

CURRICULUM VITAE

WEI ZHENG, Ph.D.

BUSINESS ADDRESS

School of Health Sciences, College of Health and Human Sciences
Purdue University
550 Stadium Mall Drive, HAMP-1169
West Lafayette, IN 47907
Phone: (765) 496-6447; Fax: (765) 496-1377; Email: wzheng@purdue.edu

PERSONAL DATA

Citizenship: American Citizen

PART I: TRAINING AND PROFESSIONAL EXPERIENCE

PROFESSIONAL TRAINING

1977-1981 **Bachelor of Science** in Pharmacy
College of Pharmacy, Zhejiang University, Hangzhou, PRC

1981-1984 **Master of Science** in Pharmacology
Department of Pharmacology, Zhejiang University College of Pharmacy

1986-1991 **Doctor of Philosophy** in Pharmacology and Toxicology
Department of Pharmacology and Toxicology, University of Arizona College of Pharmacy, Tucson, Arizona

1991-1992 **Postdoctoral/Research Fellow**
Mentor: Dr. I. Glenn Sipes, Head, Department of Pharmacology, School of Medicine, University of Arizona. President of the Society of Toxicology (1991-1992)

2009 Feb **Leadership Training Camp**
CIC (Committee on Institutional Cooperation) Dept Chairs/Heads Forum, Chicago.

ACADEMIC AND PROFESSIONAL APPOINTMENT

1975-1977 **Research Technician (Analyst Assistant)**
Experimental Pharmaceutical Factory of Zhejiang University, Hangzhou, PRC

1984-1986 **Lecturer** of Pharmacology
Department of Pharmacology, Zhejiang University College of Pharmacy, Hangzhou, PRC

1986-1991 **Graduate Research Assistant**
Department of Pharmacology and Toxicology, University of Arizona, Tucson, AZ

1992-1993 **University of Arizona**, Tucson, Arizona
Research Assistant Scientist (non-tenure faculty position). Dept. of Pharmacology and Toxicology, College of Pharmacy, University of Arizona, Tucson, AZ.

1993-2003 **Columbia University**, New York, New York

- **Assistant Professor** of Public Health and Pharmacology (1993-1999) and
- **Associate Professor** (tenured, 2000-2003), a joint faculty position in Dept of Environmental Health Sciences in School of Public Health, and Dept of Pharmacology in College of Physicians and Surgeons, Columbia University, New York, NY.

- 2003-present **Purdue University**, West Lafayette, Indiana
- **Associate Professor** of Health Sciences and Toxicology (2003-2006) and
 - **Professor** (2006-present), School of Health Sciences, Purdue University.
 - **Head** (2008-2017), School of Health Sciences in College of Health and Human Sciences
 - **Associate Dean** (2008-2010) *College of Pharmacy, Nursing and Health Sciences* (College of PNHS dissolved in 2010 as a part of University's Strategic Consolidation)

Contribution to School of Health Sciences' Sustainable Growth

As a former Head of the School, I feel proud of four major achievements under my leadership. First, I built the toxicology research/education program and cultivated it for its sustainable growth to this date. Second, I consolidated faculty's scholarly strengths into two pillars of research excellence, i.e., one in environmental and occupational toxicology and one in radiological health sciences, from which to foster highly productive interdisciplinary research enterprises. Third, I acquired, renovated, and expanded the wet-lab space by more than 6,500-sqft to build a web-lab based research foundation in this unit. Forth, I created new faculty lines and secured 16 FTE faculty positions by recruiting 10 new faculty members (6 in EOT and 4 in RHS) before I left the head office. These efforts helped build the sound foundation for School's long-term sustainable growth.

Academically, I set the strategic goal for School's undergraduate education by making the pre-professional education as the top priority in 2009 and led the effort to establish the Pre-Professional Program in 2010, which was renamed as the Biomedical Health Sciences (BMHS) program in 2021. Working with faculty members in 2010, we established the core curricula along with plans of study for each concentration with selective and elective courses. The effort led to a highly successful major that has been attracting more than a thousand applications each year. Under my watch, the school successfully obtained the ABET accreditation of the Occupational Health Sciences program in October 2010; merged the Graduate Medical Physics program with Indiana University School of Medicine in 2011 and thereafter obtained the CAMPEP accreditation in 2012; established 3+2 BS/MBA (3-year BS in HSCI plus 2-year MBA) in Healthcare Management, 4+1 BS/MS program in Industrial Hygiene, and the Study Abroad program in EHS with Dublin Institute of Technology.

- 2004-2008 **Chairman** of Life Plus, LLC., Purdue Research Park, West Lafayette, Indiana
An international consulting firm specialized in chemical/toxicological services
(resigned from the firm in 2008 to fully commit to HSCI operation and development)

PROFESSIONAL ORGANIZATIONS AND SOCIETIES

- 1994-present Member of Society of Toxicology (SOT), President of the Metals Specialty Section (2009-2010), Chair of Board of Publication (2016-2019), student/postdoc member (1987-1994)
- 2011-present Member of International Society for Trace Elements Research in Humans (ISTERH). Vice President-Elect (2015), Vice President (2017), President (2019), Acting President (2021-2022). Chairman of the Int'l Scientific Committee for the 14th Conference in Aachen, GE.
- 1995-present Member of Society for Neuroscience (SFN)
- 2004-present Member of International Neurotoxicology Association (INA)
- 1990-present founding member of American Association for Chinese in Toxicology (AACT),
President (1991-1992)
- 1991-present Member of American Association for the Advancement of Sciences
- 2005-2019 Member of Society for Experimental Biology and Medicine (USA)
- 1993-1996 Member of New York Academy of Sciences

PART II: LEADERSHIP AND ENGAGEMENT CREDITS

A. AWARDS AND RECOGNITIONS

- **Fellow**, the U.S. Academy of Toxicological Sciences (**ATS**) (2016)
- **Education Award**, Society of Toxicology (2021) (the SOT has more than 8,000 memberships)
- **Pandemic Teaching Award**, Purdue University Teaching Academy (2020)
- **Career Research Achievement Award**, Purdue University/HHS (2020)
- **Landolt Teaching Excellence Award**, Purdue University/HSCI (2019)
- **Seeds of Success Award**, Purdue University/Provost Office (2006, 2010, 2018)
- **Outstanding Graduate Faculty Mentor Award**, Purdue University/HHS (2017)
- **Career Achievement Award**, the Society of Toxicology Metals Specialty Section (2015)
- **Distinguished Chinese Toxicologist**, American Association of Chinese in Toxicology (2010)
- **University Faculty Scholar**, Purdue University (2006)
- **2005 Best Paper Award**, Society for Experimental Biology and Medicine (2005)
- **Science and Technology Award** (3rd Place) by Beijing City Government for achievements in science and technology. Award Number: 2007Y-3-007-02 (2008)
- **Science and Technology Achievement Award** (3rd Place) by the Chinese Preventive Medicine Association for research achievement. Award Number: 200701003-3-G0806. (2007)
- **Outstanding Research Award**, Johnson & Johnson focused giving program (2002)
- **Calderone Award**, Columbia University School of Public Health (1994)
- **Honorary Citizen** of Tucson, issued by Mr. Thomas J. Volgy, Mayor of Tucson (1988)

- **President**, International Society for Trace Element Research in Humans, Vice President-elect 2015, Vice President 2017, President 2019, acting President 2021-2022.
- **Chairman**, Board of Publication, Society of Toxicology 2016- 2019.
- **Keynote Speaker**, “Imbalanced Copper Homeostasis in Brain Disorders: Olfactory Dysfunction and Age-dependent Clearance Disorder at the Blood-Brain Interfaces”, invited by the International Conference of Trace Elements and Minerals, a joint conference sponsored by German Society for Minerals and Trace Elements (GMS), Int’l Society for Trace Element Research in Humans (ISTERH), Int’l Society for Zinc Biology (ISZB), and Trace Elements in Man and Animals (TEMA). Aachen, GE, June 2022.
- **Keynote Speaker**, “Disrupted Neurogenesis in Adults and Environmental Metal Exposure”, invited by the 18th Conference of Chinese Environmental Mutagen Society, Zunyi, China, June 2019.
- **Keynote Speaker**, “Environmental Causes of Neurodegenerative Diseases: Lessons from Lead and Manganese Toxicological Studies. Invited Speaker for the 40th Anniversary of Establishment of School of Public Health at Guangxi Medical University, Nanning, China, Nov 2016.
- **Keynote Speaker**, the 2nd International Summit on Toxicology, Las Vegas, Oct 2013.
- **President**, International Neurotoxicology Conference, a joint conference of the *International Neurotoxicology Association* and the *International Commission on Occupational Health: Committee on Neurotoxicology and Psychology*, Xi’an, China, June 5-10, 2011.
- **Invited speaker**, The George Bush China-U.S. Relations Conference: Development, Energy, and Security, Washington D.C. Oct 2007 where the keynote speakers included President George W. H. Bush, Secretary of the Treasury Henry Paulson, and Chinese Ambassador Li Zhaoxing.
- **President**, Society of Toxicology Metal Specialty Section, Vice President-Elected 2008, Vice President 2009, President 2010
- **President** (founding member), American Association of Chinese in Toxicology, 1991-1992
- Marquis Who’s Who in America, 2009.

B. DEPARTMENTAL AND UNIVERSITY COMMITTEES

2021-present	Chair, School of Health Sciences Alumni Engagement Committee
2020-present	Member and co-chair, School of Health Sciences Awards Committee
2018-2020	Member, School of Health Sciences Undergraduate Curriculum Committee
2008-2017	Member, College of HHS Promotion and Tenure Committee
2009-2017	Member, Purdue Center for Cancer Research Liaison Committee
2015	Member of the University Search Committee for Biology Department Head
2014	Chair, School of Health Sciences (HSCI) Faculty Search Committee on Occupational and Environmental Toxicology
2009-2010	Member, Task Force for Establishing a new College of Health and Human Sciences
2008-2011	<u>Senator</u> , Purdue University; member of Senate Advisory Committee to the President (surrendered in 2009 in lieu of the school's executive position)
2008-2010	Member, College Executive Committee of Pharmacy, Nursing and Health Sciences
2004-2008	Chair, Graduate Committee in School of Health Sciences
2005-2008	Member of Graduate Committee in College of Pharmacy, Nursing and Health Sciences
2007-2008	Member of Awards Committee of College of Pharmacy, Nursing and Health Sciences
2007-2008	Member of HSCI Grade Appeals Committee
2007	Chair, HSCI Committee on Establishing the Faculty Promotion and Tenure Guidelines
2006-2007	Chair, HSCI Faculty Search Committee on toxicology
2006-2007	Chair, HSCI Committee for Internal/External Graduate Program Review
2004-2008	Faculty advisor to campus-wide Caduceus Club (Pre-Med Club)
2005-2008	Faculty advisor to the Minority Student Club
2004-2008	Director and founder, Purdue University Toxicology Program
2004-2005	Member of HSCI Recognition and Awards Committee
2003-2005	<u>Schedule Deputy</u> of School of Health Sciences, Purdue University
1995-2002	Member of Graduate Admission Committee in School of Public Health at Columbia University
1995-2002	<u>Chair</u> , Graduate Committee on Master of Public Health (MPH) in Dept. of Environmental Health Sciences (Member since 1994)
1998-2002	Member of Ph.D. Qualification Examination Committee in Dept. of Environmental Health Sciences, Columbia University
1993-1995	Coordinator, DrPH and Faculty Seminars in Division of Environmental Health Sciences, Columbia University

C. STUDY SECTIONS AND EXTRAMURAL COMMITTEES

2008-2012	Standing member of NIH Neurotoxicology and Alcohol (NAL) Study Section
2003-2007	Standing member of NIH Environmental Health Sciences Review Committee (review P30 center grants, P01 program projects, T32 training grants, and P42 Superfund grants).
2006-2007	Standing member of the Review Committee on National Emphasis Programs, National Science Foundation of China (2-year term).
2001-present	Ad hoc member of NIH/NIEHS, NIOSH, EPA or DoD Study Section peer-review groups.
2001-2003	Member of the Harbor Consortium by New York Academy of Science and New York City Health Department

(Having served in 89 grant review panels including 75 study sections for NIH, EPA, HEI and CNSF, and 14 university review panels at Harvard, Columbia, Brown, Vanderbilt etc. and schools or boards in England, Switzerland, Kuwait, Jordan, China, etc. Services in past 10 years listed below)

06/04/2021 Member, DOD/CDMRP (USAMRMC) Panel on the Peer Reviewed Medical Research Program: Metal Toxicology – Preliminary Review

02/11/2021 Member, NIH/NIEHS Neurotoxicology and Alcohol Study Section ZRG1 NAL-Z (07) (R01 and R21)

11/20/2020 Member, NIH/Environmental Health Sciences Review Committee ZES1 VSM-S(t) for T32 training grants.

06/10/2020 Member, DOD/CDMRP (USAMRMC) Panel on the Peer Reviewed Medical Research Program: Metal Toxicology

04/15/2020 Member, NIH/NIEHS Special Emphasis Panel ZES1 VSM-K LR for NIH/NIEHS load repayment program

10/29/2019 Reviewer, the peer review panel of Oak Ridge Associated Universities for Ed & Ethel Moore Alzheimer’s Disease Research Program operated by Florida Dept. of Health.

08/29/2019 Member, DOD/CDMRP (USAMRMC) Panel on the Peer Reviewed Medical Research Program: Metal Toxicology – Full Review

06/26/2019 Reviewer, Swiss National Science Foundation on biomedical research grants.

04/30/2019 Member, DOD/CDMRP (USAMRMC) Panel on the Peer Reviewed Medical Research Program: Metal Toxicology – Preliminary Review

04/12/2019 Member, NIH/NIEHS Special Emphasis Panel ZES1 VSM-S L9 for NIH/NIEHS load payment program

07/28/2018 Member, NIH/NIEHS Special Review Panel ZCA1 SRA-D (R01)

06/11/2018 Member, NIH/NIEHS Special Emphasis Panel ZES1 LKB-D (K99-R00)

04/24/2018 Member, NIH/NIEHS Special Emphasis Panel ZES1 RAM-K (LP) 1 for NIH/NIEHS load payment program

02/22/2018 Member, NIH/NIEHS NAL study section ZRG1 NAL-Z (07) (R01 and R21)

11/02/2017 Member, NIH/NIEHS Special Emphasis Panel ZES1 LAT-S (K8)1 for NIH/NIEHS K-type grants (K01, K02, K08, K23 and K99/R00)

08/08/2017 Review, Indiana Alzheimer’s Disease Center grant applications

04/28/2017 Member, NIH/NIEHS Special Emphasis Panel ZES1 RAM-S (LR)1 for NIH loan payment program

07/12/2016 Reviewer, University of Louisville Environmental Health Science Center pilot grants

06/07/2016 Member, NIH/NIEHS Special Emphasis Panel ZES1 JAM-DR3 for R13 applications.

04/22/2016 Member, NIH/NIEHS Special Emphasis Panel ZES1 RAM-J (LR)1 for loan payment program

10/05/2015 Member (ad hoc), NIH/NAL study section review in Washington DC

04/20/2015 Member, NIH/NIEHS Special Emphasis Panel ZES1 RAM-D LR1 for loan payment program

03/30/2015 Member, NIH Special Emphasis Panel ZRG1 HDM-S (50) R. Centers of Excellence on Environmental Health Disparities Research

03/28/2015 Review, Indiana Alzheimer’s Disease Center grant applications

11/12/2014 Member (ad hoc), NIH Environmental Health Sciences Review Committee (EHS-T1), T32 Training grant

09/23/2014 Reviewer, Harvard University Environmental Health Science Res Center, pilot grants

04/24/2014 Member, NIH/NIEHS Special Emphasis Panel/2014/08 ZES1 RAM-D (LP) for Loan Repayment program.

03/17/2014 Reviewer, Vanderbilt University NIEHS Center in Molecular Toxicology, pilot grants

03/12/2014 Member, NIH/NIEHS Special Emphasis Panel K99/R00 Study Section ZES1 LKB-J(KS).

02/22/2014 Member (ad hoc), NIH/Neural Oxidative Metabolism and Death (NOMD) Study Section.

02/12/2014 Reviewer, Harvard University Environmental Health Science Res Center, pilot grants

04/22/2013 Member, NIH/NIEHS Special Emphasis Panel/ZES1 RAM-D for Loan Payment.

06/14/2012 Member, NIH/NAL Study Section review in Washington DC
 05/11/2012 Member, NIH/NIEHS Special Emphasis Review Panel on Loan payment grants (ZES1-RAM-D [L]1)
 02/29/2012 Reviewer, Vanderbilt University NIEHS Center in Molecular Toxicology, pilot project.
 02/23/2012 Member (ad hoc), NIH/NIEHS Special Emphasis Review Panel (ZES1 JAB-D) on R13 grants
 01/31/2012 Member, NIH/NAL Study Section review in San Francisco, CA
 10/13/2011 Member, NIH/NAL Study Section review in Washington DC
 04/29/2011 Reviewer, Columbia University NIEHS Center, pilot projects.
 03/16/2011 Member (ad hoc), NIH/NIEHS Special Emphasis Review Panel (ZES1 LKB-J K9) on K grants
 01/31/2011 Member, NIH/NAL Study Section review in Santa Monica, CA
 10/07/2010 Member, NIH/NAL Study Section review in Washington DC
 08/12/2010 Member (ad hoc), NIH/NIEHS Special Emphasis Review Panel on P30 center grants
 02/03/2010 Member, NIH/NAL Study Section review in San Diego, CA

D. ADVISORY BOARD AND SERVICES

Dec 2019 Member of the Scientific Advisory Board of U.S. Food and Drug Administration.
 Nov 2019 Consultant and speaker on the blood-brain barrier and neurodegenerative diseases for Janssen and Johnson & Johnson Pharmaceutical Com.
 Apr 2014 Reviewer of the proposal to establish the Graduate Programs in Environmental and Ecological Engineering for Indiana Commission for Higher Education.
 Mar 2013 External reviewer of Department Chair and Programs in School of Public Health at University of Illinois Chicago.
 Feb 2009 Member of the Advisory Board to the U.S. Department of Health & Human Services, Agency for Toxic Substances and Disease Registry (ATSDR): Toxicological Profile for Manganese.
 June 2008 Consultant to Eastern Research Group, Inc. to peer review ATSDR's Toxicological Profile on Manganese (Contract: GS-10F-0036K, Task Order 200-2007-F-21565).
 Oct 2006 Consultant to Grosby Saad LLC (Mobile, AL) (James H. Crosby 251-533-6425 cell) representing welders for occupational exposure
 Aug 2005 Consultant, review for Treatment Options for Mercury/Metal Toxicity in Autism and Related Developmental Disabilities, by NIH/NIEHS
 Oct 2003 Consultant to Bard Medical Division, Covington, Georgia
 May 2003 Consultant to Davies, McFarland & Carroll, P.C. on manganese neurotoxicity among welders in Mississippi case.
 2002-2003 Consultant in Neurotoxicity Scientific Advisory Committee, MetaPhore Pharmaceuticals, Inc., St. Louis, MO.
 2001 – 2003 Member of the Harbor Consortium by New York Academy of Science and New York City Health Department

E. EDITORIAL AND REVIEW SERVICES:

2020-2022 Guest Editor, *NeuroToxicology*
 2019-2020 Guest Editor, *J Trace Elem Med Biol*
 2002-Present Member of Editorial Board, *Fluid and Barriers of the CNS*
 2007-Present Member of Editorial Board, *Experimental Biology and Medicine*
 2015-2-19 Member of the SOT Board of Publications (Chair, 2016-2019)
 2004-2008 Member of Editorial Board, *Toxicology Letters*
 2008-2014 Associate Editor, *Journal of Toxicology*
 2012-Present Member of Editorial Board, *Chinese Journal of Preventive Medicine*

Reviewer for:

1. Aging Cell
2. American J Physiology – Cell Physiol
3. Biochemical Pharmacology
4. Biological Trace Elem Research
5. Brain Imaging and Behavior
6. Brain Research
7. Brain Research Bulletin
8. Cerebellum
9. Fluid and Barriers of CNS
10. Chemical Research in Toxicology
11. Chemico-Biological Interactions
12. Current Alzheimer Research
13. Drug Metabolism and Disposition
14. Ecotoxicology and Environmental Safety
15. Environmental Health Perspectives
16. Environment International
17. Environmental Pollution
18. Environmental Sci Pollution research
19. Epilepsia
20. Experimental Biology and Medicine
21. Fluids and Barrier of CNS
22. Histology and Histopathology
23. Human Experimental Toxicology
24. Journal of Health Sciences
25. iScience
26. Journal of Health Sciences
27. Journal of Histochemistry and Cytochemistry
28. Journal of Nanoscience and Nanotechnology
29. Journal of Neurochemistry
30. Journal of Neuroscience
31. Journal of Neuroscience Research
32. Journal of Nutrition and Biochemistry
33. Journal of Occupational and Environmental Medicine
34. Journal of Public Health
35. Journal of Pharmacology and Experimental Therapeutics
36. Journal of Toxicology and Environmental Health
37. Journal of Toxicology
38. Journal of Trace Element Research in Medicine and Biology
39. Life Sciences
40. Molecular Brain Research
41. Molecular and Cellular Biochemistry
42. Nanotoxicology
43. Neurochemical Research
44. Neuroscience Letters
45. Neurotoxicology
46. Neurotoxicology and Teratology
47. Physiology and Behavior
48. PLOS One
49. Proceedings of Society for Experimental Biology and Medicine
50. Regulatory Toxicology and Pharmacology
51. Neurotoxicology and Teratology
52. Toxicological and Environmental Chemistry
53. Toxicological Sciences
54. Toxicology and Applied Pharmacology
55. Toxicology Letters

PART III: SCHOLARLY ACCOMPLISHMENTS

A. PATENT

Immortalized rat choroidal epithelial cell line for blood-CSF barrier research, patented by Columbia University, U.S. Serial No. 60/518,590. 2002.

