/17/2013 *"Parkinson's and inflammatory bowel diseases: interaction in LRRK2 transgenic rats"*. The Michael J. Fox Foundation, LRRK2 Awardee Meeting, New York, NY, USA.
- 09/27/2013 *"Neurotoxicity of 2-Amino-1-methyl-6-phenylimidazo [4,5-b]pyridine (PhIP)"*, Department of Biological Sciences, Duquesne University
- 03/29/2013 *"Neurotoxicity of 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine (PhIP)"*. Biochemistry Seminar Series, Purdue University
- 09/25/2012 *"The Role of Alpha-Synuclein in Gene-Environment Interactions: Pathogenesis and Protection in Parkinson's Disease"*. Purdue School of Health Sciences Seminar: HSCI 696.
- 09/18/2012 *"Potentiation and Protection in Gene-Environment Model of Parkinson's Disease"*. Molecular, Cellular and Integrative Neuroscience Program Seminar, Colorado State University, Fort Collins, CO, USA.
- 05/18/2012 *"Modeling gene-environment interactions in Parkinson's disease"*. Midwest Regional Chapter, Society of Toxicology, Chicago, IL, USA. Spring, 2012 meeting.

- 01/31/2012 "Neurotoxicant, genetic, and gene-environment interaction models of Parkinson's disease". Purdue School of Health Sciences Seminar: HSCI 696.
- 08/11/2011 "*Transgenic rats expressing Parkinson's disease genes: characterization and toxicant sensitivity*". Gordon Research Conference, Cellular & Molecular Mechanisms of Toxicity Understanding Innovative Mechanistic Toxicology in the Post-Genomic Era
- 05/08/2009 "*Modeling Parkinson's disease: systems to test gene-environment interactions*", 22nd Annual Spring Meeting, Allegheny-Erie Society of Toxicology, Morgantown, WV, Host: Nicolas A. Stewart, Ph.D., President of AESOT, Research Instructor, University of Pittsburgh, Center for Clinical Pharmacology
- 09/05/2007 "*Improving the rotenone model*", Data Club, Pittsburgh Institute for Neurodegenerative Diseases
- 04/13/2006 "*Mechanisms of thrombin preconditioning in a 6-hydroxydopamine model of Parkinson's disease*", National Institute on Drug Abuse Training Program, The University of Chicago, Host: Un Jung Kang, M.D., Associate Professor of Neurology
- 04/03/2006 "*Mechanisms of thrombin preconditioning in a 6-hydroxydopamine model of Parkinson's disease*", Laboratory Meeting of Wei Zheng, Ph.D., Professor and University Faculty Scholar, School of Health Sciences, Purdue University
- 12/20/2005 "*Thrombin preconditioning, PARs and Parkinson's disease*", Neurosurgery Laboratory Conference, University of Michigan
- 12/14/2004 "*Protease-activated receptor-1 activation mediates the protective effects of thrombin preconditioning in a model of Parkinson's disease*", Current Topics in Toxicology, EHS 728, The University of Michigan, School of Public Health
- 01/27/2004 "*Thrombin preconditioning provides protection against 6-OHDA*". Current Topics in Toxicology, EHS 728, The University of Michigan, School of Public Health
- 03/18/2003 "*Neuroprotection in Animal Models of Parkinson's Disease*", Current Topics in Toxicology, EHS 728, The University of Michigan, School of Public Health
- 02/11/2003 "*Thrombin preconditioning in a 6-OHDA Parkinson's disease model*", Neurosurgery Laboratory Conference, University of Michigan

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## EXTERNAL CONSULTING

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- 07/2022- Expert Witness, BUNGER & ROBERTSON. Services to date: initial discussion on delta-8 tetrahydrocannabinol (THC) – formulation, detection, adverse effects; especially in relation to how contamination and use may relate to assault.
- 05/2021-08/2021 Expert Witness, CIYOU & DIXON, P.C.; Analytical toxicology expertise relative to screen results for drugs of abuse. Services included: drug screen results review; literature review; determination of likelihood of use cessation relative to urine, oral fluid, and hair (head and body) screen results; determination of whether video evidence of alleged drug use was supported by screen data; pre-trial conferences with attorneys and clients; expert testimony in court on 08/19/2021 on the above items and also adverse effects during cross-examination. Case No. 53C04-1601-DR-000031; Monroe County Circuit Court VI, Indiana.
- 11/2020-04/2022 Expert witness. Perkins Coie/Winston & Strawn/Boeing. Services included: complaint review; expertise on neurotoxicology relevant to possible etiology of an amyotrophic lateral sclerosis case; literature review; medical and scientific records review; plaintiff deposition review; plaintiff disclosure review; pre-trial conferences; development and submission of expert witness scientific report; deposition; trial slide development and input; and mock direct and cross examinations. Case settled prior to trial. Case No. 18 L 8347; Circuit Court of Cook County, Illinois.
- 04/2019 GLG Group. Provided consultation on biomarkers of exposure and neurodegenerative disease development.
- 05–06/2017 Expert witness. Lewis & Brisbois/Womble Carlyle Sandridge & Rice [*now Womble Bond Dickinson*]/Goodyear Tire and Rubber Company. Provided expertise on neurotoxicology relevant to possible etiology of an amyotrophic lateral sclerosis case. Services included: complaint review; pretrial consultation, and preparation as an expert witness. Case settled prior to trial. Case No. 15CV2760; County of Multnomah, Circuit Court for the State of Oregon.

