
CURRICULUM VITAE

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EDUCATION

11/2009 Ph.D., Material Sciences, University of North Carolina at Chapel Hill
08/2006 M.S., Material Sciences, University of North Carolina at Chapel Hill
07/2002 M.S., Chemistry, Beijing University of Chemical Technology, Beijing, China
07/1999 B.E., Chemistry, Beijing University of Chemical Technology, Beijing, China

PROFESSIONAL TRAINING AND EXPERIENCES

08/2018 – present Associate Professor, Department of Environmental Sciences and Engineering, UNC
08/2016 – 07/2018 Assistant Professor, Department of Environmental Sciences and Engineering,
University of North Carolina at Chapel Hill (UNC-CH)
12/2012 – 08/2016 Faculty, Regenerative Bioscience Center, University of Georgia (UGA)
10/2012 – 08/2016 Assistant Professor, Interdisciplinary Toxicology Program, UGA
08/2012 – 08/2016 Assistant Professor, Department of Environmental Health Science, UGA
10/2010 – 08/2012 Postdoctoral Associate, Massachusetts Institute of Technology (MIT)
12/2009 – 09/2010 Goldberg Postdoctoral Fellow, Curriculum in Toxicology, UNC-CH
09/2006 – 11/2009 Research Assistant, Environmental Sciences and Engineering, UNC-CH
08/2004 – 09/2006 Research Assistant, Department of Biochemistry and Biophysics, UNC-CH
09/1999 – 07/2004 Research Assistant, Beijing University of Chemical Technology (BUCT)

HONORS AND AWARDS

2021 “Papers of the Month” by National Institute of Environmental Health Sciences (NIEHS)
2019 The Newton Underwood Award for Excellence in Teaching, UNC
2017 “Papers of the Month” by National Institute of Environmental Health Sciences (NIEHS)
2016 IBM Junior Faculty Development Award, UNC-CH
2015 Outstanding New Environmental Scientist Award (ONES), NIEHS
2015 Research Excellence Award, College of Public Health, UGA
2012 TOXI Young Investigator Award for Best Postdoctoral Presentation, American Chemical Society
2011 Board of Publications Best Paper Award, Society of Toxicology
2010 Chinese Government Award for Outstanding Student Abroad, Chinese National Scholarship Council
2010 TOXI Travel Award, Division of Chemical Toxicology, American Chemical Society
2010 Perry J Gehring Best Graduate Student Abstract Award, Society of Toxicology

2010 Leon Goldberg Memorial Travel Award, UNC-CH
2009 Graduate Education Advancement Board Impact Award, UNC-CH
2009 Student Award of Carcinogenesis Specialty Section, Society of Toxicology
2001 Bayer Fellowship, Germany Bayer Group
1999 Scholarship of Distinguished Enrolled Graduate Candidate, BUCT
1999 Outstanding Diploma Project Thesis, BUCT
1996 - 1998 People Scholarship, BUCT

PROFESSIONAL MEMBERSHIPS

American Chemical Society
Society of Toxicology
American Society for Mass Spectrometry
American Association for Cancer Research
North America Association of Metabolomics

INVITED BOOK CHAPTER

* = *Dr. Lu as Corresponding author*

A = *Advisee*

1. Chi Liang^A and **Kun Lu***. Biotransformation by the gut microbiome. *Comprehensive Toxicology III*, 2017, 64268, 1-15, Elsevier

PEER-REVIEWED PUBLICATION

* = *Dr. Lu as Corresponding author*

A = *Advisee*

Manuscript under revision or review

101. Yifei Yang^A, Liang Chi^A, Chih-wei Liu^A, and **Kun Lu***. Sex-specific role of the gut microbiome in mediating bile acid homeostasis. 2022, *Int J Mol Sci*, *under review*

100. Chih-wei Liu^A, Jiapeng Leng^A, and **Kun Lu***. Endogenous and Exogenous Cross-linkages between Glutathione and DNA Induced by Formaldehyde. 2022, *under review*.

