

EXPERT WITNESS CURRICULUM VITAE

Contact Information:

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Specializations:

- Neurotoxicology and Mechanisms of Neurological Disease
- Parkinson's Disease Causation and Environmental Exposures
- Heavy Metals, Pesticides, and Neurodegenerative Disorders

Confidential – Provided for the sole purpose of evaluating expert witness qualifications.

Table of Contents:

Professional Summary / Background and Education	1
Academic Appointments and Professional Experience	1
Honors and Awards	2
Teaching, Mentoring, and Advising	3
Service and Outreach	21
Expert Witness Consultation and Testimony	32
Research and Scholarship	33
Invited Lectures	33
Professional Memberships and Affiliations	37
Grants and Funding History	39
Publications	45

CURRICULUM VITAE

Background and Education

Name: Ronald B. Tjalkens

Citizenship: United States of America

Current Academic Position

Ronald B. Tjalkens, Ph.D.
Professor of Toxicology and Neuroscience
Department of Environmental and Radiological Health Sciences
College of Veterinary Medicine and Biomedical Sciences
Colorado State University
Fort Collins, CO 80523-1680
Tel: 970 491 2825
E-mail: Ron.Tjalkens@colostate.edu

Education

- 1992 B.S., Chemistry/Biochemistry, University of California San Diego
- 1998 Ph.D., Toxicology, Department of Pharmaceutical Sciences, School of Pharmacy, University of Colorado Health Sciences Center
- 1998 – 2001 Postdoctoral Fellow, Neurotoxicology and Experimental Neuropathology, University of Michigan

Professional Experience And Academic Appointments

- 1990 – 1992 Undergraduate Research Assistant, Department of Chemistry and Biochemistry, University of California San Diego; Dr. David Roise, Research Director.
- 1992 – 1993 Research Assistant, Department of Molecular and Experimental Medicine, The Scripps Research Institute, La Jolla, California; Dr. Jim Hoch, Research Director.
- 1993 – 1998 NIH-Predocotrual Fellow, University of Colorado Health Sciences Center, Molecular Toxicology an Environmental Health Sciences Program, Department of Pharmaceutical Sciences; Dr. Dennis Petersen, Dissertation A.
- 1998 – 2001 NIH-Postdoctoral Fellow, Neurotoxicology and Experimental Neuropathology, Toxicology Program, Department of Environmental Health Sciences, University of Michigan; Dr. Martin Philbert, Research Director.

- 2001 – 2004 Assistant Professor, Department of Veterinary Anatomy and Public Health, College of Veterinary Medicine, Texas A&M University, College Station, TX
- 2001 – 2004 Member – Faculty of Neuroscience; Member – Interdisciplinary Faculty of Toxicology, Texas A&M University, College Station, TX
- 2004 – 2007 Assistant Professor, Toxicology Section, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
- 2004 Faculty Member, Cell and Molecular Biology graduate program, Colorado State University
- 2005 Faculty Member, Molecular, Cellular, and Integrative Neuroscience graduate program, Colorado State University
- 2007 Associate Professor, Toxicology Section, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
- 2010 – 2017 Associate Director, Center for Environmental Medicine, Colorado State University
- 2013 Professor of Toxicology and Neuroscience, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
- 2016 - 2019 Section Head, Toxicology, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University

Honors and awards

- 1995 – 1998 NIH/NIAAA individual predoctoral fellowship (National Research Service Award/NRSA)
- 1998 – 2001 NIH/NIEHS individual postdoctoral fellowship (National Research Service Award/NRSA)
- 2002 Society of Toxicology Early Career Award in Neurotoxicology (New Investigator award)
- 2004 – 2006 NIH Loan Repayment Program (LRP) recipient (pediatrics)
- 2006 Session Chair, Gordon Research Conference, Mechanisms of Toxicity (July, 2006), Colby College
- 2007 Symposium Chair and Speaker, 45th Congress of the European Societies of Toxicology, Amsterdam, the Netherlands (October, 2007)
- 2007 – 2011 NIH Study Section Regular Member, NAL (IRG: Integrative, Functional, and Cognitive Neuroscience)
- 2011 Session Chair, Gordon Research Conference, Cellular and Molecular Mechanisms of Toxicity (Aug, 2011), Proctor Academy, Andover, NH

- 2013 Invited speaker and Session Chair, European Societies of Toxicology, 49th Congress, Interlaken, Switzerland, September 1 – 4
- 2016 Chair, NIH Study Section, Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER)
- 2016 Michael J. Fox Foundation, Target Advancement Program, Specialty grant review panel on neuroinflammation, invited member
- 2020 Reviewer, NIH Study Section, Clinical Neuroimmunology and Brain Tumors (CNBT), focus on the pathogenic etiology of Alzheimer's
- 2021 Reviewer, NIH Study Section, Chronic Dysfunction and Integrative Neurodegeneration (CDIN), focus on neuroinflammation and Alzheimer's disease
- 2024 University Scholarship Impact Award - University-wide recent achievement award recognizing those whose scholarship has had a major impact nationally and/or internationally
- 2025 - 2026 President - Neurotoxicology Specialty Section (*elected*), Society of Toxicology

Position Description/Effort Distribution

20% - *Teaching*

70% - *Research*

10% - *Service*

Teaching, Mentoring, and Advising

Courses and Lectures

- 2001 – 2002 VAPH 670-600, Environmental Toxicology (3.0 hrs), 4 lectures
- 2002 – 2003 VAPH 617-603, Cell Biology/Mitochondrial Signaling in Apoptosis (1.0 hrs),
Course Coordinator
VAPH 606-689, Neurodegenerative Diseases (3.0 hrs), 1 lecture
VAPH 691-631, Dissertation Research (8.0 hrs), Bo Yeon Lee
VAPH 691-631, Dissertation Research (14.0 hrs), Xuhong Liu
VAPH 485-531, Directed Studies (3.0 hrs) Julie Buffington
- 2003 – 2004 VAPH 617-603, Cell Biology/Mitochondrial Signaling in Apoptosis (1.0 hrs),
Course Coordinator
VAPH 670-600, Environmental Toxicology (3.0 hrs), 4 lectures
VTPP 676, Genetic and Molecular Toxicology (3.0 hrs) 3 lectures
VAPH 691-631, Research (2.0 hrs), Bo Yeon Lee
VAPH 691-631, Research (9.0 hrs), Xuhong Liu
VAPH 485-531, Directed Studies (8.0 hrs) Julie Buffington

2004. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Fall)
 EH 446, Environmental Toxicology (3.0 hrs), 1 lecture (Fall)
 EH 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
2005. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
 EH 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 EH 693, Toxicology Colloquim, (1.0 hrs), course coordinator (Spring)
 EH 502, Introduction to Toxicology (3.0 hrs), course coordinator (Fall)
2006. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
 ERHS 446, Environmental Toxicology (3.0 hrs), 4 lectures, (Fall)
 ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall)
 ERHS 701, Environmental Carcinogenesis (3 hrs), 3 lectures (Spring)
2007. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
 ERHS 446, Environmental Toxicology (3.0 hrs), 4 lectures, (Fall)
 ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall)
 NB 505, Circuits, Systems, and Behavior (3.0 hrs), 3 lectures (Spring)
 ERHS 603, Toxicologic Pathology (3.0 hrs), 3 lectures (Spring)
2008. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
 ERHS 446, Environmental Toxicology (3.0 hrs), 4 lectures, (Fall)
 ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall)
 NB 505, Circuits, Systems, and Behavior (3.0 hrs), 3 lectures (Spring)
 ERHS 567, Cell and Molecular Techniques Laboratory (3.0 hrs), 2 lab units/
 lectures
 ERHS 602, Toxicological Mechanisms (3.0 hrs), 4 lectures (Spring)
 ERHS 603, Toxicologic Pathology (3.0 hrs), 3 lectures (Spring)
 ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall)
2009. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
 ERHS 446, Environmental Toxicology (3.0 hrs), 4 lectures, (Fall)
 ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall)
 ERHS 567, Cell and Molecular Techniques Laboratory (3.0 hrs), 2 lab units/
 lectures
 ERHS 602, Toxicological Mechanisms (3.0 hrs), 4 lectures (Spring)
 ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall)
2010. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
 ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall)
 ERHS 602, Toxicological Mechanisms (3.0 hrs), 4 lectures (Spring)

- ERHS 567, Cell and Molecular Techniques Laboratory (3.0 hrs), 2 lab units/
lectures
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall)
2011. BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
ERHS 220, Environmental Health (3.0 hrs), 4 lectures (Spring/Fall)
ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall)
ERHS 601, Biochemical Toxicology (3.0 hrs), 2 lectures (Fall)
ERHS 567, Cell and Molecular Techniques Laboratory (3.0 hrs), 2 lab units/
lectures
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall)
- 2012 BS 180, Freshman Scholar's Seminar (1.0 hrs), 1 lecture (Spring)
ERHS 220, Environmental Health (3.0 hrs), 4 lectures (Spring/Fall)
ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50
students
ERHS 601, Biochemical Toxicology (3.0 hrs), 2 lectures (Fall)
ERHS 602, Toxicology Mechanisms (3.0 hrs), 4 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab
units/lectures (10 hrs/week)
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30
students
ERHS 733, Environmental Carcinogenesis, 2 lectures (Spring)
- 2013 ERHS 220, Environmental Health (3.0 hrs), 4 lectures (Spring/Fall)
ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50
students
ERHS 602, Toxicology Mechanisms (3.0 hrs), course coordinator (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab
units/lectures (10 hrs/week)
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30
students
- 2014 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50
students
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30
students
ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab
units/lectures (10 hrs/week)
- 2015 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50
students

- ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
 ERHS 498, Independent Study, Research (2.0 hrs), course coordinator (Fall)
 ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
 ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
- 2016 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
 ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
 BMS 498, Independent Study, Research (3.0 hrs, 4 students), course coordinator (Fall/Spring)
 ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
 ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
- 2017 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
 ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
 BMS 498, Independent Study, Research (3.0 hrs, 4 students), course coordinator (Fall/Spring)
 ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
 ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
- 2018 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
 ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
 BMS 498, Independent Study, Research (3.0 hrs, 4 students), course coordinator (Fall/Spring)
 ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
 ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
 ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)
- 2019 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
 ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
 BMS 498, Independent Study, Research (3.0 hrs, 2 students), course coordinator (Fall/Spring)
 ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)

ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)

2020 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
BMS 498, Independent Study, Research (3.0 hrs, 1 student), course coordinator (Fall/Spring)
MIP 498, Independent Study, Research (3.0 hrs, 3 students), course coordinator (Fall/Spring)
ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)

2021 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
BMS 498, Independent Study, Research (3.0 hrs, 1 student), course coordinator (Fall/Spring)
MIP 498, Independent Study, Research (3.0 hrs, 3 students), course coordinator (Fall/Spring)
ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)
NB 506, Neurobiology of Disease (2.0 hrs), 2 lectures, Parkinson's disease, (Fall semester)

2022 ERHS 502, Fundamentals of Toxicology (3.0 hrs), course coordinator (Fall), 50 students
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 30 students
BMS 498, Independent Study, Research (3.0 hrs, 1 students), course coordinator (Fall/Spring)
ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)

ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)
NB 506, Neurobiology of Disease (2.0 hrs), 2 lectures, Parkinson's disease, (Fall semester)