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## TEACHING

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### Classroom:

2023

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Biochemical Toxicology <sup>a</sup>	HSCI562	2	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
PULSe Lab Rotations <sup>a</sup>	GRAD590	2	PULSe Head	Spring
PULSe Dissertation Res (1 <sup>st</sup> year) <sup>a</sup>	GRAD699	6	PULSe Head	Spring

<sup>a</sup> Instructor of record

2022

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Analytical Tox and Path <sup>a</sup>	HSCI562	3	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
PULSe Lab Rotations <sup>a</sup>	GRAD590	2	PULSe Head	Spring
PULSe Dissertation Res (1 <sup>st</sup> year) <sup>a</sup>	GRAD699	6	PULSe Head	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
Neuroimmunology <sup>d</sup>	EBIL164	3	Guest Lecturer	Summer
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
PULSe Lab Rotations <sup>a</sup>	GRAD590	2	PULSe Head	Fall
PULSe Dissertation Res (1 <sup>st</sup> year) <sup>a</sup>	GRAD699	6	PULSe Head	Fall
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Fall
Intro Occupat&Environ Health Sci <sup>c</sup>	HSCI345	2	Guest Lecturer	Fall
Toxicology <sup>b</sup>	HSCI560	3	Guest lecturer	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 2 lectures

<sup>c</sup> Delivered 1 lecture

<sup>d</sup>Delivered 2 lectures to 4<sup>th</sup> year undergraduates and masters students in the Department of Biotechnology at the University of Rijeka, Croatia.

2021

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Biochemical Toxicology <sup>a</sup>	HSCI671	2	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
PULSe Lab Rotations	GRAD590	2	PULSe Head	Spring
PULSe Dissertation Res (1 <sup>st</sup> year)	GRAD699	6	PULSe Head	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Toxicology <sup>b</sup>	HSCI560	3	Guest lecturer	Fall
PULSe Lab Rotations <sup>a</sup>	GRAD590	2	PULSe Head	Fall
PULSe Dissertation Res (1 <sup>st</sup> year) <sup>a</sup>	GRAD699	6	PULSe Head	Fall
Health In The Time Of Pandemics: PUBH202		3	Guest Lecturer	Fall

An Introduction<sup>c</sup>

Intro Occupat&Environ Health Sci <sup>c</sup> HSCI345	2	Guest Lecturer	Fall
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- <sup>a</sup> Instructor of record
- <sup>b</sup> Delivered 2 lectures
- <sup>c</sup> Delivered 1 lecture

2020

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Analytical Tox and Path <sup>a</sup>	HSCI562	3	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
PULSe Lab Rotations <sup>a</sup>	GRAD590	2	PULSe Head	Spring
PULSe Dissertation Res (1 <sup>st</sup> year) <sup>a</sup>	GRAD699	6	PULSe Head	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Toxicology <sup>b</sup>	HSCI560	3	Guest lecturer	Fall
PULSe Lab Rotations <sup>a</sup>	GRAD590	2	PULSe Head	Fall
PULSe Dissertation Res (1 <sup>st</sup> year) <sup>a</sup>	GRAD699	6	PULSe Head	Fall
Health In The Time Of Pandemics: PUBH202		3	Guest Lecturer	Fall
An Introduction <sup>c</sup>				
Intro Occupat&Environ Health Sci <sup>c</sup> HSCI345	2	Guest Lecturer	Fall	

- <sup>a</sup> Instructor of record
- <sup>b</sup> Delivered 2 lectures
- <sup>c</sup> Delivered 1 lecture

2019

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Biochemical Toxicology <sup>a</sup>	HSCI671	2	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
PULSe Lab Rotations	GRAD590	2	PULSe Head	Spring
PULSe Dissertation Res (1 <sup>st</sup> year)	GRAD699	6	PULSe Head	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
(PET) training programme <sup>d</sup>			Guest Lecturer	Spring
PULSe Lab Rotations	GRAD590	2	PULSe Head	Fall
PULSe Dissertation Res (1 <sup>st</sup> year)	GRAD699	6	PULSe Head	Fall
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Toxicology <sup>b</sup>	HSCI560	3	Guest lecturer	Fall
Intro Occupat&Environ Health Sci <sup>c</sup> HSCI345	2	Guest Lecturer	Fall	
Neurol & Neuropsych Dis Seminar <sup>c</sup> BIOL695	2	Guest lecturer	Fall	

