KARIN STREIFEL, Ph.D.

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EDUCATION

Ph.D. Department of Environmental and Radiological Health Science with emphasis in Toxicology
Colorado State University, December 2011

Post-baccalaureate studies in Biological Sciences
University of Colorado- Boulder, May 2006

B.A. Department of Environmental Studies
University of Colorado- Boulder, December 2003

PROFESSIONAL APPOINTMENTS

2018- *present*	Assistant Professor, Department of Biology, Regis University
2017-18	Term Instructor of Biology, Regis University
2016-17	Affiliate Faculty (Spring), Physiology laboratory, Regis University
2014-15	NIEHS Postdoctoral Fellowship, Pamela Lein Laboratory, University of California- Davis
2014	Adjunct Lecturer (Fall), Freshman Seminar, University of California- Davis
2013	Teaching Assistant (Spring), Graduate level Neurotoxicology, University of California- Davis
2012-14	NIH Postdoctoral Training Fellowship, M.I.N.D. Institute, University of California- Davis
2011	Teaching Assistant (Summer), Cell Biology, Colorado State University
2007-11	Teaching Assistant, General Biology (mentor to instructors 2010-11), Colorado State University
2006-11	Research Assistant, Ronald Tjalkens Laboratory, Colorado State University
2004-06	Undergraduate Research Assistant, David Norris Laboratory, University of Colorado- Boulder

COURSE TAUGHT

Regis University
- Cellular and Molecular Biology - Instructor
- Cellular and Molecular Biology Laboratory- Teaching Assistant
- Ethics in Biological and Environmental Sciences - Instructor
- Biological Biochemistry (Graduate level) - Instructor
- Molecular and Cellular Biochemistry – Instructor
- First Year Writing: "Neurodiversity" – Instructor
- Organismic Biology Laboratory- Teaching Assistant
- Physiology Laboratory- Teaching Assistant

University of California- Davis
- Freshman Seminar: "The Autism Puzzle"- Instructor
- Neurotoxicology- Teaching Assistant and Guest Lecturer

Sacramento State University
- Seminar- "Manganese Neurotoxicology"- Guest Lecturer

Colorado State University
- Cell Biology Laboratory- Teaching Assistant
- Cell and Molecular Techniques (Graduate level)- Teaching Assistant and Guest Lecturer
- Fundamentals of Toxicology (Graduate level)- Guest Lecturer
- Clinical and Forensic Toxicology (Graduate level)- Guest Lecturer
- General Biology Laboratory- Teaching Assistant and Teaching Assistant Mentor

SERVICE and OUTREACH EXPERIENCES

October 2020-*present*	University Teaching & Learning Committee
May 2019-*present*	Faculty Development Committee
Dec 2018-*present*	Study Abroad Advisory/Selection Committee
April 2017	Taught Biomedical Science Intersession, Rangeview High School, Aurora CO
April 2015	Organized and hosted SOT Webinar: "Transition to a permanent position: success across the

	sectors"
March 2015	Co-chaired Symposia SOT 2015- Career development Session: "Crafting high impact manuscripts: the process from hypothesis through review and publication"
	Organized Symposia SOT 2015 -Scientific Session titled, "Alternative Models to Study the Classics: A Mechanistic View"
January 2015	Career Mentor, Northern California Society of Toxicology Networking Event, Davis, CA
February 2014	Science Outreach with Association for Women in Science, Sacramento, CA
2013-15	Research Mentor, Biology Undergraduate Scholars Program, UC-Davis
2013-15	Elected Secretary of the Postdoctoral Assembly Executive Board, SOT
2013	Responsible Conduct of Research Training, UC-Davis
2011	Responsible Conduct of Research Training, CSU
2011	Technical Reviewer for *Toxicological Science*- present
2009-11	Institute for Learning and Teaching, Collegial teaching training course, CSU
April 2009-11	Judge, Undergraduate Research Symposia, CSU
April 2008-10	Front Range Neuroscience Group organizing committee, CSU
2008	Summer Student Mentor, Research Experience for Undergraduates (REU), CSU
April 2007-12	Volunteer and student mentor, Brain Awareness Week, CSU
2007-11	Research Mentor, 2 undergraduate and 1 graduate student, CSU
2006	Engineers without Borders, Public health approach for La Laguneta, El Salvador, CSU
2005	Engineers without Borders, Public health approach for Muramba, Rwanda, UC- Boulder