2023 ERHS 502, Fundamentals of Toxicology (3.0 hrs), 2 lectures (Fall), 40 students

ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 10 students
ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)
NB 506, Neurobiology of Disease (2.0 hrs), 2 lectures, Parkinson's disease, (Fall semester)

2024 ERHS 502, Fundamentals of Toxicology (3.0 hrs), 2 lectures (Fall), 40 students
ERHS 693c, Toxicology Seminar, (1.0 hrs), course coordinator (Fall), 10 students
ERHS 602, Toxicology Mechanisms (3.0 hrs), 2 lectures (Spring)
ERHS 695, Advanced Independent Study-Research (3.0 hrs), 2 students for lab units/lectures (10 hrs/week)
ERHS 502-801 (CSU Online), Fundamentals of Toxicology (3.0 hrs), course coordinator, 3 students (Spring Semester)
NB 506, Neurobiology of Disease (2.0 hrs), 2 lectures, Parkinson's disease, (Fall semester)

Students and Trainees Mentored

Postdoctoral Fellows

2005 - 2008 David Carbone, PhD, Toxicology, University of Colorado Health Sciences Center, Department of Pharmaceutical Sciences
Honors: Individual Ruth L. Kirschstein National Research Service Award, NIH/NINDS (F32 NS055632)
Current Position: Assistant Professor, University of Arizona, School of Medicine, Department of Basic Medical Sciences, Phoenix, AZ

- 2007 - 2013 James Miller, PhD, University of Michigan, Toxicology, Department of Environmental Health Sciences
Honors: Supported by a postdoctoral fellowship from AstraZeneca, Inc. (United Kingdom)
- 2014 - 2017 Aaron Phillips, PhD, Colorado State University, Microbiology, Immunology and Pathology, 2013)
Current Position: Research Scientist, U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), Fort Detrick, MD
- 2017 - 2018 Kelly Kirkley, DVM-PhD, Colorado State University, Environmental and Radiological Health Sciences
Current Position: Consulting Veterinarian in Clinical Toxicology, Broomfield, CO
- 2022 - present Savannah Rocha, PhD, Toxicology, Colorado State University, Environmental and Radiological Health Sciences
Honors: Selected as a DARPA Forward Riser Fellow (2022); First place poster award, Society of Toxicology annual meeting, Neurotoxicology Specialty Section (2023)
- 2023 - present Devin Wahl, PhD, Department of Health and Exercise Science, Colorado State University - K01 mentorship committee
- 2024 - present Adam Schuller, PhD - Toxicology, Colorado State University, Environmental and Radiological Health Sciences

Ph.D. Mentoring: Primary Advisor

- 2002 – 2004 Xuhong Liu, Toxicology Program, Department of Veterinary Integrative Biosciences, College of Veterinary Medicine, Texas A&M University
- 2004 – 2009 Julie Moreno, Cell and Molecular Biology Program, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
Honors: Dr. William K. Riddell Memorial Graduate Scholarship, 2008-09
Positions: Postdoctoral Fellow, Medical Research Council, Toxicology Unit, Leicester, United Kingdom (first author papers in *Nature*, Feb 2012; *Nature*. 2012 May 6;485(7399):507-11 and *Sci. Transl. Med.* 5, 206, 2013)
Current position: Assistant Professor (*tenure track*), Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
- 2006 - 2011 Karin Streifel, Toxicology Program, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
Honors: Dr. William K. Riddell Memorial Graduate Scholarship, 2009-10, Society of Toxicology Graduate Student Travel Award (2010)
Postdoctoral Training: Postdoctoral Fellow, NIH F32 awardee, University of California at Davis, Neuroscience

Current Position: Assistant Professor of Biochemistry (*tenure track*), Regis University, Denver, CO

2008 - 2013 Kelly Kirkley, DVM/PhD Program, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University

Honors: Arthur Peterson, W. II, DVM Memorial Scholarship (2010 - 2011), Colorado Graduate Grant (2010 - 2011), ARCS Scholarship (2011 - 2012), Carlton Sundberg Memorial Scholarship, College of Veterinary Medicine and Biomedical Sciences, Colorado State University (2012), Colorado Graduate Grant (2011 - 2012), Society of Toxicology Graduate Student Travel Award (2012).

Current Position: Consulting Veterinarian in Clinical Toxicology, Broomfield, CO

2009 - 2014 Briana De Miranda, Toxicology Program, Department of Environmental and Radiological Health Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University

Honors: AstraZeneca Travel Award to the Gordon Research Conference, Cellular and Molecular Mechanisms of Toxicity (2011), Society of Toxicology Graduate Student Travel Award (2011), Outstanding Graduate Student Researcher award and scholarship, Department of Environmental and Radiological Health Sciences, Colorado State University. Senior Postdoctoral Fellow and K99/R00 awardee, Pittsburgh Institute for Neurodegenerative Disease, Department of Neurology, School of Medicine, University of Pittsburgh, Mentor: J. Timothy Greenamyre, MD

Current Position: Assistant Professor (*tenure track*), Department of Neurology, School of Medicine, University of Alabama at Birmingham

2013 - 2018 Katriana Popichak, Cell and Molecular Biology Program, Colorado State University

Honors: F31/NRSA Awardee, 1F31NS096841, "Manganese-Endotoxin Interactions and Neuroinflammatory Brain Injury" Sponsor: NIH/NIEHS

Current position: Assistant Professor (*tenure track*), Department of Microbiology, Immunology and Pathology, Colorado State University

2013 - 2018 Sean Hammond, Cell and Molecular Biology Program, Colorado State University

Honors: F31/NRSA Awardee, 1F31NS096841, "Cell-Specific Expression of AAV-Nurr1 in a Model of Parkinson's Disease" Sponsor: NIH/NINDS

Positions: Postdoctoral Fellow with Curt Freed, MD, University of Colorado Anschutz Medical Campus (focus: Parkinson's disease); Senior Medical Science Liaison at Axsome Therapeutics, Denver, CO

2014 - 2019 Collin Bantle, Toxicology

Honors: Astra-Zeneca traveling fellowship, European Societies of Toxicology conference, Brussels, Belgium (September, 2018); Chair, Student/Postdoc

Symposium, Gordon Research Conference on Parkinson's Disease, Sunday River, ME (June, 2019)

Positions: Postdoctoral Fellow, Biogen - Parkinson's disease drug discovery division, Cambridge, MA, 2019 - 2021; Scientist, Discovery Toxicology at Ikena Oncology, Boston, MA, 2021 - present

2017 - 2022 Savannah Rocha, Microbiology, Immunology and Pathology

Honors: Top Scholar Award (poster), College of Veterinary Medicine and Biomedical Sciences Graduate Showcase Symposium, Fall, 2019, Colorado State University; First place poster award, Mountain West Society of Toxicology Conference, Fall, 2019; Think Like a Freak Award, Prion Research Center, Colorado State University, 2021; Defense Advanced Research Projects Agency (DARPA) Riser awardee, 2022; First Place in postdoctoral poster competition – Society of Toxicology, Neurotoxicology Specialty Section, 2023

Current Position: Postdoctoral Fellow, Colorado State University, Fort Collins, CO

2018 - 2021 Lindsey Burton (Co-Advisor), Toxicology, Department of Environmental and Radiological Health Sciences, Colorado State University

Current Position: Postdoctoral Fellow, Colorado State University, Fort Collins, CO

2020 - 2024 Amanda Latham - Toxicology, Department of Environmental and Radiological Health Sciences, Colorado State University

2023 - present Omar Yanouri - Cell and Molecular Biology, Colorado State University

2024 - present Megan Hager - Toxicology, Department of Environmental and Radiological Health Sciences, Colorado State University

Ph.D. Mentoring: Committee Member

2002 – 2003 Wonsuk Yang, Toxicology Program, Department of Veterinary Anatomy and Public Health, Texas A&M University

2004 – 2007 Greg Dooley, Toxicology Program, Department Environmental and Radiological Health Sciences, Colorado State University

2004 – 2008 Amanda Ashley, Cell and Molecular Biology Program, Colorado State University

2005 – 2007 Kimberly White, Colorado State University, Department of Microbiology, Immunology and Pathology, Colorado State University

2005 - 2008 Kathleen Bostrom, PhD Committee Member, Department of Microbiology, Immunology and Pathology, Colorado State University

- 2009 - 2011 Bernardo Rodrigues, PhD Committee Member, Department of Biomedical Sciences, Colorado State University
- 2010 - 2012 Jana Gertsch, PhD Committee Member, Department of Chemistry, Colorado State University
- 2009 - 2013 Shadi Khademi, PhD Committee Member, Department of Health and Exercise Science, Colorado State University
- 2010 - 2013 Anne Crecelius, PhD Committee Member, Department of Health and Exercise Science, Colorado State University
- 2010 - 2013 Aaron Phillips, PhD Committee Member, Department of Microbiology, Immunology, and Pathology, Colorado State University
- 2010 - 2013 Juliano Silveira, PhD Committee Member, Department of Biomedical Sciences, Colorado State University
- 2011 - 2012 Jennifer Berkbigler, PhD Committee Member, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2011 - 2015 Julio Valdiviezo, PhD Committee Member, Department of Microbiology, Immunology, and Pathology, Colorado State University
- 2011 - 2013 Claire Hoover, PhD Committee Member, Department of Microbiology, Immunology, and Pathology, Colorado State University
- 2012 - 2019 Mathew Dicken, PhD Committee Member, Department of Biomedical Sciences, Colorado State University
- 2012 - 2017 Renee Lake, PhD Committee Member, School of Biomedical Engineering, Colorado State University
- 2012 - 2017 Sarah Kane, Toxicology Program, Molecular, Cellular and Integrative Neuroscience, Colorado State University
- 2012 - 2017 Natalie Pitts, PhD Committee Member, Department of Biology, Colorado State University
- 2012 - 2014 Michelle Sullivan, Department of Biomedical Sciences, Colorado State University
- 2015 - 2017 Mary Afzali, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2015 - 2020 Clinton Dawson, Department of Microbiology, Immunology and Pathology, Colorado State University
- 2012 - 2020 Valerie Johnson, PhD Committee Member, Department of Microbiology, Immunology, and Pathology, Colorado State University
- 2016 - 2020 Neha Ahuja, PhD Committee Member, Department of Biology, Colorado State University
- 2016 - 2020 Lyndah Chow, PhD Committee Member, Department of Clinical Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University

- 2017 - 2021 Ashley Leek, Committee Member, Department of Biomedical Sciences (Neuroscience), Colorado State University
- 2019 - Erin Borland, PhD Committee Member, Department of Microbiology, Immunology and Pathology, Colorado State University
- 2019 - Pranav Damale, PhD Committee Member, Department of Electrical and Computer Engineering, Colorado State University
- 2020 - 2023 Arielle Hay, PhD Committee Member, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2021 *Sarah Aldharfiri**, PhD Committee Member and External Examiner, University College Dublin, Ireland ****International***
- 2021 - present Mark Greenwood, PhD Committee Member, Department of Chemical and Biological Engineering, School of Biomedical Engineering, Colorado State University
- 2021 - 2025 Talia Head, PhD Committee Member, Department of Biology, Colorado State University
- 2021 - 2025 Ashley Romano, PhD Committee Member, Department of Microbiology, Immunology and Pathology, Colorado State University
- 2021 - 2025 Hayley Templeton, PhD Committee Member, Department of Biomedical Sciences, Colorado State University
- 2022 - present Nicholas Whittel, PhD Committee Member, Department of Microbiology, Immunology and Pathology, Colorado State University
- 2022 - 2025 Debotri Chatterjee, Department of Neuroscience, Jefferson Health Comprehensive Parkinson's Disease and Movement Disorder Center, Thomas Jefferson University, Philadelphia, PA (Dr. Richard J. Smeyne, Advisor), ****National/out of institution advisee***
- 2022 - 2025 Melea Barahona, Department of Environmental and Radiological Health Sciences, Colorado State University (Advisor: Tara Nordgren)
- 2022 - present Calli McEntee, Department of Health and Exercise Science, Colorado State University
- 2021 - 2025 Sydney Risen, Toxicology, Department of Environmental and Radiological Health Sciences, Colorado State University (Advisor: Julie Moreno)