B. RESEARCH GRANT AND CONTRACT SUPPORT

Ongoing Active Research Support:

1. **NIH/NIEHS R01 ES027078-01** Zheng/Du(Co-PI) 07/01/2017 – 06/30/2022
Lead Exposure and Beta-Amyloid Transport by Brain Barriers

To study how Pb exposure alters brain barrier structure and function, leading to increased permeability of A β transport to brain, decreased clearance from brain and enhanced aggregation. Total cost \$1,918,925. Role: PI (15%).

2. **NIH/NIA R21AG067923-01** Du/Territo/Zheng (MPI) 02/01/2020 – 11/30/2022
The Pathogenic Role of Pb in Cerebral Amyloid Angiopathy and AD
To test the hypothesis that Pb in two different APP transgenic mouse lines is able to induce inflammation-associated CAA, leading to cerebral microhemorrhages by using DCE-PET and immunohistochemistry (IHC). Total cost \$446,443. Role: Co-I (0.8 month summer salary).
3. **NIH/NINDS R01ES021488-06A1** Racette, BA (PI) 07/01/2021 – 06/30/2026
Imaging Biomarkers of Neurotoxicity in Welders
To use an advanced neutron-based XRF technology to assist the research led by Dr. Brad Racette in searching biomarkers for cumulative exposure to manganese among welders located in Wisconsin. Total cost \$120,096. Role: Co-I (1% effort).
4. **CDC/NIOSH 2T03OH008615-14-00** Wells, E (PI) 07/01/2017 – 06/30/2022
Occupational Safety and Health Training Grant
To train undergraduate and graduate students devoted to a career in industrial hygiene or occupational safety. Role: Co-Investigator (0.18 academic months; no salary requested). Total cost \$750,000 to Purdue; Awarded in the current year:
5. **NIH/NIEHS 3R01 ES027078-03S1** Zheng/Freeman (MPI) 07/17/2020 – 07/31/2022
Establishing a Zebrafish Model of Cerebral Amyloid Angiopathy to Study Lead-induced AD
A minority supplemental grant to R01 ES027078 aiming at establishing a novel CAA zebrafish model to study the pathoetiology of AD. Total cost \$104,755. Role: Co-PI (effort as needed; no salary requested).
6. **NIH/NIEHS (GRANT#12951404)** Zheng/Du (MPI) 07/01/2020 – 06/30/2021
Additional Fund Request for Imaging Component at IUSM
A supplemental request to R01 ES027078 asking additional funds to accomplish the DCE CT study of the BBB after lead exposure in transgenic mice, taking into account the increased hourly rate at IUSM. Total cost \$145,969. Role: PI (effort as needed; no salary requested).
7. **Johnson & Johnson Corp. (2003111191)** Zheng, W (PI) Unrestricted
Development of a High Through-Put System for Study of Transport of Drugs across Brain Barriers
To use molecular biology method to knock in tight junction gene to a newly developed blood-CSF barrier cell line. Direct cost \$255,000 for unlimited years. Role: PI.

Pending Grants:

NIH/NIEHS R01 ES027078-06 Zheng/Du/Emir (MPI) 07/01/2022 – 06/30/2027
Lead Exposure and Beta-Amyloid Transport by Brain Barriers
A competitive renewal to employ MRI technique and molecular approaches to study the impact of Pb exposure on A β brain dysfunction and ensuing demyelination. Total cost \$2,155,677. Role: PI (15%).

Completed Research Support (total 40 since 1994):

8. **NIH/NINDS R01 NS094607-21** Louis, ED (PI) 03/01/2016 – 02/28/2021
Environmental Epidemiology of Essential Tremor
To study the role of beta-carboline alkaloids in the etiology of essential tremor. Total cost \$3,593,950. Total cost \$519,250 to Zheng. Role: Co-Investigator (5%)
9. **Yale University (GRANT#20078317)** Zheng, W (PI) 10/08/2019 – 10/31/2021
Development of a LC-MS Method for Quantifying Harmaline in Human Brain Tissues

To develop an effective method to quantify harmaline in human brain tissues for clinical environmental health study of essential tremors. Total cost \$31,000. Role: PI (effort as needed; no salary requested).

10. NIH/NIEHS R13 ES030964-01 Zheng, W (PI) 07/01/2019 – 06/30/2020
The 13th Biennial Conference of the Int'l Society of Trace Element Research in Humans
 To support the biennial conference of the Int'l Society for Trace Element Research in Humans held in Bali, Indonesia, Sept 22-26, 2019. Total cost \$18,000. Role: PI (effort as needed).
11. AgSeed Purdue University Gondhalekar A (PI) 03/01/2019 – 02/29/2020
Defining target sites for plant essential oil constituents used in agricultural, veterinary and structural insect pest management
 A collaborative project between Entomology and Health Science to develop a highly effective organically grown product for "green" insect pest control and management in agriculture as well as in daily public life. Direct cost: \$50,000. Role: Co-I.
12. NIH/NIEHS R56 ES008146 Zheng, W (PI) 12/01/2015 – 11/30/2016
Adult Neurogenesis in Mn-Induced Neurotoxicity
 To test the hypothesis that Mn interaction with Cu underlies the altered adult neurogenesis in subventricular zone which contributes to Mn-induced parkinsonian disorder. Total cost \$155,000. Role: PI (effort as needed)
13. NIH/NIOSH R21 OH010700-01 Nie, Linda (PI) 07/01/2014 – 06/30/2016
Bone Mn as a Biomarker for Early Diagnosis of Mn Neurotoxicity in Occupationally Exposed Workers.
 Apply the neutron-based noninvasive technology to seek the association between Mn neurotoxicity and bone Mn accumulation. Total cost \$401,479. Role: Co-I (5%).
14. NIH/NIEHS R01 ES008146-18 Zheng, W (PI) 03/01/2010 – 12/31/2016
Choroid Plexus as a Target in Metal-Induced Neurotoxicity
 A competitive renewal of R01 grant to test the hypothesis that the brain barrier systems regulate Cu transport between the blood and CSF through the critical transporters, i.e., Ctr1, DMT1 and ATP7A; exposure to Mn alters the functions of these transporters, leading to a distorted Cu homeostasis in the CSF. Total cost \$1,703,576. Role: PI (15%)
15. NIH/NINDS RO1 NS-39422-15 Louis, ED (PI) 04/01/2009 – 06/30/2015
Environmental Epidemiology of Essential Tremor
 To study the role of beta-carboline alkaloids in the etiology of essential tremor. Total cost \$3,544,189. Total cost \$312,178 to Zheng. No-cost extension. Role: Co-Investigator (as needed)
16. NIH/NIOSH R21 OH010044-01 Nie, Linda (PI) 08/01/2012 – 07/31/2015
Development and Validation of A Novel Neutron Technology for Bone Mn Assessment
 To develop a novel neutron-activated X-ray fluorescent technology for noninvasive quantification of manganese in bone. To validate in animal models and test in human subjects. Total cost \$355,234. Role: Co-Investigator (5%).
17. NIH/NIEHS 3R01ES008146-14S2 Zheng, W (PI) 08/01/2011 – 07/31/2013
Research Supplements to Promote Diversity in Health-Related Research Program
 A supplemental grant to support Christopher Bates, a minority doctoral student, for his research in choroid plexus and a-synuclein clearance by the brain barriers. Total \$104,737. Role: PI, effort as needed.
18. NIH/NIEHS R13 ES-020094-01 Zheng, W (PI) 03/01/2011 – 02/28/2012
Xi'an International Neurotoxicology Conference
 Financial support to the joint international conference of the 13th International Neurotoxicology Association Biennial Meeting (INA-13) and 11th International Symposium on Neurobehavioral Methods and Effects in Occupational and Environmental Health (NEUREOH-11) in Xi'an, China between June 5-10, 2011. Total cost \$13,000. Role: PI (2%).

- To use the molecular techniques to create a novel in vitro blood-brain/CSF barrier model for transport study of materials in and out of brain. Total cost \$398,479. Role: PI (15%)
- 29.** NIH/NINDS RO1 NS-39422-04 Louis, ED (PI) 07/01/2000 – 06/30/2004
Environmental Epidemiology of Essential Tremor
 To identify environmental risk factors for ET and determine if the degree of exposure to these factors correlates with tremor severity. Total \$1,629,796. Role: Co-Investigator (15%)
- 30.** Eli Lilly Pharmaceuticals, RPFA # OGJ63 Zheng, W (PI) 06/01/2004 – 05/31/2005
Improvement of an in Vitro Model of Blood-Brain/CSF Barrier
 To improve the existing blood-CSF barrier cell line for drug screen and extend the research to invent a human brain barrier cell line. Total \$22,800 for unlimited years. Role: PI.
- 31.** NIH/NIEHS R13 ES012495 Zheng, W (PI) 03/15/2003 – 04/30/2004
Choroid Plexus in Health and Diseases
 Organizer of International Workshop in London, UK, April 11-14, 2003. To develop the forum for scientists to exchange idea in blood-CSF barrier research field. Direct cost \$8,450. Role: PI
- 32.** International Society for Neurochemistry Zheng, W (PI) 02/01/2003 – 06/30/2004
Metal-Induced Neurodegeneration: From Global Exposure to Individual Susceptibility
 Chairman of International Symposium held in Hong Kong, China, Feb, 2004. To stimulate the intellectual exchange in metal neurotoxicology. Direct cost \$5,000. Role: PI
- 33.** NIH/NIEHS RO1 ES-08146-07 Zheng, W (PI) 12/01/2001 - 11/30/2005
Choroid Plexus as a Target in Metal-Induced Neurotoxicity
 To test the hypothesis that accumulation of Mn in the choroid plexus alters Fe regulatory mechanisms in the blood-CSF barrier and disturbs Fe homeostasis in the CSF, which may contribute to Mn-induced neurodegenerative Parkinsonism. Total cost \$1,134,475. Role: PI (30%)
- 34.** National Natural Science Foundation of China (NSFC)
 NSFC#30000140 Li, Guojun (PI) 01/01/2001 – 12/31/2003
Mechanism of Environmental Factor in Parkinson Disease: Mitochondria Damage Induced by Mn
 To study the mitochondrial damage and apoptosis induced by manganese exposure in experiment animals and in vitro culture system. Direct cost ¥150,000 (\$18,750). Role: Co-PI
- 35.** R21AT00836 Murphy, P (PI) 09/15/2001 – 09/14/2003
 NIH/NCCAM (National Center for Complementary and Alternative Medicine),
Effects of Hypericum Perforatum on Oral Contraceptives
 To evaluate the effects of chronic use of St. John's Wort (*Hypericum perforatum*) on metabolism of contraceptive steroids and ovarian suppression. Role: Co-Investigator (15% in Y02-03)
- 36.** NIH/NIEHS P30 ES-09089 Graziano, J (PI) 07/01/2001 – 12/31/2002
Potential Biomarker for Occupational Exposure to Mn in China (Pilot grant)
 To identify and characterize the human population that is relatively stable and under accountable sources of Mn exposure. Direct cost \$20,000. Role: PI of the pilot grant
- 37.** Burrows Wellcome Fund Award #021366 Deane, R (PI) 05/01/2002 – 02/28/2003
Effect of Manganese on Iron Transport into Brain: Implications for Manganese-Induced Parkinsonism
 To study if exposure to Mn alters Fe regulatory mechanisms in the BBB and BCB, thereby disturbing Fe homeostasis in the CSF and brain. Direct cost £5542. Role: Co-Investigator
- 38.** Burrows Wellcome Fund Award #1001670 Zheng, W (PI) 05/01/2001 – 02/28/2002
Alteration of Thyroxin Transport at the Choroid Plexus by Lead
 To use in situ perfused sheep choroid plexus model to investigate whether lead exposure alters the influx of thyroxin from the blood to the choroid plexus. Collaborated with Dr. Malcolm B. Segal at King's College London, UK. Direct cost \$5,989. Role: PI
- 39.** Beijing Science Committee Grant#9558102800 Li, Guojun (PI) 10/01/2000 – 09/30/2005

Influences on mtDNA, NO, NOS in Mitochondria by Environmental Factor Manganese

To study the effect of Mn on mtDNA including point mutation and reactive oxygen species and to investigate the subcellular targets of Mn cytotoxicity. Direct cost ¥420,000 (\$71,250). Role: Co-PI.

40. NIH/NIEHS RO1 ES-08146-01 Zheng, W (PI) 03/01/1998 – 02/28/2001
Choroid Plexus as a Target in Lead-Induced Neurotoxicity
 To test the hypothesis that environmental Pb exposure induces a depression of CP TTR production, which may impair brain development by depriving it of thyroid hormones. Total \$988,728. (45%)
41. Epilepsy Foundation of America Bazil, CW (PI) 07/01/1998 – 12/31/1999
Drowsiness, Sleep, and Circadian Rhythms in Patients with Temporal Lobe Epilepsy
 The major goals of this clinical project are to investigate the role of melatonin in epilepsy. Direct cost \$40,000. Role: Co-investigator (5%)
42. NIEHS Center Pilot Grant Louis, ED (PI) 05/01/1998 – 04/30/1999
Techniques in Studying Environmental Epidemiology of Essential Tremor
 To develop the methods to study environmental causes of essential tremor and to produce preliminary data for an RO1 grant. Direct cost \$25,000 for one year. Role: Co-Investigator
43. Calderon Foundation Zhao, Q (PI) 09/01/1998 – 08/31/1999
 Does Iron (Fe) Play a Role in Manganese (Mn)-Induced Parkinsonism?
 To investigate if chronic Mn exposure causes cellular Fe overload in rat brain. Total \$2,500. Role: Co-Investigator
44. NIH/NIEHS RO1 ES-07042-01 Zheng, W (PI) 12/01/1994 – 11/30/1997
Biotransformation of DMSA (Succimer) in Humans
 To study that the efficacy of DMSA for treatment of childhood lead poisoning is associated with the extent to which DMSA is metabolized to its active mixed disulfides. Total \$532,868. Role: PI (30%)
45. NIH/NIEHS P20 ES-06831 Graziano, JH (PI) 04/01/1994 – 03/31/1997
Environmental Health in Harlem
 Development of an interdisciplinary collaborative research aimed at the major environmental health problems of socio-economically disadvantaged populations in New York City. Total \$525,000. Role: Co-Investigator (20%)
46. Calderon Foundation Zheng, W (PI) 06/01/1994 – 05/31/1995
Establishment of Choroid Plexus Cell Culture
 To establish primary choroid plexus tissue culture to investigate the role of the blood-CSF barrier as affected by environmental exposure to toxic substances. Total \$7,500. Role: PI
47. NIEHS Center Pilot Grant Zheng, W (PI) 09/01/1994 – 08/31/1995
Effect of Lead (Pb) Exposure on Normal Functions of the Choroid Plexus
 To test the hypothesis that accumulation of Pb in the choroid plexus can alter the normal functions of the blood-CSF barrier. Total \$25,000. Role: PI
- NIH/NIEHS-NTP Sipes, G (PI) 1988 - 1993.
Chemical Disposition in Mammals
 Study of salicyl-azo-sulfapyridine, indium phosphide, tetrachloroazobenzene and anthraquinone in mammals as a part of National Toxicology Program (NTP) study. (\$1,434,938). Role: Project Coordinator
- Private Fund of \$4,000 to study Mn kinetics in dogs (2001-2003).
 Private Fund of \$10,500 to study health effect of aging, toxicants, and eye functions (1996-1999).

C. HONORED ACTIVITIES**Visiting and Adjunct Professorship**

- Visiting Professor, The Institut national de la santé et de la recherche médicale (INSERM) (the French National Institute of Health and Medical Research), Lyon, France (1/03/2020-6/30/2020)

- Adjunct Professor, Peking University Health Science Center, Beijing, PRC (2016-2019, unpaid)
- Adjunct Professor, Zunyi Medical College School of Public Health, Zunyi, PRC (2006-2020, unpaid)
- Visiting Professor, Guangxi Medical University, Nanning, PRC (2006-2011, unpaid)
- Visiting Professor, Zhejiang University College of Pharmacy, Hangzhou, PRC (2006-2011, unpaid)
- Visiting Associate Professor, Zunyi Medical College, Zunyi, PRC (2004-2006, unpaid)
- Visiting Associate Professor, Capital University of Medical Sciences, Beijing, PRC (2002-2006, unpaid)
- Visiting Professor in the Dept. of Physiology, King's College London, St Thomas' Hospital, London, UK. Summers of 2000 and 2001
- Visiting Assistant Professor, Zhejiang University College of Pharmacy, Hangzhou, China (1995-2001)

Leadership in National/International Conferences

- Mar 2022 **Chair**, Poster session of “Neurotoxicology: Metals” in Society of Toxicology annual meeting in San Diego, CA.
- Mar 2021 **Co-chair**, Continuing Education Course “Concepts and Approaches for Current and Future Metal Toxicological Research”, a basic course for Society of Toxicology annual meeting.
- Mar 2021 **Co-chair**, Symposium “Impaired Brain Barrier Systems: Relationship to Chemical-induced Neurotoxicities”. Society of Toxicology annual meeting (virtually).
- June 2020 **Chairman**, Regional Conference on the Blood-Brain Interfaces: Health, Diseases, and Intervention”, Neurocampus Louis Jovet and CRNL, Bron, Lyon, France
- Mar 2020 **Co-chair**, Continuing Education Course “Gateway Technologies in Metal Toxicological Research”, an advanced course for Society of Toxicology annual meeting, San Antonio, TX.
- Sep 2019 **Chairman**, the 13th Biennial Conference of the International Society for Trace Elements Research in Humans sponsored by Indonesia Ministry of Higher Education, NIH/NIEHS, and SOT, Bali, Indonesia, Sept 22-26. (with 167 delegates from 21 nations)
- Mar 2019 **Chairperson**, Symposium “a-Synuclein: A Good Protein Turned Bad in Chronic Brain Diseases with Toxicological Implications”. Society of Toxicology annual meeting, Baltimore, MD.
- Mar 2018 **Co-chair**, Symposium “Toxicological Implication of Copper in Neurodegenerative Diseases”. Society of Toxicology annual meeting, San Antonio, TX.
- Mar 2017 **Chairperson**, Continuing Educational Course “New Concepts and Technologies in Metals Toxicology”. Society of Toxicology annual meeting, Baltimore, MD.
- Mar 2016 **Chairperson**, Poster session “Neurotoxicology: Metals” in the 55th Society of Toxicology annual meeting, New Orleans, LA.
- Oct 2015 **Chair**, Symposium “Baseline Blood Levels of Trace Elements in Humans and Toxicities Induced by Exposure to Toxic Metals”, and **Chair**, Symposium “Toxicological Implication of Metallic Nanoparticles” in Int’l Society for Trace Element Research in Humans, Dubrovnik, Croatia.
- Mar 2015 **Chair**, Symposium “Adult Neurogenesis in Chemical-Induced Neurotoxicities: A New Frontier in Toxicological Mechanistic Investigations, Biomarker Research and Therapeutic Targeting” Society of Toxicology annual meeting, San Diego, CA.
- Mar 2014 **Chair**, Workshop “Is Manganese-Induced Parkinsonism Mediated via Dopamine Neuron Degeneration or Dysfunction?” Society of Toxicology annual meeting, Phoenix, AZ.
- Nov 2013 **Chair**, Symposium on New Insights into the Role of Manganese in Health and Disease. The 10th International Society for Trace Elements Research in Humans. Tokyo, Japan.
- Nov 2013 **Chair**, Symposium on Environment Sources of Neurological and Neurobehavioral Alterations: From Diet and Chemical Exposure to Epigenetic Modification, in the 6th Chinese Society of Toxicology meeting, Guangzhou, China.

