Linda H. Nie, Ph.D.
Curriculum Vitae
March 2022

Position:
Professor, School of Health Sciences, Purdue University

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EDUCATION

1992-1996 Bachelor of Science, Physics (July, 1996)
Zhongnan University of Technology, China

2000-2001 Master of Science in Medical Physics (July, 2001)
McMaster University, Canada

Dissertation Title: The Improvement of In Vivo X-ray Fluorescence Lead Measurement System

Dissertation Committee:
David Chettle, Ph.D. (Chair)
Fiona McNeill, Ph.D. (Member)
William Prestwich, Ph.D. (Member)
Colin Webber, Ph.D. (Member)

2001-2005 Doctorate of Philosophy in Medical Physics (July, 2005)
McMaster University, Canada

Dissertation Title: Studies in Bone Lead: A New 109Cd K-XRF Measurement System; Modeling Bone Lead Metabolism; Interpreting Low Concentration Data

Dissertation Committee:
David Chettle, Ph.D. (Chair)
Fiona McNeill, Ph.D. (Member)
William Prestwich, Ph.D. (Member)
Colin Webber, Ph.D. (Member)
Edward Puzas, Ph.D. (External Advisor)

2005-2009 Postdoctoral Fellowship
Harvard School of Public Health

Postdoctoral Mentors: Howard Hu, M.D., Sc.D.; Robert Wright, M.D., M.P.H.; Marc Weisskopf, Ph.D.

PROFESSIONAL EXPERIENCE and ACADEMIC APPOINTMENTS

07/1996-06/1998	Research Assistant, China Institute of Atomic Energy (CIAE)
07/1998-04/2000	Research Associate, CIAE
07/2005-10/2005	Research Assistant and Teaching Assistant, Department of Medical Physics and Applied Radiation Sciences, McMaster University
07/2005-10/2005	NSERC Research Fellow, Department of Medical Physics and Applied Radiation Sciences, McMaster University
10/2005-07/2007	Research Fellow, Director, XRF Laboratory, Department of Environmental Health, Harvard School of Public Health (HSPH)
08/2007-08/2009	Research Associate, Director, XRF Laboratory, Department of Environmental Health, HSPH
09/2008-present	Adjunct Assistant/Associate/Full Professor, University of Michigan School of Public Health
08/2009-08/2015	Assistant Professor, School of Health Sciences, Purdue University
8/2010-present	Assistant/Associate/Full Professor (courtesy), School of Nuclear Engineering, Purdue University
08/2015-08/2021	Associate Professor, School of Health Sciences, Purdue University
06/2019-10/2019	Visiting Professor, DESY Research Center, Hamburg, Germany
11/2019-12/2019	Visiting Professor, PAL Research Center, POSTECH, South Korea
08/2021-present	Professor, School of Health Sciences, Purdue University

ACADEMIC and PROFESSIONAL HONORS

Honors

2015	Early Career Research Achievement Award, College of Health and Human Sciences, Purdue University
2019	Seed for Success Award, Purdue University
2019	Fulbright Global Scholar Award
2021	HHS Outstanding Graduate Faculty Mentor Award, Purdue University

Memberships

2006-present	American Association of Physicists in Medicine (AAPM)
2009-present	Society of Toxicology (SOT)
2018-present	International Society of Trace Element Research in Humans (ISTERH)
2006-2012	American Physical Society (APS)
2007-2012	The American Academy of Clinical Toxicology (AACT)

Professional Activities

Editorial Board

2020-present	Associate Editor, Applied Radiation and Isotopes
2019-present	Editorial Board Member, Physiological Measurements

Editorial Review for Scientific Journals

Physics in Medicine and Biology
Science of the Total Environment
Nuclear Instruments and Methods in Physics Research B
Nature Scientific Report
X-ray Spectrometry
International Journal of Environmental Health Research
AECL Nuclear Review
Analytical Methods
Environmental Health
Journal of Alzheimer's Disease
Journal of Analytical Atomic Spectrometry
Biomarkers, Measurement Science and Technology
Toxicology Letters
Journal of Environmental Monitoring
Applied Radiation and Isotopes
Physics G
Environmental Science
IEEE Nuclear Transactions
Physiological Measurements
Biomedical Physics and Engineering Express
Environmental Science Processes & Impacts, Child: Care, Health & Development

Grant review

2011	Canadian Light Source (CLS) application review
2012	Portuguese Foundation for Science and Technology (FCT)
2013	Mitacs Elevate Postdoctoral Fellowship review
2014-2020	CDC/NIOSH Occupational Safety and Health Education and Research Centers (ERC) study section special emphasis panel review, standing member
2020-2022	CDC/NIOSH Occupational Safety and Health Regular Grants Study Section (SOHSS), Ad Hoc
2022-2026	CDC/NIOSH Occupational Safety and Health Regular Grants Study Section (SOHSS), standing member

MAJOR RESEARCH INTERESTS

Development, Validation, and Application of Non-invasive Neutron Activation Analysis Technology to Quantify Metals and Trace Elements in Bone and Soft Tissue In Vivo.

- Quantification of manganese (Mn) and aluminum (Al) in bone, and association between Mn/Al expoGsure and neurodegeneration
- Quantification of sodium (Na) and potassium (K) in bone and soft tissue, Na/K intake, storage, biokinetics, and hypertension and cardiovascular diseases (CVD)
- Quantification of magnesium (Mg) in bone, and association between Mg exposure and varies health outcomes
- Quantification of other metals and trace elements in human tissues and small animals in vivo, and applications in biology and health sciences
- Health effect of exposure to metal mixtures

Development, Validation, and Application of a Non-invasive X-ray Fluorescence (XRF) Technology to Quantify Metals and Trace Elements in Bone, Toenail, and Skin In Vivo.

- Quantification of lead (Pb) and gadolinium (Gd) in bone using an advanced Cd-109 induced k-x-ray fluorescence (KXRF) system
- Quantification of Pb and strontium (Sr) in bone, and manganese (Mn), mercury (Hg), zinc (Zn), and selenium (Se) in toenail using a portable XRF device
- Quantification of arsenic (As) in skin using a portable XRF device
- Quantification of metals in bone using a portable KXRF system
- Pb exposure and neurodegeneration (Alzheimer's Disease and Parkinson's Disease); Pb exposure and neurodevelopmental effect
- Sr exposure and bone diseases
- Health effects of exposure to metals individually and combined

Development and Application of Synchrotron X-ray Technologies to Study Metal and Human Health.

- Synchrotron micro XRF to map metals in bone, tooth, and brain tissues
- Synchrotron x-ray absorption near edge structure (XANES) to determine elemental speciation
- Synchrotron micro- and nano- tomography
- Application of the synchrotron x-ray technologies in metal toxicology and health, neurodegeneration, and mechanism studies

Development and Validation of Other Neutron Technologies in Medicine.

- Associated particle elemental imaging (APEI) technology to determine elemental distribution and diagnose diseases associated with elemental alteration at an early stage
- Neutron generator based boron neutron capture therapy (BNCT) system for cancer treatment

Biological Effects of Radiation Exposure, and Combined Exposure of Metal and Radiation.
General Nuclear Physics and Instrumentation Development in Interdisciplinary and Multidisciplinary fields

ACTIVE/PENDING RESEARCH SUPPORT

Active:

1. NIH/NIEHS-1R01ES027078, 7/1/2017–6/30/2022, Co-I (PI: Zheng), L*ead Exposure on Beta-Amyloid Transport by Brain Barriers.* $2,230,934; $321,808 in total to Nie lab for years 2019-2022
To study how Pb exposure alters brain barrier structure and function, leading to increased permeability of Ab transport to brain, decreased clearance from brain and enhanced aggregation. I am responsible for the measurement of Pb in bone using KXRF bone Pb measurement system and for the Pb concentration mapping in rat brain tissues using synchrotron μ-XRF technology.

2. NIH/NHLBI-1R01HL1408488, 07/01/2018-06/30/2023, Co-I and Site-PI for Purdue Subcontract (PI: Cheryl Anderson), *Sodium Regulation in Individuals on Known Dietary Sodium Intake*. $427,916 in total to Nie Lab.
To study sodium regulation using novel technologies for bone and soft tissue sodium quantification. I am responsible for the quantification of sodium in bone and soft tissue *in vivo* using the IVNAA technology developed in my lab.

3. Purdue Bridge Funding, 09/01/2019-04/30/2022, PI, *In Vivo Neutron Activation Analysis (IVNAA) to Study Sodium (Na) Intake, Na and Potassium (K) Storage, and Blood Pressure Using a Swine Model*. $80,000
To study soft tissue sodium, bone sodium, and the relation with sodium and potassium regulation in pigs with high and low-Na intake.

4. NIH/NIEHS-1R01ES021488, 07/01/2021-06/30/2026, Co-I and Site-PI for Purdue Subcontract (PI: Brad Racette), *Imaging Biomarkers of Neurotoxicity in Welders*. $133,627 in total to Nie Lab.
To study neurotoxicity of Mn exposure in welders. I am responsible for the quantification of Mn in bone *in vivo* using the IVNAA technology developed in my lab.

Pending:

5. NIH/NIA-1R21AG080455, 09/01/2022-08/31/2024, PI, *Bone Lead (Pb), Brain Pb, and ADRD (Incidents and Pathology) in an AD Cohort*. $424,735 in total.

6. NIH/NINDS-1R01XXXXXX, 12/01/2022-11/30/2027, Co-I and site-PI for Purdue Subcontract (PI: Xuemei Huang), *Linking Lead Exposure to Brain Iron and ADRD-related Structure and Functions*. $457,367 in total to Nie Lab.

PREVIOUS RESEARCH SUPPORT

Purdue Research Foundation Fellowship, 08/01/2018-07/31/2019, PI, Portable X-ray Fluorescence (XRF) to Study Strontium and Bone Health. $20,000.
To develop and validate a portable XRF system to quantify strontium (Sr) in vivo and to assess the correlation between bone Sr and bone health.

NIH/NIEHS-1R01ES024165, 5/1/2015–4/30/2021, Co-I and site-PI for Purdue Subcontract (PI: Weisskopf), *Early and Late-life Metal Exposure and Alzheimer's Disease.* $245,337 to Nie lab.
To investigate the association between AD and metal exposure among an elderly US population. I am responsible for the metal exposure assessment using XRF technologies.

NIH/NIEHS-1R21/R21S ES024700, 08/1/2016-07/31/2020. multi-PI (Nie, Weisskopf, Weuve (contact)), *Validation of Portable XRF for In-vivo Measurement of Heavy Metal Exposures.* $712,183 for R21 and R21S. To validate the portable XRF technique for the *in vivo* quantification of Pb in bone, and of Hg and Mn in toenail against existing gold standard approaches.

Purdue Bilsland Fellowship, 08/01/2019-07/31/2020, PI, Validation of a Portable XRF Technology for Noninvasive In Vivo Quantification of Pb in Bone and As in Skin Among a Population Living in Pb- and As- contaminated Superfund Site. $20,000.
To support one PhD student for research for one year.

IMnL. 08/01/2018 – 07/31/2020. Co-I (PI: Bowman). Hair Manganese Accumulation as a Novel Biomarker for External Mn Exposure. Total $14,500 with $2,334 to Nie Lab.

Purdue Travel Grant/ HHS and HSCI International Travel Grant. 07/01/2018 – 06/30/2019. PI. $1,600. To visit China for international research collaborations.

NIOSH-funded ERC Pilot Research Grant at University of Michigan, 7/1/2017-6/30/2018, PI
Portable XRF Technology for Noninvasive In Vivo Quantification of Uranium (U) in Bone and Arsenic (As) in Skin among a Population with High U- and As- Exposures. $20,000
To develop and validate a portable XRF system to quantify bone U and skin As noninvasively in vivo.

NRC-HQ-84-14-G-0039, 8/1/2014–7/31/2018, PI (Fentiman, Nie), *Nuclear Engineering and Health Physics Fellowship Program at Purdue University.* $391,620
To sponsor graduate students in the field of Nuclear Engineering and Health Physics. I am the PI on the Health Physics side.

Purdue University College of Health and Human Sciences International Travel Grant. 7/1/2016-6/30/2017. PI. $1,600
To support travel to China to visit three institutions to discuss existing and potential research collaborations.

CDC/NIOSH-1R21OH010700, 7/1/2014–6/30/2017, PI, *Bone Manganese as a Biomarker for Early Diagnosis of Manganese Neurotoxicity in Occupationally Exposed Workers.* $401,478.
To test whether bone manganese (Mn) is a good biomarker for cumulative Mn exposure and for early diagnosis of Mn Neurotoxicity. One year no cost extension.