M.S. Mentoring (Thesis): Primary Advisor

- 2002 – 2005 Tyler Wright, Texas A&M University, Neuroscience
- 2009 - 2011 Jennifer Trinh, Colorado State University, Toxicology
- 2012 - 2013 Rachel Padmanabhan, Toxicology, Department of Environmental and Radiological Health Sciences, Colorado State University

Positions: 2017-21 Dental School, University of Colorado Denver, Anschutz Medical Campus

2025 - Megan Zager, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

M.S. Mentoring (Thesis): Committee Member

2002 – 2003 Yee Voon Ng, Department of Animal Science, Texas A&M University

2004 – 2007 Traci Nichols, Cell and Molecular Biology Program, Colorado State University

2007 - 2008 Audrey McDonald, Department of Biology, Colorado State University

2007 - 2008 Nina Donner, Department of Biology, Colorado State University

2008 - 2009 Jennifer Gunderson, Department of Biology, Colorado State University

2008 - 2010 Cheryl Hartshorn, Department of Biomedical Sciences, Colorado State University

2009 - 2010 Bernardo Rodriguez, Department of Health and Exercise Science, Colorado State University

2014 - 2016 Bill Wilson, MS Committee Member, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

2015 - 2016 Cory Sicard, MS Committee Member, Cancer Biology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

2015 - 2017 Greg Harbison, MS Committee Member, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

2017 - 2019 Pranav Damale, Department of Electrical and Computer Engineering, Colorado State University

2019 - 2020 Zaria Vick, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

2019 - 2022 Julie Starkey, Department of Microbiology, Immunology and Pathology, Colorado State University

2021 - 2022 Agata Parsons-Aubone, MS, Biomedical Sciences, Colorado State University

M.S. (Non-thesis): Primary Mentoring and Academic Advising

2010 - 2012 Pouneh Alizadeh, MS (Toxicology)

Positions: DVM, Colorado State University, 2016

2010 - 2012 Elizabeth Brooks, MS (Toxicology)

- 2010 - 2011 Kelsey Hunter, MS (Toxicology)
- 2010 - 2011 Christopher Klekamp, MS (Toxicology)
Positions: DDS, University of Colorado Denver, 2016
- 2010 - 2011 Andrea Sternberger, MS (Toxicology)
- 2010 - 2012 Marissa Jukka, MS (Toxicology)
- 2010 - 2011 Ryley McPeters, MS (Toxicology)
- 2010 - 2012 Lauren Mieszala, MS (Toxicology)
- 2010 - 2011 Jackie Stanton, MS (Toxicology)
- 2011 - 2012 Rachel Padmanabhan, MS (Toxicology)
- 2011 - 2012 Kristen Parcesepe, MS (Toxicology)
- 2011 - 2013 Juventina De Giso, MS (Toxicology)
- 2011 - 2013 Bryce Jorgensen, MS (Toxicology)
- 2011 - 2012 William Berguin, MS (Toxicology)
Positions: DDS, University of Colorado Denver, 2016
- 2011 - 2013 Chelsey Coles, MS (Toxicology)
- 2011 - 2012 Jackie Stanton, MS (Toxicology)
- 2011 - 2013 Tej Jadhav, MS (Toxicology)
- 2011 - 2013 Gina Kelly, MS (Toxicology)
- 2011 - 2013 Cara Peterson, MS (Toxicology)
- 2011 - 2013 Kristin Pratt, MS (Toxicology)
- 2012 - 2013 Stephanie Prop, MS (Toxicology)
Positions: PharmD, University of Utah, 2017
- 2015 - 2017 Catalina Forero, MS (Toxicology)
Positions: DVM (2020), Colorado State University; Residency in Laboratory Animals Medicine, Centers for Disease Control, Atlanta, GA (2020)
- 2018 - 2019 Baharak Davari, MS (Toxicology)
Positions: Admitted to the PhD program in Toxicology (2020), University of Colorado Denver Anschutz Medical Campus
- 2019 - 2020 Corinne Oswood, MS (Toxicology)
- 2019 - 2020 Kevin Tran, MS (Toxicology) - Research Advisor
Positions: Admitted to the DO program at the Idaho College of Osteopathic Medicine (2020 - 2024)
- 2020 - 2021 Laura Aguilar Marquez, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

- 2020 - 2021 Jessy Borbon, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2020 - 2021 Dylan Buglewicz, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2020 - 2021 Kasimir Carranza, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2020 - 2021 Mitchell French, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2020 - 2021 Harris Tran, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2021 - 2022 Logan Butler, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2021 - 2022 Walker West, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2021 - 2022 Andrea Filson, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2021 - 2022 Anna Parry, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2021 - 2022 Jeremy Romero, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University
- 2018 - 2023 Casey McDermott, MS, Toxicology Program, Department of Environmental and Radiological Health Sciences, Colorado State University

Undergraduate Mentoring: Research and Academic Advising

- 2004 – 2008 Brianne Mohl, Research Advisor, Hughes Medical Institute Undergraduate Research Scholar (HURS program), Colorado State University
Honors: Graduated with Honors
Positions: (2010-15) Ph.D., Neuroscience, Wayne State University, School of Medicine, Detroit, MI. (2015 -) Postdoctoral Fellow, Department of Neurology, University of Colorado Anschutz Medical Campus
- 2004 – 2008 Kelly Kirkley, Research Advisor, Environmental and Radiological Health Sciences Colorado State University
Honors: Pfizer undergraduate award for best paper at the Society of Toxicology meeting in Seattle, WA, 2008
Positions: (2009-15) DVM/PhD Program, College of Veterinary Medicine and Biomedical Sciences, Colorado State University
- 2005 – 2009 Sean McGrath, Research Advisor, Hughes Medical Institute Undergraduate Research Scholar (HURS program), Colorado State University

Honors: Boettcher Scholarship recipient (2005-2009), 2009 Pfizer undergraduate award for best paper at the Society of Toxicology meeting in Baltimore, MD; 2006, Summer research fellowship, National Parkinson's Foundation

Positions: PhD in Developmental Biology, University of Cincinnati (2016); Research Associate, University of Colorado Anschutz Medical Campus, Stem Cell Biobank and Disease Modeling Core (Manager) - Gates Center for Regenerative Medicine (2016-2021); Instructor, Department of Cell and Molecular Biology, University of Colorado Anschutz Medical Campus, Organoid and Tissue Modeling Shared Resource (Manager), 2021-present

2005 – 2009 Elizabeth Claire Yeomans, Research Advisor, Department of Environmental and Radiological Health Sciences Freshman Scholars Program, Colorado State University

Honors: Graduated with Honors, College of Applied Human Sciences, Department of Psychology, 2009

2007 – 2011 Katriana Popichak, Research Advisor, Department of Environmental and Radiological Health Sciences, Colorado State University

Honors: Received *Highest Honors* award (2008, 2009, 2010) for research presentations at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, Colorado State University

2008 – 2009 Jessica Ahrens, Research Advisor, Hughes Medical Institute Undergraduate Research Scholar (HURS program), Colorado State University

2008 Athena Flecha, Research Opportunities for Undergraduates (REU) Program summer student, Biochemistry and Molecular Biology

2009 Kelin Wheaton, Research Advisor, Research Opportunities for Undergraduates (REU) Program summer student, Biochemistry and Molecular Biology

2009 William (Cody) Sessions, Honors thesis committee member, Department of Health and Exercise Science

2009 - 2012 Logan Maxwell, Research Advisor, Department of Environmental and Radiological Health Sciences, Colorado State University

Honors: College of Veterinary Medicine and Biomedical Sciences Freshman Scholarship award recipient

2010 - 2011 Deidra Newbrough, Research Advisor, Department of Environmental and Radiological Health Sciences, Colorado State University

Honors: Graduated with Honors, Recipient of the Indian Health Service Health Professions Scholarship (for PharmD training)

Current Position: 2012, PharmD program, School of Pharmacy, University of Colorado Denver, Anschutz Medical Campus

2010 - 2011 Valerie Hafer, Research Opportunities for Undergraduates (REU) Program summer student, Biochemistry and Molecular Biology

2010 - 2014 Cecilia Davies, Research Advisor, Department of Environmental and Radiological Health Sciences, Colorado State University

Honors: College of Veterinary Medicine and Biomedical Sciences Freshman Scholarship award recipient

- Current Position:* Medical student (2015), Jagiellonian University, Krakow, Poland
- 2012 - 2016 Lukas Foster, Research Advisor, Department of Biomedical Sciences, Colorado State University
Honors: Received *High Honors* award (2013, 2014 2015 and 2016) for research presentation at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, Colorado State University
- 2013 Jarelys Soto, Research Advisor, University of Peurto Rico, Research Opportunities for Undergraduates (REU) Program summer student at Colorado State University
- 2013 - 2016 Evan Richman, Research Advisor, Department of Biomedical Sciences, Colorado State University
Honors: Received *High Honors* award (2014) and *Highest Honors* (2016) for research presentation at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, Colorado State University
- 2014 - 2015 Allison Gennis, Honors Thesis Advisor, Department of Biology, Colorado State University
Honors: Postgraduate internship at the NIH in Endocrinology, Bethesda, MD
- 2016 Megan Pinkerton, Honors Thesis Advisor, Department of Biology, Colorado State University
- 2014 - 2017 Lindsay Hunt, Honors Thesis Advisor, Department of Biomedical Sciences, Colorado State University
Honors: Oxford Summit Centre study abroad fellowship (2016)
Current position: MD student, School Medicine, Loma Linda University (2019)
- 2015 - 2016 Delaney Thompson, Research Advisor, Department of Biochemistry
Honors: Received *High Honors/Best in Show* award (2017) for research presentation at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, Colorado State University
- 2015 - 2016 Kelly Crews, Honors Thesis Advisor, Department of Biomedical Sciences, Colorado State University
Honors: Received *High Honors* award (2016) for research presentation at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, Colorado State University
- 2016 - 2019 Katie Wright, Honors Thesis Advisor, Department of Biomedical Sciences, Colorado State University
Honors: Phi Beta Kappa; Dean's list; Honor Society; Awardee of the Pfizer undergraduate travel award to the Society of Toxicology conference, Baltimore, MD, March, 2019; Neuroscience scholarship, Colorado State University
Current position:

- 2017 Ben Sanderford, Honors Thesis Advisor, Department of Biomedical Sciences, Colorado State University
- 2018 - 2019 Kelly Hutchins, Honors Thesis Advisor, Department of Microbiology, Immunology and Pathology, Colorado State University
- 2018 - 2019 Hannah Hoogs, Honors Thesis Advisor, Neuroscience Program, Colorado State University
- 2018 - 2020 Anna Akers, Research Advisor, Program in Biomedical Sciences, Colorado State University
- 2019 - 2020 Kallie Clements, Honors Thesis Advisor, Neuroscience Program, Colorado State University
- 2019 - 2020 Hanna Danek, Honors Thesis Advisor, Department of Biomedical Sciences, Colorado State University
- 2019 - 2022 Taylor Garner, Research Advisor and Honors Thesis Advisor, Biomedical Science Program
Current position:
- 2019 - 2022 Mary Stischer, Research Advisor and Honors Thesis Advisor, Neuroscience Program
Honors: Received the *Highest Honors* award for research presentation at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, 2021, Colorado State University
- 2019 - 2022 Marisa Edmonds, Research Advisor and Honors Thesis Advisor, Neuroscience Program
Current position: MS program in Clinical Neuroscience, University College, London, United Kingdom, 2022
- 2019 - 2022 Shelby Smith, Research Advisor and Honors Thesis Advisor, Neuroscience Program
Honors: Received an *Oral Presentation* award for research presentation at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, 2021, Colorado State University
- 2020 - 2021 Brynn Lauterbach, Research Advisor and Honors Thesis Advisor, Neuroscience Program
- 2020 - Kaitlyn Hay, Honors Thesis Advisor, Neuroscience Program, Colorado State University
- 2020 - Kaitlyn Hiatt, Honors Thesis Advisor, Neuroscience Program, Colorado State University

- 2020 - 2021 Lauren Thomas, Honors Thesis Advisor, Department of Biology, Colorado State University
- 2021 - 2021 Alexia Vidrio-Aguirre, Honors Thesis Advisor, Neuroscience Program, Colorado State University
- 2021 - 2022 Adrian Strong, Honors Thesis Advisor, Neuroscience Program, Colorado State University
- 2022 - 2023 Parker Keil, Honors Thesis Advisor, Neuroscience Program, Colorado State University
- 2022 - Megan Hager, Research Advisor, Biomedical Science and Neuroscience Programs (double major), Colorado State University
Honors: Received *Best in Show* award for research poster presentations at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, 2023, Colorado State University. This is awarded to the *single top scoring poster* of the entire symposium of ~400 student presenters.
- 2022 - Nicole Yates, Research Advisor, Neuroscience Program, Colorado State University
- 2022 - 2023 Christina Wallace, Research Advisor, Neuroscience Program, Colorado State University
Honors: Received the *Highest Honors* award for research poster presentations at the annual Celebrate Undergraduate Research and Creativity (CURC) Spring Symposium, 2023, Colorado State University.
- 2023 - Emily Torbert, Honor Thesis Advisor, Neuroscience Program, Colorado State University
- 2023 - Aidan Briggs, Research Advisor, Chemical and Biological Engineering, Colorado State University
- 2023 - Maddie Mulholland, Research Advisor, Neuroscience, Colorado State University
- 2023 Spencer Henry, Research Advisor, Biochemistry, Colorado State University

Service and Outreach

Departmental, College and University Committees

- 2002 - 2003 Graduate Education and Research Infrastructure committee, Department of Veterinary Anatomy and Public Health, Texas A&M University
- 2004 Dissertation committee chair, Xuhong Liu, Department of Veterinary Anatomy and Public Health, Texas A&M University
- 2005 Web Design Committee, Department of Environmental and Radiological Health Sciences
- Chair, Web Design Committee, Toxicology Section, Department of Environmental and Radiological Health Sciences
- Curriculum Committee member, Toxicology Section, Department of Environmental and Radiological Health Sciences
- Research Committee Member, Cellular and Molecular Biology Program
- Research Committee Member, Molecular, Cellular, and Integrative Neuroscience Program
- Search committee, Department of Biomedical Sciences, neuroscience candidate search
- Poster competition judge, Cellular and Molecular Biology Program Symposium, Colorado State University, February
- 2006 Curriculum Committee member, Toxicology Section, Department of Environmental and Radiological Health Sciences
- Chair, Web Design Committee, Toxicology Section, Department of Environmental and Radiological Health Sciences
- Research Committee Member, Cellular and Molecular Biology Program
- Research Committee Member, Molecular, Cellular, and Integrative Neuroscience Program
- Poster competition judge, Celebrate Undergraduate Research Creativity (CURC) annual symposium, April
- Candidate search interviewer, Department of Microbiology, Immunology and Pathology (interviewed candidate for imaging position)
- 2007 College Research Council committee (Chair)
- College Biomedical Curriculum Committee member
- Curriculum Committee member, Toxicology Section, Department of Environmental and Radiological Health Sciences
- Research Committee Member, Cellular and Molecular Biology Program

- Research Committee Member, Molecular, Cellular, and Integrative Neuroscience Program
College Biomedical Curriculum Committee Member
- 2008 College Research Council committee (Chair)
College Biomedical Curriculum Committee member
Curriculum Committee member, Toxicology Section, Department of Environmental and Radiological Health Sciences
Seminar Committee Member, Molecular, Cellular, and Integrative Neuroscience Program
- 2009 Associate Director for Research, Center for Environmental Medicine
College Research Council committee (Chair)
College Biomedical Curriculum Committee member
- 2010 Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
Associate Director for Research, Center for Environmental Medicine
Biomedical Curriculum Committee, College of Veterinary Medicine and Biomedical Sciences
- 2011 Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
Associate Director for Research, Center for Environmental Medicine
- 2012 Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
Associate Director for Research, Center for Environmental Medicine
**University Faculty Council at large representative (elected) for the College of Veterinary Medicine and Biomedical Sciences, Colorado State University (3 yr term)*
**Executive Committee Member (elected) of the University Faculty Council, Colorado State University (1 yr term)*
- 2013 Chair, Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
Associate Director, Center for Environmental Medicine
University Faculty Council at large representative (elected) for the College of Veterinary Medicine and Biomedical Sciences, Colorado State University (3 yr term)
- 2014 Chair, Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences

Associate Director, Center for Environmental Medicine

University Faculty Council at large representative (elected) for the College of Veterinary Medicine and Biomedical Sciences, Colorado State University (3 yr term)

- 2015 Chair, Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
Associate Director, Center for Environmental Medicine
- 2016 Chair, Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
Associate Director, Center for Environmental Medicine
- 2017 Chair, Promotion and Tenure Committee, Department of Environmental and Radiological Health Sciences
- 2018 Department Head Search Committee, Department of Environmental and Radiological Health Sciences
College Research Committee, College of Veterinary Medicine and Biomedical Sciences
- 2019 Brain Research Foundation - Scientific Innovations Award: Application Reviewer, Colorado State University, Office of the Vice President for Research
Department Head Search Committee, Department of Environmental and Radiological Health Sciences
College Research Committee, College of Veterinary Medicine and Biomedical Sciences
- 2020 Toxicology Faculty Search Committees, Department of Environmental and Radiological Health Sciences
College Research Committee, College of Veterinary Medicine and Biomedical Sciences
- 2021/22 (*TBA*)
- 2023 Cell and Molecular Biology Program, admissions committee
Faculty Workload Taskforce, ERHS
Institutional Animal Care and Use Committee (IACUC), member
Research Committee (Chair), ERHS
Director, Biological Imaging and Neuroanalysis Core (BIN Core)

2024 Cell and Molecular Biology Program, admissions committee
Faculty Workload Taskforce, ERHS
Institutional Animal Care and Use Committee (IACUC), member
Research Committee (Chair), ERHS
Director, Biological Imaging and Neuroanalysis Core (BIN Core)

Professional Service, National and International

2003 – 2004 Councilor, Gulf Coast Chapter, Society of Toxicology

2005 – 2006 Councilor, Mountain West Chapter, Society of Toxicology
External Scientific Advisory Board, Oregon Health Science Center Superfund grant
Symposium Chair, Society of Toxicology annual meeting, March 2006, New Orleans, LA

2006 Session Chair, Society of Toxicology National Meeting (March), San Diego, California
Superfund Basic Research Program, External advisory board member for the Superfund grant application from Oregon Health and Science University, Portland Oregon
Symposium Chair, Gordon Research Conference (Mechanisms of Toxicity), July 2006

2007 Superfund Basic Research Program, External advisory board member for the Superfund grant application from Oregon Health and Science University, Portland Oregon
****International:*** Symposium Chair, “*Cell death in normal biology and in disease response to toxicants: role of cellular environment*”, European Societies of Toxicology, 9th International Congress, October 6-10, Amsterdam, The Netherlands
Councilor (elected), Society of Toxicology, Neurotoxicology Specialty Section Executive Committee Society of Toxicology
Society of Toxicology, 50th Anniversary Task Force Committee Member

2008 Councilor (elected), Society of Toxicology, Neurotoxicology Specialty Section Executive Committee Society of Toxicology
Society of Toxicology, 50th Anniversary Task Force Committee Member

- 2009 Society of Toxicology, 50th Anniversary Task Force Committee Member
 ***International:** Symposium Chair, “*Oxidative and nitrosative stress in toxic injury and disease*”, European Societies of Toxicology, 45th Congress, September 13-16, Dresden, Germany
- 2010 Society of Toxicology, 50th Anniversary Task Force Committee Member
- 2011 Society of Toxicology, 50th Anniversary Task Force Committee Member
- 2012 ***International:** Symposium Chair, “*Neurotoxicology of metals: mechanisms and clinical effects*”, European Societies of Toxicology, 48th Congress, June 15-20, Stockholm, Sweden
- 2013 Health and Environmental Sciences Institute (HESI), Steering Team Member for the Subcommittee on Translational Safety Biomarker Assessment of Neurotoxicity
- 2013 ***International:** Symposium Chair, “*Nuclear receptors integrate environmental and metabolic signals to regulate cell fate*”, European Societies of Toxicology, 49th Congress, Interlaken, Switzerland, September 1 - 4
- 2014 Health and Environmental Sciences Institute (HESI), Steering Team Member for the Subcommittee on Translational Safety Biomarker Assessment of Neurotoxicity
- 2014 - 2017 Secretary/Treasurer (elected), Society of Toxicology, Neurotoxicology Specialty Section Executive Committee, Society of Toxicology
- 2018 - 2019 Vice-President Elect, Mountain West Society of Toxicology
- 2019 - 2020 Vice-President, Mountain West Society of Toxicology
- 2020 - 2021 President, Mountain West Society of Toxicology
- 2021 - 2022 Past-President, Mountain West Society of Toxicology
- 2023 Society of Toxicology/Neurotoxicology Specialty Section, National conference (Mar), poster reviewer
- 2024 Society of Toxicology/Neurotoxicology Specialty Section - Vice President Elect

Grant Review

- 2002 NIH Study Section, *ad hoc* member, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience, Feb
- 2005 NIH Study Section, *ad hoc* member, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience, Feb
- 2006 NIH Study Section, *ad hoc* member, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience, Feb and Jun