- <sup>a</sup> Instructor of record
- <sup>b</sup> Delivered 2 lectures
- <sup>c</sup> Delivered 1 lecture

<sup>d</sup>Developed one electronic lecture, entitled, “*Neurodegenerative effects of toxic metals*” for the Postgraduate Education in Toxicology (PET) training programme offered by the Netherlands Society of Toxicology for registration as a professional expert in toxicology (European Registered Toxicologist, ERT). The aim of this course is to familiarize participants with consequences of neurotoxicity, mechanisms of neurotoxicity and neurotoxicity testing methods. The course will consist of e-lectures and webinars that allow for offsite participation as well as (active) classes that require physical attendance of participants for 3 days. As the course will be accredited by Eurotox, it will be accessible for participants from across Europe. It is expected to be accessible for participants worldwide.

2018

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Analytical Tox and Path <sup>a</sup>	HSCI562	3	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
PULSe Lab Rotations	GRAD590	2	PULSe Head	Spring
PULSe Dissertation Research (1 <sup>st</sup> year)	GRAD699	6	PULSe Head	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
Intro Occupat&Environ Health Sci <sup>c</sup>	HSCI345	2	Guest Lecturer	Fall
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Toxicology <sup>b</sup>	HSCI560	3	Guest lecturer	Fall
Neurol & Neuropsych Dis Seminar <sup>c</sup>	BIOL695	2	Guest lecturer	Fall
PULSe Lab Rotations	GRAD590	2	PULSe Head	Fall
PULSe Dissertation Research (1 <sup>st</sup> year)	GRAD699	6	PULSe Head	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 2 lectures

<sup>c</sup> Delivered 1 lecture

2017

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Biochemical Toxicology <sup>a</sup>	HSCI671	2	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
Toxicology <sup>b</sup>	HSCI560	3	Guest lecturer	Fall
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Intro Occupat&Environ Health Sci <sup>c</sup>	HSCI345	2	Guest Lecturer	Fall
PULSe Lab Rotations	GRAD590	2	PULSe Head	Fall
PULSe Dissertation Research (1 <sup>st</sup> year)	GRAD699	6	PULSe Head	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 2 lectures

<sup>c</sup> Delivered 1 lecture



## 2016

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Analytical Tox and Path <sup>a</sup>	HSCI562	3	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Intro Occupat&Environ Health Sci <sup>c</sup>	HSCI345	2	Guest Lecturer	Fall
Toxicology <sup>d</sup>	HSCI560	3	Guest lecturer	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 2 lectures

<sup>c</sup> Delivered 1 lecture

<sup>d</sup> Delivered 3 lectures

## 2015

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Biochemical Toxicology <sup>a</sup>	HSCI671	2	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
Principles of Public Health Science <sup>b</sup>	HSCI201	3	Guest Lecturer	Spring
Toxicology <sup>c</sup>	HSCI560	3	Guest lecturer	Fall
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Intro Occupat&Environ Health Sci <sup>b</sup>	HSCI345	2	Guest Lecturer	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 1 lecture

<sup>c</sup> Delivered 3 lectures

## 2014

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Analytical Tox and Path <sup>a</sup>	HSCI562	3	Course Master	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
Principles of Public Health Science <sup>b</sup>	HSCI201	3	Guest Lecturer	Spring
Freshman Scholars Project Seminar <sup>b</sup>	HSCI195	1	Guest Lecturer	Fall
Intro Occupat&Environ Health Sci <sup>c</sup>	HSCI345	2	Guest Lecturer	Fall
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Guest lecturer	Fall
Toxicology <sup>d</sup>	HSCI560	3	Course Master	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 1 lecture

<sup>c</sup> Delivered 2 lectures

<sup>d</sup> Delivered 3 lectures

2013

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
Analytical Tox and Path <sup>a</sup>	HSCI562	3	Course Master	Spring
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Spring
Intro to Environmental Health <sup>b</sup>	HSCI575	3	Guest Lecturer	Spring
Toxicology <sup>a</sup>	HSCI560	3	Course Master	Fall
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Intro Occupat&Environ Health Sci <sup>b</sup>	HSCI345	2	Guest Lecturer	Fall
Special Lectures in Neuroscience	BIOL695	2	Instructor	Fall
Freshman Scholars Project Seminar <sup>c</sup>	HSCI195	1	Guest Lecturer	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 2 lectures

<sup>c</sup> Delivered 1 seminar

2012

<i>Course Description</i>	<i>Course Code</i>	<i>Credit</i>	<i>Role</i>	<i>Semester</i>
HSCI Graduate Seminar <sup>a</sup>	HSCI696	1	Course Master	Fall
Toxicology <sup>b</sup>	HSCI560	3	Guest Lecturer	Fall

<sup>a</sup> Instructor of record

<sup>b</sup> Delivered 2 lectures

2011 *Survival Skills and Ethics Workshop on Grant Writing*, University of Pittsburgh, Discussion leader, Ethics over lunch Session