99. Alex Chaoa, Jarod Grossmanb, Celeste Carberry, Yunjia Lai^A, Antony J. Williams, Jeffrey M. Minucci, S. Thomas Purucker, John Szilagyi, **Kun Lu**, Kim Boggess, Rebecca C. Fry, Jon R. Sobusa, Julia E. Rager. Integrative Exposomic, Transcriptomic, Epigenomic Analyses of Human Placental Samples Links Understudied Chemicals to Preeclampsia. 2022, *under revision*

98. Muiyiwa Awoniyi, Jeremy Wang, Billy Ngo, **Kun Lu**, Yunjia Lai^A, Stephanie Montgomery, Amba Viswanathan, Morgan Farmer, Jason Tam, Jenny PY Ting, Bernd Schnab, Yuri Popov, and R. Balfour Sartor. Microbiota have homeostatic, inflammatory, and fibrotic potential in a murine model of primary sclerosing cholangitis. 2022, *Gut*, *under revision*

97. Yifei Yang^A, Xia Sheng^A, Pengcheng Tu^A, Chih-wei Liu^A, Liang Chi^A and **Kun Lu***. Chronic arsenic exposure perturbs the gut microbiome and bile acid homeostasis in C57BL6 mice. 2022, *under review*

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96. Yun-Chung Hsiao[^], Chih-Wei Liu[^], Carole Robinette, Noelle Knight, **Kun Lu***, Meghan E. Rebuli*. Development of LC-HRMS Untargeted Analysis Methods for Nasal Epithelial Lining Fluid Exposomics. *Journal of Exposure Science & Environmental Epidemiology*, 2022, in press
95. Christy L. Avery, Annie Green Howard, Anna F. Ballou, Victoria L. Buchanan, Jason M. Collins, Carolina G. Downie, Mariaelisa Graff, Heather M. Highland, Moa P. Lee, Adam G. Lilly, Engel Stephanie, Julia Rager **Kun Lu**, Brooke S. Staley, Susan C.J. Sumner, Kari E. North, and Penny Gordon-Larse. Strengthening causal inference in exposomics research: Application of genetic data and methods. *Environ Health Perspect.* 2022, in press, DOI 10.1289/EHP9098
94. Pengcheng Tu[^], Liang Chi[^], Xiaoming Bian[^], Bei Gao[^], Jiapeng Leng[^], Jingchuan Xue[^], Yunjia Lai[^], Chih-Wei Liu[^], and **Kun Lu***. A black raspberry-rich diet protects from dextran sulfate sodium-induced intestinal inflammation and host metabolic dysbiosis in association with increased aryl hydrocarbon receptor ligands in the gut microbiota of mice. *Frontiers in Nutrition*, 2022, *In press*
93. Jessica A Jiménez, Jeremy M Simon, Wenxin, Sheryl S Moy, Kathryn M Harper, Chih-Wei Liu[^], **Kun Lu**, Mark J Zylka. Developmental pyrethroid exposure and age influence phenotypes in a Chd8 haploinsufficient autism mouse model. *Sci Rep.* 2022, 12(1):5555