- NIH Study Section, *ad hoc* member, Biochemical and Molecular Neuroscience (F03A), Mar
- 2007 NIH Study Section, *ad hoc* member, Biochemical and Molecular Neuroscience (F03A), Mar
- NIH Study Section, *Regular Member*, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience
- 2008 NIH Study Section, *Regular Member*, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience
- NIH Study Section, *ad hoc* member, Superfund Basic Research Program, Center grant review, Nov
- NIH Study Section, *ad hoc* member, Biochemical and Molecular Neuroscience (F03A), Mar
- 2009 NIH Study Section, *Regular Member*, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience
- 2010 NIH Study Section, *Regular Member*, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience
- NIH Study Section, *ad hoc* member, Special Emphasis Panel (ZRG1), Apr
- 2011 NIH Study Section, *Regular Member*, Neurotoxicology and Alcohol (NAL), IRG: Integrative, Functional, and Cognitive Neuroscience
- NIH Study Section, *ad hoc* member, Special Emphasis Panel (ZRG1), June
- Michael J. Fox Foundation for Parkinson's Disease, *ad hoc* reviewer, Therapeutics Development Initiative (May)
- 2012 City University of New York, *ad hoc* reviewer, Gene Center pilot project and seed funding proposals (February)
- Michael J. Fox Foundation for Parkinson's Research, *ad hoc* reviewer, Target Validation Program (May)
- NIH Study Section, *ad hoc* member, Superfund Basic Research Program, Center grant review (December)
- NIH Study Section, *ad hoc* member, Special Emphasis Panel (ZRG1), Integrative, Functional and Cognitive Neuroscience IRG (June)
- 2013 NIH Study Section, *ad hoc* member, Special Emphasis Panel (ETTN), Drug Discovery for Aging, Neuropsychiatric and Neurologic Disorders (January)
- NIH Study Section, *ad hoc* member, Special Emphasis Panel (ZES1), Virtual Consortium for Translational/Transdisciplinary Environmental Research, ViCTER R01 grants (May)
- NIH Study Section, *ad hoc* member, Special Emphasis Panel (ZRG1), Integrative, Functional and Cognitive Neuroscience IRG (September)
- 2014 Center for Translational Environmental Health Research (CTEHR) Pilot Project Program, Texas A&M University (Oct)

- NIH Study Section, *ad hoc* member, Special Emphasis Panel (ZRG1), Integrative, Functional and Cognitive Neuroscience IRG (September)
- Scientific Merit Review Panel-New Jersey Governor's Council for Medical Research and Treatment of Autism (May)
- 2015 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 IFCN-C (02): Neurotoxicology and Drugs (Feb)
- 2015 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 DKUS-C (54)R: Program Project Grants on Autism, *ad hoc* member (Apr)
- 2015 Peer Reviewed Medical Research Program (PRMRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP), *ad hoc* reviewer (Apr)
- 2015 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 IFCN-C (02): Neurotoxicology and Drugs (Jul)
- 2015 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 IFCN-C (02): Neurotoxicology and Drugs, *ad hoc* member (Oct)
- 2015 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 IFCN-C (03): Neurotoxicology and Drugs, *ad hoc* member (Nov)
- 2015 Peer Reviewed Medical Research Program (PRMRP) for the Department of Defense Congressionally Directed Medical Research Programs (CDMRP), *ad hoc* reviewer (Dec)
- 2015 Medical Research Council (United Kingdom), New Investigator Research Grant (NIRG) program, *ad hoc* reviewer (Dec)
- 2016 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 DKUS-C (54)R: Program Project Grants on Autism, *ad hoc* member (Apr)
- 2017 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1 IFCN-C (02): Neurotoxicology and Alcohol (Feb)
- 2017 Department of Defense, Peer Reviewed Medical Research Program, *ad hoc* member (Aug)
- 2017 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZRG1, Neurotoxicology and neurodegeneration (Jul)
- 2017 NIH Study Section, *ad hoc* member, Special Emphasis Panel, ZES1, Career development (K) awards (Nov)
- 2018 Colorado State University, Neuroimaging pilot project awards, Office of the Vice President for Research (Jan)
- 2018 NIH Study Section, *ad hoc* member, Neurobiology of Motivated Behavior Study Section, NMB (Feb)
- 2018 Colorado State University, Edward Mallinckrodt, Jr. Foundation Grants Award: Application Review (Jun)
- 2018 Department of Defense, Peer Reviewed Medical Research Program, *ad hoc* member (Jul)

- 2018 University of Iowa, Superfund Basic Research Program, Pilot Project Awards, *ad hoc* reviewer (Sep)
- 2019 Department of Defense, Peer Reviewed Medical Research Program, *ad hoc* member (Jan)
- 2019 NIH BRAIN Initiative, ZRG1, Special Emphasis Panel, *ad hoc* member (Feb)
- 2019 NIH K-awards review panel, ZRG1, Special Emphasis Panel, *ad hoc* member (Mar)
- 2019 Colorado State University, College of Veterinary Medicine and Biomedical Sciences, College Research Council pilot project grants, *ad hoc* reviewer (Apr)
- 2019 Department of Defense, Peer Reviewed Medical Research Program, *ad hoc* member (Jan)
- 2020 NIH, ZRG1 IFCN-C (02) M Special Emphasis Panel: Motivated Behavior, Alcohol and Heavy Metals, *ad hoc* member (Mar)
- 2020 ZES1 LWJ-S (R4) 1, Small Business Innovation Research Grants (SBIR), *ad hoc* member (Jun)
- 2020 NIH, IFCN-C (02) M Special Emphasis Panel, Neuroendocrinology, Neuroimmunology, Rhythms and Sleep (NNRS) Study Section, *ad hoc* member (Nov)
- 2020 Chronic Dysfunction and Integrative Neurodegeneration (CDIN), *ad hoc* reviewer (Oct)
- 2021 NIH/NIEHS, ZES1 ARL-D (R0) 2, Virtual Consortium for Translational/ Transdisciplinary Environmental Research (ViCTER), *ad hoc* member (Mar)
- 2021 National Institute on Aging Special Emphasis Panel, RFA-AG-21-034, "Pathogenic etiology of Alzheimer's disease", *ad hoc* reviewer (Jun)
- 2021 Multiple Sclerosis Society of the United Kingdom, grant review panel, *ad hoc* member (Aug)
- 2021 Texas A&M Center for Environmental Health Research (TiCER), Texas A&M University, Pilot Project Grants Program, *ad hoc* member (Aug)
- 2021 NIH, ZRG1 MDCN-C (03), Special emphasis panel: Motivated Behavior, Alcohol and Heavy Metals, *ad hoc* reviewer (Dec)
- 2022 Colorado State University, BRAIN Initiative pilot project awards, Office of the Vice President for Research (May)
- 2022 Reviewer, NIH Study Section, Clinical Neuroscience and Brain Tumors (CNBT), regular member (Oct)
- 2023 Reviewer, NIH Study Section, SBIR, *ad hoc* member (Apr)

- 2023 Reviewer, NIH/NIEHS Study Section, Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER), *ad hoc* member (Jun)
- 2023 Reviewer, NIH/NIEHS Study Section, ZRG1 ICN-M, *ad hoc* member (Jul)
- 2023 Reviewer, NIH Study Section, ZRG1-F03A (F31/F32 fellowships), *ad hoc* member (Oct)
- 2023 Reviewer, DoD, Toxic Exposures Research Program (TERP) Study Section, *ad hoc* member (Dec)
- 2024 Reviewer, NIH, NINDS Special Emphasis Panel P01 Review ZNS1 SRB K (46), *ad hoc* member (Mar)
- 2024 Reviewer, NIH, NIEHS Superfund, Special Emphasis Panel/Scientific Review Group 2024/10 ZES1 LWJ-W (CS) 1, *ad hoc* member (May)

Editorial Review for Professional Scholarly Journals

Biochemical Pharmacology
 Cell Biology and Toxicology
 Cellular and Molecular Neurobiology
 Chemical Research in Toxicology
 Environmental Health Perspectives
 European Journal of Neuroscience
 Glia
 Journal of Neurochemistry
 Journal of Neuroendocrinology
 Journal of Neuroinflammation
 Molecular Brain Research
 Molecular Pharmacology
 Nature Parkinson's Disease
 Neurochemical Research
 Neurochemistry Research International
 Neuroscience
 Neurotoxicology
 Neurotoxicology and Teratology
 Pharmacology Research

Toxicology and Applied Pharmacology
Toxicology Letters
Toxicological Sciences

Editorial Board Service for Professional Scholarly Journals

Neurotoxicology - Editorial Board, 2009 - 2012, 2013 - 2015, 2018 - 2020
Technology Transfer and Entrepreneurship, 2013 - 2022
Toxicology and Applied Pharmacology - Editorial Board, 2012 - 2015
Toxicology Letters - Editorial Board, 2007 - 2010
Toxicological Sciences - Editorial Board, 2007 - 2010, 2012 - 2015, 2017 - 2019

Community Service

- 2010 - 2011 Leadership Advisory Team, Johnson Elementary School, Poudre Valley School district, Fort Collins, CO (Will Allen, Principal)
- 2011 - 2012 Leadership Advisory Team, Johnson Elementary School, Poudre Valley School district, Fort Collins, CO (Moñet Hause, Principal)
- 2012 - 2015 Lecturer for STEM program in Poudre Valley School District (Science, Technology, Engineering, and Math) to three classes of middle school students; hosted site visits to my laboratory at CSU for two classes of middle school students.
- 2021 Continuing education lecture for the Osher Lifelong Learning Institute at CSU (national audience), "Viruses, the brain and Parkinson's disease", October, 2021
- 2023 Scholarship committee for the Pay It Forward scholarship for underprivileged students, Escondido High School

Expert Witness Consultation

- 2005 Swedish Hospital, Denver, CO. Provided expert consultation (for Swedish hospital) in civil litigation involving alleged neurotoxic injury.
- 2012 Cardi, Schulti and Ford, LLP Greenwood Village, CO. Support for environmental contamination litigation; environmental fate and transport, risk assessment, Sep 2011-Feb 2012
- 2015 District Attorney, Jefferson County, Colorado. Expert testimony for a homicide case involving methamphetamine neurotoxicity and neurological dysfunction.
- 2024 Montana 18th Judicial District Court, Gallatin County. Expert testimony for the plaintiffs (Vallance et al.) in a civil case involving the neurotoxic effects of childhood lead poisoning. Case No.: DV-2020-1038C

Research and Scholarship

Invited Lectures

Local and Institutional Presentations

- 2000 (Oct) Department of Environmental Health Sciences, School of Public Health, The University of Michigan, Ann Arbor, Michigan, "Regional variation in the activation threshold for 1,3-dinitrobenzene-induced mitochondrial permeability transition in brainstem and cortical astrocytes."
- 2001 (Sep) Department of Medical Pharmacology and Toxicology, School of Medicine, Texas A&M University, College Station, Texas, "Regional variation in regulation of 1,3-dinitrobenzene-induced mitochondrial permeability transition in brainstem and cortical astrocytes"
- 2002 (Dec) Neuroscience Program, Texas A&M University, College Station, Texas, "Astroglia and NF- κ B in Parkinson's Disease: Allies or Accomplices?"
- 2003 (Dec) Department of Animal Science, Faculty of Nutrition, Texas A&M University, "Regulation of inducible nitric oxide synthase in astroglia: implications for neuronal injury in Parkinson's disease"
- 2004 (Nov) Department of Environmental and Radiological Health Sciences, Colorado State University, "For whom the bell tolls: neurodegeneration and the new glial biology"
- 2005 (Mar) Molecular, Cellular, and Integrative Neuroscience graduate program seminar series, Colorado State University, "For whom the bell tolls: glia and neurodegeneration in parkinsonism"
- 2008 (Sep) Department of Biomedical Sciences, Colorado State University, Keynote Speaker for annual retreat, "Neuroinflammation and Parkinson's Disease: Mechanisms and Therapeutic Strategies"
- 2008 (Nov) Department of Health and Exercise Physiology, Colorado State University, Invited Seminar Speaker, "Neuroinflammation and Parkinson's Disease: Mechanisms and Therapeutic Strategies"
- 2009 (Oct) Aging Colloquium, Center for Aging, Colorado State University, Invited Plenary Speaker, "Neuroinflammation in the pathogenesis of Parkinson's disease"
- 2012 (Apr) Joint Symposium on Heavy Ion Radiation Therapy and Cancer Biology, Colorado State University, Symposium lecture, "The therapeutic dilemma of neuroinflammation and brain cancer"
- 2014 (Oct) Molecular, Cellular and Integrative Neuroscience program, "Inflammatory signaling in neurological disease", Invited seminar speaker, Colorado State University
- 2014 (Nov) Information Science & Technology Center, Colorado State University, "Data analysis (Challenges) for high content biological imaging", invited symposium speaker