Purdue Major Scientific Equipment Award. 9/1/2016-08/31/2017. PI. *Major Scientific Equipment Award from Purdue Vice President of Research Office.* $150,000.
To purchase an HPGe γ-ray detection system.

NRC-HQ-84-14-G-0048, 8/1/2014-7/31/2017, PI (Beans, Garner, Nie), *NRC Faculty Development Grant at Purdue University.* $580,000
To support junior faculty member to establish their independent laboratory and research. I am the PI for the Health Physics side.

Indiana CTSI Project Development Team (PDT). 5/17/2016-5/16/2017. PI. *Bone Sodium and Calcium as Biomarkers to Study Sodium and Calcium Metabolism and Retention*. $10,000.
To develop novel technology to accurately measure Na and Ca in bone and use them as biomarkers to study hypertension and osteoporosis related to Na and Ca metabolism.

NRC-HQ-84-14-G-0017, 8/1/2014–07/31/2016, PI (Fentiman, Nie), *Nuclear Engineering and Health Physics Scholarship Program at Purdue University.* $194,400
To sponsor undergraduate students in the field of Nuclear Engineering and Health Physics.

Purdue University Instructional Equipment Program, 6/1/2015-5/1/2016, PI, *Instructional Equipment Request to Sustain the Radiological Health Sciences (RHS) Program.* $7,800.
To purchase equipment for education of students in RHS program.

Purdue University Research Equipment Grant, 7/1/2014-10/1/2015, PI, *Purdue University Laboratory and University Core Facility Research Equipment Program.* $100,000.

To purchase a compact deuterium-deuterium neutron generator.

Purdue Research Foundation Fellowship. 9/1/2013-8/31/2014, PI. *Development and Validation of a Transportable Neutron Activation Analysis System to Quantify Metals in Bone*. $17,556
To develop and validate a novel NAA system to quantify metals in bone in vivo.

Purdue University Vice President of Research Office. 7/18/2013-7/17/2015, PI. *Purdue US-China Eco Partnership Travel Grant*. $4,500
To travel to China to establish research collaborations.

CDC/NIOSH-1R21OH010044, 7/1/2012–6/30/2015, PI, *Development and Validation of a Novel In Vivo Neutron Activation Analysis Technology for Noninvasive Quantification of Manganese in Bone,* $338,015
To develop and validate a transportable neutron activation analysis system to quantify Mn in bone *in vivo*.

NRC-HQ-11-G-38-0006, 8/1/2011–7/31/2014, PI (Hassanein, Nie), *NRC Faculty Development Grant at Purdue University.* $300,000
To support junior faculty member to establish their independent laboratory and research. I am the PI on the Health Physics side.

NRC-HQ-38-09-921, 8/1/2010–7/31/2014, PI (Fentiman, Nie), *Nuclear Engineering and Health Physics Fellowship Program at Purdue University.* $397,056
To sponsor graduate students in the field of Nuclear Engineering and Health Physics. I am the PI on the Health Physics side.

NRC-HQ-38-10-955, 8/1/2012–7/31/2014, PI (Fentiman, Nie), *Nuclear Engineering and Health Physics Scholarship Program at Purdue University.* $194,400
To sponsor undergraduate students in the field of Nuclear Engineering and Health Physics. I am the PI on the Health Physics side.

NIOSH-funded ERC Pilot Research Grant at University of Cincinnati. 7/1/2014-6/30/2015, PI (Nie, Liu). *Validation of Neutron Activation Analysis (NAA) System to Quantify Manganese In Vivo*. $7,600
To develop a novel IVNAA system to quantify Mn in bone in vivo.

NIOSH-funded ERC Pilot Research Grant at University of Michigan, 7/1/2013–6/30/2014, PI (Nie, Byrne). *Development and Validation of a Neutron Activation Analysis System to Quantify Aluminum in Human Bone In Vivo.* $17,250
To develop and validate a compact neutron activation analysis system to quantify bone Al noninvasively in vivo.

NIOSH-funded ERC Pilot Research Grant at University of Cincinnati, 7/1/2011–6/30/2012, PI, *Design of Novel In Vivo Neutron Activation Analysis System for Noninvasive Quantification of Mn in Bone With Monte Carlo Simulations*. $11,665
To design an IVNAA system for bone Mn analysis using MC simulations.

PRF Fellowship, 8/1/2014-7/31/2015, PI, *Lead in Bone and Neuropsychological Implications among a Pediatric Population with Elevated Pb Exposures.* $18,000.
To investigate the use of bone Pb as a biomarker for Pb exposure among a pediatric population.

Purdue Bilsland Dissertation Fellowship. 8/1/2014-7/31/2015. PI. *Validation of a Neutron Activation Analysis (NAA) System to Quantify Metals in Bone in vivo*. $18,000.
To validate an NAA system to quantify metals in bone *in vivo*.

Purdue Research Foundation Faculty Summer Research Grant. 6/1/2011-7/31/2011. PI. *Design a Novel In Vivo Neutron Activation Analysis System for Noninvasive Quantification of Mn in Bone with Monte Carlo Simulations*. $8,000
To design an IVNAA system for bone Mn analysis using MC simulations.

NIOSH-funded ERC Pilot Research Grant at University of Illinois. 7/1/2010-6/30/2011. PI. *Noninvasive In Vivo Quantification of Lead and Cadmium in Bone*. $19,979.
To develop novel x-ray technologies to quantify Pb and Cd in bone in vivo.

NIOSH-funded ERC Pilot Research Grant at University of Michigan, 7/1/2010-6/30/2011. PI. *Neurotoxic Effects of Cumulative Exposures to Manganese and Lead: A Novel Study on Welders*. $15,531.
To study the neurological effects of combined cumulative exposure to Mn and Pb.

Purdue Startup Package. 8/17/2009-8/16/2012, PI.
To help new faculty member to start his/her career.

PUBLICATIONS

Peer-reviewed publications (* indicates corresponding author(s); trainees in Dr. Nie's lab are underlined)

1. Webb AN, Spiers KM, Falkenberg G, Gu H, Dwibhashyam SS, Du Y, Zheng W, **Nie LH*** (2022). Distribution of Pb and Se in Mouse Brain following Subchronic Pb Exposure by using Synchrotron X-ray Fluorescence (XRF). *Neurotoxicology.* 88: 106-115
2. Rolle-McFarland D, Liu Y, Mostafaei F, Zauber SE, Zhou Y, Li Y, Fan Q, Zheng W, **Nie LH***, Wells EM* (2022). The Association of Bone and Blood Manganese with Motor Function in Chinese Workers. Neurotoxicology. 88: 224-230
3. Tabbassum S, Cheng P, Yanko FM, Balachandran RC, Bowman AB, **Nie LH*** (2021). Whole Body Potassium as a Biomarker for Potassium Uptake Using a Mouse Model. Nature Scientific Report, 11(1):6385. Doi: 10.1038/s41589-021-85233-2
4. Balachandran RC, Yanko FM, Cheng P, Prince LM, Ricers CN, Morcillo P, Akinyemi AJ, Tabbassum S, Pfalzer AC, **Nie LH**, Aschner M, Bowman AB. (2021). Rodent Hair is a Poor Biomarker for Internal Manganese Exposure. Food Chem Toxicol. 157:112555
5. Specht AJ, Zhang X, Young A, Nguyen VT, Christiani DC, Ceballos DM, Allen JG, Weuve J*, **Nie LH***, Weisskopf MG* (2021). Validation of In Vivo Toenail Measurements of Manganese and Mercury using a Portable X-ray Fluorescence Device. J Expo Sci Environ Epidemiol. Doi: 10.1038/s41370-021-00358, Epub ahead of print
6. Zhang X, Specht AJ, Wells E, Weisskopf MG, Weuve J, **Nie LH*** (2021). Evaluation of a Portable XRF Device for In Vivo Quantification of Lead in Bone among a US Population. *Sci Total Environ.* 753: 142351
7. Colicino E, Just A, Kioumourtzoglou MA, Vokonas P, Cardenas A, Sparrow D, Weisskopf M, **Nie LH**, Hu H, Schwartz JD, Wright RO, Baccarelli AA (2021). Blood DNA Methylation Biomarker of Cumulative Lead Exposure in Adults. J Expo Sci Environ Epidemiol, 31:108-116
8. Tabbassum S, **Nie LH*** (2020). In Vivo Neutron Activation Assembly Design for Quantification of Trace Elements Using MCNP. Physiological Measurement, E-Pub ahead of print, doi: 10.1088/1361-6579/abc322; PMID: 33080584
9. Byrne P, Coyne M, **Nie LH***. Improved MCNP Simulation Considering Neutron Angular Distribution and Its Experimental Verification. International Journal of Atomic and Nuclear Physics. 5(2020)023, DOI: 10.35840/2631-5017/2521
10. Hasan Z, Rolle-McFarland D, Liu Y, Zhou J, Mostafaei F, Li Y, Fan Q, Zhou Y, Zheng W, **Nie LH***, Wells EM*. Characterization of Bone Aluminum, a Potential Biomarker of Cumulative Exposure, within and Occupational Population from Zunyi, China. Journal of Trace Element in Medicine and Biology, doi: 10.1016/j.jtemb.2020.126469, Epub on Jan.14, 2020
11. Specht AJ, Weisskopf M, **Nie LH***. Childhood Lead Biokinetics and Associations with Age among a Group of Lead-poisoned Children in China. J Expo, Sci Environ Epidemiol. 29(2019)416-423
12. Lin Y, Huang L, Specht AJ, Xu J*, Yan C, Geng H, Shen X, **Nie LH***, Hu H (2019). The Association of Bone Lead and Blood Lead with Child Attention-deficit-hyperactivity- disorder-like Behavior. Sci Total Environ. 659(2019)161-167
13. Rolle-McFarland D, Liu Y, Zhou J, Mostafaei F, Zhou Y, Li Y, Fan Q, Zheng W, **Nie LH***, Wells E*. The Association between Bone, Fingernail, and Blood Manganese with Cognitive and Olfactory Function in Chinese Workers. Science of Total Environment. 666(2019) 1003-1010
14. Abel MR, **Nie LH***. Improving the Sensitivity of Fast Neutron Inelastic Scatter Analysis to Iron Using Associated Particle Collimation. Nuclear Instruments and Methods in Physics Research, A. 932(2019)31-42