- Mar 2013 **Co-Chair**, Symposium “Application of systems biology to identify molecular mechanisms and biomarkers of lead (Pb) neurotoxicity: Implications in a developmental origin of Alzheimer’s disease.” Society of Toxicology annual meeting, San Antonio, TX.
- Jun 2011 **Chairman**, International Organization Committee, Xi’an International Neurotoxicology Conference sponsored by International Association of Neurotoxicology, International Congress on Occupational Health, NIH, and EPA, June 5-10, Xi’an, China. (with 281 delegates from 26 nations)
- Mar 2011 **Chairperson**, Poster session “Metal Neurotoxicity: Manganese and Lead” the 50th Society of Toxicology annual meeting, Washington DC.
- Mar 2009 **Chairperson**, Symposium “Does Metal Toxicity Play a Role in the Etiology of Alzheimer’s Disease?” Society of Toxicology annual meeting, Baltimore, MD.
- Mar 2009 **Chairperson**, Continuing Education Course “New Frontiers in Metal Toxicology: Genetic Susceptibility, Early Diagnosis, and Related Biological Indices” Society of Toxicology annual meeting, Baltimore, MD.
- Sep 2008 **Vice Chairman**, The International Conference on Nanotoxicology. China Association for Science and Technology, Chinese Academy of Sciences, Chinese Society of Toxicology, and American Association of Chinese in Toxicology. Zhengzhou, China, Sep 17-19, 2008
- Mar 2007 **Chairperson**, Workshop, “Advances in causation, diagnosis, and therapy of Parkinson’s and Parkinson-like movement disorders: Views from toxicologists and clinicians” Society of Toxicology annual meeting, Charlotte, NC.
- Mar 2006 **Chairperson**, Continuing Education Course of Society of Toxicology, “Essentials of Metal Toxicology”, San Diego, CA.
- Sep 2005 **Chairperson**, Sub-Symposium, “Health Effect of Manganese Exposure”, the 9th International Symposium on Neurobehavioral Methods and Effects in Occupational and Environmental Health. Gyeongju, Korea.
- Mar 2005 **Chairperson**, Symposium, “What makes metal neurotoxic in Neurodegenerative Disorders?” Society of Toxicology annual meeting, New Orleans, LA.
- Mar 2004 **Chairperson**, Session of Developmental and age-dependent neurotoxicity of metals. Society of Toxicology annual meeting, Baltimore, MD.
- Feb 2004 **Chairman**, International Symposium on “Metal-Induced Neurodegeneration: From Global Exposure to Individual Susceptibility,” sponsored by International Society for Neurochemistry, Hong Kong, China.
- Mar 2003 **Chairperson**, Continuing Education Course of Society of Toxicology, “Unfolding the Secrets in Culturing Brain Cells: Theory, Technique, and Beyond”, Salt Lake City, UT.
- Mar 2003 **Chairperson**, Session of Metal Exposure, Transport, and Distribution. Society of Toxicology annual meeting, Salt Lake City, UT.
- Apr 2003 Member of Organization Committee and **Session Leader**: CP role in brain health and disease. The 2nd International Workshop on Choroid Plexus: Blood-CSF Barrier influence on brain health and disease. King’s College London, April 12-14, 2003, London UK.
- Mar 2002 **Chairperson**, a special symposium of “Innovations in Toxicological Sciences” by Society of Toxicology, “Brain Barrier System: A Frontier in Neurotoxicological Research,” Nashville, TN.
- Mar 2001 **Chairperson**, Continuing Education Course of Society of Toxicology, “Neurotoxicology of Metals: Causes and Consequences”, San Francisco, CA.
- Mar 1999 **Chairperson**, session of Cellular Mechanisms of Metal Neurotoxicity, Society of Toxicology annual meeting in New Orleans.

Invited Lectures and Other Honorarium Activities

- Aug 2021 Invited Speaker, “Lead-Induced Neurotoxicity: From Maternal Exposure to Neurodegenerative Alzheimer’s Disease”, in the Virtual Conference of the International Conference of Trace Elements and Minerals from Aachen, GE (via Zoom).
- May 2020 Invited Speaker, “Mn-Cu Interaction and Adult Neurogenesis: Roles of Choroid Plexus?” in Neurocampus, French INSERM, Lyon, France (via Webex)
- 2/24/2020 Invited Speaker, “Transport of b-Amyloid by Brain Barrier System: Relationship to Lead-induced Brain Amyloid Aggregation” in Neurocampus, French INSERM, Lyon, France
- Sep 2019 Invited Plenary Speaker, “Role of Copper in Regulating Adult Neurogenesis: Relevance to Non-Motor Dysfunction in Manganese-induced Parkinsonism” in ISTERH-2019 in Bali, Indonesia
- June 2019 Invited Keynote Speaker, “Environmental Causes of Disrupted Neurogenesis in Adults” in Chinese Society of Environmental Teratology in Zunyi, China, June 18-22.
- June 2019 Invited Speaker, “Environmental Causes of Alzheimer’s Disease: Relevance to Lead Exposure” by Department. of Biology, Wubei University of Chinese Medicine, Wuhan, China, June 17th.
- June 2019 Invited Speaker, “Blood-Brain Barrier Transport of beta-Amyloid” by School of Medicine, Qingdao University, Qingdao, China, June 14th.
- Oct 2018 Invited Speaker, “Transport of beta-Amyloid by Brain Barrier Systems: Relationship to Lead-induced Brain Amyloid Aggregation” by Int’l Conference on the Prevention of Neurodegenerative Diseases: From Basic to Clinic & the 2018 Chinese Society of Toxicology Neurotoxicology Annual Symposium, Shenzhen, China, October 12-15.
- Oct 2018 Invited Speaker, “Copper in Adult Neurogenesis: Implications in Manganese-induced Parkinson’s Disorder” by Regenerative Medicine Research Center at Sichuan University, Chengdu, China, October 10-11.
- June 2018 Invited Speaker, “Lead neurotoxicity in newborns and Alzheimer’s disease” in the Metal Workshop at Harvard University School of Public Health, Boston, MA.
- May 2018 Invited Speaker, “Copper in adult neurogenesis” in the First Expert Forum on Pharmacological Research and Development, Zunyi Medical University, Zunyi, China.
- May 2018 Invited Speaker, “Role of copper in neuronal repair”, invited by Peking University School of Public Health, Beijing, China
- May 2018 Invited Speaker, “Lead-induced developmental learning disorders”, invited by School of Public Health at North China University of Science and Technology, Tangshan, China
- Mar 2018 Invited Speaker, “Does Lead Exposure Cause Neurodegenerative Diseases such as Alzheimer’s?”, Depts of Pharmacology & Toxicology and Pediatrics, University of Louisville School of Medicine, Louisville, KY. March 26-27.
- Mar 2018 Invited Speaker, “Lead-induced neurotoxicities: From maternal exposure to neurodegenerative Alzheimer’s disease” in a workshop “Get the lead out” in Society of Toxicology annual meeting in San Antonio, TX (Mike Hughes and Karen Bradham)
- Oct 2017 Invited Speaker, “Lead Toxicity and Alzheimer’s Disease” invited by College of Life Sciences, South China Agriculture University, Guangzhou, China.
- Oct 2017 Invited Speaker, “Advances in Metal Toxicology” invited by the School of Public Health, Guangzhou Medical University, Guangzhou, China.
- Oct 2017 Invited Speaker, “Altered Adult Neurogenesis in Neurodegenerative Disorders” invited by the College of Veterinary Medicine, Iowa State University, Ames, IA.
- Jun 2017 Invited Speaker, “Altered Adult Neurogenesis: Implications in Manganese-Induced Parkinsonian Disorder” invited by the 16th International Symposium on Trace Elements in Man and Animals, the 12th Conference of International Society for Trace Element Research in Humans, and the 13th Nordic Trace Element Society in St. Petersburg, Russia.

- May 2017 Invited Speaker, “New Concepts and Technologies in Metals Toxicology”, invited by School of Public Health, Qingdao Medical University, Qingdao, China
- Apr 2017 Invited Speaker, “Transport of α -Synuclein at the Blood-Cerebrospinal Fluid Barrier: Implications in Manganese-Induced Parkinsonian Disorder” invited by the International Symposium on alpha-Synuclein at the Blood-Brain Barrier in Parkinson’s Disease. University of Heidelberg, Heidelberg, Germany.
- Mar 2017 Speaker, “New concepts and technologies in metals toxicology” in Continuing education course in the 56th SOT annual meeting in Baltimore, MD. Toxicologist 156(1): Abstract #1005.
- Nov 2016 Invited Speaker, “Perspectives on Public Health Research on Metal Exposure.” School of Public Health at Peking University, Beijing, China.
- Oct 2016 Invited Speaker and Section Chair, “Role of Altered Adult Neurogenesis in Manganese-Induced Parkinsonian Disorder” in the 7th Euro-Global Summit on Toxicology, Rome, Italy.
- Jul 2016 Invited Speaker. “Role of altered adult neurogenesis in manganese-induced parkinsonian disorder” in the 7th Euro-Global Summit on Toxicology, Rome. J. Clin Toxicol 6:6(Suppl);63.
- Apr 2016 Invited Speaker, “Metal Exposure and Neurodegeneration” in School of Public Health at Sun Yat-Sen University, Guangzhou, China.
- Apr 2016 Invited Speaker, “Manganese Accumulation in Bone: Relationship to Mn Neurotoxicity”. Padjadjaran University at Bandung, Indonesia.
- Apr 2016 Invited Speaker, “Degree Programs at Purdue School of Health Sciences and Opportunities for Student Exchange and Faculty Collaboration” at University of Lampung, Lampung, Indonesia.
- Jul 2015 Invited Speaker, “Neurogenesis in Adult Brain: Implications in Toxicological Studies of Parkinsonian Disorders” in the PLA General Hospital, Beijing, China.
- Jul 2015 Invited Speaker, “Metal Exposure and Neurodegeneration: Human and Animal Evidences for Parkinsonian and Alzheimer’s Diseases” in Chinese CDC Beijing, China
- Mar 2015 Invited Speaker, “Mn Accumulation in Bone: Relationship to Mn-Induced Neurotoxicity” in a symposium “Where the Metal Meets the Bone...” in SOT annual meeting, San Diego, CA
- Mar 2015 Speaker, “Manganese-copper interaction: Effect on adult neurogenesis and stem cell migration” in a Symposium at SOT in San Diego, CA.
- Dec 2014 Invited Speaker, Metal Exposure and Neurodegeneration: Human and Animal Evidences for Parkinsonian and Alzheimer’s Diseases. School of Public Health, Harvard University.
- Oct 2014 Invited Speaker, Adult neurogenesis in manganese-induced Parkinsonian disorder. Dept of Psychology, Purdue University
- Sep 2014 Invited Speaker, “Metal Levels in Normal Subjects and Exposed Workers” in the 1st International Congress on Global Environmental Contamination. Luxembourg.
- May 2014 Invited Speaker, Roundtable “Manganese: The 2013 TLB and Biological Monitoring”. American Industrial Hygiene Association Conference, San Antonio, TX.
- Mar 2014 Speaker, “Accumulation of manganese in substantia nigra and alterations in brain neurochemistry following subchronic manganese exposure in rats” in a workshop in the SOT in Phoenix, AZ
- Dec 2013 Invited Speaker, Current States of Lead Neurotoxicological Research. School of Public Health, Zhejiang University, Hangzhou, China
- Nov 2013 Invited Speaker, “New directions in toxicological studies of human diseases: metal exposure” in the 6th Chinese SOT meeting in Guangzhou, China
- Sep 2013 Invited Speaker, Does Lead Exposure Cause Alzheimer’s Disease? School of Public Health, Guiyang Medical College, Guiyang, China

- Aug 2013 Invited Speaker, Blood-Brain Barrier and Parkinson's Disease, Tech Forum at Medtronic, Inc., Minneapolis, MN.
- Mar 2013 Invited Speaker, Treatment of Manganese Intoxication by Chelation Therapy, the 12th International Symposium on Neurobehavioral Methods and Effects and in Occupational and Environmental Health. Cape Town, South Africa.
- Mar 2013 Invited Speaker, Continuing Educational Course "Toxic Effects of Metals". Society of Toxicology annual meeting, San Antonio, TX.
- Mar 2013 Speaker, "CNS homeostasis of β -amyloid, plaque formation, and lead toxicity" in a symposium at SOT meeting, San Antonio, TX.
- Nov 2012 Invited Speaker, Progress in Metal-Induced Toxicities. Neurotoxicology Specialty Section of Chinese Society of Toxicology. Beihai, Guangxi, China
- Nov 2012 Invited Speaker, "CNS Homeostasis of β -Amyloids, Alzheimer's Disease and Lead (Pb) – Induced Neurotoxicities". Vanderbilt University School of Medicine, Nashville, TN.
- Oct 2012 Invited Speaker, "Lead exposure and formation of amyloid plaques: In vivo and In vitro evidence of the involvement of heavy metal ions in amyloid aggregation" in nanosymposium in Society for Neuroscience annual meeting in New Orleans, LA.
- Mar 2012 Invited Speaker, Current State of Biomarker Research for Manganese Exposure and Toxicity. School of Public Health, Zunyi Medical College, China (with David Chettle)
- Mar 2012 Invited Speaker, Alzheimer's Disease and Lead Intoxication. School of Public Health, Shaanxi Medical University, Taiyuan, China (invited by Dr. NIU Qiao).
- Oct 2011 Invited Speaker, Integrated biomarker for manganese (Mn) exposure and toxicity assessment. The 9th International Society of Trace Element Research in Humans conference, Antalya, Turkey.
- Apr 2011 Invited Speaker, Biomarkers of Manganese Intoxication: Overview and Perspectives. Dept of Environmental and Occupational Health, School of Public Health, University of Washington, Seattle.
- Jan 2011 Invited Speaker, Environmental Contributors of Neurodegenerative Disorders. School of Public Health, Fudan University, Shanghai, China.
- Oct 2010 Invited Speaker, Parkinson's Disease Progress: Notes on Diagnosis and Treatment. Presidential Council class, Purdue University.
- Jun 2010 External Examiner for PhD dissertation defense (Mr. Pergentino Balbuena), Dept of Pharmacology and Toxicology, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech. Blacksburg, VA
- Mar 2010 Invited Speaker, "Regulation of Cu Homeostasis in Brain and Cerebrospinal Fluid: Effect of Fe Deficiency and Overload" in a Symposium "Zinc, Copper and Their Metabolic Effect: Myths and Musts" (chaired by Lu Cai and Weber Karl) in SOT annual meeting in Salt Lake City, UT.
- Jan 2010 Invited Speaker, Environmental Causes of Alzheimer's Disease: Myths and Musts, Colloquium Speaker for the Center on Aging and the Life Course (CALC), Purdue Univ.
- Oct 2009 Invited Speaker, Lead Exposure and Etiology of Alzheimer's Disease, seminar in Dept of Environmental Medicine, New York University School of Medicine, Tuxedo, NY
- Nov 2008 Invited Speaker, Environmental Causes of Neuronal Diseases, seminar in School of Biomedical Engineering, Purdue
- Oct 2008 Invited Speaker, Biomarkers of Early Onset of Manganese Neurotoxicities among Occupationally Exposed Workers in Zunyi Area. International Mini-Symposium on Parkinsonian Diseases. Purdue University
- Jun 2008 Invited Speaker, Manganese Parkinsonism, seminar in Neurodegenerative Disease Group, Purdue University

- Nov 2007 Invited Lecturer, Innovation Economy and Career in Health Sciences, Zhejiang University School of Medicine, Hangzhou, PRC
- Apr 2007 Invited Speaker, Implication of the Brain-Barrier System in Parkinsonian Diseases. Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LS
- Apr 2007 Invited Speaker, Toxicology of Parkinson's Disease and Parkinson-like Diseases. Eli Lilly and Company, Indianapolis, IN
- Nov 2006 Invited Speaker, Clearance of β -Amyloid from Brain: Implications in Drug Development for Treatment of Alzheimer's Disease. The 12th National Congress of Neuropharmacology, Zunyi, China.
- Oct 2006 Invited Speaker, Advances in diagnosis and treatment of manganese Parkinsonism. Texas A&M University, College Station, TX.
- Aug 2006 Invited Speaker, Global Technology Community: Focused Giving program, Development of In Vitro Model of Blood-CSF Barrier. Johnson and Johnson, New Brunswick, NJ.
- Mar 2006 Invited Speaker, "Discovery of biomarkers of manganese exposure in humans" in a symposium "Determinants of manganese neurotoxicity: from worms to man", in SOT meeting in San Diego, CA. (chaired by Miki Aschner and Tomas Guilarte)
- Feb 2006 Invited Speaker, Diagnosis and Treatment of Manganese Parkinsonism: Bed, Bench, and Beyond. University of Minnesota at Duluth, Duluth, MN.
- Dec 2005 Invited Speaker, Biological marker for manganese parkinsonism: from Bench to Bed. University of Southern Maine, Portland, ME (by John Wise)
- Oct 2005 Invited Speaker, Brain barrier model systems in CNS drug screen, profiling and discovery, Sanofi-Aventis Pharmaceuticals, Tucson, AZ
- Sep 2005 Invited Speaker, Mn biomarker in humans, the 22nd International Neurotoxicology Conference, RTP, NC
- Jun 2005 Invited Speaker, Lead toxicity on brain barriers, the 10th Conference of International Neurotoxicology Association, Porvoo, Finland
- Apr 2005 Invited Speaker, Lead Exposure, Transthyretin, and Alzheimer's Disease. Guangxi Medical University, Nanning, Guangxi Province, China
- Apr 2005 Invited Speaker, Manganese-Induced Parkinsonism: Causes, Consequences, and Therapy. Zunyi Medical College, Zunyi, China
- Oct 2004 Invited Speaker, Manganese-Induced Parkinsonism: from Molecular Mechanisms to Clinical Diagnosis. Dept. of Food and Nutrition, Purdue University.
- Aug 2004 Invited Speaker, Implications of In Vitro Brain Barrier Model in CNS Drug Discovery. Johnson & Johnson Pharmaceuticals, New Jersey, NJ.
- Jul 2004 Invited Speaker, Manganese Induced Parkinsonism: A Lesson from Basic Researches. The Fourth Military Medical University, Xian, China.
- Jun 2004 Invited Speaker, "Alteration of Brain Barrier Transport of Iron in Manganese-Induced Parkinsonism" in NIH/NIEHS conference "Environmental Factors in Neurodegenerative Disease: Synthesis and Next Steps" in Research Triangle Park, NC. (Cindy Lawler, Jing Zhang, Howard Hu, Jeff Johnson, John Hong, Gary Miller, Anu Kanthasamy)
- Nov 2003 Invited Speaker, Molecular Mechanism of Manganese-Induced Parkinsonism. Korean Society of Toxicology, Seoul, Korea.
- Oct 2003 Invited Speaker, Metals in Neurodegenerative Diseases. Chung-Ang Univ College of Medicine, Seoul, Korea.
- Oct 2003 Invited Speaker, Environmental Causes of Parkinsonism: Human Study of Manganese Intoxication. Zunyi Medical College, Zunyi, Guizhou Province, PRC
- Apr 2003 Invited Speaker, Techniques in Assessment of Cerebral Bioavailability of Drugs: Implications of in vitro Models. Eli Lilly Pharmaceuticals, Indianapolis, IN.