92. Wenxin Hu, Chih-Wei Liu[^], Jessica A Jiménez, Eric S McCoy, Yun-Chung Hsiao[^], Weili Lin, Stephanie M Engel, **Kun Lu**, Mark J Zylka. Detection of Azoxystrobin Fungicide and Metabolite Azoxystrobin-Acid in Pregnant Women and Children, Estimation of Daily Intake, and Evaluation of Placental and Lactational Transfer in Mice. *Environ Health Perspect.* 2022, 130(2):27013.
91. Lai Y[^], Dhingra R, Zhang Z, Ball LM, Zylka MJ, **Kun Lu***. Toward Elucidating the Human Gut Microbiota-Brain Axis: Molecules, Biochemistry, and Implications for Health and Diseases. *Biochemistry.* 2021 Dec 15. doi: 10.1021/acs.biochem.1c00656
90. Yun-Chung Hsiao[^], Chih-Wei Liu[^], Gary Hoffman, **Kun Lu***. Molecular Dosimetry of DNA Adducts in Rats Exposed to Vinyl Acetate Monomer. *Toxicol Sci*, 2022 Jan 24;185(2):197-207
89. Chih-Wei Liu[^], Yun-Chung Hsiao[^], Gary Hoffman, **Kun Lu***. LC-MS/MS Analysis of the Formation and Loss of DNA Adducts in Rats Exposed to Vinyl Acetate Monomer through Inhalation. *Chem Res Toxicol*, 2021, 15;34(3):793-803
88. Yunjia Lai[^], Chih-Wei Liu[^], Yifei Yang[^], Yun-Chung Hsiao[^], and **Kun Lu***, High-coverage metabolomics annotation uncovers microbiota-driven biochemical landscape of interorgan transport and gut-brain communication. *Nature Communication*, 2021, 16, 6000
87. Tracy A. Manuck, Yunjia Lai[^], Hongyu Ru, Angelica V. Glover, Julia Rager, Rebecca Fry and **Kun Lu**. Metabolites from mid-trimester plasma of pregnant patients at high-risk for preterm birth. *AJOG-MFM*, 2021 Jul;3(4):100393
86. Nicholas Dopkins, Wurood Hantoosh Neameh, Alina Hall, Yunjia Lai[^], Alex Rutkovsky, Alexa Orr Gandy, **Kun Lu**, Prakash S Nagarkatti, Mitzi Nagarkatti. Effects of Acute 2,3,7,8-Tetrachlorodibenzo-p-Dioxin Exposure on the Circulating and Cecal Metabolome Profile. *Int J Mol Sci.* 2021 Oct 30;22(21):11801
85. **Kun Lu***, Yun-Chung Hsiao[^], Chih-Wei Liu[^], Rita Schoeny, Robinan Gentry, James Sherman, Kimberly White, and Tom Starr. Stable Isotope Labeling and Mass Spectrometry Methods to Distinguish Exogenous from Endogenous DNA Adducts and Improve Dose-Response Assessments for Chemicals with both