15. Coyne MD, Lobene A, Neumann C, Lachcik P, Weaver CM, **Nie LH***. Determination of Bone Sodium (Na) and Na Exchange in Pig Leg using In Vivo Neutron Activation Analysis (IVNAA), Physiol Meas. 40(2019)075009, doi: 10.1088/1361-6579/ab2ba5
16. Specht AJ, Zhang X, Goodman BD, Maher E, Weisskopf MG, **Nie LH***. A Dosimetry Study of Portable X-ray Fluorescence In Vivo Metal Measurements. Health Physics. 116(2019)590-598
17. Specht AJ, Kponee K, Nkpaa KW, Balcom PH, Weuve J, **Nie LH**, Weisskopf MG. Validation of X-ray Fluorescence Measurements of Metals in Toenail Clippings against Inductively Coupled Plasma Mass Spectrometry in a Nigerian Population. Physiol Meas. 39(2018)085007.
18. Rolle-McFarland D, Liu Y, Zhou J, Mostafaei F, Zhou Y, Li Y, Fan Q, Zheng W, **Nie LH***, Wells EM*. 2018. Development of a cumulative exposure index (CEI) for manganese and comparison with bone manganese and other biomarkers of manganese exposure. International Journal of Environmental Research and Public Health. 15(2018)1341.
19. Coyne M, Neumann C, Zhang X, Byrne P, Liu Y, Weaver CM, **Nie LH***. Compact DD generator based In Vivo Neutron Activation Analysis (IVNAA) System to Determine Sodium Concentrations in Human Bone. Physiological Measurement. 39(2018)055004. doi: 10.1088/1361-6579/aabe66.
20. Abel MR and **Nie LH*.** Monte Carlo Simulations of Elemental Imaging using the Neutron Associated Particle Technique. Medical Physics, 45(2018)1631-1644.
21. Specht AJ, Lin Y, Xu J, Weisskopf M, **Nie LH***. Bone Lead Levels in an Environmentally Exposed Elderly Population in Shanghai, China. Science of Total Environment. 626(2018)96-98
22. Liu Y, Rolle-McFarland D, Mostafaei F, Zhou Y, Li Y, Zheng W, Wells EM*, **Nie LH***. *In Vivo* Neutron Activation Analysis (IVNAA) of Bone Manganese (Mn) in Workers, Physiological Measurement, 39(2018)035003
23. Specht A, Parish CN, Wallens EK, Watson RT, **Nie LH**, Weisskopf MG. Validation of X-ray Fluorescence Bone Lead Measurements of Condor Bones. Science of Total Environment. 615(2018)398-403
24. Zhang X, Specht AJ, Weisskopf MG, Weuve J, **Nie LH***. Quantification of Manganese and Mercury in Toenail In Vivo Using Portable X-ray Fluorescence (XRF). Biomarkers, 23(2018)154-160
25. Wells EM*, Liu Y, Rolle D, Mostafaei F, Zheng W, **Nie LH***. In Vivo Measurement of Bone Manganese and Association with Manual Dexterity: a Pilot Study. Environmental Research, 160(2018)35-38
26. Specht A, Marc Weisskopf, **Nie LH***. Theoretical Modelling of a Portable X-ray Tube Based KXRF System to Measure Lead in Bone. Physiological Measurement, 38(2017)575-585
27. Specht AJ, Mostafaei F, Lin Y, Xu J, Nie **LH***. Measurements of Strontium Levels in Human Bone in vivo Using X-ray Fluorescence. Applied Spectroscopy, 71(2017)1962-1968
28. Hsieh M, Liu Y, Mostafaei F, Poulson J, **Nie LH***. A Feasibility Study of a Deuterium-deuterium Neutron Generator-based Boron Neutron Capture Therapy System for Treatment of Brain Tumors. Medical Physics, 44(2017)637-643
29. Liu Y, Mostafaei F, Sowers D, Hsieh M, Zheng W, **Nie LH***. Customized Compact Neutron Activation Analysis System to Quantify Manganese (Mn) in Bone In Vivo. Physiological Measurement, 38(2017)452-465
30. Wang Y, Specht A, Liu Y, Finney L, Maxey E, Zheng W, Weisskopf M, **Nie LH***. Micro-distribution of Lead in Human Teeth Using Synchrotron μ-XRF. X-ray Spectrometry, 46(2017)19-26
31. Farooqui Z, Bakulski KM, Power MC, Weisskopf MG, Sparrow D, Spiro III A, Vokonas PS, **Nie LH**, Hu H, Park SK. Association of cumulative Pb exposure and longitudinal changes in Mini-Metal Status Exam scores, global cognition and domains of cognition: The VA Normative Aging Study. Environmental Research, 152(2017)102-108
32. Abel M, Koltick D, **Nie LH***. Associated particle neutron elemental imaging in vivo: a feasibility study, Medical Physics, 43(2016)5964-5972
33. Mostafaei F, **Nie LH*** (2016). The study of in vivo x-ray fluorescence (XRF) technique for gadolinium (Gd) measurements in human bone, Journal of Instrumentaion, E-pub ahead of print, Aug.2, 2016, http://iopscience.iop.org/1748-0221/11/08/T08001
34. Byrne P, Mostafaei F, Liu Y, Koltick D, Zheng W, **Nie LH*** (2016). The Study of In Vivo Quantification of Aluminum (Al) in Human Bone with a Compact DD Generator-based Neutron Activation Analysis (NAA) **System**. Physiological Measurements, 37(5): 649-660
35. Specht A, Lin Y, Weisskopf M, Yan C, Hu H, Xu J, **Nie LH*** (2016). XRF-measured Bone Lead (Pb) as a Biomarker for Pb Exposure and Toxicity Among Children Diagnosed with Pb Poisoning. Biomarkers. 21(4): 347-352
36. Sowers D, Liu Y, Mostafaei F, Blake S, **Nie LH*** (2015). A Dosimetry Study of Deuterium-Deuterium Neutron Generator-Based *in vivo* Neutron Activation Analysis. Health Physics, 109: 566-572

37. Mostafaei F, Blake SP, Liu Y, Sowers DA, **Nie LH*** (2015). Compact DD Generator-based Neutron Activation Analysis (NAA) System to Determine Fluorine in Human Bone In Vivo: A Feasibility Study. Physiological Measurement, 36: 2057-2067
38. Jhun MA, Hu H, Schwartz J, Weisskopf MG, **Nie LH**, Sparrow D, Vokonas PS, Park SK (2015). Effect Modification by Vitamin D Receptor Genetic Polymorphisms in the Association between Cumulative Lead Exposure and Pulse Pressure: a Longitudinal Study. Environmental Health. 14:5-14
39. Bakulski KM, Park SK, Weisskopf MG, Tucker KL, Sparrow D, Spiro A, Vokonas PS, **Nie LH**, Hu H, Weuve J. (2014). Lead Exposure, B Vitamins, and Plasma Homocysteine in Men 55 years of Age and Older: The VA Normative Aging Study. Environmental Health Perspect. 22: 1066-1074
40. Specht A, Weisskopf M, **Nie LH*** (2014). Portable XRF Technology to Quantify Pb in Bone *In Vivo*. Journal of Biomarkers. Volume 2014 (2014), Article ID 398032, http://dx.doi.org/10.1155/2014/398032
41. Liu Y, Byrne P, Wang H, Koltick D, Zheng W, **Nie LH*** (2014). A Compact DD Neutron Generator-based NAA System to Quantify Manganese (Mn) in Bone *In Vivo*. Physiological Measurement, 35: 1899-1911
42. Freeman JL*, Weber GJ, Peterson SM, **Nie LH*** (2014). Embryonic Ionizing Radiation Exposure Results in Expression Alterations of Genes Associated with Cardiovascular and Neurological Development, Function, and Disease and Modified Cardiovascular Function in Zebrafish. Frontiers in Genetics, 122: 229-334
43. O'Neal SL, Hong L, Fu S, Jiang W, Jones A, **Nie LH**, Zheng W (2014). Manganese accumulation in bone following chronic exposure in rats: steady-state concentration and half-life in bone. Toxicol Lett. 229: 93-100
44. Power MC, Korrick S, Tchetgen EJ, **Nie LH**, Grodstein F, Hu H, Weuve J, Schwartz J, Weisskopf MG. Lead Exposure Rate of Change in Cognitive Function in Older Women. Environmental Research. 129(2014)69-75
45. Eum KD, Weisskopf MG, **Nie LH**, Hu H, Korrick SA. Cumulative Lead Exposure and Age at Menopause in the Nurses' Health Study Cohort. Environmental Health Perspect. 122(2014)229-234
46. Dant JT, Richardson R, **Nie LH***, Monte Carlo Simulation of Age-dependent Radiation Dose from Alpha- and Beta-emitting Radionuclides to Critical Trabecular Bone and Bone Marrow Targets, Physics in Medicine and Biology, 58(2013)3301-3319
47. Koltick D* and **Nie LH***, Associated Particle Neutron Imaging for Elemental Imaging in Medical Diagnostics, IEEE Nuclear Transactions, 60(2013)824-829
48. Grashow R., Miller MW, McKinney A, **Nie LH**, Sparrow D, Hu H, Weisskopf MG. Lead Exposure and Fear-Potentiated Startle in the VA Normative Aging Study: A Pilot Study of a Novel Physiological Approach to Investigating Neurotoxicant Effects, Neurotoxicology and Teratology, 38(2013)21-28
49. Liu Y, Koltick D, Byrne P, Zheng W, and **Nie LH***. Development of a Transportable Neutron Activation Analysis System to Quantify Mn in Bone In Vivo – Feasibility and Methodology, Physiological Measurement, 34(2013)1593-1609
50. **Nie LH**, Wright RO, Bellinger D, Hussain J, Amarasiriwardena C, Chettle DR, Pejovic-Milic A, Woolf A, Shannon M*. Blood Lead Levels and CBLI as Predictors of Late Neurodevelopment in Lead Poisoned Children, Biomarkers, 16(2011)517-524
51. Peters JL, Kubzansky LD, Ikeda A, Spiro III A, Wright RO, Weisskopf MG, Kim D, Sparrow D, **Nie LH**, Hu H, Schwartz J. Childhood and Adult Socioeconomic Position, Cumulative Lead Levels and Pessimism in Later Life: the VA Normative Aging Study. American Journal of Epidemiology, Nov.2011, Epub ahead of print
52. Wilker E, Korrick S, **Nie LH**, Sparrow D, Vokonas P, Coull B, Wright RO, Schwartz J, Hu H. Longitudinal Changes in Bone Lead Levels: the VA Normative Aging Study. Journal of Environmental and Occupational Monitoring, 53(2011)850-855
53. Eum KD, **Nie LH**, Schwartz J, Vokonas PS, Sparrow D, Hu H, Weisskopf MG. Prospective Cohort Study of Lead Exposure and Electrocardiographic Conduction Disturbances in the Department of Veterans Affairs Normative Aging Study. Environmental Health Perspect, 119(2011)940-944
54. **Nie LH**, Sanchez S, Grodzins L, Cleveland R, Weisskopf MG*. In Vivo Quantification of Lead in Bone with a Portable XRF System – Methodology and Feasibility. Physics in Medicine and Biology, 56(2011)N39-51
55. Behinaein S, Chettle DR, Atanackovic J, Egden LM, Fleming DEB, **Nie LH**, Richard N, Stever S. In Vivo Measurement of Lead in the Bones of Smelter Workers Using the Four-element 'Clover-leaf' Geometry Detector System. Physics in Medicine and Biolgy. 56(2011)653-665
56. Weisskopf MG, Weuve J, **Nie LH**, Saint Hilaire MH, Sudarsky L, Simon DK, Hersh B, Schwartz J, Wright RO, Hu H. Association of Cumulative Lead Exposure with Parkinson's Disease. Environ Health Perspect, 118(2010)1609-1613