- Sep 2002 Invited Speaker, Special Symposium "Transport at the Blood-Brain Barrier: A Role in Environmental Disease?" by NIH/NIEHS, Research Triangle Park, NC
- Jun 2002 Invited Speaker, Gordon Research Conferences, "Barriers of the CNS." Tilton, NH.
- Apr 2002 Invited Speaker, Yale University School of Public Health, New Haven, CT
- Sep 2001 Invited Speaker, Dept of Environmental Medicine, Univ of Rochester, Rochester, NY
- Jun 2001 Invited Speaker, Manganese 2001 Health Issues Symposium. Quebec City, Canada.
- Apr 2001 Invited Speaker, New York University School of Medicine
- Aug 2000 Invited Speaker, Does the choroid plexus play a role in Mn-induced Parkinsonism? Dept. of Physiology, King's College London, London, UK
- July 2000 Invited Speaker, Dept. of Clinical Neurosciences, Brown University, Providence, RI.
- May 2000 Invited Speaker and Panelist, International Workshop "Focus on Choroid Plexus: Physiology, Pharmacology, and Physiopathology," Lyon, France.
- Nov 1999 Invited Speaker and Co-Chair of International Symposium on Medical and Life Science, Zhejiang University School of Medicine, Hangzhou, Zhejiang, China.
- Nov 1999 Invited speaker, Environmental factors in etiology of neurodegenerative diseases. Beijing Institute of Pharmacology and Toxicology, Beijing, PRC.
- May 1998 Invited Speaker for Pediatric Neurology Grand Rounds, New York Presbyterian Hospital.
- Dec 1997 Invited Speaker, Occupational exposure to Mn: Biomarker? Beijing Institute of Labor Hygiene and Occupational Diseases, Beijing, PRC.
- Jul 1997 Invited Speaker, Impact of environmental factors on brain chemical homeostasis, by the Bureau of Health Administration, City of Hangzhou, Hangzhou, China.
- Jul 1997 Invited Speaker, Mechanism of Mn-induced neurotoxicity. Capital University of Medicine, Beijing, PRC. (Deng Yi-fu, Wang Dixin)
- May 1996 Invited Speaker, Lead, protein kinase C, and blood-brain barrier. School of Hygiene and Public Health, Johns Hopkins University, Baltimore, M.D.
- May 1993 Invited Speaker, Toxicology Education in the United States; Biliary Distribution of Dithiol Chelating Compounds and Their Interaction with Metallothionein. Zhejiang Univ, China.
- Nov 1992 Invited Speaker, Defense of Mammalian Body Against Heavy Metal-Induced Toxicities. NIH/NIEHS, Research Triangle Park, N.C.
- Sep 1992 Cadmium Toxicity. Department of Family and Community Medicine, University of Arizona, Tucson, AZ.

PART IV: TEACHING AND MENTORING CREDITS

A. COURSES TAUGHT

At Purdue University:

- **Introduction to Health Sciences** (HSCI10100): Created and taught the first course in 2003; Instructor on record 2003-2010 and 2017-present; students (353 in Fall 2021)
- **Everyday Toxicology: Poisonings from Clinics to Courtrooms** (HSCI36000): Created and taught the first course in Spring 2022; IOR; 31 students.
- **Toxicology** (HSCI560): Instructor on record (2011-2016), participating in teaching since 2003
- Participating in teaching: HSCI201 (Principles of Public Health), HSCI195 (Freshman Scholarship), HSCI345 (Occupational and Environmental Health), HSCI 562 (Analytic Toxicology and Pathology) and HSCI671 (Biochemical Toxicology).

At Columbia University:

- Systemic Toxicology (P8312): Instructor on record, 1994-2002

- Toxicokinetics (P8313): Created and taught the first course in 1994; Instructor on record, 1994-2002
- Principles of Systems Pharmacology (G8001): Course Co-Director 1999-2002
- Molecular Toxicology (P8306): Metal Toxicology

Recognition by Students:

- Nominated for a Favorite Faculty Award by undergraduate students and invited to the Favorite Faculty Reception hosted by the provost (March 2019)
- Nominated for Distinguished Mentor Award by Purdue Graduate School (February 2011)
- Nominated for Teaching Excellence by students in School of Public Health with Dean's acknowledge letter (May 1999)

Faculty advisor:

- Purdue Caduceus Club (pre-med) (2004-2007)
- Purdue Pre-physician Assistant Club since April 2020

B. STUDENTS/POSTDOC/VISITING SCHOLAR TRAINED OR IN TRAINING

B1. At Purdue University (2003 – present):

Major Professor for:

- 1. Luke (Luqing) Liu:** in Ph.D. program (08/15/2018 – present)
Thesis: Adult neurogenesis in metal-induced neurotoxicity
- 2. Lara (Tianyuan) Sang:** in MS program (01/03/2019 – present)
Thesis: Presence and function of Art1 in blood-CSF barrier and metal toxicity
- 3. Xinxin Liu:** in Ph.D. program (07/15/2013 – 05/11/2018)
Thesis: Environmental effect on voice (Co-advisor: Dr. Preeti Sivasankar)
Award: - SOT Graduate Student Travel Award 2018
- 4. Stefanie O'Neal:** Ph.D. (05/15/2012 – 9/30/2015)
Current Employer: Group Leader at Kao Corporation in Cincinnati, OH
Thesis: Mn and Cu interaction in subventricular zone and neuro-regeneration
Awards: - Student travel award by PULSe and Purdue's Women in Science Programs
- Committee for the Education of Teaching Assistants (CETA) Teaching Award in 2013
- Teaching Academy 2013-2014 Graduate Teaching Award in 2014
- Society of Toxicology Graduate Student Travel Award (\$1,000) in 2014
- Compton Graduate Travel Award (\$500) in 2014
- The Wayne V. Kessler Best Graduate Student Award by School of HSCI in 2015
- 5. Christopher A. Bates:** Ph.D. (05/15/2010 – 8/18/2014)
Current Employer: Exponent Consulting Firm, Washington DC.
Thesis: Alpha-synuclein transport by the blood-CSF barrier in choroid plexus
Awards: - Student Travel Award by PULSe (2012), by HSCI 2014
- the 1st place award for graduate platform presentation by Ohio Valley SOT in 2012.
- Purdue Health Sciences Graduate Student Service Award in 2013
- 6. Sherleen Xue-Fu Adamson:** Ph.D. (07/20/2008 – 08/03/2013)
Current Employer: Proctor and Gamble
Thesis: Cu transport by brain barriers in Mn Parkinsonism
Awards: - Student Travel Award for Outstanding Student Symposium Presentation Recipient in Xi'an International Neurotoxicology Conference by the International Neurotoxicology Association in 2011.

- Graduate Student Travel Award by American College of Toxicology (2012)
 - Student Travel Award (\$1000) by the Society of Toxicology (2012)
 - Recipient of the 3rd place of "Graduate Student Research Award" by the SOT Metals Specialty in 2013.
 - The "Best Platform Presentation" of Postdoctoral Scientist by Ohio Valley SOT in 2014.
 - The "Best Poster Presentation for Postdoctoral Fellow" by Ohio Valley SOT in 2015.
 - The 3rd place of "Postdoctoral Research Award" by SOT Metals SS in 2015.
 - The 1st place of "Postdoctoral Research Award" by SOT Metals SS in 2016.
- 7. Andrew D. Monnot:** Ph.D. (06/2006 – 05/2011)
Current Employer: Amazon Chief Toxicologist, Palo Alto, CA
Thesis: Brain Cu regulation and effect of Fe deficiency and Fe overload
Award: - Wayne V. Kessler Best Graduate Student Award by School of Health Sciences in 2011
 - Society of Toxicology Student Travel Award Winner in 2010
- 8. Shirisha Chittiboyina:** M.S. (08/15/2009 – May 2011)
Current Employer: Post/doc at Purdue College of Veterinary Medicine
Thesis: Aluminum transport by blood-CSF barrier in choroid plexus
- 9. Samuel Peterson:** M.S. (08/2006 – 09/15/08)
Current Employer: Postdoctoral fellow at Oregon University of Health Sciences.
Thesis: Effect of single-walled carbon nanotubes on the structure and function of the blood-CSF barrier.
- 10. Mamta Behl:** Ph.D. (08/14/06 – 09/15/09)
Current Employer: Neurotoxicology Discipline Leader, National Toxicology Program, NIH/NIEHS, Research Triangle Park, NC.
Thesis: Alteration of β -amyloid clearance by the blood-CSF barrier following lead exposure
Awards: - Travel Award (\$1000) by the American College of Toxicology in Tucson, AZ in 2008
 - Student Travel Award (\$1000) from the Society of Toxicology for work on lead exposure and the causes of Alzheimer's disease in Baltimore, March 2009
 - The second place best student presentation award (\$500) by the Metals Specialty Section of Society of Toxicology in March 2009.
 - The Mehendale and Singh Student/Postdoctoral Young Investigator Award from the Association of Scientists of Indian Origin of Society of Toxicology.
- 11. Dallas Cowen:** Ph.D. (06/15/05 – 05/11/08)
Current Employer: Senior Toxicologist, Center for Toxicol and Env Health LLC, San Diego, CA
Thesis: Biomarkers for early diagnosis of Mn Parkinsonism
Awards: - Eli Lilly Industrial Hygiene Award for outstanding student research (\$3,000)
- 12. Shirley (Xueqian) Wang:** Ph.D. (08/15/03 – 7/30/07)
Current Employer: Staff Scientist, ALS/MND Clinic, Ohio State University Med Center, Columbus, OH
Thesis: Alteration of Brain Fe Homeostasis by Mn Exposure: Role of Divalent Metal Transporter
Awards - Victor A. Drill Award for Outstanding Student Research by SOT Midwest Chapter in 2004
 - Student travel award by Society of Toxicology in 2006
 - Wayne V. Kessler Best Graduate Student Award by School of Health Sciences in 2006
- 13. Lewis (Zhichang) Shi:** M.D., Ph.D. (05/20/03 – 08/31/05)
Current employer: Associate Professor, Director of Radiobiology, University of Alabama Birmingham School of Medicine, Birmingham, AL
Thesis: Establishment of In-Vitro Blood-Cerebrospinal Fluid Barrier (BCB) Model to Study the Mechanism of Lead Neurotoxicity.
Awards - Victor A. Drill award for Outstanding Student Research by SOT Midwest Chapter in 2004
 - Student travel award by Society of Toxicology in 2005

- The second-place Best Student Research award by SOT In Vitro Section in 2005
- Graduate Travel Award for the SOT in 2005
- Wayne V. Kessler Best Graduate Student Award by School of Health Sciences in 2005

Serve as an Advisor in Graduate Committees:

- 1) **Alexis Webb** in PhD program (01/2020 – present) Major Advisor: Linda Nie
- 2) **Lilly (Li) Xia** in PhD program (05/2019 – present) Major Advisor: Jonathan Shannahan
- 3) **Hyunjin Kim** in PhD program (05/2019 – present) Major Advisor: Aaron Bowman
- 4) **Keturah Kiper** in PhD program (01/2019 – present) Major Advisor: Jennifer Freeman
- 5) **Ola Wasel** in MPH/MS program (09/2017 – present) Major Advisor: Jennifer Freeman
- 6) **Xinxin Zhang** in PhD program (08/2017 – present) Major Advisor: Dr. Linda Nie
- 7) **Lisa Kobos** in PhD program (08/2017 – 07/2020) Major Advisor: Dr. Jonathan Shannahan
- 8) **Seth A. Herr** in PULSe program (07/2017 – 05/2021) Major Advisor: Dr. Riyi Shi (Biomedical Engineering)
- 9) **Rachel Foguth** in PhD program (02/2017 – 07/2020) Major Advisor: Dr. Jason Cannon
- 10) **Sudip Gaire** in PhD program (11/2016 – 05/2020) Major Advisor: Dr. Ameya Gondhalekar (Entomology)
- 11) **Zainab Hasan** in PhD program (05/2016 – present): Major Advisor: Dr. Ellen Wells
- 12) **David Edmondson** in PhD program (08/2014 – 06/2018): Major Advisor: Dr. Ulrike Dydak
- 13) **Katie Horzmann** in PhD program (06/2015 – 05/2018): Major Advisor: Dr. Jennifer Freeman
- 14) **Johnny Wise** in PhD program (05/2014 – 05/2018); Major Advisor: Dr. Jason Cannon
- 15) **Danelle Rolle** in PhD program (05/2014 – 07/2018); Major Advisor: Dr. Ellen Wells
- 16) **Christlene Horton** in PhD program (05/2014 – 05/2016); Major Advisor: Dr. Candace Tsai
- 17) **Sena Agim** in PhD program (11/2013 – 05/2017); Major Advisor: Dr. Jason Cannon
- 18) **Xindi (Cindy) Ding** in MS program (11/2013 – 05/2016); Major Advisor: Dr. Jason Cannon
- 19) **Menghan Liu** in MS program (11/2013 – 05/2016); Major Advisor: Dr. Jason Cannon
- 20) **Brendan Sullivan** in Ph.D. program (05/2013 – 05/2015); Major Advisor: Dr. Yulia Pushkar PHYS
- 21) **Yinzi Liu** in Ph.D. program (08/15/2010 – 06/2016); Major Advisor: Dr. Linda Nie
- 22) **Sara Hargrave** in Ph.D. program (03/2012 – 08/2014); Major Advisor: Dr. Kim Kinzig PSYC
- 23) **Zaiyang Long** in Ph.D. program (02/2010 – 08/2013); Major Advisor: Dr. Ulrike Dydak
- 24) **Scott Johns** in Ph.D. program (08/2010 – 05/15/2013); Major Advisor: Dr. Ulrike Dydak
- 25) **Gregory Robison** in Ph.D. program (07/2010 – 12/31/2013); Major Advisor: Dr. Yulia Pushkar
- 26) **James Dant:** in MS program/Health Physics (01/2011 – 05/2013); Major Advisor: Dr. Linda Nie
- 27) **Shalmali Dharmadhikari:** in Ph.D. program (04/2010–05/15/2012); Major Advisor: Dr. Bensol Navin
- 28) **Samuel Peterson:** in Ph.D. program (09/2008 – 05/2012); Major Advisor: Dr. Jennifer Freeman
- 29) **Steven Sanchez:** in Ph.D. program (02/2009 – 05/2012); Major Advisor: Dr. Linda Nie
- 30) **Haijuan Gao:** in M.S. program (Sept 2009 – 05/2010); Major Advisor: Dr. Shuang Liu
- 31) **Mesoloras, Geraldine:** in Ph.D. program (09/2008 – 05/2010); Major advisor: Dr. Robert Stewart
- 32) **Scott Kanoski:** Ph.D. (09/2008 – 08/2009); Major Advisor: Dr. Terry Davidson (Dept. Psychology)
Project: High energy diet on hippocampus dependent learning processes
- 33) **Eric Pepin:** in Ph.D. program (08/2007 – 12/2010) (co-chair with Dr. Wanmei Hu)
Thesis: Dose calculation in radiological therapy
- 34) **Anna Kristina Meszka-Jordan:** M.S. (Oct 2007 – May 2009); Major Advisor: Dr. Carlson
Project: Toxicology of solvents
- 35) **Jessie Puryear:** M.S. (Jan 2007 – Dec 2008); Major Advisor: Dr. Robert Stewart
Project: Health Physics
- 36) **Judy James:** Ph.D. (June 2005 – May 2009); Major advisor: Dr. Navin Bansal
Project: Magnetic resonance spectroscopy imaging of liver

- 37) **Jill Harvilchuck**: Ph.D. (May 2005 – Feb 2009); Major advisor: Dr. Gary Carlson
Project: Bioactivation of styrene
- 38) **Heather Leavesley**: Ph.D. (July 2004 – May 2009); Major advisor: Dr. Gary Isom.
Project: Signaling of G-protein coupled receptors in neuronal cell death
- 39) **Xu Zhang**: Ph.D. (Aug. 2004 – Sept 2008); Major advisor: Dr. Gary Isom.
Project: Neuronal cell death-cyanide
- 40) **Mark D. Wilson**, M.S. (Sept. 2003 – Sept 2007); Major advisor: Dr. James McGlothlin.
Project: Smoking and heart rate
- 41) **Brent L. Yeagy**: Ph.D. (left with a M.S.) (May 2003 – May 2005); Major advisor: Dr. Frank Rosenthal
Project: Particle and heart rate
- 42) **Lu Zhang**: Ph.D. (Oct 2003 – May 2009); Major advisor: Dr. Gary Isom
Project: Cell death pathway in dopamine neurons
- 43) **Fan Xu**, Ph.D. (May 2003 – Dec 2005); Major advisor: Dr. James McGlothlin
Project: Real time exposure monitoring
- 44) **Patrick Sheets**: M.S. (Mar. 2003 – Aug. 2004); Major advisor: Dr. Gary Carlson
Project: Metabolism of organic chemical

Undergraduate Students:

- 1 **Vivian Hurn** in HSCI (09/2020 – present) in pre-med program
- 2 **Vincent Calhoun** in HSCI (09/2020 – present) in pre-physician program
- 3 **Sarah Du** in pre-med at Emory University (01/2021 – present)
- 4 **David Du** high school student interested in medicine (05/2019 – present)
- 5 **Maggie Chen** in pre-pharmacy (11/07-2018 – 05/2020)
- 6 **Sai Dwibhashyam** in HSCI (03/2018 – 05/2019) in pre-med program
- 7 **William Schrock** in HSCI (03/2016 – 05/2018) medical student at IU School of Medicine
- 8 **Erin Kay** in HSCI Honors Program (09/2014 – 05/2018) medical student in College of Osteopathic Medicine at Marian University in Indianapolis, IN.
- 9 **Vivien Lai** in Biology pre-med (08/2013 – 05/2018)
- 10 **Andrew Zeng** in summer program (08/2013 – 08/2015) medical student in Albany Medical School
- 11 **Stephanie Barthuly** in HSCI Honors program (10/2012 – 05/2013) studying in a dental school
- 12 **Amanda Beering** in Biology pre-med program (08/2012 – 05/2014) studying at Columbia University
- 13 **Alex Jones** in HSCI Honors program (01/2012 – 05/2015) medical student at IU Medical School in 2015. Highlighted in Journal of Purdue Undergraduate Research
- 14 **Emily Li**, in pharmacy program at Purdue College of Pharmacy (01/2011 – 02/2012) Li Ya's daughter
- 15 **Helen (Dong) Shao** in pre-pharmacy (03/2010 – 05/2015) accepted by Purdue Pharmacy School; PharmD, RPh, Short-Hills Pharmaceuticals, Raritan, NJ
- 16 **Nate Quinlan** in HSCI Honors program (01/2012 – 05/2012)
- 17 **Michelle (Yuen Sze) Chan** in Biology (08/2009 – 25/2012), registered nurse in Hong Kong, applying for the Med School in Hongkong
- 18 **Sanna Ho** in HSCI (05/2009 – 05/2010) PhD student at IUB
- 19 **Mark Ziemba** in HSCI (05/2010 – 12/2010), DDS in Fisher, IN
- 20 **Jillian Jackson** in HSCI (05/2009 – 12/2009)
- 21 **Jonathan Nixon** in HSCI (07/2007 – 05/2008)
- 22 **James Huffman** in Biology (07/2006 – 06/2007)
- 23 **Greg Allen** in HSCI (01/2005 – 05/2006)
- 24 **Kent Williams** in Biology (01/2005 – 08/2005)
- 25 **Erica Frasier** in HSCI (01/2016 – 12/2016)

- 26 **Maneesha Chigurupati** in HSCI (2003 – 2005); Lilly HP award 2005; first job in a nuclear power plant. DDS in Greenwood, IN
- 27 **Ellen L. Smith** in Neurobiology and animal physiology (05/2004 – 05/2005), J.D./Ph.D. Intellectual Property Law and Patent Law. Chicago.
- 28 **Jessica Shafer** in Pre-Pharmacy program (01/2004 – 08/2004) accepted by Purdue Pharmacy School
- 29 **Ayesha Pergadia** in HSCI program (04/2004 – 12/2004) accepted by Northwestern University MBP program. Regulatory Affairs Leader, GE Healthcare, Waukesha, WI.