84. Daniel van der Lelie¹, Akihiko Oka, Safiyh Taghavi, Junji Umeno, Ting- Jia Fan, Katherine E. Merrel, Sarah D. Watson, Lisa Ouellette, Bo Liu, Muyiwa Awoniyi, Yunjia Lai[^], Liang Chi[^], **Kun Lu**, Christopher S. Henry, R. Balfour Sartor. Rationally designed bacterial consortia to treat chronic immune-mediated colitis and restore intestinal homeostasis. *Nature Communication*, 2021, 12(1):3105
83. Hao Guo, Wei-Chun Chou, Yunjia Lai[^], Kaixin Liang, Jason W Tam, W June Brickey, Liang Chen, Nathan D Montgomery, Xin Li, Lauren M Bohannon, Anthony D Sung, Nelson J Chao, Jonathan U Peled, Antonio L C Gomes, Marcel R M van den Brink, Matthew J French, Andrew N Macintyry, Gregory D Sempowski, Xianming Tan, R Balfour Sartor, **Kun Lu**, Jenny P Y Ting. Multi-omics analyses of radiation survivors identify radioprotective microbes and metabolites. *Science*. 2020;370(6516):eaay9097. doi: 10.1126/science.aay9097.
82. Liang Chi[^], Pengcheng Tu[^], Hongyu Ru, and **Kun Lu***. Studies of xenobiotic-induced gut microbiota dysbiosis: from correlation to mechanisms. *Gut Microbes*, 2021, in press.
81. Megan S Beaudry, Jincheng Wang, Troy J Kieran, Jesse Thomas, Natalia J Bayona-Vásquez, Bei Gao[^], Alison Devault, Brian Brunelle, **Kun Lu**, Jia-Sheng Wang, Olin E Rhodes, Travis C Glenn. Improved microbial community characterization of 16S rRNA via metagenome hybridization capture enrichment. *Frontiers in Microbiology*, 2021, in press.
80. Jingchuan Xue[^], Liang Chi[^], Pengcheng Tu[^], Yunjia Lai[^], Chih-Wei Liu[^], Hongyu Ru, and **Kun Lu***. Detection of Gut Microbiota and Pathogen Produced N-Acyl Homoserine in Host Circulation and Tissues. *NPJ Biofilms and Microbiomes*, 2021, in press.
79. Robinan Gentry, Chad M Thompson, Allison Franzen, Joshua Salley, Richard Albertini, **Kun Lu**, Tracy Greene. Using mechanistic information to support evidence integration and synthesis: a case study with inhaled formaldehyde and leukemia. *Crit Rev Toxicol*. 2020, 50(10):885-918.
78. Yunjia Lai[^], Chih-Wei Liu[^], Liang Chi[^], Hongyu Ru, **Kun Lu***. High-Resolution Metabolomics of 50 Neurotransmitters and Tryptophan Metabolites in Feces, Serum, and Brain Tissues Using UHPLC-ESI-Q Exactive Mass Spectrometry. *ACS Omega*. 2021, 6(12):8094-8103. doi: 10.1021/acsomega.0c05789.
77. Yifei Yang[^], Liang Chi[^], Yunjia Lai[^], Yun-Chung Hsiao[^], Hongyu Ru, **Kun Lu***. The gut microbiome and arsenic-induced disease-iAs metabolism in mice. *Curr Environ Health Rep*. 2021. doi: 10.1007/s40572-021-00305-9.
76. Yun-Chung Hsiao^A, Chih-Wei Liu^A, Liang Chi^A, Yifei Yang^A, **Kun Lu***. Effects of Gut Microbiome on Carcinogenic DNA Damage. *Chem Res Toxicol*. 2020, 33(8):2130-2138.
75. Chih-Wei Liu^A, Yun-Chung Hsiao^A, Gary Hoffman, **Kun Lu***. LC-MS/MS Analysis of the Formation and Loss of DNA Adducts in Rats Exposed to Vinyl Acetate Monomer through Inhalation. *Chem Res Toxicol*. 2021, 34(3):793-803. doi: 10.1021/acs.chemrestox.0c00404.
74. Chad M Thompson, Robinan Gentry, Seneca Fitch, **Kun Lu**, Harvey J Clewel. An updated mode of action and human relevance framework evaluation for Formaldehyde-Related nasal tumors. *Crit Rev Toxicol*. 2020, 50(10):919-952. doi: 10.1080/10408444.2020.1854679.
73. Christelle Douillet, Jinglin Ji, Immaneni Lakshmi Meenakshi, **Kun Lu**, Fernando Pardo-Manuel de