57. Park SK, Elmarsafawy S, Mukherjee B, Spiro III A, Vokonas P, **Nie H**, Weisskopf M, Schwartz J, Hu H. Cumulative Lead Exposure and Age-related Hearing Loss: The VA Normative Aging Study. Hearing Research. 269(2010)48-55
58. Zhang A, Park SK, Wright RO, Weisskopf MG, Mukherjee B, **Nie H**, Sparrow D, Hu H. The HFE H63D Polymorphism as a Modifier of the Impact of Cumulative Lead Exposure on Pulse Pressure: the Normative Aging Study. Environmental Health Perspective. 118(2010)1261-1266
59. Peters JL, Weisskopf MG, Spiro A 3rd, Schwartz J, Sparrow D, **Nie H**, Hu H, Wright RO, Wright RJ. Interactions of Stress, Lead Burden, and Age on Cognition in Older Men: the VA Normative Aging Study. Environ Health Perspectives. 118(2010)505-510
60. Park SK, Mukherjee B, Xia X, Sparrow D, Weisskopf MG, **Nie H**, Hu H. Bone Lead Level Predection Models and Their Application to Examine the Relationship of Lead Exposure and Hypertension in the Third National Health and Nutrition Examination Survey. J Occup Environ Med. 51(2009)1422-1436
61. Arora M, Weuve J, Weisskopf MG, Sparrow D, **Nie H**, Hu H. Cumulative Lead Exposure and Risk of Tooth Loss in Men: the Normative Aging Study. Environmental Health Perspectives, 117(2009)1531-1534
62. Weisskopf MG, Jain N, **Nie H**, Sparrow D, Vokonas P, Schwartz J, Hu H. A Prospective Study of Bone Lead Concentration and Death from All Causes, Cardiovascular Disease, and Cancer in the VA Normative Aging Study. Circulation, 120(2009)1056-1064
63. **Nie H**, Sanchez B, Elissa Wilker, Marc Weisskopf, Joel Schwartz, Hu H*. Bone Lead and Endogenous Exposure among an Environmentally Exposed Elderly Population: the Normative Aging Study, Journal of Occupational and Environmental Medicine, 51(2009)848-857
64. Weuve J, Korrick SA, Weisskopf MA, Ryan LM, Schwartz J, **Nie H**, Grodstein F, Hu H. Cumulative Exposure to Lead in Relation to Cognitive Function in Older Women. Environmental Health Perspectives. 17(2009)574-580
65. **Nie H***, Richardson RB. Radiation Dose and Absorbed Fractions to Marrow Stem Cells from ^{3}H, ^{14}C, and Selected α-emitters Incorporated in Bone Remodeling Compartment. Physics in Medicine and Biology, 54(2009)963-979
66. **Nie H***, Hu H, Chettle DR*. Application and Methodology of *in-vivo* K X-ray Fluorescence of Pb in Bone, X-ray Spectrometry, 37(2008)69-75
67. **Nie H***, Chettle DR*, Luo LQ, O'Meara JM. Dosimetry Study for a New *in-vivo* X-ray Fluorescence (XRF) Bone Lead Measurement System, Nuclear Instruments and Methods in Physics Research B, 263(2007)225-230
68. Popovic M, **Nie H**, Chettle DR, McNeill FE, Kaye WE, Lee V, Stokes L. Left-censoring: A Second Look at Bone Lead Concentration Measurements, Physics in Medicine and Biology, 52(2007)5369-5378
69. Richardson RB, **Nie H**, Chettle DR. Monte Carlo Simulations of Trabecular Bone Remodelling and Absorbed Dose Coefficients for Tritium and Carbon-14, Radiation Protection Dosimetry, 127(2007)158-162
70. Park SK, O'Neill MS, Vokonas PS, Sparrow D, Wright RO, Coull B, **Nie H**, Hu H, Schwartz J. Air Pollution and Heart Rate Variability: Effect Modification by Chronic Lead Exposure. Epidemiology, 19(2008)111-120
71. Rajan P, Kelsey KT, Schwartz JD, Bellinger DC, Weuve J, Spiro A 3rd, Sparrow D, Smith TJ, **Nie H**, Weisskopf MG, Hu H, Wright RO. Interactions of the delta-aminolevulinic acid dehydratase polymorphism and lead burden on cognitive function: the VA normative aging study. Journal of Occupational and Environmental Medicine. 50(2008)1053-1061
72. Peters JL, Kubzansky L, peMcNeely E, Schwartz J, Wright RO, Spiro A, Sparrow D, **Nie H**, Hu H. Stress as a potential modifier of the impact of lead exposure on blood pressure: the Normative Aging Study. Environ Health Perspect, 115(2007)1154-1159
73. Wang FT, Hu H, Schwartz J, Weuve J, Spiro A, Sparrow D, Silverman EK, **Nie H**, Weiss ST, Wright RO. Modifying Effects of HFE Polymorphisms on the Association between Lead Burden and Cognitive Decline, Environ. Health Perspect, 115(2007)1210-1215
74. Perlstein T, Weuve J, Schwartz J, Sparrow D, Wright R, Litonjua A, **Nie H**, Hu H. Cumulative Community-level Lead Exposure and Pulse Pressure: the Normative Aging Study, Environ Health Perspect, 115(2007)1696-1700
75. Rajan P, Kelsey KT, Schwartz JD, Bellinger DC, Weuve J, Sparrow D, Spiro A, Smith TJ, **Nie H**, Hu H, Wright RO. Lead Burden and Psychiatric Symptoms and the Modifying Influence of the Delta-Aminolevulinic Acid Dehydratase (ALAD) Polymorphism: The VA Normative Aging Study, American Journal of Epidemiology, 166(2007)1400-1408
76. Luo LQ, Chettle DR, **Nie H**, McNeill FE, Popovic M. The Effect of Filters and Collimators on Compton Scatter and Pb K-series Peaks in XRF Bone Lead Analysis, Nuclear Instruments and Methods in Physics B, 263(2007)225-230
77. Luo LQ, Chettle DR, **Nie H**, McNeill FE, Popovic M. Curve Fitting Using a Genetic Algorithm for the X-ray Fluorescence Measurement of Lead in Bone, Journal of Radioanalytical and Nuclear Chemistry, 269(2006)325-329

78. Jain NB, Potula V, Schwartz J, Vokonas PS, Sparrow D, Wright RO, **Nie H**, Hu H. Lead levels and ischemic heart disease in a prospective study of middle-aged and elderly men: the Normative Aging Study. Environ Health Perspec 115(2007)871-875
79. Weisskopf MG, Proctor SP, Wright RO, Schwartz J, Spiro A 3rd, Sparrow D, **Nie H**, Hu H. Cumulative Lead Exposure and Cognitive Performance among Elderly Men, Epidemiology, 18(2007)59-66
80. **Nie H***, Chettle DR*, Luo LQ, O'Meara JM. *In-vivo* Investigation of a New ^{109}Cd gamma-ray Induced K-XRF Bone Lead Measurement System, Physics in Medicine and Biology, 51(2006)351-360
81. Park SK, Schwartz J, Weisskopf M, Sparrow D, Vokonas PS, Wright RO, Coull B, **Nie H**, Hu H. Low-level lead exposure, metabolic syndrome, and heart rate variability: the VA Normative Aging Study. Environ Health Perspect. 114(2006):1718-24.
82. Elmarsafawy SF, Jain NB, Schwrtz J, Sparrow D, **Nie H**, Hu H. Dietary Calcium as a Potential Modifier of the Relationship of Lead Burden to Blood Pressure, Epidemiology 17(2006)531-537
83. **Nie H***, Chettle DR*, Webber CE, Brito JAA, O'Meara JM, McNeill FE. The Study of Age Influence on Human Bone Lead Metabolism by Using a Simplified Model and X-ray Fluorescence Data, The Journal of Environmental Monitoring 7(2005)1069-1073
84. **Nie H***, Chettle DR*, McNeill FE, O'Meara JM. An Investigation of ^{109}Cd Induced K-XRF Lead Measurement Calibration, Physics in Medicine and Biology 49 (2004) N325-334
85. **Nie H***, Chettle DR*, Stronach IM, Arnold ML, Huang SB, McNeill FE, O'Meara J. A Study of MDL Improvement for the *in vivo* Measurement of Lead in Bone, Nuclear Instruments and Methods in Physics Research B 213(2004)579-583
86. Todd AC, Arnold ML, Aro ACA, Chettle DR, Fleming DEB, McNeill FE, Moshier EL, **Nie H**, Stronach IM. corrections to "How to Calculate Lead Concentration and Concentration Uncertainty in XRF *in vivo* Bone Lead Analysis" by Kondrashov and Rothenberg, Applied Radiation and Isotopes, 58(2003)41-50
87. Chettle DR, Arnold ML, Aro ACA, Fleming DEB, Kondrashov VS, McNiell FE, Moshier EL, **Nie H**, Rothenberg SJ, Stronach IM, Todd AC. An Agreed Statement on Calculating Lead Concentration and Uncertainty in XRF *in vivo* Bone Lead Analysis, Applied Radiation and Isotopes 58(2003)603-605
88. Tian WZ, Ni BF, Wang PS, **Nie H**, Cao L, Zang YM. Intercomparison and Certification of Some Chinese and International Food and Biological Matrix CRMs for Several Uncertified Ultratrace Elements by NAA, Journal of Radioanalytical and Nuclear Chemistry, 249(2001)25-28
89. Tian WZ, Ni Bangfa, Wang Pingsheng, **Nie H**. Suitability of NAA for Certification of Reference Materials for Multielements, Journal of Radioanalytical and Nuclear Chemistry, 245 (2000)51-56
90. Ni BF, Wang PS, **Nie H**, Li SY, Liu XF, Tian WZ. Automation and Computerization of NAA, Journal of Radioanalytical and Nuclear Chemistry, 244(2000)665-668
91. **Nie H***, Qin LL, Tian WZ, Ni BF, Bao DA, Wang PS. Preliminary Study on the Relationship Between Osteoporosis and Trace Elements with Rat Models, Biological Trace Element Research, 71/72(1999)623-628
92. Ni BF, Tian WZ, **Nie H**, Wang PS, He G. Study on Air Pollution in Beijing's Major Industrial Areas Using Multielements in Biomonitors and NAA Techniques, Biological Trace Element Research, 71/72(1999)267-272
93. Ni BF, Tian WZ, **Nie H**, Wang PS. Air Pollution Studies in Tianjing City Using Neutron Activation Analysis Techniques, Proceeding of 1998 workshop on the utilization of research reactors, p138-144
94. Tian WZ, Ni BF, Wang PS, **Nie H**. Role of NAA in Characterization of Sampling Behaviors of Multiple Elements in CRMS, Fresenius' Journal of Analytical Chemistry, 360(1998)354-355

NCBI Weblink to My Bibliography
http://www.ncbi.nlm.nih.gov/sites/myncbi/linda.nie.1/bibliography/50408288/public/?sort=date&direction=descending

ABSTRACTS (Selected)

1. Webb A**,** Antipova O, Gu H, Du Y, Zheng W, **Nie LH***. *Investigating the Effects of Subchronic Pb Exposure on Metal Distribution in TgSWDI Transgenic Mice using Synchrotron X-ray Fluorescence*. Abstract accepted and work to be presented at the annual Society of Toxicology (SOT) meeting, March 27-31, 2022; San Diego, CA.
2. Webb A. Antipova O, Gu H, Du Y, Zheng W, **Nie LH***. *Distribution of Pb and Se in Mouse Brain Following Subchronic Pb Exposure by Using Synchrotron X-ray Fluorescence*. Abstract accepted and work presented at European XFEL User's Meeting, January 25, 2022; Virtual meeting.

3. Webb A, Spiers K, Falkenberg G, Gu H, Du Y, Zheng W, **Nie LH***. *Lead (Pb) and selenium deposition in brain of Pb exposed mice using synchrotron x-ray fluorescence*. Abstract published and work presented at the annual Society of Toxicology (SOT) meeting, March 12-26, 2021; Virtual meeting.
4. Balachandran RC, Yanko FM, Cheng PJ, Morcillo P, Tabassum S, Rivers CN, Thomas MG, Akinyemi A, Pfalzer AC, **Nie LH**, Aschner M, Bowman AB. Rodent Hair is a Poor Biomarker for Internal Manganese Exposure. Abstract published and work presented at the annual Society of Toxicology (SOT) meeting, March 12-26, 2021; Virtual meeting.
5. Tabassum S, Cheng PJ, Yanko FM, Balachandran R, Aschner M, Bowman AB, and **Nie LH***. Total Body Potassium in Rats Determined by Compact In Vivo Neutron Activation Analysis Assembly. Abstract published and work presented in the annual American Association of Physicist in Medicine (AAPM) meeting, July 25-29, 2021; Virtual meeting
6. Mostafaei F, Al-Basheer A, Barrett J, **Nie LH**, Bosomtwi A, Arbab A. The Feasibility Study of In-vivo Detection of Retained Gadolinium in Brain and Bone Using MRI and XRF Systems. Abstract published and work presented in the annual American Association of Physicist in Medicine (AAPM) meeting, July 25-29, 2021; Virtual meeting
7. Zhang X, Specht AJ, Wells EM, Weisskopf MG, Weuve J, **Nie LH***. In Vivo Quantification of Bone Lead and Strontium Using Portable X-ray Fluorescence (XRF). Abstract published and work presented in the annual International Society for Environmental Epidemiology (ISEE) meeting, Aug.23-26, 2021; Virtual meeting
8. Webb A, Spiers K, Falkenberg G, Gu H, Du Y, Zheng W, **Nie LH***. Lead (Pb) and Selenium (Se) Deposition in Brain of Pb Exposed Mice Using Synchrotron X-ray Fluorescence. Abstract published and work presented in the annual American Association of Physicist in Medicine (AAPM) meeting, July 12-16, 2020; Virtual meeting
9. Tabbassum S, **Nie LH***. In Vivo Measurement of Potassium in Mice Using Neutron Activation Analysis. Abstract published and work presented in the annual American Association of Physicist in Medicine (AAPM) meeting, July 12-16, 2020; Virtual meeting
10. Tabbassum S, **Nie LH***. A Comparative Study to Optimize the In-vivo Neutron Activation Analysis System. Abstract published and work presented in the annual American Association of Physicist in Medicine (AAPM) meeting, July 14-18, 2019, San Antonio, TX
11. Coyne M, Lobene A, Lachcik P, Weaver CM, **Nie LH***. Developing Compact Deuterium-deuterium (DD) Generator based In Vivo Neutron Activation Analysis (IVNAA) as a New Method for Measuring Sodium (Na) in Bone and Soft Tissue. Abstract published and work presented in the annual Health Physics Society (HPS) meeting, July 7-14, 2019, Orlando, Florida
12. Coyne M, **Nie LH***. A New Way to Measure Sodium. Work presented in the annual ORVC meeting, March 15-16, Louisville, KY
13. **Nie LH***, Specht A, Lin Yanfen, Weisskopf M, Yan C, Hu H, Xu J*. Bone Lead (Pb), Blood Pb, and Pb Biokinetics in Pb-poisoned Children. Abstract published and work presented in the 13th International Society on Trace Element Research in Humans (ISTERH) meeting, Sep. 22-26, 2019, Bali, Indonesia
14. Coyne M, Neumann C, Zhang X, Byrne P, Lobene A, Lachcik P, Weaver CM, **Nie LH***. Quantification of Sodium (Na) in Bone with *In Vivo* Neutron Activation Analysis (IVNAA) and Its Implications on Na Retention Studies. Metals Study Symposium, June. 14-15, 2018, Boston MA
15. Neumann C, Coyne M, Zhang X, Byrne P, **Nie LH***. Quantification of Manganese in Bone using In Vivo Neutron Activation Analysis (IVNAA). Metals Study Symposium, June.14-15, 2018, Boston, MA
16. Zhang X, Specht AJ, Weisskopf MG, Weuve J, **Nie LH***. Quantification of Bone Lead and Toenail Manganese and Mercury In Vivo with X-ray Fluorescence Technology. Metals Study Symposium, June.14-15, 2018, Boston MA
17. **Nie LH***, Liu Y, Rolle-McFarland D, Mostafaei F, Zhou Y, Li Y, Zheng W, Wells E. In Vivo Neutron Activation Analysis of Bone Manganese (MnBn) in Workers. Metals Study Symposium. June. 14-15, 2018, Boston MA
18. Abel MR, **Nie LH***. Monte Carlo Simulation of Elemental Imaging Using Neutron Associated Particle Technique. Annual HPS meeting, Jul.15-19, 2018, Cleveland, OH
19. Hasan Z, Rolle-McFarland DR, Liu Y, Mostafaei F, Zheng W, **Nie LH**, Wells E. The Association between Olfactory and Cognitive Function Tests with Aluminum Biomarkers in an Occupationally Exposed Population from China. ISEE annual meeting, Aug.26-30, 2018, Ottawa, Canada
20. Zhang X, Specht AJ, Weisskopf MG, Weuve J, **Nie LH***. Quantification of Bone Lead and Toenail Manganese and Mercury In Vivo with X-ray Fluorescence Technology. ERC UofChicago Center PPRT meeting, Mar. 8-9, 2018, Chicago, IL
21. Rolle-McFarland D, Liu Y, Mostafaei F, Zheng W, **Nie LH**, Wells E. Association between Blood, Nail, and Bone Manganese with Motor Function among Chinese Workers. SOT annual meeting, Mar.11-15, 2018, San Antonio, TX