B2. At Columbia University (1993 – 2003):

Major Professor for:

14. **J. Richard Pilsner:** M.S. (September 2000 – January 2003)
Thesis: Effect of Mn on Iron Regulatory Protein-1 in Rat Brain
Award: EPA STAR Fellowship award recipient (2001-2003).
Current employer: Professor and Robert J. Sokol Endowed Chair of Molecular Obstetrics and Gynecology in Department of Obstetrics and Gynecology at Wayne State University School of Medicine, Detroit, MI.
Mark G. Opler: Ph.D. (May 1999 – September 2002)
Thesis: Maternal Pb exposure and schizophrenia
Award: Outstanding presentation award by SOT Neurotoxicology Specialty Section in Salt Lake City, UT, 2003.
Current employer: Assistant Professor, Dept of Psychiatry and Environmental Medicine, New York University School of Medicine, New York, NY
15. **Ulpu Andersson:** MPH (September 2000 – May 2002)
Thesis: beta-carboline derivatives and the causes of essential tremors
Current employer: Department of Environmental Health, Finnish Academy of Sciences, Helsinki, Finland
16. **Susan Lai:** MPH (September 1999 – May 2001)
Thesis: Establishment of Primary culture of endothelial cells
Current employer: US Genomics, Inc., Boston.
17. **George Tsao:** MPH (September 1998 – May 2000)
Thesis: Comparison of cytotoxicities induced by Mn(II) or Mn(III).
Award: Travel Award by Society of Toxicology, annual meeting in Philadelphia, 2000.
Current employer: M.D. Anesthesiologist, VA Southern Nevada Healthcare System, North Las Vegas, NV
18. **Linda Dunn:** MPH (September 1999 – May 2000)
Current employer: United States Navy.
19. **Hyaehwan Kim:** MPH (September 1997 – May 1999)
Thesis: Toxicokinetics of manganese chloride and methylcyclopentadienyl Mn tricarbonyl in Sprague-Dawley rats.
Current employer: M.D., General Surgery, Univ of Utah Schl of Med, Salt Lake City, UT
20. **Onpan Cheung:** MPH (January 1998 – May 1999)
Thesis: Determination of T4 in human CSF samples
Current employer: M.D., Gastroenterologist, Upland, CA.
21. **Joseph Eichenbaum,** M.D.: MPH (September 1996 – May 1999)
Thesis: Distribution of lead and transthyretin in human eyes.
Current employer: Clinical Professor of Ophthalmology, Mount Sinai School of Medicine, NYC, NY
22. **Sean Ren:** MPH (June 1995 – May 1998)
Thesis: Determination of lamotrigine in biological materials by a simple and rapid liquid

chromatographic method.

Current employer: Shering-Plough Pharmaceutical Company (Merck)

Served as an Advisor in Doctoral Graduate Committee at Columbia Univ:

45) **Mark Maddaloni**, DrPH (1995 – 1998). U.S. EPA Branch in Manhattan, NY

46) **Bao-yun Yin**, DrPH Thesis Examination Committee, 1994

C. SENIOR/POSTDOCTORAL FELLOWS TRAINED OR IN TRAINING

Senior Research Fellows:

- 1 Ms. **Yundan Xu**, M.S.: Lecturer, Visiting Professor, School of Basic Medical Science, Hubei University of Chinese Medicine, Wuhan, China (10/01/2019 – 09/30/2020).
- 2 Dr. **Xuqin Du**, MD., Ph.D.: Assistant Professor, Department of Occupational Health and Poisoning, Beijing Chaoyang Hospital, Capital University of Medical Sciences (03/01/2019 – 02/28/2020)
- 3 Prof. **Gang Zhao**, Ph.D.: Visiting Professor, School of Basic Medical Science, Hubei University of Chinese Medicine, Wuhan, China (09/01/2018 – 03/31/2019).
- 4 Prof. **Stephen B. Hooser**, DVM, Ph.D.: Professor and Head Toxicology Section, Indiana Animal Disease Diagnostic Laboratory, Purdue University (03/20/2017 – 07/31/2017). Sabbatical research.
- 5 Dr. **Yuanzhong Zhou**, Ph.D.: Professor and Associate Dean, School of Public Health (06/01/2015 – 05/31/2016). Department of Occupational Toxicology, Zunyi Medical University.
- 6 Dr. **Xubo Shen**, Ph.D.: Associate Professor (10/01/2015 – 05/31/2016), School of Public Health, Zunyi Medical College. China
- 7 Prof. **Jung-Duck Park**, Ph.D.: Visiting Professor (sabbatical), Chair, Dept of Occupational Medicine, Chung-Au University School of Medicine, Seoul, South Korea (01/2012 – 08/2012)
- 8 Prof. **Qiyuan Fan**, M.D., Ph.D.: Visiting Professor, Dean, School of Public Health, Zunyi Medical College, China (12/30/07 – 12/24/08) and now President, Zunyi College of Medical Professionals.
- 9 Prof. **Kiran Kalia**, Ph.D.: Visiting Professor, Professor, Dept of Chemistry, Sardar Patel University, Gujarat, India (09/25/06 – 12/30/06)
- 10 Prof. **Yueming Jiang**, M.D., Ph.D.: Visiting Professor, Chair, Dept of Toxicology and Occupational Medicine, Guangxi Medical University (03/01/06 – 05/31/06)
- 11 Dr. **Wendy Jiang**, M.D., Ph.D.: Associate Research Scientist (12/01/2005 – present)
- 12 Prof. **Rashid Deane**, Ph.D.: Visiting Scholar (summer, 2001), Reader at University of Greenwich, London, UK.
- 13 Dr. **Qiuqu Zhao**, M.D., Ph.D.: Associate Research Scientist (1998-2001) currently as a physician in practice, Long Island Jewish Hospital, NY

Postdoctoral Fellows:

- 14 Dr. **Xiaoli Shen**, Ph.D.: now Associate Professor, School of Public Health, Qingdao University (02/20/2018 – 02/19/2019).
- 15 Dr. **Ning Li**, Ph.D.: now Associate Professor, School of Food Science and Technology, Henan Agricultural University, Zhengzhou, China (02/01/2016 – 03/31/2017)
- 16 Dr. **Sherleen Fu**, M.D., Ph.D. in toxicology (08/15/2013 – 12/31/2016), now P&G
- 17 Dr. **Qinli Zhang**, M.D., Ph.D.: Visiting Professor, Chair, Dept of Occupational and Environmental Sciences, Shanxi Medical University, Taiyuan (07/01/2013 – 05/31/2014)
- 18 Dr. **Lan Hong** (11/01/2011-06/30/2013), Ph.D. in analytic toxicology, Zhejiang University College of Pharmacy.

- 19 Dr. **Gang (Greg) Zheng** (11/01/2009-10/28/2011), Ph.D. in Occupational and Environmental Health, the Fourth Military Medical University, Xi'an, China. Current position: Associate Professor in the same institute.
- 20 Dr. **Jun (John) Zhang** (2/15/2010-2/14/2011), Ph.D. in Toxicology (2008), Zhejiang University. Current position: Assistant Professor, School of Public Health, Zhejiang Univ., Hangzhou. China
- 21 Dr. **Yanshu Zhang** (08/12/2006-06/19/2009), Ph.D. in Occupational Medicine, Chinese Centre for Disease Control and Prevention, Beijing, China (2006). Current position: Vice Dean, School of Public Health, Northwest Union University, Tangshan, China
- 22 Dr. **Jaya Prasanthi** (09/05/2006-12/31/2007), Ph.D. in Molecular Biology, Sri Venkateswara University, Tirupati, India 2005. Current position: Research Associate in University of North Dakota.
- 23 Dr. **Janelle S. Crossgrove** (09/01/2003-06/30/06): Ph.D. in Toxicology, University of Kentucky, Lexington, KY 2003. Current position: Assistant Professor, Ohio Northern University.
- 24 Dr. **Byung Sun Choi** (2/10/2004-2/09/2006): Copper homeostasis in brain and its relationship to etiology of neurodegenerative diseases. Current position: Professor at Chung-An University School of Medicine, Seoul, Korea.
- 25 Dr. **Longlian Zhang** (Visiting scholar, 08/01/2005-10/31/2005): Epidemiological study of association between lead exposure and occurrence of Alzheimer's disease in humans. Current position: Head of Dept of Occupational Disease Prevention, Beijing Fengtai Branch of Chinese Center for Disease Control and Prevention, Beijing, China
- 26 Dr. **G. Jane Li**, M.D., Ph.D. (04/01/2002-6/30/2005): Molecular mechanism of manganese-induced parkinsonian disorders. Current position: Director of Beijing Institute of Toxicology, Beijing CDC, Beijing, China.
- 27 Dr. **Ramon Rosal**, Ph.D. (2001-2002): Ph.D. in Biophysics, Wayne State University, Detroit, MI (1993). Structural and functional changes of transferrin receptor and iron-regulatory protein-1 by using computerized structural analysis. Obtained NIH/NIEHS minority supplemental award to my NIH RO1 grant. Currently Research Scientist at Columbia University School of Public Health
- 28 Dr. **Minjie Gu**, Ph.D. (07-12/2002): Ph.D. in Molecular Biology & Biochemistry, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing, China. Currently Research Scientist, Dept of Pathology, Columbia Univ College of P&S
- 29 Dr. **Ling Lu**, M.D. (Visiting Scholar, 07-11/2002): M.D. in Public Health and Occupational Medicine, Norman Bethune University of Medical Sciences, Changchun, Jilin, China 1992. Epidemiological study of iron and iron metabolic proteins in welders in Beijing. Currently Principle, Chinese CDC Futai Branch, Beijing, China
- 30 Dr. **Jingyuan Chen**, M.D. (01/01/2000-12/31/2001): M.D. Second Military Medical University, Shanghai, 1985; Ph.D. in Neuroendocrinology, Fourth Military Medical University, Xi'an, 1996. Current position: Provost of the Fourth Military Medical University (2012-present).
- 31 Dr. **Bill (Yongbiao) Guan**, M.D., Ph.D. (1999-2000): M.D. Environmental causes of essential tremor. Currently Deputy Director, Toxicology Testing Center, Institute of Pharmacology & Toxicology of Beijing, Beijing, PRC
- 32 Dr. **Susan (Shunzhen) Wang**, M.D. (1998-1999): M.D. Sleeping circle, in epilepsy; HPLC method for analysis of beta-carboline derivatives in human blood. Currently Deputy Director of Beijing Bureau of Science and Technology (local government funding agency)
- 33 Tehilla Rieser: Lead toxicity on transthyretin in the choroid plexus. NYC Higher School Science Teacher for summer training (1997, 1998).

PART V: PUBLICATIONS**A. BOOK PUBLISHED**

Zheng W and Chodobski A (Editors). The Blood-Cerebrospinal Fluid Barrier. CRC Press, New York. 2005.

B. ORIGINAL, PEER REVIEWED ARTICLES (TOTAL 201):

(Total citation: 12,119; h-index: 60; i10-index: 132; Google scholar

<https://scholar.google.com/citations?user=OK6RNdcAAAAJ&hl=en>)

1. Gu HY, Xu YD, Du N, Yu YQ, **Zheng W** and Du YS (2022). Lead (Pb) induced monocyte chemoattractant protein-1 in the choroid plexus. *Biology* 2022; 11(2):308. (IF:5.079) DOI:[10.3390/biology11020308](https://doi.org/10.3390/biology11020308).
2. Adamson SF, **Zheng W***, Agim ZS, Du S, Fleming S, Shannahan J, and Cannon J (2021). Systemic copper disorders influence the olfactory function in adult rats: Roles of altered adult neurogenesis and neurochemical imbalance. *Biomolecules* 11(9):1315. (IF: 4.879) (PMCID: PMC8471899)
3. Liu L, **Zheng W*** and Zhang YS (2021). Age-dependent decline of copper clearance at the blood-cerebrospinal fluid barrier in rats. *Neurotoxicology* 88:44-56. (IF:4.294) (PMCID: PMC8748412)
4. Chen HH, Li XL, Ma H, **Zheng W**, and Shen XL, (2021). Reduction in nesfatin-1 levels in the cerebrospinal fluid and increased nigrostriatal degeneration following ventricular administration of anti-nesfatin-1 antibody in mice. *Front. Neurosci.* 15:621173 (IF:4.677) (PMCID: PMC7890421)
5. Gaire S, **Zheng W**, Scharf ME and Gondhalekar AD (2021). Plant essential oil constituents synergize deltamethrin toxicity in a resistant strain of bed bugs (*Cimex lectularius* L.) by inhibiting cytochrome P450 enzymes. *Pesticide Biochem Physiol* 175:104829 (IF:3.680) DOI: 10.1016/j.pestbp.2021.104829.
6. Wang XX, Chen HH, Ma H, **Zheng W** and Shen XL (2021). Threshold effects of total copper intake on cognitive function in U.S. older adults and the moderating effect of fat and saturated fatty acid intake. *J Academy of Nutrition and Dietetics* 121(12):2429-2442. (IF:4.910) (PMID: 34219046)
7. Webb A, Spiers K, Falkenberg G, Gu HY, Dwibhashyam SS, Du YS, **Zheng W** and Nie LH (2021). Distribution of lead (Pb) and selenium (Se) in mouse brain following subchronic Pb exposure by using synchrotron X-ray fluorescence. *Neurotoxicology* 88:106-115. (PMCID: PMC8748384)
8. Rolle-McFarland D, Liu Y, Mostafaei F, Zauber SE, Zhou Y, Li Y, Fang Q, **Zheng W**, Nie LH and Wells E (2021). The association of bone and blood manganese with motor function in Chinese workers. *Neurotoxicology* 88:224-230. (PMCID: PMC8748420)
9. **Zheng W*** and Gherzi-Egea, JF (2020). Brain barrier systems play no small roles in toxicant-induced brain diseases and disorders. *Toxicol Sci* 175(2):147-148. (PMCID: PMC7253204).
10. **Zheng W** (2020). Systemic impact of trace elements on human health and disease: Nutrition, toxicity, and beyond (Editorial). *J Trace Elem Med Biol* 62:126634. (PMID: 32827865)
11. Shen XL, Xia L, Liu L, Jiang W, Shannahan J, Du Y, and **Zheng W*** (2020). Altered clearance of beta-amyloid from the cerebrospinal fluid following subchronic lead exposure in rats: Roles of RAGE and LRP1 in the choroid plexus. *J Trace Elem Med Biol* 61: 126520. (PMCID: PMC7541561).
12. Gu HY, Territo PR, Persohn SA, Bedwell MM, Eldridge K, Speedy R, Chen Z, **Zheng W** and Du YS (2020). Evaluation of chronic lead effects in the blood brain barrier system by DCE-CT. *J Trace Elem Med Biol* 62:126648. (PMID: 32980769)

13. Du XQ, **Zheng W**, and Ye Q (2020). Comparison of a rare case of severe life-threatening lead poisoning due to accidental exposure with a case of chronic lead poisoning due to occupational exposure. *Toxicol Ind Health* 36(12):951-959. (PMCID: PMC7752850)
14. Li XL, Zhan RQ, **Zheng W**, Jiang H, Zhang DF, and Shen XL, (2020). Positive association between soil arsenic concentration and mortality from Alzheimer's disease in mainland China. *J Trace Elem Med Biol* 59:126452. (PMCID: PMC7350902)
15. Louis ED, Eliassen EH, Ferrer M, Hernandez DI, Gaini S, Jiang W, **Zheng W**, Nielsen F, and Petersen MS (2020). Blood harmaline (1-methyl-9H-pyrido[3,4-b]indole) and mercury in essential tremor: A population-based, environmental epidemiology study in the Faroe Islands. *Neuroepidemiology* 54:272-280. (PMCID: PMC7210050)
16. Ding HW, Wang F, Su LY, Zhao L, Hu BL, **Zheng W**, Yao ST, and Li Y (2020). Involvement of MEK5/ERK5 signaling pathway in manganese-induced cell injury in dopaminergic MN9D cells. *J Trace Elem Med Biol* 61:126546. (PMCID: PMC7655554)
17. Hasan Z, Rolle-McFarland D, Liu Y, Zhou JQ, Mostafaei F, Li Y, Fan QY, Zhou YZ, **Zheng W**, Nie LH, and Wells EM (2020). Characterization of bone aluminum, a potential biomarker of cumulative exposure, within an occupational population from Zunyi, China. *J Trace Elem Med Biol* 59:126469 (PMCID: PMC7112220)
18. Ferrer M, Eliassen EH, Petersen MS, Jiang W, **Zheng W**, and Louis ED (2020). Meat Consumption and Meat Cooking Practices in Essential Tremor: A Population-Based Study in the Faroe Islands. *Tremor & Other Hyperkinetic Movements* 10(1):30, p1-7 (PMCID: PMC7427676).
19. Gaire S, Lewis CD, Booth W, Scharf ME, **Zheng W**, Ginzler MD and Gondhalekar AD (2020). Bed bugs, *Cimex lectularius* L., exhibiting metabolic and target site deltamethrin resistance are susceptible to plant essential oils. *Pesticide Biochem Physiol* 169 (2020) 104667. DOI: 10.1016/j.pestbp.2020.104667 (collaboration with Purdue College of Agriculture)
20. Gaire S, **Zheng W**, Scharf ME and Gondhalekar AD (2020). Plant essential oil constituents synergize deltamethrin toxicity in a resistant strain of bed bugs (*Cimex lectularius* L.) by inhibiting cytochrome P450 enzymes. *Pesticide Biochem Physiol* 169:104667. (PMID:32828373)
21. **Zheng W*** and Miller GW (2019). Editorial: 2018 Toxicological Sciences Paper of the Year. *Toxicol Sci* 168(2):285-286 (PMCID: PMC6804410)
22. Rolle-McFarland D, Liu YZ, Mostafaei F, Zauber E, Zhou Y, Li Y, Fan QY, **Zheng W**, Nie LH and Wells W (2019). The association of bone, fingernail and blood manganese with cognitive and olfactory function in Chinese workers. *Sci Total Env* 666:1003-1010. (IF:4.98) (PMCID: PMC6461352)
23. Liu XX, Durkes AC, Schrock WP, **Zheng W** and Sivasankar MP (2019). Subacute acrolein exposure to rat larynx in vivo. *Laryngoscope* 129:E313-E317 (doi:10.1002/lary.27687) (PMCID: PMC6591102)
24. Liu XX, Mustonen A, **Zheng W**, Sivasankar MP, and Durkes A (2019). Cigarette smoking exposure to pig larynx in an inhalation chamber. *J Voice* 33(6):846-850. (PMCID: PMC6320720)
25. Adamson SF, Shen X, Jiang W, Lai V, Wang X, Shannahan JH, Cannon JR, Chen J, and **Zheng W** (2018). Subchronic manganese exposure impairs neurogenesis in the adult rat hippocampus. *Toxicol Sci* 163(2):592-608. (PMCID: PMC5974792)
26. Wells EM, Liu YZ, Rolle-McFarland D, Mostafaei F, **Zheng W**, Nie LH (2018). In vivo measurement of bone manganese and association with manual dexterity: a pilot study. *Env Res* 160:35-38 IF:4.315. PMID:28961467 (PMCID: PMC5962822)