Villena, Rebecca C Fry, Miroslav Stýblo. Diverse genetic backgrounds play a prominent role in the metabolic phenotype of CC021/Unc and CC027/GeniUNC mice exposed to inorganic arsenic. *Toxicology*. 2021, 452:152696. doi: 10.1016/j.tox.2021.152696.

72. Pengcheng Tu^A, Xiaoming Bian^A, Liang Chi^A, Jingchuan Xue^A, Bei Gao^A, Yunjia Lai^A, Hongyu Ru, and **Kun Lu***. Metabolite Profiling of the Gut Microbiome in Mice with Dietary Administration of Black Raspberries. *ACS Omega*. 2020, 5(3): 1318–1325.

71. Robert Turesky* and **Kun Lu***. Biomarkers of Environmental Toxicants: Exposure and Biological Effects. *Toxicis*, 2020, 8(2), 37.

70. Wanda M Haschek, May Berenbaum, David E Hinton, Michelle Cora, Neil Chernoff, Gregory Travlos, Chih-Wei Liu[^], **Kun Lu**, Mac Law. Pathology in Ecological Research With Implications for One Health: Session Summary. *Toxicol Pathol* . 2019, 47(8):1072-1075.

69. Pengcheng Tu^A, Liang Chi^A, Wanda Bodnar, Zhenfa Zhang, Bei Gao^A, Xiaoming Bian^A, Jill Stewart, Rebecca Fry, and **Kun Lu***. Gut Microbiome Toxicity: Connecting the Environment and Gut Microbiome-Associated Diseases. *Toxics*. 2020, 8(1): 19.

68. Julia E Rager, Jacqueline Bangma, Celeste Carberry, Alex Chao, Jarod Grossman, **Kun Lu**, Tracy A Manuck, Jon R Sobus, John Szilagyi, Rebecca C Fry. Review of the environmental prenatal exposome and its relationship to maternal and fetal health 2020, S0890-6238(20), 30017-4

67. Glenn, T. C., T. W. Pierson, N. J. Bayona-Vásquez, T. J. Kieran, S. L. Hoffberg, J. C. Thomas IV, D. E. Lefever, J. W. Finger Jr., Bao Gao[^], Xiaoming Bian[^], S. Louha, R. T. Kolli, K. Bentley, J. Rushmore, K. Wong, T. I. Shaw, M. J. Rothrock Jr., A. M. McKee, T. L. Guo, R. Mauricio, M. Molina, B. S. Cummings, L. H. Lash, **Kun Lu**, G. S. Gilbert, S. P. Hubbell, and B. C. Faircloth. Adapterama II: universal amplicon sequencing on Illumina platforms (TaggiMatrix), PeerJ. 2019; 7: e7786.

66. Liang Chi^A, Yunjia Lai^A, Pengcheng Tu^A, Chih-Wei Liu^A, Jingchuan Xue^A, Hongyu Ru, and **Kun Lu***. Lipid and Cholesterol Homeostasis after Arsenic Exposure and Antibiotic Treatment in Mice: Potential Role of the Microbiota. *Environ Health Perspect*. 2019 Sep; 127(9): 097002.

65. Pengcheng Tu^A, Jingchuan Xue^A, Xiaoming Bian^A, Liang Chi^A, Bei Gao^A, Jiapeng Leng^A, Hongyu Ru, Thomas J Knobloch, Christopher M Weghorst, **Kun Lu***. Dietary Administration of Black Raspberries Modulates Arsenic Biotransformation and Reduces Urinary 8-oxo-2'-deoxyguanosine in Mice. *Toxicol Appl Pharmacol*, 2019 Aug 15;377:114633

64. Tomlinson MS, Kun Lu, Stewart JR, Marsit CJ, O'Shea TM, Fry RC. Microorganisms in the Placenta: Links to Early-Life Inflammation and Neurodevelopment in Children. *Clin Microbiol Rev*. 2019, 32(3):e00103-18

63. Liang Chi^A, Pengcheng Tu^A, Chih-Wei Liu^A, Yunjia Lai^A, Jingchuan Xue^A, Hongyu Ru, **Kun Lu***. Chronic Arsenic Exposure Induces Oxidative Stress and Perturbs Serum Lysolipids and Fecal Unsaturated Fatty Acid Metabolism. *Chem Res Toxicol*, 2019, 32(6):1204-1211

62. Liang Chi^A, Jingchuan Xue^A, Pengcheng Tu^A, Yunjia Lai^A, Hongyu Ru and **Kun Lu***. Gut microbiome disruption altered the biotransformation and liver toxicity of arsenic in mice. *Archives of Toxicology*, 2019, 93, 25–35