22. **Nie LH***, Liu Y, Byrne P, Mostafaei F, Rolle D, Hsieh M, Zheng W, Wells E. Customized Compact Neutron Activation Analysis System to Quantify Manganese (Mn) and Aluminum (Al) in Bone *In Vivo*. Abstract published for the 2017 Annual SOT meeting, Mar.12-16, 2017 (chairing one session), Baltimore, MD
23. Abel M, **Nie LH*** (2017). Development of a Novel In Vivo Associated Particle Neutron Elemental Imaging (APNEI) System for Noninvasive Medical Diagnosis. Abstract published for the 2017 AAPM Annual Meeting. Jul.30-Aug.3, 2017, Nashville, TN
24. Coyne M, Lobene A, Joo M, Neumann C, Lachcik P, Weaver C, **Nie LH*** (2017). Determination of Bone Sodium (Na) and Na Exchange in Pig Leg Using *In Vivo* Neutron Activation Analysis (IVNAA). Abstract published for the AAPM Annual Meeting. Jul.30-Aug.3, 2017, Nashville, TN (NRC travel subsidy to Coyne)
25. Abel M, **Nie LH*** (2017). Development of a Novel In Vivo Associated Particle Neutron Elemental Imaging (APNEI) System for Noninvasive Medical Diagnosis. Abstract published for the 2017 annual Health Physics Society (HPS) meeting, Jul.9-13, 2017; Raleigh, NC (NRC travel subsidy to Abel)
26. Coyne M, Lobene A, Joo M, Neumann C, Lachcik P, Weaver C, **Nie LH*** (2017). Determination of Bone Sodium (Na) and Na Exchange in Pig Leg Using In Vivo Neutron Activation Analysis (IVNAA). Abstract published for the 2017 annual HPS meeting, Jul.9-13, 2017; Raleigh, NC (HPS travel award to Coyne)
27. Zhang X, Specht AJ, Weisskopf M, Weuve J, **Nie LH*** (2017). Feasibility of Quantifying the Manganese and Mercury in Toenail In Vivo with Portable X-ray Fluorescence Technology. Abstract published for the 2017 Annual HPS meeting, Jul.9-13, 2017; Raleigh, NC (HPS travel award to Zhang)
28. Specht AJ, Lin Y, Weisskopf MG, Yan C, Hu H, Xu J, **Nie LH***. XRF-measured Bone Lead (Pb) as a Biomarker for Pb Exposure and Toxicity Among Children Diagnosed with Pb Poisoning, 55th SOT annual meeting, Mar.13-17, 2016, New Orleans, Louisiana *(SOT Travel Award to Specht)*
29. Liu Y, Mostafaei F, Rolle D, Zheng W, Wells E, **Nie LH***. Bone Manganese (Mn) as a Potential Biomarker for Manganese Exposure – An In vivo Pilot Study. 55th SOT annual meeting, Mar.13-17, 2016, New Orleans, Louisiana
30. Hsieh M, Liu Y, and **Nie LH***. Design of a Beam Shaping Assembly of a Compact DD-Based BNCT System. Abstract accepted for the 58th AAPM annual meeting, Jul.31-Aug.4, 2016, Washington DC
31. Mostafaei F and **Nie LH***. Improvement in an in vivo K X-ray Fluorescence (KXRF) Technique for Gadolinium Measurement in Human Bone. Abstract accepted for an oral presentation at the 58th AAPM annual meeting, Jul.31-Aug.4, 2016, Washington DC
32. Coyne M, Liu Y, Zhang X, **Nie LH***. Compact DD Generator Based In Vivo Neutron Activation Analysis (IVNAA) System to Determine Sodium and Calcium Concentrations in Human Bone. Abstract accepted and project presented at the 61st HPS annual meeting, Jul.17-21, 2016, Spokane, WA *(HPS Travel Award to Coyne)*
33. Rolle D, Liu Y, Mostafaei F, Zheng W, Zhou Y, **Nie LH**, and Wells EM. Bone Manganese (BnMn) as a Biomarker of Cumulative Mn Exposure and Indicator of Neurological Deficit: A Pilot Study. Abstract accepted for the 28th ISEE meeting, Sep.1-4, 2016, Rome, Italy
34. Hsieh M, Liu Y, **Nie LH*** (2016). A D-D based neutron generator system for boron neutron capture therapy: a feasibility study. 17th International Congress on Neutron Capture Therapy (ICNCT-17), Oct.2-7. Columbia, Missouri. Abstract book, page77
35. Rolle D, Liu Y, Mostafaei F, Zhou Y, Zheng W, **Nie LH**, Wells EM (2016). Bone manganese (Mn) as a biomarker of occupational Mn exposure. MANGANESE Conference, Sep.25-28. NYC
36. Liu Y, Mostafaei F, Rolle D, Zheng W, Wells E, **Nie LH*** (2016). Customized portable neutron activation analysis system to quantify manganese (Mn) in bone in vivo. 24th International Conference on the Application of Accelerators in Research and Industry (CARRI), Oct.30-Nov.4. Fort Worth, Texas. Abstract #285
37. **Nie LH**. Non-invasive in vivo quantification of metals in human tissue. NIEHS FEST. Dec.5-8, 2016; Raleigh, NC
38. Sowers D, Liu Y, Mostafaei F, Blake S, **Nie LH***. Deuterium-Deuterium Neutron Generator for Neutron Activation Analysis In Vivo: A Dosimetry Study. Abstract accepted and project presented at the 2015 HPS annual meeting, Jul.12-16, Indianapolis, IN
39. Hsieh M, Liu Y, **Nie LH***. A D-D Based Neutron Generator System for Boron Neutron Capture Therapy: A Feasibility Study. Abstract accepted and project presented at the 2015 AAPM annual meeting, Jul.12-16, Anaheim, CA *(PGSG Travel Award To Hsieh)*
40. **Nie LH**. Noninvasive Quantification of Metals in Human Tissues In Vivo. 2015 ISES annual meeting (Invited speaker), Oct. 18-22, Henderson, NV
41. **Nie LH**. Noninvasive Quantification of Metals in Human Bone In Vivo. 2015 SOT annual meeting (Invited speaker and Chair for the symposium), Mar.22-26, San Diego, CA

42. **Nie LH***, Liu Y, Mostafaei F, Rolle D, Zheng W, Wells E. A Pilot Study on Mn Exposure and Neurological Effects Using Bone Mn as a Biomarker. Abstract accepted and project presented at the 2015 University of Cincinnati PRP symposium (Invited Speaker), Oct. 8-9, Cincinnati, OH
43. Specht A, Weisskopf M, **Nie LH***. Calibration and improvement of a portable XRF technology to quantify lead in bone in vivo. ISES annual meeting, Cincinnati, Ohio, Oct.12-16, 2014
44. Liu Y, Byrne P, Wang H, Koltick D, Zheng W, **Nie LH***. A Novel Transportable Neutron Activation Analysis System to Quantify Manganese in Bone *In Vivo*. ISES annual meeting, Cincinnati, Ohio, Oct.12-16, 2014
45. **Nie LH***, Koltick D. A Novel Associated Particle Neutron Elemental Imaging (APNEI) Technology fo r3-D Noninvasive *In Vivo* Quantification of Trace Elements in Animal and Human Tissue. ISES annual meeting, Cincinnati, Ohio, Oct.12-16, 2014
46. **Nie LH***, Liu Y, Koltick D, Zheng W. Application of a D-D based Neutron Generator System to Quantify Manganese in Bone *In Vivo*. CARRI annual meeting, San Antonio, Texas, May 25-30, 2014
47. Liu Y, Koltick D, Zheng W, **Nie LH***. Development of a transportable neutron activation analysis system to quantify manganese in bone *in vivo* – system setup and validation. 2014 Purdue Sigma Xi poster competition, Feb.12, 2014 (First place winner for Physical Section for Liu)
48. Specht A, Weisskopf M, **Nie LH***. Calibration and improvement of a portable XRF technology to quantify lead in bone *in vivo*. SOT 2014 annual meeting, Phoenix, Arizona, Mar. 23-27, 2014. Abstract #1552.
49. Liu Y, Koltick D, Zheng W, **Nie LH***. Development of a transportable neutron activation analysis system to quantify manganese in bone *in vivo* – system setup and validation. 52th SOT annual meeting, Phoenix, Arizona, Mar. 23-27, 2014. Abstract #1291. *(SOT Travel Award to Liu)*
50. **Nie LH***, Koltick D. A novel associated particle neutron elemental imaging (APNEI) technology for 3-D noninvasive *in vivo* quantification of trace elements in animal and human tissue. SOT 2014 annual meeting, Phoenix, Arizona, Mar. 23-27, 2014. Abstract #1287.
51. Liu Y, Koltick DS, Byrne P, Zheng W, **Nie LH*** (2013). Development of a transportable neutron activation analysis system to quantify manganese in bone *in vivo* – Feasibility and methodology. SOT annual meeting, Mar.10-14, San Antonio, TX. Abstract #1179.
52. Specht A, Weisskopf MG, **Nie LH***. Portable XRF technology to quantify lead and strontium in bone *in vivo* – calibration and validation. 2013 SOT meeting, Mar.10-14, San Antonio, TX. Abstract #1510.
53. **Nie LH***, Liu Y, Koltick D, Byrne P, Zheng W. Transportable neutron activation analysis system to quantify manganese in bone *in vivo*. 2013 IEEE NSS/MIC/RTSD meeting, Oct.27-Nov.2, Seoul, South Korea. Abstract #NP02-49.
54. Hong L, O'Neal S, **Nie LH**, and Zheng W (2013). Bone manganese (Mn) concentrations in Sprague–Dawley rats following subchronic manganese exposure. 2013 SOT meeting, Mar.10-14, San Antonio, TX. Abstract #1864.
55. Eum KD, Park SK, **Nie LH**, Vokonas PS, Sparrow D, Hu H, and Weisskopf MG. Cumulative lead exposure, HFE polymorphism and QTc and QRSc intervals. Joint Conference on Environment and Health. Aug. 19-23, 2013. Basel, Switzerland. Abstract #5144.
56. Huang SY, Weisskopf MG, Mukherjee B, Weuve J, **Nie LH**, Saint-Hilaire MH, Sudarsky L, Simon DK, Hersh B, Schwartz JD, Hu H. The potential influence of variants of the SNCA gene on the impact of cumulative lead exposure on risk of Parkinson's disease. Joint Conference on Environment and Health. Aug. 19-23, 2013. Basel, Switzerland. Abstract #4412.
57. Bakulski K, Park SK, Weisskopf MG, Tucker KL, Sparrow D, Spiro A III, Vokonas PS, **Nie LH**, Hu H, Weuve J. Lead exposure, B-vitamins, and plasma homocysteine in older men. Joint Conference on Environment and Health. Aug. 19-23, 2013. Basel, Switzerland. Abstract #5275.
58. Jhun MA, Hu H, Schwartz JD, Weisskopf MG, **Nie LH**, Sparrow D, Vokonas PS, Park SK. Effect modification by vitamin D receptor genetic polymorphisms in the association between lead and pulse pressure. Joint Conference on Environment and Health. Aug. 19-23, 2013. Basel, Switzerland. Abstract #5243.
59. Farooqui Z, Bakulski K, Cassano PA, Spiro A III, Sparrow D, Vokonas PS, **Nie LH**, Weisskopf MG, Hu H, Park SK. Effect modifications by MTHFR polymorphisms of the association between cumulative lead exposure and mini metal status exam score in older men. Joint Conference on Environment and Health. Aug. 19-23, 2013. Basel, Switzerland. Abstract #5272.
60. Liu Y, Koltick D, Zheng W, and **Nie LH***. Development of a Transportable Neutron Activation Analysis (IVNAA) System for Noninvasive Quantification of Mn in Bone *In Vivo* – Feasibility and Methodology. 12th Annual Pilot Research Project (PRP) Symposium, Oct.4-5, 2012, University of Cincinnati, Cincinnati, OH.