2004 ENVIRON 310/NRE 310, *Environmental Chemicals and Disease*, 3.0 hrs, School of Natural Resources and Environment, University of Michigan, 1 lecture

1999 *Physiology 475, Capstone Laboratory in Physiology*, 2.0 hrs, Department of Physiology, Michigan State University, Teaching Assistant

### **Mentorship:**

#### **Postdoctoral Fellows, as Primary Mentor**

Vivek Lawana, Ph.D. (Iowa State University) 01/2019-11/2019

Current position: Toxicology Study Director, American Preclinical Services, Minneapolis, MN

Syeda Tauqeerunnisa begum, Ph.D. (The Center for Research and Advanced Studies of the National Polytechnic Institute, Mexico City, Mexico) 11/2018-present

Shreesh Raj Sammi, Ph.D. (Life Sciences CSIR-Central Drug Research Institute, Lucknow, India) 11/2016- 01/2023. Current position: Assistant Professor, Department of Translational Neuroscience, Michigan State University.

Amy Griggs, Ph.D. (Chemistry, Purdue University) 12/2012-5/2013

Current Position: Clinical Scientist, Cook MED Institute, West Lafayette, IN

Jang-Won Lee, Ph.D. (Toxicology, UC Davis) 04/2012-12/2014

Current position: Assistant Professor, Graduate School of Integrated Bio-industry, Sejong University, Seoul, Korea

Changhe Xiao, Ph.D. (Chemistry, Rutgers University) 01/2012-10/2012

Current Position: Sr. Chemist, Medtronic, Minneapolis, MN

### **Doctoral Students, as Major Professor**

Josephine Brown, predoctoral student, Toxicology (M.S., Toxicology, University of Cincinnati) 08/2020-present

Emily K. McDonald, predoctoral student, Integrative Neurosciences and Toxicology (B.S., Biochemistry, Purdue University) 04/2018-09/2018

Current position: Decided to withdraw from Ph.D. study for family reasons.

Rachel M. Foguth, predoctoral student, Integrative Neurosciences and Toxicology (B.S., Biochemistry, Benedictine College) 04/2016-10/2020 (Graduation, 12/2020)

Current position: Regulatory Scientist, Cook Biotech, West Lafayette, IN

Johnny P. Wise, Jr., predoctoral student, Toxicology (B.S., Biology, University of Southern Maine) 08/2013-6/2018

Current position: Assistant Professor, Pediatric Research Institute, Department of Pediatrics, University of Louisville

Zeynep Sena Ağim, predoctoral student, Integrative Neurosciences and Toxicology (M.Sc., Molecular Biology and Genetics, Boğaziçi University, Turkey) 04/2013-12/2017

Current position: Postdoctoral fellow, University of Massachusetts, Worcester

### **Masters Students, as Major Professor**

Angela Cruz-Hernandez, M.S. – thesis, Toxicology (B.A., Chemistry, Florida International University) 08/2015 – 05/2017.

Current position: Ph.D. student (toxicology) at the University of Colorado.

Menghan Liu, M.S. – non-thesis, Toxicology (B.S., Biology, Purdue University) 08/2013-05/2015

Current position: Statistical Analyst, Fred Hutchinson Cancer Research Center

Xindi Ding, M.S. – non-thesis, Toxicology (B.S., Public Health, Capital Medical University, China)

08/2013-05/2015. Current position: Medical Science Liaison at Janssen Inc., Beijing City, China

### **Visiting Scholars, as site Mentor**

Fatema Currim, Ph.D. Student at MS University of Baroda, India. Overseas Visiting Doctoral Fellowship (OVDF) Program, Purdue and India's Science and Engineering Research Board

(SERB). Mentor – Mentee team amongst 25/127 applicants chosen.

**Purdue School of Health Sciences Undergraduate Honors Program (as research mentor):**

Lorraine Prevost, 2021-present

Krista Snyder, 2021

Claudia Nieves, 2018-2020

Niharika Kaul, 2016-2018

Charles Price, 2016-2020. Med Student, IU School of Medicine

Morgan Kramer, 2014-2016

Joey Amaro, 2013-2017

Samantha Watson, 2012

**Additional undergraduate researcher mentorship (Purdue University, unless otherwise noted)**

2020- Leah Van Zant, Biology, Purdue University

2020- Hannah Welp, Biology, Purdue University

2020- Alexis Wazniak, Biology, Purdue University

2020- Mia Utayde, Biology, Purdue University

2019- Hannah Welp, Biology

2019 Se Young Um, Biology

2019 Claudia Nieves, Purdue University, Purdue Summer Research Opportunities Program

2019 Georgia 'Cali' Clark, Morehead State University, Purdue Summer Research Opportunities Program. Recently Accepted to the University of Kentucky Medical School.

2019 Emily Llewellyn, Utah Valley University, Purdue Summer Research Opportunities Program

2018-2019 Madison Nelson, Health Sciences, Pre-med. Accepted to Lincoln Scholars Program. Doctor of Medicine track for Southern Illinois University School of Medicine.