27. Liu YZ, Rolle-McFarland D, Mostafaei F, Zhou YZ, Li Y, **Zheng W**, Wells E, and Nie L (2018). In vivo neutron activation analysis of bone manganese in workers. *Phys. Measurement* 39(3):035003. (PMID: 29328060) (PMCID: PMC6595486)
28. Rolle-McFarland D, Liu Y, Zhou J, Mostafaei F, Zhou Y, Li Y, Fan Q, **Zheng W**, Nie LH and Wells W (2018). Development of a cumulative exposure index (CEI) for manganese and comparison with bone and other biomarker of manganese exposure. *Int J Env Res Pub Health* 15(7):1341. (doi:10.3390/ijerph15071341) (PMCID: PMC6068959)
29. Ding HW, **Zheng W**, Han H, Hu XY, Hu BL, Wang F, Su LY, Li H, and Li Y (2017). Reproductive toxicity of linuron following gestational exposure in rats and underlying mechanisms. *Toxicol Lett* 266:49-55. IF:3.858 (PMCID: PMC5697898)
30. Sun LP, Li Y, Wang KY, Li Y, Fan QY, **Zheng W**, and Li H (2017). Vanadium exposure-induced striatal learning and memory alterations in rats. *Neurotoxicology* 62:124–129 (PMCID: PMC5623646)
31. Bai JW, Han H, Wang F, Su L, Ding HW, Hu X, Hu BL, Li H, **Zheng W**, and Li Y (2017). Maternal linuron exposure alters testicular development in male offspring rats at the whole genome. *Toxicology* 389:13-20. IF:3.943 (PMCID:PMC5584558)
32. Fan XM, Luo Y, Fan QY*, and **Zheng W*** (2017). Reduced expression of PARK2 in manganese-exposed smelting workers. *Neurotoxicology* 62:258-264 (PMCID: PMC5676304)
33. Liu XX, Walimbe T, **Zheng W**, and Sivasankar MP (2017). Acute nanoparticle exposure on vocal folds: a laboratory study. *J Voice* 31(6):662-668. (PMCID:PMC5650956)
34. Wang YF, Specht A, Liu YZ, Finney L, Maxey E, **Zheng W**, Weisskopf M, and Nie LH (2017). Microdistribution of lead in human teeth using microbeam synchrotron radiation X-ray fluorescence (μ -SRXF). *X-Ray Spectrometry* 46(1):19-26. DOI 10.1002/xrs.2720 (PMCID: PMC7451221)
35. Liu YZ, Mostafaei F, Sowers D, Blake S, Hsieh M, **Zheng W** and Nie LH (2017). Customized portable neutron activation analysis system to quantify manganese (Mn) in bone in vivo. *Physiol Meas* 38(3):452-465. (PMCID: PMC5992599)
36. Fu S, Jiang W, Gao X, Zeng A, Cholger D, Cannon J, Chen J, and **Zheng W*** (2016). Aberrant adult Neurogenesis in the subventricular zone-rostral migratory stream-olfactory bulb system following subchronic manganese exposure. *Toxicol Sci* 150(2):347-368. IF4.307 (doi:10.1093/toxsci/kfw007) (PMCID:PMC5009483)
37. Hargrave SL, Davidson TL, **Zheng W**, and Kinzig KP (2016). Western diets induce blood-brain barrier leakage and alter spatial strategies in rats. *Behavioral Neurosci* 130(1):123-135. IF:2.728. (PMCID:PMC4795941)
38. Fu S, Cholger D, and **Zheng W*** (2016). Approaches in evaluating in vivo Mn effect on adult Neurogenesis. *Toxicol Sci* 152(2):260-261. (doi:10.1093/toxsci/kfw095)
39. Fan QY, Zou Y, Yu CY, Chen J, Shi XJ, Zhang YS and **Zheng W** (2016). Cross-sectional study of expression of divalent metal transporter-1, transferrin, and hepcidin in blood of smelters who are occupationally exposed to manganese. *PeerJ* 4:e2413 IF:2.183 (DOI 10.7717/peerj.2413) (PMCID:PMC5012280)
40. Liu XX, **Zheng W**, and Sivasankar P (2016). Acute acrolein exposure induces impairment of vocal fold epithelial barrier function. *PLOS One* 11(9): e0163237. (PMCID:PMC5028054)
41. Fu X, O'Neal S, Hong L, Jiang W and **Zheng W*** (2015). Elevated adult neurogenesis in brain subventricular zone following in vivo manganese exposure: Roles of copper and DMT1. *Toxicol Sci* 143(2):482-498. IF:3.845 (doi:10.1093/toxsci/kfu249) (PMCID: PMC4306725)

42. O'Neal S and **Zheng W*** (2015). Manganese toxicity upon overexposure: A decade in review. *Current Environmental Health Reports* 2:315-328. IF:3.98 (PMCID: PMC4545267)
43. Zhang LL, Lu L, Pan YJ, Ding CG, Xu DY, Huang CF, Pan XF and **Zheng W*** (2015). Baseline blood levels of manganese, lead, cadmium, copper, and zinc in residents of Beijing suburb. *Environ Res* 140:10-17. IF:4.033 (PMCID: PMC4492836)
44. **Bates CA**, Fu S, **Ysselstein D**, **Rochet JC** and **Zheng W*** (2015). Expression and transport of α -synuclein at the blood-cerebrospinal fluid barrier and effects of manganese exposure. *ADMET & DMPK* 3(1):15-33. (PMCID: PMC4669215)
45. **Fu S**, **Jiang W**, and **Zheng W*** (2015). Age-dependent increase of brain copper levels and expressions of copper regulatory proteins in the subventricular zone and choroid plexus. *Frontiers Mol Neurosci* 8:22. IF:4.1 (PMCID: PMC4458609)
46. **Fu X**, **Zhang YS**, **Jiang W**, **Monnot AD**, **Bates CA**, and **Zheng W*** (2014). Regulation of copper transport crossing brain barrier systems by Cu-ATPases: Effect of manganese exposure. *Toxicol Sci* 139:432-451. (PMCID: PMC4064014)
47. **Fu X**, **Zeng AJ**, **Zheng W***, and **Du Y** (2014). Up-regulation of zinc transporter-2 in the blood-CSF barrier following lead exposure. *Exp Biol Med* 239:202-212 (IF: 3.103) (PMCID: PMC3928640)
48. O'Neal SL, Hong L, Fu S, Jiang W, Jones A, Nie L, and **Zheng W*** (2014). Manganese accumulation in bone following chronic exposure in rats: Steady-state concentration and half-life in bone. *Tox Lett* 229:93-100. IF:3.355 (PMCID: PMC4126163)
49. **Bates CA** and **Zheng W*** (2014). Transport of α -synuclein by brain barrier systems: Implications in Parkinson's disease. *Fluids Barriers CNS* 11:17. IF:2.94 (PMCID: PMC4120720)
50. O'Neal SL, Lee JW, **Zheng W*** and **Cannon JR*** (2014). Subchronic manganese exposure in rats is a neurochemical model of early manganese toxicity. *Neurotoxicology* 44:303-313. IF:3.379 (PMCID: PMC4278355)
51. **Gu HY**, **Zhong ZH**, **Jiang W**, **Du E**, **Dodel R**, **Farlow MR**, **Zheng W*** and **Du Y** (2014). The role of choroid plexus in IVIG-induced beta-amyloid clearance. *Neuroscience* 270:168-176. IF: 3.327. (PMCID: PMC4035429)
52. **Louis ED**, **Galecki M**, **Benito-León J**, **Bermejo-Pareja F**, **Jiang W**, **Factor-Litvak P**, and **Zheng W** (2014). Elevated blood harmaline (1-Methyl-9H-Pyrido[3,4-B]indole) concentrations in Parkinson's disease. *Neurotoxicology* 40:52-56 (PMCID: PMC3915406)
53. **Long ZY**, **Jiang YM**, **Li XR**, **Edden RAE.**, **Xu J**, **Qin WP**, **Long LL**, **Murdoch J.B.**, **Zheng W**, and **Dydak U** (2014). Thalamic GABA predicts fine motor performance in manganese-exposed smelter workers. *PLOS ONE* 9(2):e88220 IF:3.730 (PMCID: PMC3913772)
54. **Zheng G**, **Zhang J**, **Xu Y**, **Shen X**, **Song H**, **Jing J**, **Luo W**, **Zheng W***, and **Chen J** (2014). Involvement of CTR1 and ATP7A in lead (Pb)-induced copper (Cu) accumulation in choroidal epithelial cells. *Toxicol Lett* 225(1):110-118. (PMCID: PMC4127571)
55. **Long Z**, **Jiang YM**, **Li XR**, **Fadel W**, **Xu J**, **Yeh YC**, **Long LL**, **Luo HL**, **Harezlak H**, **Murdoch JB**, **Zheng W**, and **Dydak U** (2014). Vulnerability of welders to manganese exposure – A neuroimaging study. *Neurotoxicology* 45:285-292. (PMCID: PMC4177505)
56. **Louis ED**, **Factor-Litvak P**, **Michalec M**, **Jiang W**, and **Zheng W** (2014). Blood harmaline (1-methyl-9H-pyrido[3,4-b]indole) concentration in dystonia cases vs. controls. *Neurotoxicology* 44:110-113. (PMCID:PMC4176553)
57. **Liu YZ**; **Byrne P**, **Wang HY**, **Koltick D**, **Zheng W** and **Nie L** (2014). A compact DD neutron generator-based NAA system to quantify manganese (Mn) in bone in vivo. *Physiol Meas* 35:1899-1911. IF: 1.617. (PMCID: PMC4388434)
58. **Hong L**, **Xu C**, **O'Neal S**, **Bi HC**, **Huang M**, **Zheng W**, **Zeng S**. (2014) Roles of P-glycoprotein and multidrug resistance protein in transporting para-aminosalicylic acid and its N-acetylated

- metabolite in mice brain. *Acta Pharmacol Sin.* 35(12):1577-1585. IF: 2.496. (PMCID: PMC4261121).
59. Jones A and **Zheng W** (2014). Manganese-induced Parkinsonism: Relationship to manganese accumulation in bone. *Journal of Purdue Undergraduate Research*, 4:87-88. <http://dx.doi.org/10.5703/1288284315459>.
 60. Pushkar Y, Robison GA, Sullivan G, Fu X, Kohne M, Jiang W, Rohr S, Lai B, Marcus MA, Zakharova T and **Zheng W** (2013). Aging results in copper accumulations in subventricular astrocytes. *Aging Cell* 12(5):823-32. (IF: 6.700) (PMCID: PMC3772960)
 61. Robison GA, Zakharova T, Fu S, Jiang W, Fulper R, Barrea R, **Zheng W** and Pushkar Y (2013). X-ray fluorescence imaging of the hippocampal formation after manganese exposure. *Metallomics* 5:1554-1565 (IF: 4.099) (PMCID: PMC3892963)
 62. Liu YZ, Koltick D, Byrne P, Wang H, **Zheng W**, and Nie LH (2013). Development of a transportable neutron activation analysis system to quantify manganese in bone in vivo: Feasibility and methodology. *Physiol Meas* 34:1593–1609. (PMCID: PMC4154064)
 63. Li H, Zhou DL, Zhang Q, Feng CY, **Zheng W**, He KP, Lan YJ (2013). Vanadium exposure-induced neurobehavioral alterations among Chinese workers. *Neurotoxicology* 36:49-54. (PMCID: PMC4160152)
 64. Louis ED, Benito-León J, Moreno-García S; Vega S, Romero JP, Bermejo-Pareja F, Gerbin M, Viner AS, Factor-Litvak P, Jiang W, and **Zheng W** (2013). Blood harmaline (1-methyl-9h-pyrido[3,4-B]indole) concentration in essential tremor cases in Spain. *Neurotoxicology* 34:264-268. (PMCID: PMC3556362) (IF: 3:096)
 65. Louis ED, Factor-Litvak P, Liu X, Vonsattel JPG, Galecki M, Jiang W, Zheng W (2013). Elevated brain harmaline (1-methyl-9H-pyrido[3,4-b]indole) in essential tremor cases vs. controls. *Neurotoxicology* 38:131-135. (PMCID: PMC3784356).
 66. Davidson TL, Hargrave HL, Swithers SE, Sample CH, Fu X, Kinzig KP, and **Zheng W** (2013). Interrelationships among diet, obesity and hippocampal-dependent cognitive function. *Neuroscience* 253:110–122 (IF: 3.389) (PMCID: PMC3934926)
 67. Monnot AD, and **Zheng W*** (2013). Culture of choroidal plexus epithelial cells and in vitro model of blood-CSF barrier. *Methods Mol Biol (Epithelial Cell Culture Protocols)* 945:13-29. (PMID: 23097098) (PMCID: PMC3982224)
 68. **Zheng W*** and Monnot AD (2012). Regulation of brain iron and copper homeostasis by brain barrier systems: Implication in neurodegenerative diseases. (Invited Review) *Pharmacol Ther* 133:177-188. (PMCID: PMC3268876) (IF: 10.834)
 69. Zheng G, Chen J and **Zheng W*** (2012). Relative contribution of CTR1 and DMT1 in copper transport by the blood-CSF barrier: Implication in manganese neurotoxicity. *Toxicol Appl Pharmacol* 260:285-293. (PMCID: PMC3336026) (IF: 4.258)
 70. Monnot AD, Zheng G, and **Zheng W*** (2012). Mechanism of copper transport at the blood-cerebrospinal fluid barrier: Influence of iron deficiency. *Exp Biol Med* 237:327-333. (IF: 2.954) (PMCID: PMC3982225)
 71. Robison G, Zakharova T, Fu X, Jiang W, Fulper R, Barrea R, Marcus MA, **Zheng W**, and Pushkar Y (2012). X-ray fluorescence imaging: A new tool for studying manganese neurotoxicity. *PLoS ONE* 7(11): e48899. (PMCID: PMC3501493) (IF: 4.092)
 72. Gu HY, Robison G, Barrea P, Hong L, Barrea R, Wei X, Farlow MR, Pushkar YN, Du YS, and **Zheng W*** (2012). Increased β -amyloid deposition in Tg-SWD1 transgenic mouse brain following in vivo lead exposure. *Toxicol Letters* 213:211-219. (PMCID: PMC3461595) (IF: 3.557)

73. Racette BA, Aschner M, Guilarte TR, Dydak U, Criswell SR, and **Zheng W** (2012). Pathophysiology of manganese-associated neurotoxicity. *NeuroToxicology* 33:881-886. (PMCID: PMC3350837) (IF: 3.053)
74. Rutchik JS, **Zheng W**, Jiang YM, and Mo XE (2012). How Does an Occupational Neurologist Assess Welders and Steelworkers for a Manganese-Induced Movement Disorder? An International Team's Experiences in Guangxi, China, Part I. *J Occ Env Med* 54(11):1432-1434. (PMCID: PMC4993199) (IF: 2.062)
75. Rutchik JS, **Zheng W**, Jiang YM, and Mo XE (2012). How Does an Occupational Neurologist Assess Welders and Steelworkers for a Manganese-Induced Movement Disorder? An International Team's Experiences in Guangxi, China, Part II. *J Occ Env Med* 54(12):1562-1564. (PMCID: PMC4993195) (IF: 2.062)
76. Davidson TL, Monnot AD, Neal AU, Martin AA, Horton JJ, and **Zheng W** (2012). The effects of a high-energy diet on hippocampal-dependent discrimination performance and blood-brain barrier integrity differ for diet-induced obese and diet-resistant rats. *Physiol Behav* 107:26-33. (PMCID: PMC3409296) (IF: 2.869)
77. Park JD and **Zheng W** (2012). Human exposure and health effects of inorganic and elemental mercury (Review). *J Preventive Med Public Health* 45:344-352. (PMCID:PMC3514464)
78. **Zheng W** (2012). Editorial: Xi'an International Neurotoxicology Conference. *NeuroToxicology* 33: 627-628. (PMCID: PMC3980861)
79. Louis ED, Jiang W, Gerbin M, Viner AS, Factor-Litvak P, **Zheng W** (2012). Blood harmaline (1-methyl-9h-pyrido[3,4-b]indole) concentrations in essential tremor: Repeat observation in cases and controls in New York. *J Toxicol Environ Health. Part A* 75:673-683. (PMCID: PMC3412610)

80. **Zheng W***, Fu SX, Dydak U, and Cowan DM (2011). Biomarkers of manganese intoxication. *NeuroToxicology* 32(1):1-8. (IF: 3.053) (PMCID: PMC3030659)
81. Monnot AD, Behl M, Ho S and **Zheng W*** (2011). Regulation of brain copper homeostasis by brain barrier systems: Effect of iron-overload or iron deficiency. *Toxicol Appl Pharmacol* 256:249-257. (IF: 4.258) (PMCID: PMC3163115)
82. Dydak U, Jiang YM, Long LL, Zhu H, Chen J, Li WM, Edden RAE, Hu SG, Fu X, Long ZY, Mo XA, Meier D, Harezlak J, Aschner M, Murdoch J, and **Zheng W** (2011). In vivo measurement of brain GABA concentrations by magnetic resonance spectroscopy in smelters occupationally exposed to manganese. *Env Health Persp* 119:219-224. (IF: 6.09) (PMCID: PMC3040609)
83. Gu H, Wei X, Monnot AD, Fontanilla CV, Behl M, Farlow MR, **Zheng W***, and Du YS* (2011). Lead exposure increases levels of beta-amyloid in the CSF and brain tissues and inhibits LRP1 expression in APP transgenic mice. *Neurosci Letters* 490:16-20. (PMCID: PMC3026879) (IF: 2.180)
84. Zhang J, Peterson SM, Weber GJ, Zhu XQ, **Zheng W**, and Freeman JL (2011). Decreased axonal density and altered expression profiles of axonal guidance genes underlying lead (Pb) neurodevelopmental toxicity at early embryonic stages in the zebrafish. *Neurotox Terat* 33:715-720. (IF: 2.795) (PMCID: PMC3225594)
85. Hong L, Jiang W, Pan H, Jiang YM, Zeng S and **Zheng W*** (2011). Brain regional pharmacokinetics of p-aminosalicylic acid and its N-acetylated metabolite: In relation to their effectiveness in chelating brain manganese. *Drug Met Disp* 39(10):1904-1909. (IF: 3.743) (PMCID: PMC3186214)
86. Hong L, Jiang W, **Zheng W***, and Zeng S (2011). HPLC analysis of para-aminosalicylic acid and its metabolite in plasma, cerebrospinal fluid and brain tissues. *J Pharmaceut Biomed Analysis* 54:1101-1109. (IF: 2.723) (PMCID: PMC3046028)

87. Louis ED, Factor-Litvak P, Gerbin M, Slavkovich V, Graziano JH, Jiang W, and **Zheng W** (2011). Blood harmene, blood lead, and severity of hand tremor: Evidence of additive effects. *Neurotoxicology* 32(2):227-232. (PMCID: PMC3073713)
88. Louis ED, Factor-Litvak P, Gerbin M, Jiang W, and **Zheng W** (2011). Blood harmene concentrations in 497 individuals relative to coffee, cigarettes and food consumption on the morning of testing. *J. Toxicol* 2011;2011:628151. (PMCID: PMC3135328)
89. Apler R, Fu S, Levendoski EE, **Zheng W** and Sivasankar M (2011). Acute stress to excised vocal fold epithelium via reactive oxygen species. *Laryngoscope* 121:2180-2184. (PMCID: PMC3183277)