61. Liu Y, Koltick D, Byrne P, Zheng W, and **Nie LH***. Development of a Transportable Neutron Activation Analysis System to Quantify Mn in Bone *In Vivo* – Feasibility and Methodology. 57th HPS Annual Meeting, Jul.22-26, 2012, Sacramento, CA. Abstract #THAM-C.1.
62. Dant JT, Richardson RB, and **Nie LH***. Alpha and Beta Emitters Dose to Bone and Marrow Using a Dynamic Trabecular Bone Model for All Ages, 57th HPS Annual Meeting, Jul.22-26, 2012, Sacramento, CA. Abstract #P.42.
63. Eum KD, Weisskopf MG, **Nie LH**, Hu H, Korrick SA. Bone Lead Level and Age at Menopause. 24th Conference of the International Society for Environmental Epidemiology (ISEE). Aug.26-30, 2012. Columbia, South Carolina
64. Silver MK, Wright RO, Mukherjee B, **Nie LH**, Sparrow D, Vokonas P, Schwartz J, Hu H, Park SK. Iron Metabolism Genes and Body Burden of Lead: a Pathway Analysis. 24th ISEE meeting. Aug.26-30, 2012. Columbia, South Carolina
65. Koltick DS, **Nie LH**. Associated Particle Neutron Imaging for Elemental Analysis in Medical Diagnostics. 2012 IEEE Symposium on Radiation Measurements and Applications (SORMA), May 14-17, Oakland, California
66. Freeman JL, Funk A, Peterson S, Weber G, **Nie LH**. Genetic Alteration and Functional Consequences of Embryonic Ionizing Radiation Exposure in Zebrafish. 2012 Society of Toxicology (SOT) Annual Meeting
67. Sanchez S, Weisskopf MG, **Nie LH**. Validation of a portable x-ray fluorescence (XRF) technology to quantify lead in bone *in vivo,* 50th Annual Meeting of Society of Toxicology, Mar.6-10, 2011, Washington DC
68. **Nie H**, Wright R, Bellinger D, Hussain J, Amarasiriwardena C, Chettle DR, Pejovic-Milic A, Woolf A, Shannon M. Persistency of Lead in Bone and Neurodevelopmental Outcomes for Children with Elevated Lead Exposure at Younger Age. Pediatric Academic Societies' 2010 Annual Meeting, May. 1-4, 2010, Vancouver, BC, Canada
69. **Nie H**, Grodzins L, Cleveland R, Weisskopf M. Feasibility and Methodology of the Development of a Portable *In Vivo* X-ray Fluorescence (XRF) Bone Lead Measurement System. 49th Annual Meeting of Society of Toxicology, Mar. 7-1, 2010, Salt Lake City, Utah
70. **Nie H,** Parsons P, Bellis D, Todd AC, Chettle DR, Wright R. Accuracy and Precision of an Advanced K-x Ray Fluorescence (KXRF) *in vivo* Bone Lead Measurement System, Epidemiology. 19(6) Suppl: S304, November 2008
71. **Nie H**, Oliveira S, Amarasiriwardena C, Hu H, Chettle DR. The Analysis and Intercalibration of Bone Lead Data Generated by Updated in vivo K-x-ray Fluorescence (KXRF) Instruments. Abstract. International Society for Environmental Epidemiology annual meeting, Paris, France, Sept. 2-6, 2006. Epidemiology. 17(6) Suppl:S463, November 2006
72. Eum KD, **Nie LH**, Schwartz J, Vokonas P, Sparrow D, Hu H, Weisskopf M. Prospective study of lead exposure and electrocardiographic conduction disturbances in the department of veterans affairs Normative Aging Study. 22nd annual ISEE meeting, Aug.28 – Sep.1, 2010, Seoul, Korea.
73. Bakulski K, Park SK, Mukherjee B, Wright RO, Weisskopf MG, Sparrow D, Spiro A III, **Nie H**, Hu H. Lead exposure, iron metabolism polymorphisms, and psychiatric symptoms in the Normative Aging Study, 21st annual ISEE meeting, Aug. 25-29, 2009, Dublin, Ireland. Abstract #834.
74. Zhang A, Park SK, Wright R, Mukherjee B, Sparrow D, Vokonas P, **Nie H**, Hu H. The H63D mutation in the hemochromatosis (HFE) gene modifies the impact of bone lead (Pb) burden on pulse pressure (PP): the VA Normative Aging Study. 21st annual ISEE meeting, Aug. 25-29, 2009, Dublin, Ireland. Abstract #136.
75. Manish A, Weuve J, Weisskopf MG, Sparrow D, **Nie H**, Garcia R, Hu H. Cumulative lead exposure and the risk of tooth loss in men: the Normative Aging Study. 21st annual ISEE meeting, Aug. 25-29, 2009, Dublin, Ireland. Abstract # 128.
76. **Nie H*,** Parsons P, Bellis D, Todd AC, Chettle DR, and Wright R. Accuracy and Precision of an Advanced K-x Ray Fluorescence (KXRF) *in vivo* Bone Lead Measurement System. ISEE/ISEA Joint Annual Meeting, Oct. 12-16, 2008, Pasadena, California. Abstract #1458
77. Peters JL, Wright RJ, Weisskopf MG, Spiro A III, Schwartz J, Sparrow D, **Nie H**, Hu H, Wright RO. Interaction of stress and lead burden on cognition in older men: the VA Normative Aging Study. ISEE/ISEA Annual Meeting, Oct. 12-16, 2008, Pasadena, California. Abstract #806
78. Xia X, Park SK, Mukherjee B, Weisskopf M, **Nie H**, Sparrow D, Hu H. Development of prediction models for bone lead levels in a community-based population. ISEE/ISEA Joint Annual Meeting, Oct. 12-16, 2008, Pasadena, California. Abstract #1214
79. Weisskopf MG, Weuve J, **Nie H**, Saint-Hilaire M, Sudarsky L, Simon DK, Hersh B, Schwartz J, Wright RO, Feldman RG, Hu H. Cumulative exposure to lead and risk of Parkinson's disease. ISEE/ISEA Joint Annual Meeting, Oct. 12-16, 2008, Pasadena, California. Abstract #1591
80. **Nie H***, Sanchez B, Hu H. Bone lead and endogenous exposure among an environmentally exposed elderly population: the Normative Aging Study. 17th annual ISEA meeting, Oct. 14-18, 2007, Durham, NC. Abstract #370.
81. Weuve J, Tucker K, Peters J, **Nie H**, Spiro A III, Hu H. Lead Exposure and Plasma Homocysteine in Older Men: A

Mechanism of Neurotoxicity and Vascular Toxicity? Epidemiology. 18(5) Suppl: S176, September 2007

82. Weisskopf MG, Jain N, Nie H, Sparrow D, Schwartz J, Hu H. Bone lead and death from all causes, cardiovascular diseases, and cancer: the Normative Aging Study. ISEE annual meeting, Sep.5-9, 2007, Mexico City, Mexico. Abstract #638.
83. **Nie H***, Oliveira S, Amarasiriwardena C, Hu H, and Chettle DR. The Analysis and Intercalibration of Bone Lead Data Generated by Updated *in vivo* K-x-ray Fluorescence (KXRF) Instruments. ISEE annual meeting, Sep. 2-6, 2006, Paris, France. Abstract #463
84. Weuve J, Korrick S, Schwartz J, **Nie H**, Grodstein F, Hu H. Low-Level Exposure to Lead and Cognition Among Older Women. International Society for Environmental Epidemiology annual meeting, Paris, France, Sept. 2-6, 2006. Epidemiology. 17(6) Suppl:S124-S125, November 2006

INVITED PRESENTATIONS

12/06/2021	Innovative X-ray and Neutron Technologies to Study the Health Effects of Exposure to Lead (Pb) and Other Metals, Translational Brain Research Center (TBRC), Penn State University
11/19/2021	Mn Exposure and Neurological Effects using Bone Mn as a Biomarker, Purdue C4E, collaborative research and talk with Dr. Ellen Wells
12/10/2020	Noninvasive Quantification of Metals in Human Tissues In Vivo, Institute of Environmental Health Sciences (IEHS), Wayne State University
10/15/2020	The Application of Synchrotron X-ray Technology in Biology and Human Health, Bowman Lab, Purdue University School of Health Sciences
01/07/2020	The Application of Synchrotron X-ray Technology in Human Health, Indiana University School of Medicine
12/19/2019	The Application of X-ray and Neutron Technologies in Human Health, POSTECH, Pohang, Korea
11/01/2019	Bone Lead (Pb), Blood Pb, and Pb Biokinetics in Pb-poisoned Children, Annual Lead Program at Montefiore Medical Center, Albert Einstein College of Medicine (Presented by Dr. Aaron Specht due to a family emergency)
09/23/2019	Bone Lead (Pb), Blood Pb, and Pb Biokinetics in Pb-poisoned Children, the 13th International Society for Trace Element Research in Humans Meeting (ISTERH), Bali, Indonesia, Sep.22-26, 2019
02/18/2019	Noninvasive Quantification of Metals and Trace Elements in Human Tissues In Vivo, Department of Earth Sciences, Indiana University Purdue University Institute
11/29/2018	Noninvasive Quantification of Metals and Trace Elements in Human Tissues In Vivo, China Institute of Atomic Energy, Beijing, China (invited)
06/14/2018	In Vivo Neutron Activation Analysis (IVNAA) to Quantify Metals in Bone, Metals Symposium, Harvard School of Public Health, June.14-15, Boston, MA
05/08/2018	Noninvasive Quantification of Metals and Trace Elements in Human Tissues In Vivo, Purdue Center for Environment, West Lafayette, IN
10/31/2017	Noninvasive Quantification of Metals in Human Tissues In Vivo, School of Health Sciences, Purdue University
03/14/2017	Customized Compact Neutron Activation Analysis to Quantify Manganese (Mn) and Aluminum (Al) in Bone In Vivo, 56th SOT meeting, Baltimore, Mar.12-16, 2017 (Chair for a session)
12/06/2016	Noninvasive In Vivo Quantification of Metals in Human Tissues, NIEHS 50th anniversary FEST, Dec.5-8, 2016
11/15/2016	Noninvasive Quantification of Metals in Human Tissues In Vivo, Department of Statistics, Purdue University
07/06/2016	Noninvasive Quantification of Pb and Sr in Human Bone In Vivo Using XRF, Shanghai Center for Disease Control (CDC)
07/05/2016	Noninvasive Quantification of Metals in Human Tissues In Vivo, China Institute of Atomic Energy
07/04/2016	Application of Neutron Technologies in Medicine Using Compact DD Neutron Generator, China Institute of Atomic Energy
10/28/2015	Non-invasive Quantification of Metals in Human Bone In Vivo, Purdue University College of Human and Health Sciences, seminar for Early Career Achievement Award
10/20/2015	Noninvasive Quantification of Metals in Human Bone In Vivo, 25th ISES annual meeting, Henderson, Nevada
10/08/2015	A Pilot Study on Mn Exposure and Neurological Effects Using Bone Mn as a Biomarker, PRP symposium, University of Cincinnati, Oct.8-9, 2015