2018-2020 Benjamin Clarke, Health Sciences, Pre-med.

2017 Bahati Nkera, University of Massachusetts, Purdue Summer Research Opportunities Program

2016 Mariella A Mestres Villanueva, University of Puerto Rico, Purdue Summer Research Opportunities Program. Current position: Ph.D. student at Ohio State University

2016 Erika Kischuk, Summer Internship Student, DePauw University

2016-2018 Eva Yezerets. Biomedical engineering

2015 Nickolas Anderson, Chemistry undergraduate student (Boston University)

2014 Saerom Kim, Chemistry undergraduate student

2013 Kyung-Min Lee, Pharmacy undergraduate student

2013-2014 Ker Ming Chew, Biochemistry undergraduate student

2013-2015 Adam Horin, Biology undergraduate student

2012 Vasin Dumrongprechachan, Health Sciences undergraduate student

2012 Monica Bomber, Biochemistry undergraduate student

**Laboratory rotations**

Purdue University Interdisciplinary Life Sciences Ph.D. Program/Toxicology

2020 Josephine Brown (Toxicology)

2018 Emily Malek (Integrative Neuroscience)

2018 Yiming Miao (Integrative Neuroscience)

2017 Chandnee Chandrasekaran (Integrative Neuroscience)

2017 Jennifer Hensel (Integrative Neuroscience)

2016 William Saloom (Integrative Neuroscience)

2016 Cynthia Alvarado (Integrative Neuroscience)

2016 Lisa Kobos (Toxicology)

2015 Rachel Foguth (Integrative Neuroscience)

2013 Sasha Vega Alvarez (Integrative Neuroscience)

2013 Marcus Weera (Integrative Neuroscience)

2013 Zeynep Sena Agim (Integrative Neuroscience)

University of Pittsburgh

2010 Paras Minhas, Neuroscience undergraduate/GA medical (University of Pittsburgh)  
2010-2011 Salik Malik, Biological Sciences undergraduate student (University of Pittsburgh)  
2008-2011 Laura Montero B.S. (West Virginia University), Technician  
2008 Rupali Kumar, Neuroscience undergraduate student (University of Pittsburgh)  
2008 Jayesh Madrecha, Neuroscience undergraduate student (University of Pittsburgh)  
2008-2011 Nestor Tomycz, M.D., (University of Pittsburgh)  
2009-2011 Thomas Sew, Neuroscience undergraduate student (University of Pittsburgh)

**Awards won by students/postdocs while being mentored by Cannon:**

Utayde, Mia

- 3<sup>rd</sup> Place poster at the Spring Undergraduate Research Conference, Office of Undergraduate Research, Purdue University, 2022

Brown, Josephine

- 1<sup>st</sup> Place Poster Presentation (Toxicology). 3<sup>rd</sup> HSCI Annual Research Retreat, 2022

Sammi, Shreesh

- Postdoctoral Travel Grant, Purdue Postdoctoral Association, 2018
- Abstract chosen for oral presentation at the Society of Toxicology Annual Meeting. 2019 Scientific Program Committee Highlights Emerging Scientists: Adverse effects of Perfluorinated Alkyl Substances
- Postdoctoral Supplemental Travel Grant, Purdue Postdoctoral Association, 2019
- 3<sup>rd</sup> place in the Society of Toxicology, Neurotoxicology Specialty Section Poster Competition, 2019
- 3<sup>rd</sup> place, Postdoctoral Research Blitz Presentation, 2019 Purdue School of Health Sciences Retreat.
- Neurotoxicology Specialty Section (NTSS) Narahashi Travel Award to the Society of Toxicology (SOT) 2020 meeting
- 2<sup>nd</sup> place in the Society of Toxicology, Neurotoxicology Specialty Section Postdoctoral Poster Competition, 2020
- NIH/NIEHS Pathway to Independence Award (K99/R00), 2021-2026

Vivek Lawana

- 2<sup>nd</sup> place, Postdoctoral Research Blitz Presentation, 2019 Purdue School of Health Sciences Retreat.

Tauqeerunnisa Syeda

- 1<sup>st</sup> place, Postdoctoral Research Blitz Presentation, 2019 Purdue School of Health Sciences Retreat.

Foguth, Rachel

- 2018 Travel Grant, Purdue Institute for Integrative Neuroscience – to SOT 2019.
- 3<sup>rd</sup> place, Graduate Student Research Blitz Presentation, 2019 Purdue School of Health Sciences Retreat.
- 3<sup>rd</sup> place Neurotoxicology Specialty Section Graduate Student Poster Competition, 2020

Wise, J.