90. Behl M, Zhang YZ, Shi YZ, and **Zheng W*** (2010). Lead-induced increase in β -amyloid accumulation in the choroid plexus: Role of low density lipoprotein receptor protein-1 and protein kinase C activity. *NeuroToxicology* 31:524-532. (PMCID: PMC2934890)
91. Kanoski SE, Zhang YZ, **Zheng W**, Davidson TL (2010). The effects of a high-energy diet on hippocampal function and blood-brain barrier integrity in the rat. *J Alzheimer's Disease* 21(1):207-219. (IF: 3.745) (PMCID: PMC4975946)
92. Louis ED, Jiang W, Gerbin M, Mullaney MMM, and **Zheng W*** (2010). Relationship between blood harmene and harmine concentrations in familial essential tremor, sporadic essential tremor and controls. *NeuroToxicology* 31: 674–679. (PMCID: PMC2974038)
93. Louis ED and **Zheng W** (2010). Beta-carboline alkaloids and essential Tremor: Exploring the environmental determinants of one of the most prevalent neurological diseases. *TSW The Scientific World Journal* 10:1783-1794. (PMCID: PMC3700397)

94. **Zheng W***, Jiang YM, Zhang YS, Jiang W, Wang X, and Cowan DM (2009). Chelation therapy of manganese intoxication by para-aminosalicylic acid (PAS) in Sprague-Dawley rats. *NeuroToxicology* 30:240-248 (PMCID: PMC2677987)
95. Choi BS and **Zheng W*** (2009). Copper transport to the brain by the blood-brain barrier and blood-CSF barrier. *Brain Res* 1248:14-21. (PMCID: PMC2677986)
96. Cowan DM, Fan QY, Zou Y, Shi XJ, Chen J, Rosenthal FS, Aschner M, and **Zheng W*** (2009). Manganese exposure among smelting workers: Blood manganese-iron ratio as a novel tool for manganese exposure assessment. *Biomarkers* 14(1):3-16. (PMCID: PMC3980868)
97. Cowan DM, **Zheng W***, Zou Y, Shi XJ, Chen J, Rosenthal FS, and Fan QY (2009). Manganese exposure among smelting workers: Relationship between blood manganese-iron ratio and early onset neurobehavioral alternations. *Neurotoxicology* 30:1214-1222 (PMCID: PMC3983997)
98. Long LL, Li XR, Huang ZK, Jiang YM, and **Zheng W*** (2009). Relationship between changes in brain MRI and 1H-MRS, severity of chronic liver damage, and recovery after liver transplantation. *Exp Biol Med* 234:1075-1085. (PMCID: PMC4005269)
99. Behl M, Zhang Y, Monnot AD, Jiang W and **Zheng W*** (2009). Increased β -amyloid levels in the choroid plexus following lead exposure and the involvement of low density lipoprotein receptor protein-1. *Toxicol Appl Pharmacol* 240:245-254. (PMCID: PMC2753690)
100. Behl M, Zhang YZ, Shi YZ, and **Zheng W*** (2009). Involvement of insulin degrading enzyme in the clearance of β -amyloid at the blood-CSF barrier: Consequences of lead exposure. *Cerebrospinal Fluid Res* 6:11. (PMCID: PMC2753621)
101. Chen RL, Preston JE, and **Zheng W*** (2009). Thyroid hormone transport across blood-brain barriers. In: *Thyroid Hormones: Functions, Related Diseases and Uses*. Ed. Kuehn FS and Lozada MP. Nova Science Publishers, Hauppauge NY. P1-25.
102. Hasselblatt M, Mertsch S, Koos B, Riesmeier B, Stegemann H, Jeibmann A, Tomm M, Schmitz N, Wrede B, Wolff JE, **Zheng W**, and Paulus W (2009). TWIST1 is overexpressed in neoplastic

- choroid plexus epithelial cells and promotes proliferation and invasion. *Cancer Res* 69(6):2219–2223. (PMCID: PMC7335462)
103. Kalia K, Jiang W, and **Zheng W** (2009). Importance of mitochondria in manganese-induced cellular toxicity. *Neurotoxicology* 30:727-729. (PMCID: PMC2728577)
 104. Tong L, He W, Zhang Y, **Zheng W**, and Cheng JX (2009). Visualizing systemic clearance and cellular level biodistribution of gold nanorods by intrinsic two-photon luminescence. *Langmuir* 25(21):12454-12459 (doi: 10.1021/la902992w) (PMCID: PMC7385906) SCI (4.10)
 105. Qin WP, Fu X, Jiang YM, Long LL, Li XR, Chen HB, Huang ZB, Zhao WJ, Mo XA, and Zheng W (2009). Variations of brain magnetic resonance imaging among manganese-exposed workers. *Chinese Journal of Preventive Medicine* 43:793–797. (PMID:20137563)
 106. Ou SY, Zhu XY, Jiang YM, Chen HB, Wei DL, Liao DM, Zhou HL, Lu JP, Fu X, and **Zheng W** (2009). Effects of Lead Fume and Dust Exposure on Lipid Peroxidation and Antioxidant Enzymes in Blood. *Ind Hlth Occup Dis.* 35(6): 357-359. (Article in Chinese)
 107. Ou SY, Zhu XY, Jiang YM, Chen HB, Wei DL, Liao DM, Zhou HL, Lu JP, Fu X, and **Zheng W** (2009). Effects of Lead Fume and Dust on Blood Metal Elements of Exposed Workers. *Ind Hlth Occup Dis.* 35(6): 353-356. (Article in Chinese)
 108. Wang XQ, Miller DS, and **Zheng W*** (2008). Intracellular trafficking of metal transporters in intact rat choroid plexus following in vitro treatment of manganese or iron. *Toxicol Appl Pharmacol* 230:167-174. (PMCID: PMC2586425)
 109. Kalia K, Jiang W, and **Zheng W*** (2008). Manganese accumulates primarily in nuclei of cultured brain cells. *NeuroToxicology* 29(3):466-470. (PMCID: PMC2497426)
 110. Wang DX, Du XQ, and **Zheng W*** (2008). Alteration of saliva and serum concentrations of manganese, copper, zinc, cadmium and lead among career welders. *Toxicol Letters* 176:40-47. (PMCID: PMC3980858)
 111. Shi LZ, Wang SZ, Li GJ, and **Zheng W*** (2008). Use of Z310 cells as an in vitro blood-cerebrospinal fluid barrier model: Tight junction proteins and transport properties. *Toxicology in Vitro* 22:190-199. IF:3.151 (PMCID: PMC2677988)
 112. Peterson SM and **Zheng W** (2008). Effect of single-walled carbon nanotubes on the structure and function of the blood-CSF barrier in the choroid plexus in vitro. *Comm Chn Toxicol* 12(3):143-144.
 113. Louis ED, Rois E, Pellegrino KM, Jiang W, Factor-Litvak P and **Zheng W*** (2008). Higher blood harmaline (1-methyl-9h-pyrido[3,4-b]indole) concentrations correlate with lower olfactory test scores in essential tremor. *Neurotoxicology* 29(3):460-465. (PMCID: PMC2488156)
 114. Louis ED, Jiang W, Pellegrino KM, Rios E, Factor-Litvak P, Henchcliffe C and **Zheng W** (2008). Elevated blood harmaline (1-methyl-9H-pyrido[3,4-b]indole) concentrations in essential tremor. *Neurotoxicology* 29:294-300. (PMCID: PMC2291546)
 115. Louis ED, Pellegrino KM, Factor-Litvak P, Rios E, Jiang W, Henchcliffe C and **Zheng W** (2008). Cancer and blood concentrations of the comutagen Harmaline in essential tremor. *Movement Disorders* 23(12):1747-1751. (IF:7.135) (PMCID: PMC2597456)
 116. Jiang YM, Long LL, Zhu XY, Zheng H, Fu X, Ou SY, Wei DL, Zhou HL and **Zheng W*** (2008). Evidence for altered hippocampal volume and metabolites in workers occupationally exposed to lead: A study by magnetic resonance imaging and 1H magnetic resonance spectroscopy. *Toxicol Letters* 181:118-125. (PMCID: PMC2631361)
 117. Wang XQ, Li J and **Zheng W*** (2008). Efflux of iron from the cerebrospinal fluid to the blood at the blood-CSF barrier: Effect of manganese exposure. *Exp Biol Med* 233:1561-1571 (PMCID: PMC3982226)

118. Aschner M, Santos AP, Erikson KM and **Zheng W*** (2008). Manganese transport into the brain: Putative mechanisms. *Metal Ions Biol Med.* 10:695-700.
119. Jiang YM, **Zheng W***, Long LL, Zhao WJ, Li XG, Mo XA, Lu JP, Fu X, Li WM, Liu SF, Long QY, Huang JL and Pira, E (2007). Brain magnetic resonance imaging and manganese concentrations in red blood cells of smelting workers: Search for biomarkers of manganese exposure. *NeuroToxicology* 28:126-135. (PMCID: PMC3983995)
120. Crossgrove JS, Smith EL and **Zheng W*** (2007). Macromolecules involved in production and metabolism of beta-amyloid at the brain barriers. *Brain Res.* 1138:187-195. (PMCID: PMC1950938)
121. Aschner M, Nass R, Guilarte TR, Schneider JS and **Zheng, W*** (2007). Manganese: Recent advances in understanding its transport and neurotoxicity. *Toxicol. Appl. Pharmacol.* 221(2):131-147. (PMCID: PMC1950780)
122. Shi LZ and **Zheng W*** (2007). Early lead exposure increases the leakage of the blood-cerebrospinal fluid barrier, in vitro. *Human Exp Toxicol* 26:159-167. (PMCID: PMC3980856)
123. Louis ED, **Zheng W**, Jiang W, Bogen KT and Keating, GA (2007). Quantification of the neurotoxic β -carboline harmaline in pan-fried meat samples and correlation with level of doneness. *J. Toxicol. Env. Health* 70:1014-1019. (PMCID: PMC4993204)
124. Wang Q, Luo WJ, Xu H, Zheng G, Chen YM, **Zheng W** and Chen, JY (2007). Iron supplement prevents against lead-induced disruption of the blood-brain barrier during rat development. *Toxicol. Appl. Pharmacol.* 219:33-41. (PMCID: PMC3982216)
125. Louis ED, **Zheng W**, Mao XL and Shungu, D (2007). Blood harmaline concentration is correlated with cerebellar metabolism in essential tremor: A pilot study. *Neurology* 69:515-520. (PMID: 17679670)
126. Chu JH, Zhang SH, Geng R, Wu HH, Wu P, Deng YF, Xu QY, **Zheng W** and Li, GY (2007). Effect of manganese on mtDNA 4834 deletion in brain substantia nigra-striatum of rats with various ages. *J. Toxicol.* 21(2):115-117. (in Chinese)
127. Jiang YM, Mo XA, Du FQ, Fu X, Zhu XY, Gao HY, Xie JL, Liao FL, Pira E and **Zheng, W*** (2006). Effective treatment of manganese-induced occupational Parkinsonism with PAS-Na: A case of 17-year follow-up study. *J. Occup. Env. Med.* 48:644-649. (PMCID: PMC4180660)
128. Li GJ, Choi BS, Wang X, Liu J, Waalkes MP and **Zheng, W*** (2006). Molecular mechanism of distorted iron regulation in the choroids plexus and selected brain regional capillaries following in vivo manganese exposure. *NeuroToxicology* 27:737-744. (PMCID: PMC3982222)
129. Wang X, Li GJ and **Zheng, W*** (2006). Up-regulation of DMT1 expression in choroidal epithelial cells following manganese exposure. *Brain Res* 1097(1):1-10. (PMCID: PMC3980874)
130. Zhao F, Li GJ, Wu P, Chu JH and **Zheng, W** (2006). Differential Effect of Mn(II) and Mn(III) on activities of rat cardiac mitochondrial complex enzymes. *J Toxicol* 20(2), 94-96. (in Chinese)
131. Gao YQ, Jiang YM, Lu JP, Long QY, Huang JL, Kim Y, Pira E and **Zheng, W** (2006). Effects of manganese fume and dust on lipid peroxidation and antioxidant enzymes in blood of exposed male workmen. *Ind. Health Occup. Dis.* 32(2):88-90. (in Chinese)
132. Lu L, Zhang LL, Li GJ, Guo WR, Liang W and **Zheng W*** (2006). Altered systemic iron metabolism in welders exposed to manganese. *Chinese J Ind Hyg Occup Dis* 1(24):31-34. (in Chinese)
133. Jiang Y and **Zheng W*** (2005). Cardiovascular toxicities upon manganese exposure. *Cardiovasc. Toxicol.* 5(4):345-354. (PMCID: PMC3980854)

134. Shi LZ and Zheng W* (2005). Establishment of an in vitro brain barrier epithelial transport system for pharmacological and toxicological study. *Brain Res* 1057:37-48. (PMCID: PMC4151265)
135. Crossgrove JS, Li GJ and **Zheng W*** (2005). The choroid plexus removes beta-amyloid from the cerebrospinal fluid. *Exp Biol Med* 230(10):771-776. (the **Best Paper Award by Society for Experimental Biology and Medicine**) (PMCID: PMC3982214)
136. Louis ED, **Zheng W**, Applegate L, Shi L, and Factor-Litvak P (2005). Blood harmane concentrations and dietary protein consumption in essential tremor. *Neurology* 65:391-396. (PMCID: PMC4993192)
137. Li GJ, Zhao Q and **Zheng, W*** (2005). Alteration at translational but not transcriptional level of transferrin receptor expression following manganese exposure at the blood-CSF barrier in vitro. *Toxicol Appl Pharmacol* 205:188– 200. (PMCID: PMC3980884)
138. Lu L, Zhang LL, Li GJ, Guo W, Liang W and **Zheng W*** (2005). Alteration of serum concentrations of manganese, iron, ferritin, and transferrin receptor following exposure to welding fumes among career welders. *NeuroToxicology* 26(2):257-265. (PMCID: PMC4002285)
139. Zhao F, Zhang SH, Li GJ, Chu JH, Wu P and **Zheng W** (2005). Different effect of Mn(II) and Mn(III) on the myocardial mitochondrial membrane potential. *J Environ Occup Med.* 22(3):205-207.
140. Gao YQ, Jiang YM, Lu JP, Long QY, Huang JL, Kim Y, Pira E and **Zheng W** (2005). Effects of manganese fume and dust on lipid peroxidation and antioxidant enzymes in blood of exposed workmen. *Ind. Health Occup. Dis.* 32(1):31-33. (in Chinese)
141. **Zheng W** (2005). Introduction to the blood-CSF barrier. In: *The Blood-Cerebrospinal Barrier*, Zheng W and Chodobski A, Ed., CRC Press, New York. pp.3-7.
142. **Zheng W** (2005). Blood-CSF barrier in iron regulation and manganese-induced Parkinsonism. In: *The Blood-Cerebrospinal Barrier*, Zheng W and Chodobski A, Ed., CRC Press, New York. pp.413-436.
143. **Zheng W*** and Segal MB (2005). In situ techniques used in the blood-CSF barrier research. In: *The Blood-Cerebrospinal Barrier*, Zheng W and Chodobski A, Ed., CRC Press, New York. pp.541-551.
144. Crossgrove JS and **Zheng W*** (2004). Manganese toxicity upon overexposure. *NMR in Biomedicine* 17(8):544-553. (SCI: 3.41) (PMCID: PMC3980863)
145. Opler, MG, Brown, AS, Graziano J, Schaefer C, **Zheng W**, Desai M, Factor-Litvak P and Susser, ES (2004). Prenatal lead exposure, d-aminolevulinic acid, and schizophrenia. *Env. Health Persp.* 112(5):548-552. (PMCID: PMC1241919)
146. Deane R, **Zheng W*** and Zlokovic BV (2004). Brain capillary endothelium and choroid plexus epithelium regulate transport of transferrin-bound and free iron into the rat brain. *J. Neurochem* 88:813-820. (PMCID: PMC3980859)
147. Li GJ, Zhang L, Lu L, Wu P and **Zheng W*** (2004). Occupational exposure to welding fume among welders: alterations of manganese, iron, zinc, copper, and lead in body fluids and the oxidative stress status. *J. Occup. Environ. Med.* 46(3):241-248. (PMCID: PMC4126160)
148. Li GJ, Geng R, Chu JH, Zhao F, Deng YF, Liang WN, Wu P and **Zheng W*** (2004). The susceptibility of different ages on Mn²⁺ and Mn³⁺ toxicity in striatum of rats. *Journal of Health Toxicology* 18(4):326.
149. **Zheng W***, Aschner M and Ghersi-Egea JF (2003). Brain barrier systems: a new frontier in metal neurotoxicological research. Invited Review, *Toxicol. Appl. Pharmacol.* 192:1-11. (PMCID: PMC3982148)

150. **Zheng W,*** Deane R, Redzic Z, Preston JE and Segal, MB (2003). Transport of L-[¹²⁵I]Thyroxine by in-situ perfused ovine choroid plexus: Inhibition by lead exposure. *J. Toxicol. Env. Health.* 66:435-451. (PMCID: PMC3980877)
151. **Zheng W** (2003). Manganese and iron interaction: a mechanism of manganese-induced Parkinsonism. *Proceedings of Korean Society of Toxicology 2003*, pp34-63.
152. Zhao F, Li GJ, Chu JH, Geng R, Cai S, Zhang SH, Wu P and **Zheng W*** (2003). Effects of manganese on the myocardial mitochondrial function in elderly rats. *J. Env. Occup. Med.* 20(3):151-158.
153. Geng R, Li GJ, Chu JH, Zhao F, Zhang SH, Wu P, Cai S, and **Zheng W*** (2003). The effects of manganese on mitochondrial function of brain in rat at different age. *J. Env. Occup. Med.* 20(2):78-81.