- 2015 (Jan) Department of Chemistry, Colorado State University, Invited seminar speaker for biological chemistry, "High content biological imaging as a tool to probe inflammatory mechanisms in Parkinson's disease"
- 2015 (Sep) Science Cafe (K-12 science outreach program), "New Medicines for Parkinson's Disease", Poudre School District, Fort Collins, CO
[2016 - 2018 to be added]
- 2019 (Jul) Imaging Workshop lecture, "Data analysis (Challenges) for high content biological imaging - CLARITY Imaging", Colorado State University, Fort Collins, CO
- 2020 - 22 (TBA)
- 2023 UC Health, Center for Healthy Aging, Aspen Club. Gave a community lecture entitled, "Viruses and Parkinson's disease: what are the risks?", 09 Nov 2023

In-State Presentations

- 2001 (Oct) College of Pharmacy, University of Texas at Austin, Austin, Texas, "Regional variation in regulation of 1,3-dinitrobenzene-induced mitochondrial permeability transition in brainstem and cortical astrocytes"
- 2002 (Aug) School of Public Health, University of Texas Health Sciences Center, Houston, Texas "The Role of Nitric Oxide and Astroglia in Manganese Neurotoxicity"
- 2003 (Feb) Department of Pathology Grand Rounds, University of Texas Medical Branch, Galveston, Texas, "Role of astroglia in the molecular pathogenesis of Parkinson's disease."
- 2005 (Apr) Department of Pharmaceutical Sciences, University of Colorado Health Sciences Center, Denver, Colorado, "Astroglia and basal ganglia dysfunction: role of nitric oxide"
- 2006 (Nov) Neuroscience Program, Department of Psychology, University of Colorado at Boulder, Boulder, Colorado, "Glial-Neuronal Interactions in Parkinsonism"
- 2008 (May) Department of Pharmaceutical Sciences, University of Colorado Health Sciences Center, "Targeting astroglia in neurodegenerative disease"
- 2010 (Apr) Department of Biological Sciences, University of Denver, ""The therapeutic dilemma of neuroinflammation and brain cancer"
- 2015 (Apr) Parkinson Association of the Rockies, "Nurr1 in glial cells as a disease-modifying target for PD", Invited symposium speaker for Colorado Community Conference on Parkinson's Disease, Denver, CO
- 2015 (May) University of Colorado Denver, Anschutz Medical Campus, "Targeting Neuroinflammation in PD", Invited seminar speaker, Movement Disorders Center

National Invited Presentations

- 1999 (Sep) Department of Pharmaceutical Sciences, The University of Montana, Missoula, Montana, "The role of mitochondrial permeability transition in selective neurotoxicity."
- 1999 (Nov) Department of Internal Medicine, The University of Texas-Houston Health Science Center, Houston, Texas, "The role of mitochondrial permeability transition in selective neurotoxicity."
- 2001 (Apr) Science Forum for Postdoctoral Fellows, Trainees, and Career Development Awardees, National Institutes of Environmental Health Sciences, Research Triangle Park, North Carolina, "Regional variation in regulation of 1,3-dinitrobenzene-induced mitochondrial permeability transition in brainstem and cortical astrocytes". **Symposium Lecture**
- 2002 (Oct) Cell and Molecular Biology graduate program seminar series, Colorado State University, Fort Collins, Colorado, "Astroglia and NF- κ B in Parkinson's Disease: Allies or Accomplices?"
- 2005 (Mar) Society of Toxicology, Annual Conference, New Orleans, LA, "Astroglia and basal ganglia dysfunction: implications from manganese neurotoxicity" **Symposium Lecture**
- 2007 (Apr) University of California at Santa Cruz, "NO Problem? Nitric Oxide and Manganese Neurotoxicity"
- 2008 (Mar) Vanderbilt University Medical Center, "Targeting astroglia in neurodegenerative disease"
- 2008 (Apr) University of Indiana Medical Center, "Targeting astroglia in neurodegenerative disease"
- 2009 (Apr) Iowa State University, Iowa Center for Advanced Neurotoxicology, Department of Biomedical Science, College of Veterinary Medicine, "The role of neuroinflammation in the etiology of Manganese-induced neurological dysfunction"
- 2009 (May) University of Iowa Medical Center, Human Toxicology Program, Invited Seminar Speaker, "Neuroinflammation as a therapeutic target in Parkinson's disease"
- 2011 (Oct) Invited seminar speaker at Rutgers University, Environmental and Occupational Health Sciences Institute. Presentation entitled, "Neuroinflammation and developmental vulnerability to manganese"
- 2011 (Oct) Michael J. Fox Foundation for Parkinson's Disease Research. Invited plenary speaker at the third annual Therapeutics Conference, held at the New York Academy of Sciences, New York City. Presentation entitled, "Targeting glia in Parkinson's disease with novel anti-inflammatory therapeutics" **Symposium Lecture**
- 2011 (Nov) University of Pittsburgh. Invited lecturer at the University of Pittsburgh Medical Center, Department of Neurology, Center for Neurodegenerative Disorders. Presentation entitled, "Glial inflammatory signaling as a therapeutic target in Parkinson's disease"

- 2013 (Mar) Society of Toxicology, Annual Conference, San Antonio, TX, “Neuroinflammation and developmental vulnerability to manganese,” ***Invited symposium lecture***
- 2014 (Mar) Vanderbilt University School of Medicine, Department of Neurology, “Nurr1 in glial cells: a therapeutic target for neuroinflammation in Parkinson’s disease”, Invited seminar speaker
- 2014 (Apr) University of Nebraska, School of Veterinary Medicine & Biomedical Sciences, “Glial inflammatory signaling and environmental links to neurodegenerative disease”, Invited seminar speaker
- 2014 (Apr) University of Houston, School of Pharmacy, Center for Nuclear Receptors and Cell Signaling, “Nuclear receptor targets for blocking neuroinflammation in Parkinson’s disease”, Invited seminar speaker
- 2014 (May) Michael J. Fox Foundation for Parkinson’s Research, “Targeting Nurr1 with novel diindolymethane compounds”, Invited Speaker for data meeting on disease modifying therapeutics in PD
- 2014 (June) Michael J. Fox Foundation for Parkinson’s Disease, “Targeting Nurr1 with novel diindolymethane compounds”, invited data presentation, New York City, NY
- 2014 (Oct) St. Jude’s Childrens Research Hospital, “NR4A nuclear receptors as drug targets for Parkinson’s disease.”, Invited seminar speaker
- 2015 (Feb) American Society for Experimental Neurotherapeutics, Georgetown University, Washington DC, “Nurr1 in glial cells as a disease-modifying target for PD”, Invited symposium speaker
- 2015 (May) University of Iowa, School of Pharmacy “Nuclear receptor regulators of neuroinflammation in glial cells: implications for Parkinson’s disease”, Invited seminar speaker
- 2016 (Feb) Invited seminar speaker at the University of Texas at Austin, Division of Pharmacology and Toxicology, School of Pharmacy, Austin, TX, “The nuclear receptor Nurr1 as a therapeutic target for Parkinson’s disease”
- 2016 (May) Invited seminar speaker at the Albert Einstein College of Medicine, Department of Molecular Pharmacology, New York, NY, “Glial cell crosstalk amplifies the neurotoxicity of manganese”
- 2020 (Sep) Symposium speaker, Grand Challenges in Parkinson’s Disease, “Infection with Western Equine Encephalitis Virus as a model for Parkinson’s disease,” Van Andel Institute, Grand Rapids, MI (virtual meeting)
- 2021 (May) Invited lecturer, Olympus America, Special workshop on artificial intelligence for image analysis, “Accelerating Parkinson’s Disease Research via High-Throughput Batch Scanning and Subsequent Analysis Using Artificial Intelligence” (virtual conference)
- 2022 (April) Symposium speaker, Modernizing Neurotoxicology at NIEHS: Technologies to Applications in Environmental Health Sciences, “Integrating Whole-brain Scanning Microscopy with Artificial Intelligence and Neural Network Analysis for High-throughput Quantitative Assessment of Neurotoxicity and

- Neurodegeneration.” National Institute of Environmental Health Sciences, Research Triangle Park, NC
- 2023 (Apr) Invited research lecture, Texas A&M University, NR4A Receptor Working Group, “Translational studies of NR4A receptors as drug targets for Parkinson’s Disease”, College Station, TX
- 2023 (Aug) Symposium speaker, Gordon Research Conference, Cellular and Molecular Mechanisms of Toxicity, “Integrating whole-brain scanning microscopy with artificial intelligence and neural network analysis for high-throughput quantitative assessment of neurodegeneration”, Aug 13 - 18, 2023, Proctor Academy, Andover, NH
- 2023 (Nov) Invited session speaker, Michael J Fox Foundation, Workshop on ‘Environmental triggers of inflammation in Parkinson’s disease’, Talk title: “The innate immune system and environmental exposures”, 28 Nov 2023 (virtual)
- 2024 (Mar) Symposium speaker and chair, Symposium: Society of Toxicology 63rd Annual Meeting, Salt Lake City, UT, March 10-14, 2024. Presentation title: “Molecular regulation of glial reactivity for the clearance of alpha-synuclein in the rotenone model of Parkinson’s disease” Society of Toxicology 63rd Annual Meeting, Salt Lake City, UT, March 10-14, 2024.
- 2024 (Apr) Invited seminar speaker, University of Connecticut, School of Pharmacy, Department of Pharmaceutical Sciences, “Applying deep learning-based image analysis to understand mechanisms of neuroinflammation in models of Parkinson’s disease”
- 2025 (Jan) Invited seminar speaker, University of Utah, School of Pharmacy, Department of Pharmacology and Toxicology, "Innate immune signaling mechanisms in glial cells linking environmental exposures to neuroinflammation, protein aggregation and neurodegeneration in Parkinson’s disease”