- Frederick N. Andrews Fellowship (2 years tuition and annual \$18,000 stipend), Purdue Graduate School, 2013
- Compton Travel Award (\$500), to 2015 Society of Toxicology Annual Meeting
- Purdue Research Foundation Fellowship (2016-2017), total award = \$28,662
- Purdue Institute of Integrative Neuroscience Travel Award (\$500), to 2016 SOT Annual Meeting

- Purdue Graduate Student Government Travel Grant (\$250), to 2016 SOT Annual Meeting
- Bilsland Dissertation Fellowship (2017-2018), total award = valued >\$62,000 due to forgiven tuition remits
- Winner of the Abstract Competition/travel award for Greater Indiana Chapter of the Society for Neuroscience's annual meeting; #1 graduate student abstract out of 122 submissions; "*Autophagic dysfunction in brainstem nuclei in a preclinical rotenone Parkinson's disease model*"
- Chair, of selected symposium at the 2018 Society of Toxicology Annual Meeting. Symposium entitled, "*Mechanisms of Autophagic Function and Dysfunction in Neurotoxicity and Neurodegeneration*"

#### Agim, Z.S.

- Women in Science Programs Travel Grant (\$500), to 2014 Society of Toxicology Annual Meeting
- Purdue University Interdisciplinary Life Sciences Program Travel Grant (\$150) to 2014 Society of Toxicology Annual Meeting
- Honorable mention (top 20% - ~70 contestants), Health and Disease: Science, Culture and Policy graduate student poster competition, Purdue University.
- Society of Toxicology Travel Award (\$1000) to 2015 annual meeting
- Purdue Research Foundation Fellowship (2015-2016), total award = \$28,662
- Compton Graduate Travel Award (\$500) to 2016 SOT Annual Meeting
- Andrews Environmental Travel Grant (\$1500) to 2016 IUTOX Annual Meeting
- A. H. Ismail Interdisciplinary Program Doctoral Research Travel Award (\$1500) to 2016 SOT Annual Meeting
- Purdue University Interdisciplinary Life Sciences Program Travel Grant (\$350) to 2017 SOT Annual Meeting
- Purdue Student Government Travel Grant (\$500) to 2017 SOT Annual Meeting

#### Villanueva, M.A.

- 2017 Pfizer SOT Undergraduate Student Travel Award. Full funding for travel and all expenses to 2017 SOT Annual Meeting.

#### Amaro, J.A.

- 1<sup>st</sup> Place Poster, College of Health and Human Sciences, 2017 Undergraduate Research Symposium

#### Nieves, Claudia

- 2018 Paul L. Ziemer for Outstanding Freshmen Scholastic Performance

### **Student Committees:**

#### **Ph.D. Dissertation Committees**

2020-	Xueqi Tang, Purdue University Interdisciplinary Life Science Ph.D. Program
2019-2022	Saeed Alqahtani, Toxicology, School of Health Sciences, Purdue University
2018-	Janiel Ahkin Chin Tai, Tox, Purdue University Interdisciplinary Life Science Ph.D. Program
2018-	Jennifer Hensel, Purdue University Interdisciplinary Life Science Ph.D. Program
2018-	Luqing Liu, Toxicology, School of Health Sciences, Purdue University
2016-2022	Cynthia Alvarado, Integrative Neurosciences, Purdue University Interdisciplinary Life Science, PhD. Program converted to M.S.
2016- 2019	Kaushik Muralidharan, Department of Biological Sciences, Purdue University
2016-2020	Saranya Radhakrishnan, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program
2016-2022	Chandnee Chandrasekaran, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program
2016-2022	Aswathy Chandran, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program
2015-2018	Paola Montenegro, PULSe/MCMP
2015-2019	David Edmondson, Imaging Sciences and Toxicology, School of Health Sciences, Purdue University

2015-2019 Daniel Cholger, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program  
 2014-2016 Sara Wirbisky, Toxicology, School of Health Sciences. Current position: Sr. Toxicologist, WIL Research  
 2014-2018 Xinxin Liu, Health Sciences, School of Health Sciences  
 2014-2018 Katharine Horzmann, Toxicology, School of Health Sciences, Purdue University.  
 2014-2018 Kathryn Thompson, Purdue University Interdisciplinary Life Science, Ph.D. Program, Molecular Signaling and Cancer Biology  
 2014-2019 Dennis Claddis, Nutrition  
 2013-2016 Jinyoung Lee, Toxicology, School of Health Sciences, Purdue University  
 2013-2016 Ruoyun Ma, Medical Physics, School of Health Sciences, Purdue University  
 2013-2014 Gyeon Oh, Medicinal Chemistry and Molecular Pharmacology  
 2013-2017 Sasha Vega Alvarez, Purdue University Interdisciplinary Life Science, Ph.D. Program, Integrative Neuroscience  
 2012 Hilary Broderick, Purdue University Interdisciplinary Life Science, Ph.D. Program, Integrative Neuroscience  
 2012-2015 Stefanie O'Neil, Purdue University Interdisciplinary Life Science Ph.D. Program, Integrative Neuroscience. Current position: Sr. Associate, S.C. Johnson