154. **Zheng W*** and Zhao Q (2002). Establishment and characterization of an immortalized Z310 choroidal epithelial cell line from murine choroid plexus. *Brain Res.* 958:371-380. (PMCID: PMC3980880)
155. Louis ED, **Zheng W**, Jurewicz EC, Watner D, Chen J, Factor-Litvak P and Parides M (2002). Elevation of blood beta-carboline alkaloids in essential tremor. *Neurology.* 59:1940-1944. (PMCID: PMC4992345)
156. **Zheng W*** and Zhao Q (2002). Blood-CSF barrier in culture: Development of primary culture and transepithelial transport model from choroidal epithelial cells. *Methods Mol Biol* 188:99-114. (PMCID: PMC4993191)
157. Zheng W (2002). Blood-brain barrier and blood-CSF barrier in metal-induced neurotoxicities. In: *Handbook of Neurotoxicology*, E. J. Massaro, Ed. Vol. 1. Humana Press, Totowa, NJ, pp.161-193.
158. Zhou CY, Li GJ, Zhang C and **Zheng W** (2002). The Neurotoxicity of NO. *J. Health Toxicol.* 16(2):124-126 (Review).
159. Liu Z, Li GJ, Zhang J, Zhou C, Li P, Zhao C, Yang H, **Zheng W** and Jing P (2002). Effect of manganese with different valences on mitochondrial membrane potential in human SH-SY5Y cells in vitro. *Journal of Capital University of Medical Sciences.* 23(1):14-16.
160. Geng R, Li GJ and **Zheng W** (2002). Mitochondrial Genome in mechanism of Parkinson Disease. *Foreign Medical Sciences: Section of Molecular Biology.* 24(5):266-269 (Review in Chinese)
161. Lu L, Li GJ and **Zheng W** (2002). The mechanism of manganese neurotoxicology to disturbing iron metabolism. *Foreign Medical Sciences – Section Hygiene .* 29(3):170-173 (Review in Chinese)

162. **Zheng W*** and Zhao Q (2001). Iron overload following manganese exposure in cultured neuronal, but not neuroglial cells. *Brain Res* 897:175-179. (PMCID: PMC3980869)
163. **Zheng W***, Lu YM, Lu GY, Zhao Q, Cheung O and Blaner WS (2001). Transthyretin, thyroxin, and retinol-binding protein in human cerebrospinal fluid: Effect of lead exposure. *Toxicol Sci* 61:107-114. (PMCID: PMC4126162)
164. Chen JY, Tsao G, Zhao Q and **Zheng W*** (2001). Differential cytotoxicity of Mn(II) and Mn(III): special reference to mitochondrial [Fe-S] containing enzymes. *Toxicol Appl Pharmacol* 175:160-168. (PMCID: PMC4126157)
165. Guan Y, Louis ED and **Zheng W*** (2001) Toxicokinetics of tremorogenic natural products, harmine and harmine in male Sprague-Dawley rats. *J Toxicol Env Health* 64:645-660. (PMCID: PMC4992346)
166. **Zheng, W** (2001). Neurotoxicology of the brain barrier system: New implications. *J Toxicol – Clin Toxicol* 39(7):711-719. (PMCID: PMC4111935)
167. **Zheng W** (2001). Toxicology of Choroid Plexus: A Special Reference to Metal-Induced Neurotoxicities. *Microsc Res Tech* 52(1):89-103. (PMCID: PMC4126155)

168. Li GJ, Zhou CY, Zhang C and **Zheng W** (2001). Neurotoxicity of NO and Neurodegenerative Diseases. *Foreign Medical Sciences: Section of Hygiene*. 28(6):330-332, 341 (Review)
169. Yu SL, Deng YF, Wang Y, Su YL, Wu P, **Zheng W*** and Xu, QY (2001). Combinative toxic effect of Manganese and Lead. *Journal of Health Toxicology* 14(4):228-229.
170. Zhang LL, Wu P, Lu L, Li GJ, Guo WR, **Zheng W** and Deng YF (2001). The alteration of 5 trace elements in serum of Manganese electric welding workers. *China Public Health* 17(9):783-784
171. Li GJ, Wu DS, Li PG, Han CH and **Zheng W*** (2001). Effects of lead acetate on the apoptosis of neurons. *Journal of Health Toxicology*. 15(3):156-158.
172. Li GJ, Zhou CY, Zhang C and **Zheng W*** (2001). Neurotoxicity of NO and Neurodegenerative Diseases. *Foreign Medical Sciences: Section of Hygiene*. 28(6):330-332.
173. Li GJ, Geng R, **Zheng W** and Li PG (2001). mtDNA Mutation and mechanism of Parkinson's Disease. First Beijing International workshop on Parkinson's Disease. 144 (Review)

174. **Zheng W***, Kim H and Zhao, Q (2000). Comparative toxicokinetics of manganese chloride and methylcyclo-pentadienyl Mn tricarbonyl in male Sprague-Dawley rats. *Toxicol Sci* 54:295-301. (PMCID:PMC4991359)
175. **Zheng W***, Wang S, Guan Y and Elan Louis (2000). Determination of harmine and harmine in human blood using reversed-phased high-performance liquid chromatography and fluorescence detection. *Anal Biochem*. 279:125-129. (PMCID:PMC4088954)
176. Bazil CW, Short D, Crispin D and **Zheng W*** (2000). Patients with intractable epilepsy have low melatonin, which increases following seizures. *Neurology* 55:1746-1748. (PMCID:PMC5020701)
177. Eichenbaum J and **Zheng W*** (2000). Distribution of lead and transthyretin in human eyes. *J. Toxicol. Clin Toxicol* 38(4):377-381. (PMCID:PMC4988657)
178. Segal MB, **Zheng W** and Deane R (2000). The effect of lead on the uptake of thyroxine by the perfused choroid plexus of the sheep. *J. Physiol*. 523P:27.
179. Deng YF, Wang Y, Duan CL, Wang YS, Su YL, Zheng W* and Xu QY (2000). Influence of intrastriatal injection of Manganese on the level of **dopamine** and its metabolites in striatum. *Journal of Health Toxicology* 14(4):232-233.

180. **Zheng W***, Blaner WS and Zhao Q (1999). Inhibition by lead of production and secretion of transthyretin in the choroid plexus: Its relationship to thyroxine transport at the blood-CSF barrier. *Toxicol Appl Pharmacol* 155:24-31. (PMCID: PMC4126158)
181. **Zheng W***, Zhao Q, Slavkovich V, Aschner M and Graziano H (1999). Alteration of iron homeostasis following chronic exposure to manganese in rats. *Brain Res* 833:125-132. (PMCID: PMC4126166)
182. **Zheng W** (1999). Environmental contributes in the etiology of Parkinsonism: When a good metal turns bad. International Symposium on Medical and Life Sciences. Zhejiang University Press. Hangzhou, pp.128-145.
183. Aschner M, Vrana KE and **Zheng W*** (1999). Manganese uptake and distribution in the central nervous system (CNS). *NeuroToxicology* 20:173-180. (PMID: 10385881)

184. **Zheng W***, Zhao Q and Graziano JH (1998). Primary culture of rat choroidal epithelial cells: a model for in vitro study of the blood-cerebrospinal fluid barrier. *In Vitro Cell Biol Dev* 34(1), 40-45. (PMCID: PMC4996477)
185. Zhao Q, Slavkovich V and Zheng W* (1998). Lead exposure promotes translocation of protein kinase C activity in rat choroid plexus in vitro, but not in vivo. *Toxicol Appl Pharmacol* 149:99-106. (PMCID:PMC4988658)

186. **Zheng W***, Ren S and Graziano JH (1998). Manganese inhibits mitochondrial aconitase: A mechanism of manganese neurotoxicity. *Brain Res* 799:334-342. (PMCID: PMC4126159)
187. Ren S, Scheuer ML, and **Zheng W*** (1998). Determination of lamotrigine in biological materials by a simple and rapid liquid chromatographic method. *Ther Drug Monitor* 20:209-214.
188. **Zheng W***, Blaner WS and Graziano JH (1997). Lead exposure and CSF transthyretin: A letter to Editor in response to criticisms by Palha et al. *Toxicol Appl Pharmacol* 144:204.
189. **Zheng W***, Shen H, Blaner WS, Zhao Q, Ren X and Graziano JH (1996). Chronic lead exposure alters transthyretin concentration in rat cerebrospinal fluid: The role of the choroid plexus. *Toxicol Appl Pharmacol* 139:445-450. (PMCID: PMC4992572)
190. **Zheng W** (1996). The choroid plexus and metal toxicities. In: Toxicology of Metals. (LW, Chang, Ed.), CRC Press. New York. pp609-626.
191. **Zheng W***, Winter MS, Kattnig MJ, Carter DE and Sipes IG (1994). Tissue distribution and elimination of indium phosphide in male Fischer 344 rats following oral and intratracheal administration of indium phosphide. *J Toxicol Environ Health* 43(4):483-494.
192. **Zheng W**, Sipes IG and Carter DE (1993). Determination of parts-per billion concentrations of indium in biological materials by electrothermal atomic absorption spectrometry following ion pair extraction. *Anal Chem* 65(15):2174-2176. (PMID: 8372973)
193. **Zheng W**, Winter SM, Mayersohn M, Bishop JM and Sipes IG (1993). Toxicokinetics of sulfasalazine (salicylazosulfapyridine) and its metabolites in B6C3F₁ mice. *Drug Met Disp* 21(6):1091-1097. (PMID: 7905389)
194. Aposhian HV, Maiorino RM, Rivera M, Bruce DC, Dart RC, Hurlbut KM, Levine DJ, **Zheng W**, Fernando Q, Carter D and Aposhian MM (1992). Human studies with the chelating agents, DMPS and DMSA. *Clin Toxicol* 30:505-528.
195. **Zheng W**, Perry DF, Nelson DL and Aposhian HV (1991). Protection of cerebrospinal fluid against toxic metals by the choroid plexus. *FASEB J* 5:2188-2193.
196. **Zheng W**, Maiorino RM, Brendel K and Aposhian HV (1990). Determination and metabolism of dithiol chelating agents: VII. Biliary excretion of dithiols and their interactions with cadmium and metallothionein. *Fundam Appl Toxicol* 14:598-607. (PMID: 2160390)
197. Rivera M, **Zheng W**, Aposhian HV and Fernando Q (1989). Determination and metabolism of dithiol chelating agents: VIII. Metal complexes of meso-dimercaptosuccinic acid. *Toxicol Appl Pharmacol* 100:96-106. (PMID: 2548305)
198. Aposhian MM, Aposhian HV, Domingo JL, Llobet JM, **Zheng W** and Dart RC (1988). Radon decay products: DMPA decreases tissue polonium-210. *Plzen lek Sborn* 99-101.
199. Aposhian HV, Maiorino RM, Aposhian MM, Dart RC, Tobias PS, **Zheng W** and Perry DF (1987). Dimercapto metal binding agents: decorporation of Po-210 and Cd-109 in the rat and metabolic studies in the human. In: Environmental Health Series 20 - Trace Elements in Human Health and Disease. World Health Organization, Denmark, pp215-218.
200. **Zheng W**, and Zhang Y (1986). The research progress of a new potassium channel blocking agent -- 4-aminopyridine. *Progress in Physiological Science* 17(3):254-258.
201. **Zheng W**, Zhang Y and Fang R (1986). Antidotal effect of 4-aminopyridine on acute poisoning induced by magnesium sulfate. *Acta Pharmacologica Sinica* 7(2):178-182.

C. ABSTRACTS AND CONFERENCE PROCEEDINGS (FROM TOTAL 257; LAST 5 YEARS PRESENTED):

1. Zheng W (2022). Imbalanced copper homeostasis in brain disorders: Olfactory dysfunction and age-dependent clearance disorder at the blood-brain interfaces. Invited Keynote Lecture. Abstract accepted by 14th Conference of the Int' Society for Trace Element Research in Humans. Aachen, Germany. June 5-10, 2022.

2. Gu HY, Liu LL, Territo P, Zheng W and Du YS (2022). Lead exposure and the etiology of Alzheimer disease via cerebral amyloid angiopathy: Evidence from animal studies. Oral Presentation. Abstract accepted by 14th Conference of the Int' Society for Trace Element Research in Humans. Aachen, Germany. June 5-10, 2022.
3. Shen XL and Zheng W (2022). Altered clearance of beta-amyloid from the cerebrospinal fluid following subchronic lead exposure in rats: Implication in cerebral amyloid angiopathy. Oral Presentation. Abstract accepted by 14th Conference of the Int' Society for Trace Element Research in Humans. Aachen, Germany. June 5-10, 2022.
4. Zheng W, Adamson, S, Fleming S and Shannahan J (2022). Systemic Copper Disorder Influences Olfaction in Adult Rats: Relationship to Adult Neurogenesis in Subventricular Zone and Olfactory Bulb. Accepted abstract for 2022 SOT annual meeting (#3073).
5. Calhoun VJ, Liu LL and Zheng W (2022). Expression of Copper Chaperone for Cytochrome C Oxidase (COX17) in the Blood-CSF Barrier in the Choroid Plexus: Impact of Lead Exposure and Brain Copper Homeostasis. Accepted abstract for 2022 SOT annual meeting (#3073).
6. Liu LL and Zheng W (2022). Copper Modulates Adult Neurogenesis in the Subventricular Zone: Evidence from Copper Chelation by Intracerebroventricular Infusion of D-Penicillamine. Accepted abstract for 2022 SOT annual meeting (#3073).
7. Sang LT, Liu LL and Zheng W (2022). Pb Exposure Increases Cu Levels in the Cerebrospinal Fluid (CSF): Roles of ADP-ribosylation Factor 1 (ARF1) in the Choroid Plexus. Accepted abstract for 2022 SOT annual meeting (#3073).
8. Gu HY, Territo P, Zheng W and Du YS (2022). Lead (Pb) Exposure Induces Cerebral Amyloid Angiopathy and Hypoperfusion in APP mice. Accepted abstract for 2022 SOT annual meeting (#3073).
9. Kiper KG, Wells E, **Zheng W** and Freeman JL (2021). Developmental toxicity characterization of a binary mixture of arsenic and lead using the zebrafish. 16th International Zebrafish Society Conference. Virtual. June 16-22.
10. Liu L and **Zheng W** (2021). Choroid plexus regulates adult neurogenesis in subventricular zone (SVZ) via extracellular vesicles: A new mechanism underlying manganese-induced non-motor Parkinsonian symptoms. Platform presentation in the 2nd HSCI Research Retreat. April 2, 2021.
11. **Zheng W** and Ali S (2021). Impaired brain barrier systems: Relationship to chemical-induced neurotoxicities. Symposium abstract for 2021 annual meeting of SOT.
12. **Zheng W** (2021). Structure, function and transporters in brain barriers: Implication in metal neurotoxicology. Abstract for a symposium presentation in virtual 2021 annual meeting of SOT.
13. Liu L, Jiang W and **Zheng W** (2021). Excessive copper impairs adult neurogenesis in brain subventricular zone in vitro. Accepted abstract for 2021 SOT virtual annual meeting (#3072).
14. Webb A, Spiers K, Falkenberg G, Gu H, Dwibhashyam SS, Du Y, Zheng W, and Nie LH (2021). Distribution of lead (Pb) and selenium (Se) in mouse brain following subchronic Pb exposure by using synchrotron X-ray fluorescence. Accepted abstract for 2021 SOT virtual annual meeting (#3073).
15. Gu HY, Territo P, **Zheng W** and Du YS (2021). Pathogenic role of subchronic lead exposure in cerebral amyloid angiopathy and Alzheimer's disease. Accepted abstract for 2021 SOT virtual annual meeting (#3077).
16. Liu L, Jiang W, and **Zheng W** (2020). Adverse effect of manganese exposure on adult neurogenesis: Evidence from the subventricular zone (SVZ)-derived neurosphere assay in vitro. Accepted abstract for 2020 SOT annual meeting.

17. Du D, Liu L, Jiang W, and **Zheng W** (2020). Expression of copper transport protein-2 (CTR2) in the blood-CSF barrier: Effect of lead exposure in vitro. Accepted abstract for 2020 SOT annual meeting.
18. Sang TY, Liu L, and **Zheng W** (2020). Expression of ADP-ribosylation Factor 1 (Arf1) in the Blood-CSF Barrier: Effect of Lead Exposure In Vitro. Accepted abstract for 2020 SOT annual meeting.
19. Gu HY, Territo PR, Persohn SA, Bedwell AA, Chen Z, **Zheng W**, and Du YS (2020). Pb plays a role in AD pathogenesis by impairing the function of the Brain Barrier System. Accepted abstract for 2020-SOT annual meeting.
20. Gaire S, **Zheng W**, Scharf M, and Gondhalekar A (2020). Plant essential oil constituents synergize deltamethrin toxicity in resistant bed bugs (*Cimex lectularius* L.) by inhibiting cytochrome P450 enzymes. 2020 Joint North Central Branch and Southwestern Branch Meeting of Entomological Society of America. Presentation #149944.
21. Liu L, Du D, and **Zheng W** (2019). Expression of copper transport protein-2 (CTR2) in the blood-CSF barrier: Effect of lead exposure in vitro. Poster presentation in OV-SOT in Cincinnati Oct 18.
22. **Zheng W** (2019). Role of copper in regulating adult neurogenesis: Relevance to non-motor dysfunction in manganese-induced Parkinsonism". Oral presentation in 13th conference of Int'l Society for Trace Element Research in Humans in Bali, Indonesia, Sept 22-26.
23. **Zheng W** (2019). Environmental causes of disrupted neurogenesis in adults. Invited Keynote Speaker in Chinese Society of Environmental Teratology in Zunyi, China, June 18-22.
24. **Zheng W** (2019) Involvement of copper in regulation of adult neurogenesis in rodent brain. Oral presentation in Neurology conference in Barcelona, Spain, May 15-17.
25. **Zheng W** (2019). Alpha-synuclein: A good protein turned bad in chronic brain diseases with toxicological implications. (symposium presentation, Chair) Toxicologist 168(1):1021. Baltimore March 10-14, 2019.
26. **Zheng W** (2019). Toxicity of manganese exposure on neural progenitors and adult neurogenesis. (symposium presentation) Toxicologist 168(1):1679.
27. Xu Y, Wu X, Liu Q, **Zheng W**, and Zhao G (2019). Beneficial effect of resveratrol in combined treatment with cisplatin on growth inhibition and apoptosis induction in gastric cancer SGC-7901 cells. Toxicologist 168(1):1204.
28. Gu H-Y, Territo P, Persohn S, Bedwell A, Chen Z, **Zheng W**, and Du Y (2019). Pb-induced neurotoxicology of the brain barrier system: New implications. Toxicologist 168(1):1405.
29. Shen X-L, Xia L, Jiang W, Du Y, and **Zheng W** (2019). Lead(Pb) exposure stimulates RAGE relocation and expression in choroid plexus: Implication in amyloid aggregation in brain. Toxicologist 168(1):1406.
30. Xia L, Shen X-L, and **Zheng W** (2019). LRP-1 expressions and distribution across BBB and BCB following subchronic lead exposure. Toxicologist 168(1):1408.
31. Du X-Q, **Zheng W**, and Ye Q (2019). A rare case of severe life-threatening lead poisoning due to accidental exposure: Diagnosis, treatment, and prognosis. Toxicologist 168(1):2344.
32. **Zheng W**, Fan XM, Jiang W, and Fan QY (2018). Reduction of PARK2 expression among smelting workers exposed to manganese (Mn). Abstracted accepted by IUTOX-the 10th Congress of Toxicology in Developing Countries. Belgrade, Serbia April 18-21
33. **Zheng W**, Jiang W, and Adamson S (2018). Regulation of adult neurogenesis by copper in subventricular zone and relationship with manganese-induced parkinsonia disorder. Abstract accepted by the 11th Int'l Copper Meeting: Bridging Clinical and Fundamental Research in Copper Biology. Serrento, Italy September 23-28.

34. **Zheng W**, Li N, Territo P, and Du Y (2018). Lead-induced neurotoxicities: From maternal exposure to neurodegenerative Alzheimer's disease (workshop presentation in the 57th SOT annual meeting in San Antonio, TX). *Toxicologist* 162(1):1748.
35. **Zheng W** (2018). Does copper play a role in adult neurogenesis in the subventricular zone? (symposium presentation) *Toxicologist* 162(1):1036.
36. Liu XX, Durkes AC, Sivasankar P and **Zheng W** (2018). Subacute acrolein exposure-induced inflammation in the larynx. *Toxicologist* 162(1):2796.
37. Rolle D, Liu Y, Mostafaei F, Zhou Y, **Zheng W**, Nie LH, and Wells EM (2017). Association between manganese biomarkers and olfactory test scores. Presented in the American Public Health Association (APHA) conference.
38. Rolle D, Liu Y, Mostafaei F, Zhou Y, **Zheng W**, Nie LH, and Wells EM (2017). The association between blood and bone manganese with cognitive test scores. Presented in the International Society of Environmental Epidemiology.
39. **Zheng W**, Fu S, Chen JH, Jiang W and Du YS (2017). Altered adult neurogenesis: Implications in manganese-induced Parkinsonian disorder. The 16th International Symposium on Trace Elements in Man and Animals, the 12th Conference of International Society for Trace Element Research in Humans, and the 13th Nordic Trace Element Society, in St. Petersburg, Russia.
40. **Zheng W** (2017). Transport of α -synuclein at the blood-cerebrospinal fluid barrier: Implications in manganese-induced Parkinsonian disorder. Hengstberger Symposium on α -Synuclein Transport. University of Heidelberg, Heidelberg, Germany. April 5-6, 2017.
41. **Zheng W** (2017). New concepts and technologies in metals toxicology. Continuing education course in the 56th SOT annual meeting in Baltimore, MD. *Toxicologist* 156(1): Abstract #1005.
42. Fu X, Shen X, Jiang W, Lai V, Wang X, Cannon J, Chen J, and **Zheng W** (2017). Subchronic manganese (Mn) exposure impairs hippocampal neurogenesis in adult rats. A poster presentation in the 56th SOT annual meeting in Baltimore, MD. *Toxicologist* 156(1): Abstract #1400.
43. Li N, and **Zheng W** (2017). Involvement of calyntenin-2 and calyntenin-3 in hippocampus and cerebral cortex in lead (Pb)-induced neurotoxicity in mouse pups after maternal exposure. A poster presentation in the 56th SOT annual meeting in Baltimore, MD. *Toxicologist* 156(1): Abstract #1797.
44. Nie L, Liu Y, Byrne P, Mostafaei F, Rolle D, Hsieh M, **Zheng W**, and Wells E (2017). Customized compact neutron activation analysis system to quantify manganese (Mn) and aluminum (Al) in bone in vivo. A poster presentation in the 56th SOT annual meeting in Baltimore, MD. *Toxicologist* 156(1): Abstract #2132.