AWARDS and SCHOLARSHIPS

March 2019	Teaching and Learning with Technology Micro-grant; PI Bethany Lucas
Sept 2014-15	Individual National Research Service Award (NRSA) funded by the National Institute on Environmental Health and Safety (NIEHS), F32 ES024676, UC-Davis
March 2014	Travel Honorarium for the Interdisciplinary Development Conference in Developmental Disorders at the Gatlinburg Conference, Chicago, IL
August 2012-14	National Institute of Health (NIH) Postdoctoral Fellowship, Autism Research Training Program, UC-Davis M.I.N.D. Institute, NIMH - T32 MH073124, UC-Davis
2013	SOT Board of Publications best paper in *Toxicological Sciences*- Honorable Mention
March 2013	Postdoctoral poster 1st place, Neurotoxicology Specialty Section SOT, San Antonio, TX
September 2011	Pre-doctoral poster presentation 1st place, Mountain West SOT, Breckenridge, CO
April 2011	Oral presentation winner, Rocky Mountain Regional Neuroscience Group, UC-Denver
March 2010	Graduate student travel award, 49th national SOT meeting, Salt Lake City, UT
February 2010	Poster presentation, Honors- 2010 Annual Spring Research Symposium, CSU
2009-10	Environmental Health Sciences Outstanding Graduate Researcher Scholarship, CSU
October 2009	Poster presentation, 2nd place- Rocky Mountain Conference on Aging, CSU
2008-09	Dr. Reginald L. Gotchy Memorial Graduate Student Scholarship, CSU

PROFESSIONAL MEMBERSHIPS

Society of Toxicology
Society for Neuroscience
Front Range Neuroscience Group

PUBLICATIONS (peer-reviewed; † undergraduate researcher)

Bruce M*, **Streifel KM***, Boosalis CA, Heuer L, González EA, Li S, Harvey DJ, Lein PJ, Van de Water J (2019) Acute peripheral immune activation alters cytokine expression and glial activation in the early postnatal rat brain. *J Neuroinflamm* 16(1):200. PMID: 31672161 *Co-first authors.

Hao Chen, **Karin Streifel**, Vikrant Singh, Dongren Yang, Linley Mangini†, Heike Wulff, & Pamela Lein. (2016) BDE-47 and BDE-49 inhibit axonal growth in primary rat hippocampal neuron-glia co-cultures via ryanodine receptor-dependent mechanisms. *Toxicol Sci*. PMID: 28003438

Joshua Harrill, Hao Chen, **Karin Streifel**, Dongren Yang, William Mundy, and Pamela Lein. (2015) Ontogeny of biochemical, morphological and functional parameters of synaptogenesis in primary cultures of rat hippocampal and cortical neurons. *Molecular brain* 8(1): 10. PMID: 25757474

Karin Streifel, Albert Gonzales, Briana De Miranda, Rola Barhoumi, Scott Earley, and Ronald Tjalkens. (2014) Dopaminergic Neurotoxicants Cause Biphasic Inhibition of Purinergic Calcium Signaling in Astrocytes. *PloS one*. 9.11: e110996. PMID: 25365260

Mariana Stamou, **Karin Streifel**, Paula Goines, and Pamela Lein. (2013) Neuronal connectivity as a convergent target of gene-environment interactions that confer risk for Autism Spectrum Disorders. *Neurotoxicol Teratol*. 36: 3-16. PMID: 23269408

Karin Streifel, James Miller, Rola Barhoumi, and Ronald Tjalkens. (2013) Manganese inhibits ATP-induced calcium entry through the transient receptor potential channel TRPC3 in astrocytes. *Neurotoxicol*. 34: 160-6. PMID: 23131343

Karin Streifel, Julie Moreno, Marie Legare, and Ronald Tjalkens. (2012) Gene deletion of nos2 protects against manganese-induced neurological dysfunction in juvenile mice. *Toxicol Sci*. 126(1):183-92. PMID: 22174044

Julie Moreno, **Karin Streifel**, Kelly Sullivan, William Hanneman, and Ronald Tjalkens. (2011) Manganese-induced NF-kB activation and nitrosative stress is decreased by estrogen in juvenile mice. *Toxicol Sci*. 122(1):121-33. PMID: 21512103

Julie Moreno, **Karin Streifel**, Kelly Sullivan†, Marie Legare, and Ronald Tjalkens. (2009) Developmental exposure to manganese increases adult susceptibility to inflammatory activation of glial and neuronal protein nitration. Toxicol Sci. 112(2):405-15. PMID: 19812365

Julie Moreno, Claire Yeomans†, **Karin Streifel**, Bryan Brattin, and Ronald Tjalkens. (2009) Age-dependent susceptibility to manganese-induced neurological dysfunction. *Toxicol Sci*. 112(2):394-404. PMID: 19812362

BOOK CHAPTER

Ronald Tjalkens, **Karin Streifel**, and Julie Moreno. Neuroinflammation and Oxidative Stress in Models of Parkinson's Disease and Protien Misfolding Disorders. (2017) Franco, R., Doorn, J. A., & Rochet, J. C. (Eds.). *Oxidative Stress and Redox Signalling in Parkinson's Disease* (Vol. 34). Royal Society of Chemistry.