#### **Ph.D. Preliminary Exam Committees**

2022 Alishia Aroor, Psychological Sciences, Ph.D. Program  
 2021- Ruilin Yu, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program (Committee Member)  
 2019 Lisa Kobos, Toxicology, School of Health Sciences, Purdue University  
 2016 Daniel Cholger, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program  
 2016 David Edmondson, Imaging Sciences and Toxicology, School of Health Sciences, Purdue University (Committee Chair)  
 2015 Amy Godfrey, Molecular Signaling and Cancer Biology, Purdue University Interdisciplinary Life Science Ph.D. Program  
 2015 Kathryn Thompson, Molecular Signaling and Cancer Biology, Purdue University Interdisciplinary Life Science Ph.D. Program  
 2015 Katharine Horzmann, Toxicology, School of Health Sciences, Purdue University.  
 2014 Sasha Vega Alvarez, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program  
 2013-2014 Stefanie O'Neil, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program (Committee Chair)  
 2012-2013 Glen Acosta, Integrative Neurosciences, Purdue University Interdisciplinary Life Science Ph.D. Program (Committee Member)

#### **M.S. Committees**

2018- Li Xia, Toxicology, School of Health Sciences  
 2012-2013 Sara Wirbisky, Toxicology, School of Health Sciences

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## ENGAGEMENT

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### International Service

- 2022 Poster Judge, invited speaker at: Inflammation and Proteinopathy in ALS FTD spectrum Disorder, Joint International Center for Genetic Engineering and Biotechnology (ICGEB) and ALS Society of Canada meeting, Rijeka, Croatia, 06/30/2022 – 07/03-2022.
- 2022 Oral Presentation Judge, invited speaker at: Inflammation and Proteinopathy in ALS FTD spectrum Disorder, Joint International Center for Genetic Engineering and Biotechnology (ICGEB) and ALS Society of Canada meeting, Rijeka, Croatia, 06/30/2022 – 07/03-2022.

### National Service

- 2022 Panel Member, Interactive Panel - The PI Crash Course, SHARP Training Program (Skills for Health and Research Professionals) at Columbia University, 06/10/2022
- 2021-2023 Representative Specialty Section Collaboration and Communication Group (SS-CCG), Society of Toxicology
- 2021-2021 Counselor, International Neurotoxicology Association
- 2021 Society of Toxicology Annual Meeting, Chat with an Expert
- 2021 Society of Toxicology Annual Meeting, Graduate School Virtual Career Fair
- 2020- Vice President (Presidential Chain), Neurotoxicology Specialty Section, Society of Toxicology
- 2020 Distinguished Neurotoxicologist Committee, Neurotoxicology Specialty Section, Society of Toxicology
- 2020 Mentor, Mentor Match, Society of Toxicology
- 2018-2020 Councilor, Neurotoxicology Specialty Section, Society of Toxicology
- 2017 External Reviewer, 2016 Neurotoxicology Specialty Section poster judging
- 2016 External Reviewer, 2016 Neurotoxicology Specialty Section poster judging
- 2015 External Reviewer, 2015 Neurotoxicology Specialty Section poster judging
- 2013 Ohio Valley Society of Toxicology, *Postdoctoral Poster Judge*, Annual Meeting
- 2013 External Reviewer, 2014 Best Postdoctoral Publication Award, The Society of Toxicology

### Institutional Service

#### Purdue University

- 2021- Member, Core Strategic Planning Committee, Purdue Animal Behavior
- 2020- Faculty Advisory Committee for the Bindley Imaging Facility
- 06/28/2017 Facilitator, Graduate Student and Postdoc Forum at NeuroNetworking, Purdue Institute for integrate Neuroscience
- 2017 Panel Member, Newly Tenured Professors, Faculty Advancement, Success and Tenure (FAST), ADVANCE Center for Faculty Success
- 2016- 2017 Member, Subcommittee on animal behavior core, Purdue Institute for Integrative Neuroscience
- 04/14/2015 Judge, Undergraduate Research Symposium and Poster Session
- 07/21/14 *Experience Purdue*, Instructor, High ability High School student recruitment/short course, "Environmental exposures and brain damage"
- 03/2014 Purdue ME Assistance, High-School Recruitment, Featured Laboratory
- 02/2014 *Ad hoc* Reviewer, Journal of Undergraduate Research
- 2013-2015 Featured laboratory/tour leader, Neuroscience-Philosophy-Intelligence-Society, Purdue University

#### College of Health and Human Sciences – Purdue University

- 2022 - Member, Advisory Board, Center for Research on Brain, Behavior, and NeuroRehabilitation (CEREBBRAL) 2021-2021 Member, Associate Dean for Research Faculty Search Committee, HHS