03/23/2015 Noninvasive In Vivo Quantification of Metals in Human Bones, 54th SOT meeting, San Diego, California, Mar.22-26, 2015 (Chair for a session)

03/17/2015 Noninvasive Quantification and Mapping of Metals in Human Tissues In Vivo, University of Illinois NPRE Department

10/13/2014 APNEI Technology for 3-D Noninvasive In Vivo Quantification of Trace Elements in Human Tissue, 24th ISES annual meeting, Cincinnati, Ohio, Oct.12-16, 2014

06/04/2014 A compact DD neutron generator-based NAA system to quantify manganese (Mn) in bone in vivo, Lead Collaborative Consortium, Hamilton, ON, Canada, Jun. 4-6, 2014, Hamilton, ON (Chair for a session)

05/26/2014 Application of a D-D based Neutron Generator to Quantify Manganese in Bone *In Vivo*, 23rd International Conference on the Application of Accelerators in Research and Industry, May. 25-30, 2014, San Antonio, TX

03/24/2014 A Novel APNEI Technology for 3-D Noninvasive In Vivo Quantification of Trace Elements in Animal and Human Tissue, 53rd Annual SOT meeting, Phoenix, Arizona, Mar.23-27, 2014

11/28/2013 Development of a Transportable Neutron Activation Analysis System to Quantify Manganese in Bone In Vivo, IEEE NSS/MIC/RTSD meeting, Nov.27-Dec.1, 2013, Seoul, South Korea

03/12/2013 Development of An Associated Particle Imaging Technology for 3-D Noninvasive In Vivo Elemental Mapping in Human Tissues, SOT annual meeting, Mar.10-14, 2013, San Antonio, TX

06/06/2012 Noninvasive *In Vivo* Measurement of Pb in Bone with a Portable XRF System, Lead Collaborative Consortium, Hamilton, ON, Canada, Jun.6-8, 2012, Hamilton, ON

04/03/2012 Instrumentation Development for Noninvasive *In Vivo* Quantification of Metals, Presented to Landauer Inc., West Lafayette, IN

11/01/2011 Noninvasive In Vivo Quantification of Metals in Human Tissues, Department of Physics, Purdue University, Nov.1, 2011

06/27/2011 Annual HPS meeting, Purdue HP program representative, Jun.26-30, 2011, West Palm Beach, FL

03/07/2011 Validation of a Portable X-ray Fluorescence (XRF) Technology to Quantify Lead in Bone in vivo, 2011 SOT Annual Meeting, Mar. 6-10, 2011, Washington D.C.

12/30/2010 Noninvasive In Vivo Quantification of Lead in Bone, Shanghai Institute for Pediatric Research, Xinhua Hospital, Shanghai, China

07/07/2010 Noninvasive In Vivo Quantification of Metals in Human Tissues, IU School of Medicine, Indianapolis, IN

06/03/2010 Bone and Blood Lead Levels and CBLI as Predictors of Late Neurodevelopment in Lead Poisoned Children, Lead Collaborative Consortium, Hamilton, ON, Canada, Jun.3-4, 2010

05/26/2010 Noninvasive In Vivo Exposure Assessment of Metals, NIOSH research center seminar, University of Michigan School of Public Health, Ann Arbor, Michigan

05/02/2010 Bone and Blood Lead Levels as Predictors of Late Neurodevelopment in Lead Poisoned Children, 2010 Pediatric Academic Societies (PAS) Annual Meeting, May.1-4, 2010, Vancouver, Canada

03/08/2010 Development of a Portable XRF System for In vivo Quantification of Lead (Pb) in Bone, SOT Annual Meeting, Mar.7-11, 2010, Salt Lake City, Utah

03/30/2009 Trabecular Bone Microdosimetry for ^{3}H, ^{14}C, and Selected α-emitters Incorporated in Bone Remodeling Process, and Three Other Projects, Purdue School of Nuclear Engineering, West Lafayette, IN, Mar.30, 2009

02/24/2009 Development and Application of a New XRF *in vivo* Bone Lead Measurement System, and Three Other Projects in Radiation Dosimetry and Nuclear Instrumentation, Purdue School of Health Sciences, West Lafayette, IN

12/09/2008 Development and Application of a New X-ray Fluorescence (XRF) System for *in vivo* Bone Lead Measurement, and Three Other Projects, East Carolina University, Greenville, NC

12/05/2008 Development and Application of a New X-ray Fluorescence (XRF) System for *in vivo* Bone Lead Measurement, and Three Other Projects, University of Michigan, Ann Arbor, MI

10/14/2008 Accuracy and Precision of an Advanced *in vivo* K-x Ray Fluorescence (KXRF) Bone Lead Measurement System. 2008 Joint Annual Conference, International Society for Environmental Epidemiology and International Society of Exposure Analysis (ISEE/ISEA). Oct. 12-16, Pasadena, California, USA

08/27/2008 Trabecular Bone Microdosimetry for ^{3}H, ^{14}C, and Selected α-emitters Incorporated in Bone Remodeling Process, Virginia Commonwealth University Medical Center, Richmond, VA

06/02/2008 Bone Lead and Endogenous Exposure, Lead Collaborative Consortium, Jun.2-3, 2008, Hamilton, ON,

Canada

03/06/2008 Trabecular Bone Microdosimetry for α and β Particles Incorporated in Bone Remodeling Process, McMaster University, Hamilton, ON, Canada

11/09/2007 The Application of X-ray Fluorescence (XRF) and Neutron Activation Analysis (NAA) in *in-vivo* Measurement of Metals, Henry Ford Health System, Detroit, MI

11/07/2007 Lead Exposure Assessment for Children with an Advanced K X-ray Fluorescence (KXRF) Bone Lead Measurement System, University of Michigan School of Public Health, Ann Arbor, MI

10/16/2007 Bone Lead and Endogenous Exposure among an Environmentally Exposed Elderly Population: the Normative Aging Study, The 17th Annual Conference of International Society of Exposure Analysis (ISEA), Oct.14-18, 2007, Durham, NC, USA

05/19/2006 Lead Exposure Assessment for Children with a State-of-Art K X-ray Fluorescence (KXRF) Bone Lead Measurement System, Children's Hospital, Boston, MA, May.19, 2006 (invited)

06/21/2005 Dosimetry Study for a New *in-vivo* X-ray fluorescence (XRF) Bone Lead Measurement System, The 6th Industrial Radiation and Radioisotope Measurement Applications (IRRMA-VI), Jun.20-24, 2005, Hamilton, Canada

04/05/2005 The Study of a New X-ray Fluorescence (XRF) System for the *in vivo* Bone Lead Measurement, Harvard School of Public Health, Boston, MA

03/23/2005 The Study of a New X-ray Fluorescence (XRF) System for the in vivo Bone Lead Measurement, Hamilton Regional Cancer Center, Hamilton, ON, Canada

07/06/2004 Development of an X-ray Fluorescence (XRF) System for the *in vivo* Bone Lead Measurement, University of Western Ontario, London, ON, Canada

06/08/2004 X-ray Fluorescence Data in the Study of Human Bone Lead Metabolism, The European Conference on X-ray Spectrometry (EXRS) June 6-11, 2004, Alghero, Italy

06/10/2002 Improvement for the *in vivo* Measurement of Lead in Bone, The 5th International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications (IRRMA-V), Jun.9-14, 2002, Bologna, Italy

02/10/1999 Study on Air Pollution in Beijing's Major Industrial Areas Using Multielements in Biomonitors and NAA Techniques, Utilization of the Research Reactor, Feb. 8-14, 1999, Yogyakarta, Indonesia

10/27/1998 Preliminary Study on Relationship between Osteoporosis and Trace Elements with Rat Models, The 6th Nuclear Analytical Methods in Life Sciences (NAMLS-6), Oct.26-30, 1998, Beijing, China

TEACHING

Teaching Development:

2004-2005 Courses taken in higher education at McMaster University

- Principles and Practice of University Teaching
- Leading Effective Discussion
- Making Presentations: Lecturing

2007-2008 Workshops attended in higher education and communication at Harvard University

- Advanced Classroom Presentation Techniques
- Public Speaking as a Performing Art
- Discussion Leadership Seminar
- How to Design and Write a Teaching Case
- Communication at Work

Classroom:

2000-2005 Medical Physics and Applied Radiation Sciences Department, McMaster University, Ontario, Canada, Teaching Assistant for multiple physics courses

2003 PHYS3B03, Radioactivity and Radiation Interactions, McMaster University, Guest Lecturer (delivered 3 lectures)

2007 EH279, Radiation Environment: Its Identification, Evaluation, and Control, Harvard School of Public Health, Guest Lecturer (delivered 2 lectures)

2008 EHS697, Readings on Nuclear Techniques in Environmental Exposure Assessment, 1 credit hour, University of Michigan School of Public Health, Instructor

2010

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Emergency Management	HSCI390	3	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Fall

2011

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Fall
Principles of Rad. Det. & Measurement[a]	HSCI313	2	Guest Lecturer	Spring
Toxicology[b]	HSCI560	3	Guest Lecturer	Fall

a. Delivered 3 lectures

b. Delivered 1 lecture

2012

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Fall
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Spring
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2013

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Fall
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Spring

Seminar in Careers in Physics[a]	PHYS235	3	Guest Lecturer	Fall
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2014

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Fall
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2015

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Fall
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2016

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Fall
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2017

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Fall
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2018

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
Introduction to Health Sciences[a]	HSCI101	2	Guest Lecturer	Fall
Toxicology[a]	HSCI560	3	Guest Lecturer	Fall

Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2019

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring

a. Delivered 1 lecture

2020

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

2021

Course Description	*Course Code*	*Credit*	*Role*	*Semester*
Radiation Instrumentation Laboratory	HSCI514	2	Instructor	Spring
Applied Health Physics	HSCI534	3	Instructor	Spring
Introduction to Environmental Health[a]	HSCI575	3	Guest Lecturer	Spring
School of Health Sciences Honors[a]	HSCI195	2	Guest Lecturer	Fall
Essentials of Env., Occ., and RHS[a]	HSCI202	3	Guest Lecturer	Fall

a. Delivered 1 lecture

Mentorship:

Post-doctoral fellow, as Primary Mentor

2014-2016, Dr. Farshad Mostafaei;
Current position: Assistant Professor and Associate Director of the Medical Physics Program, Augusta University

2015-2016, Dr. Yingzi Liu;
Current position: Assistant Professor, Emory University

2019-2020, Dr. Pinjing Cheng;
Current position: Association Professor, University of South China

Doctoral Students, as Major Professor

2011-2015, Dr. Yingzi Liu;
Dissertation: *A Compact In Vivo Neutron Activation Analysis System to Quantify Manganese In Human Hand Bone*
Current position: Assistant Professor, Emory University

2012-2016, Dr. Aaron Specht;
Dissertation: *X-ray Fluorescence for Quantification of Lead and Strontium In Vivo*
Current position: Assistant Professor, Purdue University

2014-2018, Dr. Mindy Joo;
Dissertation: *A Deuterium-deuterium (DD) Neutron Generator-based Boron Neutron Capture Therapy System*
Current position: Medical Physicist, Inova Fairfax Hospital

2014-2019, Dr. Michael Abel;
Dissertation: *Associated Particle Neutron Elemental Imaging for Noninvasive Medical Diagnostics*
Current position: Medical Physics Resident, IUSM

2015-2020, Dr. Xinxin Zhang;
Dissertation: *Development and Validation of In Vivo Portable XRF Technology to Quantify Lead and Strontium in Bone and Manganese and Mercury in Toenail*
Current position: Medical Physics Resident, Department of Radiation Oncology, Rutgers University

2017-2020, Dr. Mychaela Coyne;
Dissertation: *In Vivo Neutron Activation Analysis to Quantify Sodium in Bone and Soft Tissue*
Current position: Medical Physics Resident, Department of Radiation Oncology, University of Colorado Denver

2012-21, Dr. Patrick Byrne (part-time);
Dissertation: *Simulation and Development of a Transportable Neutron Activation Analysis System for the Assessment of Aluminum In Vivo*
Current position: Senior Medical Physics Consultant, Medical Physics Consultation Inc.