ORAL PRESENTATIONS (* indicates awards)

Invited speaker at the 15th Annual American Industrial Hygiene Association professional development meeting: Manganese Neurotoxicity: environmental and occupational exposures. November 19, 2012

Rocky Mountain Regional Neuroscience Group, Role of neuroinflammation developmental vulnerability to manganese: a critical window of sensitivity to glial reactivity and neurotoxicity, April 1, 2011*

Mountain West Society of Toxicology, Role of neuroinflammation developmental vulnerability to manganese: a critical window of sensitivity to glial reactivity and neurotoxicity, September 9, 2011

Invited speaker at the 50th Annual Society of Toxicology, symposium topic: Developmental Exposure to Environmental Toxicants: From Persistent Toxicities to Diseases, March 8, 2011

CONFERENCE ABSTRACTS (*select*)

Karin Streifel, Joshua Harrill, Hao Chen, Dongren Yang, William Mundy, and Pamela Lein. Ontogeny of biochemical, morphological and functional parameters of synaptogenesis in primary cultures of rat hippocampal and cortical neurons. Society for Toxicology, San Diego, CA, March 2015

Karin Streifel, Karen Jones, Pamela Lein and Judy Van de Water. Cumulative Vaccination Alters Immune Responses in the Developing Brain. Society for Toxicology. Phoenix, AZ, March 2014

Karin Streifel, Albert Gonzales, Briana De Miranda, Brianne Mohl†, Rola Barhoumi, Scott Earley and Ronald Tjalkens. Dopaminergic neurotoxicants target TRPC3 to suppress ATP-dependent calcium signals in astrocytes. Society for Toxicology. San Antonio, TX, March 2013 *****

Karin Streifel, Albert Gonzales, Briana Trout, Logan Maxwell†, Scott Earley and Ronald Tjalkens. ATP-dependent calcium signaling in striatal astrocytes is acutely sensitive to inhibition by structurally diverse cationic neurotoxicants. Front Range Neuroscience Group meeting, Colorado State University, December 2011

Karin Streifel, Albert Gonzales, Briana Trout, Logan Maxwell†, Scott Earley and Ronald Tjalkens. ATP-dependent calcium signaling in striatal astrocytes is acutely sensitive to inhibition by structurally diverse cationic neurotoxicants. Mountain West Society for Toxicology. Breckenridge, CO, September 2011*****

Karin Streifel, Julie Moreno, and Ronald Tjalkens. Gene deletion of inducible nitric oxide synthase suppresses glial inflammation protecting against manganese neurotoxicity. Front Range Neuroscience Group meeting, Colorado State University, December 2010

Karin Streifel, Julie Moreno, and Ronald Tjalkens. Gene deletion of inducible nitric oxide synthase suppresses glial inflammation and protects against manganese neurotoxicity. Rocky Mountain Regional Neuroscience Group meeting, University of Colorado- Denver, May 2010

Karin Streifel, Julie Moreno, Briana Trout, and Ronald Tjalkens. Gene deletion of inducible nitric oxide synthase suppresses glial inflammation and protects against manganese neurotoxicity. Society for Toxicology 49th Annual Meeting, Salt Lake City, Utah, March 2010*****

Karin Streifel, Julie Moreno, Briana Trout, and Ronald Tjalkens. Gene deletion of inducible nitric oxide synthase suppresses glial inflammation and protects against manganese neurotoxicity. CMB/MCIN Annual Spring Research Symposium, Colorado State University, February 2010*****

Karin Streifel, Julie Moreno, Briana Trout, and Ronald Tjalkens. Gene deletion of inducible nitric oxide synthase suppresses glial inflammation and protects against manganese neurotoxicity. Front Range Neuroscience Group meeting, Colorado State University, December 2009

Karin Streifel, Julie Moreno, Marie Legare and Ronald Tjalkens. Gene deletion of inducible nitric oxide synthase suppresses glial inflammation and protects against manganese neurotoxicity. Rocky Mountain Conference on Aging, Colorado State University, October 2009*****

Karin Streifel, Julie Moreno, Marie Legare and Ronald Tjalkens. Protection of glia and neurons upon manganese exposure through deficiency in inducible nitric oxide synthase. Rocky Mountain Regional Neuroscience Group meeting, University of Colorado- Denver, May 2009

Karin Streifel, Julie Moreno, Marie Legare and Ronald Tjalkens. Manganese-induced glial inflammatory pathways modulated by estrogen. Society for Toxicology 48th Annual Meeting, Baltimore, Maryland, March 2009

Karin Streifel and Ronald Tjalkens. MPP+ targets purinergic calcium signaling in primary astrocytes. Society for Neuroscience 38th Annual Meeting, Washington, D.C., November 2008