2020-2021 Member, Faculty Search Committee, Department of Public Health  
 2019-2020 Member, "Advance Research to Improve Health, Human Functioning, and Quality of Life (including doctoral education)", HHS Strategic Planning Working Group  
 2017-present Member, Public Health Graduate Program Evaluation Committee  
 2016 School representative, HHS Fall Welcome  
 2016-2018 Member, HHS Career Advisory Council  
 2016-2018 Member, HHS Graduate Education and Curriculum Committee  
 2014 HHS Scholarship Committee - Presidential Scholarship Selection  
 2014 HHS Family Day – Faculty Representative

#### Graduate School – Purdue University

2017- Executive Chair, Executive Committee, Purdue University Interdisciplinary Life Science Program (PULSe)  
 2017 Judge, 5 Minute Thesis Competition, Purdue University Interdisciplinary Life Science Program (PULSe)  
 2017 Judge, PULSe Outstanding Teaching Award  
 2016-2017 Integrative Neuroscience Training Group Representative (training group Chair), Executive Committee, Purdue University Interdisciplinary Life Science Program (PULSe) 2012 HSCI Graduate School Admissions, *Ad hoc reviewer*  
 2014 Presenter, Preliminary Exam Panel (PULSe), "Oral defense of proposal", 02/11/2014  
 2013 Judge, PULSe Outstanding Graduate Student in Research Award  
 2012-2014 PRF Research Grant, *Ad hoc reviewer*  
 2012- Bilisland Dissertation Fellowship, *Ad hoc reviewer*  
 2012 Faculty representative, Integrative Neuroscience, PULSe Fall Open House

#### School of Health Sciences and Additional Committees

2022 Member, Compton Travel Award Committee  
 2022- Chair, Search Committee, Translational and Biomedical Toxicology  
 2021 Chair, Search Committee, Dual Career Search (Toxicology)  
 2021- Chair, Search Committee, Computational Toxicology  
 2019-2020 Chair, Search Committee, Computational or Systems Toxicology  
 2019- Member, Graduate Committee on Curricula, Admissions and Research policy, School of Health Sciences, Purdue University  
 2017-2019 Chair, School of Health Sciences Committee to Revise Tenure and Promotion Guidelines  
 2017-2018 Chair, Search Committee, Exposure Science/Industrial Hygiene Faculty position  
 2018- Member, Graduate Committee on Curricula, Admissions and Research policy, School of Health Sciences, Purdue University  
 2016-2018 Chair, Graduate Committee on Curricula, Admissions and Research policy, School of Health Sciences, Purdue University  
 2016-present Member, HSCI Primary Committee (Tenure and Promotion)  
 2015-2016 Chair, HSCI Web Page & Library Committee  
 2015-2016 Member, Search Committee, Industrial Hygiene/Toxicology Faculty position  
 2015-present Member, Committee on International Exchange Programs  
 2014 *Ad hoc* member, PULSe Executive Committee, Integrative Neuroscience  
 2014 Discussion Leader, Scholarly Excellence, Faculty Retreat, School of Health Sciences, Purdue University  
 2012-2021 Member, Nominations and Awards, School of Health Sciences, Purdue University  
 2012-2013 Member, Safety Committee, School of Health Sciences, Purdue University  
 2012-2016 Member, Graduate Committee on Curricula, Admissions and Research policy, School of Health Sciences, Purdue University  
 2003-2004 Member, Toxicology Symposium Committee, "Fetal Origins of disease", The 9<sup>th</sup> Annual Toxicology Research Symposium, The University of Michigan  
 2002-2003 Chair, Toxicology Symposium Committee, "Toxicants as Tools", The 8<sup>th</sup> Annual Toxicology Research Symposium, The University of Michigan  
 2001-2002 Rackham Academic Appeals Panel, The University of Michigan

### Other institutional service

- 2013 Lead effort updating Plans of Study for Toxicology degrees. Created a nonthesis MS plan of study with laboratory-focus and Public Health focus tracks. Gained Graduate Committee and Full Faculty approval.
- 2012 Faculty representative (School of Health Sciences), August graduation, Purdue University

### Service to the Community

- 2022 Lay presentation "Modifiable Risk Factors in Parkinson's Disease Development", Well-Informed Educational Program, Westminster Village, West Lafayette, IN
- 2022 Lay presentation "Genetic and Environmental Interactions in the Development and Progression of Parkinson's Disease", Parkinson's Awareness Association of Central Indiana, Inc.
- 2014 Lay presentation "Etiology and Pathology of Parkinson's disease", Parkinson's disease support group, Westminster Village, West Lafayette, IN
- 2013 Lay presentation "Role of genes and Environment in Parkinson's Disease", Parkinson's disease support group, Westminster Village, West Lafayette, IN
- 2012 Faculty representative, College of Health and Human Sciences, Indiana State Fair
- 2009 Medicine / Health / Microbiology Category Judge - Senior (9th-12th grade), 70th Pittsburgh Regional Science & Engineering Fair. 4/3/2009
- 2008 Lay presentation; education to outpatient drug addicts; "Effects of drug use on the brain", Night Intensive Outpatient Program at Gateway Rehabilitation Center, Pittsburgh, PA. 5/22/08