International Invited Presentations

- 2007 (Oct) Medical Research Council, Toxicology Unit, Leicester, UK, “Astrocyte signaling in neurovascular coupling: implications for neurodegeneration”
- 2007 (Oct) Federation of European Toxicologists & European Societies of Toxicology, 9th International Congress of Toxicology, Amsterdam, The Netherlands, “Neurotoxicants, Astroglial Cells, and Neuronal Cell Death” **Symposium Lecture**
- 2009 (Feb) Medical Research Council, Toxicology Unit, Leicester, UK, Invited Seminar Speaker, “Targeting Neuroinflammation in Parkinson’s Disease”
- 2009 (Feb) Federation of European Toxicologists & European Societies of Toxicology, 11th International Congress of Toxicology, Dresden, Germany, Invited Symposium Speaker, “Nitritative Stress and Glial-Neuronal Interactions in the Pathogenesis of Parkinson’s Disease” **Symposium Lecture**
- 2010 (Feb) University of Manchester, UK, School of Medicine, Division of Neuroscience, “Neuroinflammation and Parkinson’s Disease”
- 2011 (Feb) Cambridge University, UK, Medical Research Council, Nutrition Unit, “Manganese, neurotoxicity, and neuroinflammation”
- 2012 (Jun) European Societies of Toxicology, 48th Congress, Stockholm, Sweden, “Neuroinflammatory responses to Manganese during development and aging” **Symposium Lecture**
- 2013 (Sep) European Societies of Toxicology, 49th Congress, Interlaken, Switzerland, September 1 - 4 “*Neuroinflammatory injury and NR4A receptors*” **Symposium Lecture**
- 2018 (Sep) European Societies of Toxicology, 54th Congress, Brussels, Belgium, September 2 - 5 “*Rethinking immunotherapy for neurodegenerative diseases*” **Symposium Lecture**

Membership in Professional Scholarly Societies

Society for Neuroscience

Society of Toxicology

American Society for Pharmacology and Experimental Therapeutics

Front Range Neuroscience Group Chapter, Society for Neuroscience

Mountain West Chapter, Society of Toxicology

Grants And Funding

Ongoing Research Support

1 R35 ES035043-01 (Tjalkens, PI) 04/01/23 - 03/30/31
Revolutionizing Innovative, Visionary Environmental Health Research (RIVER) grant (\$9.8M over eight years)

“Deciphering innate immune signaling mechanisms in glial cells linking lifetime environmental exposures to neuroinflammation, protein aggregation and neurodegeneration in Parkinson’s disease”

The RIVER program rewards outstanding environmental health sciences researchers who demonstrate a broad vision and potential for continuing their impactful research with increased scientific flexibility, stability in funding, and administrative efficiency. The focus of this RIVER project is virus-toxin interactions in Parkinson’s disease, with an emphasis on molecular regulation of neuroinflammation.

Role: PI

W81XWH-21-NETP-IIRA (Tjalkens, PI) 08/22 - 07/24*
Department of Defense, Neurotoxin Exposure Treatment Parkinson's Investigator - Initiated Research Award (**in no-cost extension through 06/25*)

“Nuclear Receptor NR4A2/Nurr1 as a Therapeutic Target for Neurotoxic Injury in Parkinson's Disease”

Environmental exposures are closely linked to the development of Parkinson’s disease (PD). A number of environmental compounds have been implicated as risk factors for PD, including heavy metals, pesticides and anticholinergic chemical warfare agents. A central mechanism of action of many of these agents is the capacity to inhibit mitochondrial function, leading to several common pathways of cellular dysfunction associated with PD. This project will assess novel receptor ligands for NR4A2/Nurr1 to mitigate inflammatory injury in models of PD.

Role: PI

Completed Research Support

R01ES021656-10 (Tjalkens, PI) 10/12 - 04/23*
*No cost extension through April, 2024
NIH-NIEHS

“Neuroinflammation and developmental vulnerability to manganese toxicity”

The goal of this project is to characterize the role of the NF-κB signaling pathway in mediating persistent neuroinflammation following developmental oral exposure to Mn and how early exposure may promote heightened sensitivity to diverse neurotoxicants of the basal ganglia during aging, including the pesticide, rotenone. These studies will employ both transgenic reporter mice for the NF-κB pathway as well as astrocyte- and microglia-specific NF-κB knockout mice generated in our laboratory.

Role: PI

3R01ES021656-10S1 (Tjalkens, PI)

04/22 - 04/23*

*No cost extension through April, 2024

Supplement to “Neuroinflammation and developmental vulnerability to manganese toxicity”

Award in response to NOT-AG-21-018, “Alzheimer’s-Focused Administrative Supplements for NIH Grants that are Not Focused on Alzheimer’s Disease”

The purpose of this project is to examine the role of neuroinflammation as a driver of protein aggregation of amyloid beta and tau in response to rotenone-induced mitochondrial dysfunction.

Role: PI

R01ES029035 (Doorn, PI)

09/18 - 08/23

NIH-NIEHS

“Pesticide-Mediated Generation of a Toxic Neurotransmitter Metabolite”

The goal of this project is to understand how exposure to the organochlorine dieldrin and the organophosphate chlorpyrifos (CPF) pesticides predisposes individuals to Parkinson's Disease (PD). In collaboration with Dr. Jonathan Doorn at the University of Iowa, we are examining how selected neurotoxic pesticides modulate dopamine metabolism and neuroinflammation leading to parkinsonian pathology.

Role: Co-I

1R01ES030937 (Tjalkens, PI)

09/01/19 – 08/31/22*

NIH/NIEHS (*No-cost extension through April, 2024)

Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER)

“Encephalitic viral infection and susceptibility to dopaminergic neurotoxins”

This consortium grant will investigate interactions between viral infection and exposure to environmental neurotoxicants that could increase risk for developing neurological disease.

Role: PI

R01 ES021656-02S1 (Tjalkens, PI)

2016 - 2019

Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER)

“Manganese-virus interactions and dopaminergic neurodegeneration”

This consortium grant investigated interactions between viral infection and exposure to manganese (Mn) that could increase risk for developing neurological disease affecting the nigro-striatal dopamine system.

Role: PI

Consolidated Anti-Aging Foundation (Tjalkens, PI)

01/01/23 – 12/31/23

Title: “Nuclear receptor NR4A2 as a therapeutic target for Parkinson's disease”

Project goals: This project is examining human brain tissue for NR4A2 expression and using cell lines to examine distinct NR4A2 ligands for anti-inflammatory activity.

Time commitments: 0.5 calendar

Role: PI

1R21 ES024183-01 (Tjalkens, PI)

08/14 – 7/16

NIH-NIEHS \$427,412.00
"Alphavirus-Manganese Interactions and Dopaminergic Neurodegeneration"
The goal of this project is to examine interactions between neonatal exposure to Mn and WEEV infection in promoting neurodegeneration.
Role: PI

Consolidated Anti-Aging Foundation (Tjalkens, PI) 01/16 – 12/19
"Strategies for understanding and treating protein aggregation in Parkinson's Disease"
It is the overall objective of this application to characterize the mechanisms of protein aggregation in a novel viral model of PD and to validate the model as a platform to test the therapeutic benefit of new pharmaceutical entities in preventing the damaging effects of protein aggregation in PD.
Role: PI

Michael J. Fox Foundation for Parkinson's Disease Research (Tjalkens, PI) 10/12 – 01/14
Rapid Response Innovation Research Award \$110,000
"Targeting Nurr1 with novel diindolylmethane compounds"
This project will examine the anti-inflammatory efficacy and mechanism of action of a novel series of compounds that reduce neuroinflammatory injury in models of PD.
Role: PI

Colorado Bioscience Discovery Grant Evaluation Program (Tjalkens, PI) 09/01/12 - 08/31/13
Colorado Office of Economic Development \$50,000
"Development of neuroprotective triterpenoid compounds for Parkinson's Disease"
The goal of this project is to evaluate a series of compounds for anti-inflammatory efficacy and mode of action in preventing the progression of neurological injury in the MPTP model of Parkinson's Disease.
PI: Tjalkens

International

AstraZeneca Pharmaceuticals (Tjalkens, PI) 01/12 – 12/12
Individual Research Grant \$100,000
"Glial-neuronal interactions underlying seizure activity of pharmaceuticals"
The goal of this project is to develop novel in vivo reporter assays for detecting pre-pathological changes in gene expression in animals exposed to low-dose pharmaceutical regimens that underlie seizure activity.

Michael J. Fox Foundation for Parkinson's Disease Research (Tjalkens, PI) 03/11 – 02/12
Rapid Response Innovation Research Award \$130,000
"Targeting glia in PD with novel anti-inflammatory therapeutics"
This project is examining the anti-inflammatory efficacy and mechanism of action of a novel series of compounds that reduce neuroinflammatory injury in models of PD.
Role: PI

1R56ES012941-06 (Tjalkens, PI) 08/10 – 07/11
(Bridge Award to 1 R01 ES012941-01)
NIH-NIEHS \$240,000

Manganese and basal ganglia dysfunction: role of NO

The goal of this bridge award was to characterize IKK-loxP/GFAP-Cre mice developed during the previous period of funding and to generate additional preliminary data characterizing microglial-astrocyte signaling interactions mediating persistent neuroinflammatory activation of glia during Mn exposure.

1 R01 ES012941-01 (Tjalkens, PI)

12/15/04 – 11/30/09*

NIH-NIEHS

\$1,400,000

Manganese and basal ganglia dysfunction: role of NO

The goal of this project is to examine signaling pathways in astrocytes that mediate manganese-dependent expression of nitric oxide synthase and to identify subpopulations of vulnerable striatal neurons. (*In no-cost extension through 11/30, 2010)

Role: PI

Michael J. Fox Foundation for Parkinson's Disease Research (Tjalkens, PI) 09/09 – 08/10

Rapid Response Innovation Research Award

“Targeting glia in PD with novel anti-inflammatory therapeutics”

This project is examining the anti-inflammatory efficacy and mechanism of action of a novel series of compounds that reduce neuroinflammatory injury in models of PD.

Role: PI

Colorado Bioscience Discovery Grant Evaluation Program (Tjalkens, PI) 12/01/09 - 08/31/10

Colorado Office of Economic Development

\$45,000

“Development of neuroprotective compounds for treating Parkinson's Disease”

The goal of this project was to evaluate a series of compounds for anti-inflammatory efficacy and mode of action in preventing the progression of neurological injury in the MPTP model of Parkinson's Disease.

PI: Tjalkens

AstraZeneca Pharmaceuticals

Tjalkens, Ronald B. (01/07 – 01/09)

Individual Research Grant

(\$216,000 Total Costs)

“Fluorescent transgenic reporter mice: a new tool for screening for potential neurotoxicity”

The goal of this project is to develop novel reporter assays for detecting pre-pathological changes in gene expression in animals exposed to low-dose pharmaceutical regimens.

Role: PI

American Parkinson Disease Association

Tjalkens, Ronald B. (09/01/06 – 08/31/07)

Individual Research Grant

(\$50,000 Total Costs)

“Targeting glia in parkinsonism: modulation of astrocyte inflammatory phenotype by orphan nuclear receptors”

The goal of this project is to identify mechanisms of transcriptional regulation of inflammatory genes in astrocytes by orphan nuclear receptors.

Role: PI

Society of Toxicology/American Chemistry Council (Tjalkens, PI)

04/01/02 – 08/31/06

Early Career Award in Neurotoxicology

\$100,000

NF- κ B, nitric oxide, and astroglia in manganese neurotoxicity.

The goal of this project is to determine the role of astroglial-derived inflammatory mediators in Mn-induced parkinsonism.