2017-present, Sana Tabusum;
Dissertation: *In Vivo Neutron Activation Analysis (IVNAA) to Quantify Potassium (K) and Sodium (Na) in Human Body and Small Animals*
Current position: Postdoctoral fellow, TRIUMF National Accelerator Center/ Winsor University, Canada (to be started)

2019-present, Alexis Webb

2021-present, Song Yue

Masters Students, as Major Professor

2009-2012, Steven Sanchez; current position: unknown

2010-2012, James Dant;
Dissertation: *Alpha and Beta Emitters Dose to Bone and Marrow Using a Trabecular Bone Model for All Ages*
Current position: Senior Scientist, Assistant Group Leader, Applied Research Associates, Inc.

2012-2014, Gopal Subedi;
Current position: Medical Physicist, St. Anthony Medical Center, St. Louis, MO

2013-2015, Daniel Sowers;
Dissertation: *A Dosimetry Study of Deuterium-Deuterium Neutron Generator-based In Vivo Neutron Activation Analysis*
Current position: Head of the Radiation Health Division, Naval Branch Health Clinic, Portsmouth, NH

2014-2016, Lee Alleman;
Dissertation: *A Dose Distribution Study of Uranyl Nitrate in Zebrafish Using Liquid Scintillation And Passivated Implanted Planar Silicon Detector*
Current position: Radiation Safety Officer, US Navy

2014-2016, Yufei Wang;
Current position: PhD student, UC Berkeley

2015-2017, Mychaela Coyne;

Dissertation: *Quantification of Sodium (Na) in Bone with In Vivo Neutron Activation Analysis (IVNAA) and Its Implications on Na Retention Studies*
Current position: Medical Physics Resident, Department of Radiation Oncology, University of Colorado Denver

2016-2018, Kevinraj Sukumar;
Dissertation: *Detection of Arsenic (As) in Skin In Vivo Using Portable X-ray Fluorescence (XRF) Device*
Current position: Medical Physics Resident, Piedmont Atlanta Hospital

2017-2019, Colby Neumann;
Dissertation: *In Vivo Quantification of Magnesium in Hand Bone Using Neutron Activation Analysis*
Current position: Medical School Student, Kansas State

2020-present, Elizabeth Jaye

2021-present, MacKinzie Coon (co-Chair)

Doctoral Students, as Advisory Committee Member

Name	*Dates*	*Degree Level*	*Specialization*	*Graduation date*
Panda Anshuman	2009-2012	Ph.D.	Medical Physics	Aug.2012
Sandra Cole	2009-2012	Ph.D.	Industrial Hygiene	Aug.2012
Victor Wu	2009-2013	Ph.D.	Medical Physics	Aug.2013
Junqing Wu	2010-2013	Ph.D.	Medical Physics	Aug.2013
Huisi Ai	2010-2013	Ph.D.	Medical Physics	Aug.2013
Qingya Zhao	2010-2013	Ph.D.	Medical Physics	Aug.2013
Shiv Srivastava	2011-2014	Ph.D.	Medical Physics	Aug.2014
Kyuhak Oh	2012-2016	Ph.D.	Nuclear Engineering	Aug.2016 (UIUC)
Alex Bakken	2013-2017	Ph.D.	Nuclear Engineering	Aug.2017
Haoyu Wang	2013-2017	Ph.D.	Physics	Aug.2018
Danelle Rolle	2013-2017	Ph.D.	Environmental Health	Dec.2017
Christelene Horton	2015-2018	Ph.D.	Environmental Health	Dec.2018
Mina Tehrani	2015-2019	Ph.D.	Chemistry	Dec.2019 (Univ. at Albany)
Zainab Hasan	2015-2018	Ph.D.	Environmental Health	Dec.2018
Aaron Andersen	2016-present	Ph.D.	Medical Physics	
Andrew Boria	2016-2020	Ph.D.	Medical Physics	Jun.2020
Shraddha Rane	2016-2020	Ph.D.	Health Physics	Jun.2020
Yiu Hsin Chang	2020-present	Ph.D.	Medical Physics	
Mahsa Servati	2020-present	Ph.D.	Medical Physics	

Masters Students, as Advisory Committee Member

Name	*Dates*	*Degree Level*	*Specialization*	*Graduation Date*
Patrick Meek	2009 – 2011	M.Sc.	Medical Physics	Aug.2011
Christina Peace	2009 – 2011	M.Sc.	Health Physics	Aug.2011
Courtney Tinner	2010 – 2011	M.Sc.	Industrial Hygiene	Aug.2011
Jefferey Bainter	2012 – 2014	M.Sc.	Occ/Env Health	Aug.2014
Austin Curtis	2012 – 2014	M.Sc.	Medical Physics	Aug.2014
Han Xu	2012 – 2014	M.Sc.	Medical Physics	Aug.2014
John Carrico	2013-2015	M.Sc.	Medical Physics	Aug.2015
Mitchell Gagne	2014-2016	M.Sc.	Medical Physics	Aug.2016
Tylor Whitmer	2014-2016	M.Sc.	Health Physics	Aug.2016
Eric Cleveland	2015-2017	M.Sc.	Environmental Health	Aug.2017
Kelly Dwyer	2015-2017	M.Sc.	Environmental Health	Aug.2017
Andrea Wilkerson	2015-2017	M.Sc.	Environmental Health	Aug.2017

Joshua Young	2015-2017	M.Sc.	Health Physics	Aug.2017
Zheng Gu	2016-2018	M.Sc.	Medical Physics	Aug.2018
Matthew Napiwocki	2016-2018	M.Sc.	Medical Physics	Aug.2018
Eric Foss	2016-2018	M.Sc.	Health Physics	Aug.2018
John Bullock	2016-2018	M.Sc.	Health Physics	Aug.2018
Abdulrahman Almalki	2016-2019	M.Sc.	Medical Physics	Aug.2019
Marcia Robinson	2017-2019	M.Sc.	Health Physics	Aug.2019
Kyle Smith	2017-2019	M.Sc.	Health Physics	Aug.2019
Kevin Stahl	2017-2019	M.Sc.	Health Physics	Aug.2019
Patrick Foster	2018-2020	M.Sc.	Health Physics	Aug.2020
Nicholas Farley	2018-2020	M.Sc.	Health Physics	Aug.2020
Timothy Hooker	2018-2020	M.Sc.	Health Physics	Aug.2020
Michael Todd	2018-2020	M.Sc.	Health Physics	Aug.2020
Emily Chou	2018-2020	M.Sc.	Health Physics	Aug.2020
Nakima McCormack	2018-2020	M.Sc.	Health Physics	Aug.2020
Emily Bragers	2020-2021	M.Sc.	Health Physics	Aug.2021
Michael Vieceli	2020-present	M.Sc.	Medical Physics	
Carter Jaynes	2020-present	M.Sc.	Health Physics	
Nicholas Noschese	2020-present	M.Sc.	Health Physics	
Mohammad M. Khan	2021-present	M.Sc.	Medical Physics	

Undergraduate Students, as Major Research Advisor

Name	*Dates*	*Degree Level*	*Specialization*
Aaron Specht	2010-2012	B.S.	Physics
Isha Kaul (co-mentor)	2012-2015	B.S.	HSCI honors student
Jacob Wilson	2013-2014	B.S.	Physics
Austin Trout	2013-2014	B.S.	Physics
Scott Blake	2013-2015	B.S.	Physics
Nikola Plavsa	2014-2015	B.S.	Physics
Colby Neumann	2015-2017	B.S.	Physics
Megan Sewell	Summer 2016	B.S.	Health Sciences
Nicholas Farley	2017-2018	B.S.	Physics
Joseph Whitehead	2017-2018	B.S.	Physics
Emma Wallens	2015-2019	B.S.	HSCI honors student
Boghos Taslakjian (co-mentor)	2016-2019	B.S.	HSCI honors student
Emily Paul	Summer 2019	B.S.	Physics (UofChicago)
Sai Dwibhashyam	2019-2021	B.S.	HSCI honors student
Catherine Zhu	2020-present	B.S.	Health Sciences

External fellowships and awards won by graduate students (including travel awards):

Sana Tabassum, Fulbright Scholar Fellowship, 2017-2022
Michael Abel, NRC Graduate Fellowship, 2014-2017
Michael Abel, Burton J. Moyer Memorial Health Physics Society Graduate Fellowship, 2017-2018
Xinxin Zhang, Health Physics Society (HPS) Fellowship, 2016-2017
Xinxin Zhang, HPS Travel Award, 2017
Xinxin Zhang, University of Michigan NIOSH/ERC Pilot Grant, 2017-2018
Xinxin Zhang, PPRT travel Award, 2018
Mychaela Coyne, NRC Graduate Fellowship, 2015-2017
Mychaela Coyne, Lulz E. Moriz Award, 2016
Mychaela Coyne, HPS Travel Award, 2016
Mychaela Coyne, HPS Travel Award, 2017
Mychaela Coyne, MedPhys Slam First Place Winner, AAPM Ohio River Valley Chapter, 2019

Mychaela Coyne, MedPhys Slam Runner-up, AAPM, Second Place at the National MedPhys Slam Finals
Patrick Byrne, University of Michigan NIOSH/ERC Pilot Grant, 2013-2014
Aaron Specht, SOT Travel Award, 2016
Yingzi Liu, Health Physics Society (HPS) Fellowship, 2011-2012
Yingzi Liu, HPS Travel Award, 2012
Yingzi Liu, SOT Travel Award, 2014
James Dant, NRC Graduate Fellowship, 2010-2012

Internal fellowships and awards won by graduate students (excluding travel awards):
Alexis Webb, Purdue Research Foundation Fellowship, 2020-2021
Alexis Webb, Ross Fellowship, 2019-2020
Sana Tabbassum, Kessler Outstanding Graduate Student Award, 2021
Sana Tabbassum, 3rd place of HSCI graduate 3 min research blitz (MP) and 2nd place people's choice, 2019
Xinxin Zhang, Purdue Research Foundation Fellowship, 2018-2019
Xinxin Zhang, Bilsland Fellowship, 2019-2020
Mychaela Coyne, Ross Graduate Fellowship, 2017-2018
Mychaela Coyne, HSCI Graduate Service Award, 2019
Mychaela Coyne, top 10 finalist of Purdue 3MT competition, 2019
Mychaela Coyne, 1st place of HSCI graduate 3 min research blitz (MP) and 3rd place people's choice, 2019
Mychaela Coyne, Kessler Outstanding Graduate Student Award, 2020
Mindy Joo, Purdue University Graduate Incentive Award, 2015, 2017
Yingzi Liu, First place winner of Sigma Xi poster competition for Physical Section, Purdue University, 2014
Yingzi Liu, Bilsland Fellowship, 2014-2015
Aaron Specht, Spira Undergraduate Summer Research Award, summer 2011
Aaron Specht, Ross Fellowship, 2013-2014

SEVICE

International and National Society and Conferences (see above for editorial board, paper review, and grant review)

2019-2025	Council and Executive Committee member, International Society of Trace Element Research in Humans
2019	Session Chair, the 13th International Society for Trace Element Research in Humans Meeting (ISTERH), Bali, Indonesia, Sep.22-26, 2019
2018	Member, Organizing Committee of the Metals Study Symposium, June.14-15, 2018
2017	Session Chair, 56th Society of Toxicology (SOT) annual meeting, Baltimore, Maryland, Mar.12-16, 2017
2015	Session Chair, 54th Society of Toxicology (SOT) annual meeting, San Diego, California, Mar.22-26, 2015
2014	Session Chair, Lead Collaboration Consortium, Hamilton, ON, Canada, Jun.4-6, 2014

Internal Service

2014-present	Chair, Nomination and Awards Committee, School of Health Sciences
2014-present	Member, Teaching Awards Committee, College of Health and Human Sciences
2019-2021	Member, Graduate Curricula Committee, School of Health Sciences
2011-2019	Member, Health Sciences, Undergraduate Curricula Committee, School of Health Sciences
2013-2015	Member, Minority Advocacy Committee, School of Health Sciences
2012-2015	Member, Web Page and Library Committee, School of Health Sciences
2011-2016	Member, Safety Committee, School of Health Sciences
2010-2016	Director, Health Physics undergraduate and graduate program, School of Health Sciences
2010-2016	Faculty Advisor, Health Physics Society Purdue Branch
2010-2014	Member, Nomination and Awards Committee, School of Health Sciences
2010-2011	Member, Graduate Curricula Committee, School of Health Sciences
2009-2011	Member, Medical Physics Graduate Program CAMPEP accreditation committee, School of Health Sciences