Role: PI

2 R01 CA59034-09 (Chapkin, PI) 03/01/03 - 02/28/08
PHS-NIH-NCI \$1,368,000

Colonic cytokinetics and cell signaling: dietary effects

The goal of this project is to examine the effect of dietary supplementation with ω -3 polyunsaturated fatty acids on the rate of apoptosis in colonic epithelial cells and to identify mitochondrial-dependent mechanisms involved in pro-apoptotic signaling cascades.

Role: Co-I

Advanced Research Program (ARP) (Tjalkens, PI) 01/01/02 – 12/31/03
State of Texas \$150,000

Mechanisms of manganese-induced glial injury in parkinsonism using a novel real-time screening assay.

The goal of this project is to utilize real-time, multiparameter fluorescence acquisition and analysis to develop high-throughput methodology for characterizing Mn-induced alterations in astrocyte physiology in the Mn model of parkinsonian neurodegeneration.

Role: PI

Pre-R01 Pilot Project award (Tjalkens, PI) 06/01/02 – 12/31/03
Departmental award, Texas A&M University \$20,000

Orphan nuclear receptors as therapeutic targets in experimental parkinsonism.

The goal of this project is to examine the capacity of novel ligands of orphan nuclear to mitigate inflammatory injury in experimental parkinsonism in mice.

Role: PI

Pilot Project award (Tjalkens, PI) 04/01/03 – 03/31/04
Office of the Vice President for Research, Texas A&M University \$25,000

Orphan nuclear receptors in parkinsonian neurodegeneration.

The goal of this project is to determine the role of distinct orphan nuclear receptors in regulating production of nitric oxide in glial cells.

Role: PI

201-6-7738 (Tjalkens, PI) 04/01/02 – 03/31/04
NIH-NIOSH Southwest Center for Occupational and Environmental Health \$10,000

Role of nitric oxide and astroglia in manganese neurotoxicity.

The goal of this project is to assess basic mechanisms of nitric oxide-mediated mitochondrial dysfunction in astroglial following Mn exposure.

Role: PI

ES09106-04 201-6-7738 (Tjalkens, PI) 04/01/02 – 03/31/04
NIEHS/Center for Environmental and Rural Health pilot project \$20,000
Nitric oxide and astroglia in manganese neurotoxicity.
The goal of this project is to determine the effect of Mn on Ca-regulated cell death pathways in astroglia..
Role: PI

F32 ES05912 (Tjalkens, PI) 04/01/00 – 03/31/03
NIEHS
Mitochondrial permeability transition in neurotoxicity.
The goal of this project was to characterize mechanisms by which the neurotoxicant 1,3-dinitrobenzene caused selective injury to brainstem astrocytes via oxidative injury to mitochondria.
Role: PI

5F31AA005444-03 (Tjalkens, PI) 08/01/96 – 09/30/98
NIAAA
Glutathione transferase and ethanol induced liver injury.
The goal of this project was to examine gene regulation of glutathione-S-transferase by aldehydic products of lipid peroxidation.
Role: PI

Publications

Peer-Reviewed Publications

1. Grimsley JK, **Tjalkens RB**, Strauch MA, Bird TH, Speigelman GB, Hostomsky Z, Whiteley JM, and Hoch JA. Subunit Composition and Domain Structure of the SpoOA Sporulation Transcription Factor of *Bacillus subtilis*, *J. Biol. Chem.*, Vol. 269(24): 16977-16982, 1994, PMID: 8207022
2. **Tjalkens RB**, Valerio LG, Awasthi YC, and Petersen DR. Association of Glutathione S-Transferase Isozyme-Specific Induction and Lipid Peroxidation in Two Inbred Strains of Mice Subjected to Chronic Dietary Iron Overload. *Toxicol. Appl. Pharmacol.*, (151): 174-181, 1998, PMID: 9705901
3. **Tjalkens RB**, Luckey SW, Kroll DJ, and Petersen DR. α,β -Unsaturated Aldehydes Increase Glutathione S-Transferase mRNA and Protein: Correlation with Activation of Antioxidant Response Element. *Arch. Biochem. Biophys.* 359(1): 42-50, 1998, PMID: 9799558
4. Luckey SW, **Tjalkens RB**, and Petersen DR. Mechanism of inhibition of rat liver class 2 ALDH by 4-hydroxynonenal. *Adv. Exper. Med. Biol.* 463: 71-7, 1999, PMID: 10352671
5. **Tjalkens R**, Luckey SW, Kroll DJ, and Petersen D. α,β -Unsaturated Aldehydes Mediate Inducible Expression of Glutathione S-Transferase in Hepatoma Cells Through Activation of the Antioxidant Response Element. *Adv. Exper. Med. Biol.* 463: 123-132, 1999, PMID: 10352677
6. **Tjalkens RB**, Cook L, and Petersen DR. Formation and Export of the Glutathione Conjugate of 4-Hydroxy-2,3-*E*-nonenal (4-HNE) in Hepatoma Cells. *Arch. Biochem. Biophys.* 361(1): 113-119, 1999, PMID: 9882435
7. Clark HA, Kopelman R, **Tjalkens R**, Philbert MA. Optical Nanosensors for Chemical Analysis Inside Single Living Cells. Part II: Sensors Specific for pH and Calcium and the Intracellular Application of PEBBLE Sensors. *Anal. Chem.*, 71(21): 4837 -4843, 1999, PMID: 10565275
8. **Tjalkens RB**, Ewing M, and Philbert MA. Differential cellular regulation of the mitochondrial permeability transition in an in vitro model of 1,3-dinitrobenzene-induced encephalopathy. *Brain. Res.*, 874(2): 165-177, 2000, PMID: 10960601
9. Taneja N, **Tjalkens R**, Philbert MA, and Rehemtulla A. Mitochondria as the Primary Target for Ionizing Radiation-Induced Apoptosis. *Oncogene*, 20: 167-177, 2001, PMID: 11313941
10. Brasuel M, Kopelman R, Miller TJ, **Tjalkens R**, and Philbert MA. Fluorescent Nanosensors for Intracellular Chemical Analysis: Decyl Methacrylate Liquid Polymer Matrix and Ion Exchange Based Potassium PEBBLE Sensors With Real Time Application to Viable Rat C6 Glioma Cells. *Anal. Chem.* 73(10): 2221 – 2228, 2001, PMID: 11393844
11. McQueen CA, Mitchell KM, Dang LN, Chau B, **Tjalkens RB**, and Philbert MA. Prenatal expression of N- acetyltransferases in C57Bl/6 mice. *Chemico. Biol. Interact* 145: 77-87, 2003, PMID: 12606156

12. Miller TJ, Phelka AD, **Tjalkens RB**, Dethloff LA, and Philbert MA, CI-1010 Induced Opening of the Mitochondrial Permeability Transition Pore Precedes Oxidative Stress and Apoptosis in SY5Y Neuroblastoma Cells, *Brain Research* 963:43–56, 2003, PMID: 12560110
13. McQueen CA, Chau B, Erickson RP, **Tjalkens RB**, and Philbert MA. The effects of genetic variation in N-acetyltransferases on 4-aminobiphenyl genotoxicity in mouse liver. *Chemico-Biological Interact.* 146(1):51-60., 2003, PMID: 12902152
14. **Tjalkens RB**, Phelka AD, and Philbert MA. Regional variation in the activation threshold for 1,3-dinitrobenzene-induced mitochondrial permeability transition (MPT) in brainstem and cortical astrocytes. *Neurotoxicol.* 24(3):391-401, 2003, PMID: 12782104
15. Barhoumi R, Faske J, Liu X, and **Tjalkens RB**, Manganese potentiates lipopolysaccharide-induced expression of NOS2 in C6 glioma cells through mitochondrial-dependent activation of nuclear factor kappa B. *Mol. Brain Res.* (122): 167-179, 2004, PMID: 15010209
16. Ng Y, Barhoumi R, **Tjalkens RB**, Yang-Yi Fan, Satya Kolar, Naisyin Wang, Joanne R. Lupton, and Robert S. Chapkin. The role of docosahexaenoic acid in mediating mitochondrial membrane lipid oxidation and apoptosis in colonocytes *Carcinogenesis* 26(11): 1914-1921, 2005, PMID: 15975958
17. Liu X, Buffington JA, and **Tjalkens RB**. Astroglial-mediated neuronal apoptosis following exposure to manganese and cytokines requires NF- κ B-dependent production of nitric oxide *Mol Brain Res* 141(1): 39-47, 2005, PMID: 16168523
18. Peters JL, Earnest BJ, **Tjalkens RB**, Cassone VM, Zoran MJ. Modulation of intercellular calcium signaling by melatonin in avian and mammalian astrocytes is brain region-specific. *J. Comp. Neurol.* 493(3):370-380, 2005, PMID: 16261532
19. Liu X, Sullivan KA, Madl JE, Legare M, and **Tjalkens RB**. Manganese-induced neurotoxicity: the role of astroglial-derived nitric oxide in striatal interneuron degeneration, *Toxicol. Sci.* 91(2):521-531, 2006, PMID: 16551646
20. **Tjalkens RB**, Zoran M, Mohl B, and Mouneimne R. Manganese suppresses ATP-dependent intercellular calcium waves in astrocyte networks through alteration of mitochondrial and endoplasmic reticulum calcium dynamics, *Brain Res.* 1113(1):210-219, 2006, PMID: 16934782
21. **Tjalkens RB**, Liu X, Mohl B, Wright T, Carbone DL, Moreno JA, and Safe S. The PPAR- γ agonist 1,1-bis(3'-indolyl)-1-(p-trifluoromethylphenyl)methane suppresses manganese-induced production of nitric oxide in astrocytes and inhibits apoptosis in co-cultured PC12 cells. *J. Neurosci. Res.* 15;86(3):618-29, 2008, PMID: 18041089
22. Dooley GP, Reardon KF, Prenni JE, **Tjalkens RB**, Legare ME, Foradori CD, Tessari JE, Hanneman WH. Proteomic analysis of diaminochlorotriazine adducts in wister rat pituitary glands and LbetaT2 rat pituitary cells. *Chem Res Toxicol.* 21(4):844-51, 2008, PMID: 18370413
23. Moreno JA, Sullivan KA, Carbone DA, Hanneman WH, and **Tjalkens RB**. Manganese potentiates NF- κ B-dependent expression of nitric oxide synthase 2 in astrocytes by

- activating soluble guanylate cyclase and extracellular regulated kinase signaling pathways *J. Neurosci. Res.* 86:618–629, 2008, PMID: 18335517
24. Carbone DA, Moreno JA, and **Tjalkens RB**. Nuclear Factor Kappa-B Mediates Selective Induction of Neuronal Nitric Oxide Synthase in Astrocytes During Low-Level Inflammatory Stimulation with MPTP. *Brain Res*, 217:1-9, 2008, PMID: 18508038
 25. Ashley AK, Hanneman WH, Moreno JA, Pollack A, **Tjalkens RB**, Legare ME. Analysis of targeted mutation in DJ-1 on cellular function in primary astrocytes. *Toxicol Lett.* 184(3):186-91, 2009, PMID: 19063952
 26. Carbone DA, Popichak KA, Moreno JA, Safe S, and **Tjalkens RB**. Suppression of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-induced nitric oxide synthase 2 expression in astrocytes by a novel diindolyl methane analog protects striatal neurons against apoptosis. *Mol. Pharmacol.* 75(1):35-43, 2009, PMID: 18840677
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