61. Pengcheng Tu^A, Bei Gao^A, Liang Chi^A, Yunjia Lai^A, Xiaoming Bian^A, Hongyu Ru, and **Kun Lu***. Subchronic low-dose 2,4-D exposure changed plasma acylcarnitine levels and induced gut microbiome

perturbations in mice *Sci Rep.* 2019; 9: 4363

60. Jiapeng Leng ^A, Chih-Wei Liu ^A, Hadley J. Hartwell, Rui Yu, Yongquan Lai, Wanda M. Bodnar, **Kun Lu***, James A. Swenberg*. Evaluation of inhaled low-dose formaldehyde-induced DNA adducts and DNA–protein cross-links by liquid chromatography–tandem mass spectrometry, *Archives of Toxicology*, 2019, 93(3):763-773
59. Chih-Wei Liu ^A, Liang Chi ^A, Pengcheng Tu ^A, Jingchuan Xue ^A, Hongyu Ru, **Kun Lu***. Quantitative proteomics reveals systematic dysregulations of liver protein metabolism in sucralose-treated mice. *Journal of Proteomics*. 2019, 196:1-10
58. Yunjia Lai ^A, Jingchuan Xue ^A, Chih-Wei Liu ^A, Bei Gao ^A, Liang Chi ^A, Pengcheng Tu ^A, **Kun Lu** and Hongyu Ru. Serum Metabolomics Identifies Altered Bioenergetics, Signaling Cascades in Parallel with Exosome Markers in Crohn’s Disease. *Molecules*, 2019, 24(3): 449
57. Gao Bei ^A, Chi Liang ^A, Tu Pengcheng ^A, Gao Nan, and **Lu Kun***. The Carbamate Aldicarb Altered the Gut Microbiome, Metabolome, and Lipidome of C57BL/6J Mice. *Chemical Research in Toxicology*, 2019, 22;32(1):67-79
56. Liu Chih-Wei ^A, Chi Liang ^A, Tu Pengcheng ^A, Xue Jinchuan^A and **Lu Kun***. Isobaric Labeling Quantitative Metaproteomics for the Study of Gut Microbiome Response to Arsenic. *Journal of Proteome Research*, 2018, in press
55. Xue Jinchuan ^A, Lai Yunjia ^A, Chi Liang ^A, Tu Pengcheng ^A, Leng Jiapeng, Liu Chih-Wei ^A, and **Lu Kun***. Serum metabolomics reveals that gut microbiome perturbation mediates metabolic disruption induced by arsenic exposure in mice. *Journal of Proteome Research*, 2018, in press
54. Tu Pengcheng ^A, Bian Xiaoming ^A, Chi Liang ^A, Gao Bei ^A, Ru Hongyu, Thomas J Knobloch, Christopher M. Weghorst, and **Lu Kun***. A Simple Approach to Modulate Mouse Gut Microbiome by Boosting Akkermansiamuciniphila with Dietary Black Raspberries. *ACS Omega*, 2018, in press
53. Liu Chih-Wei ^A, Tian Xu, Hartwell J. Hadley, Chi Liang ^A, **Lu Kun*** and JA Swenberg*. Accurate Measurement of Formaldehyde–Induced DNA–Protein Crosslinks by High-resolution Orbitrap Mass Spectrometry. *Chemical Research in Toxicology*, 2018, In press
52. Chi Liang ^A, Tu Pengcheng ^A, Lai Yunjia ^A, Ru Hongyu, Xue Jinchuan^A and **Lu Kun***. Individual susceptibility to arsenic-induced diseases: the role of host genetics, nutritional status and gut microbiome. *Mammalian Genome*, 2018, s00335-018-9736-9, 1-17
51. Chi Liang ^A, Yunjia Lai ^A, Tu Pengcheng ^A, Jinchuan Xue ^A, and **Lu Kun***. The Artificial Sweetener Neotame Affects the Gut Microbiome Profile and Fecal Metabolites in CD-1 Mice. *Molecules*, 2018, 23, 367,1-11
50. Gao Bei ^A, Chi Liang ^A, Tu Pengcheng ^A, Bian Xiaoming ^A, Jesse Thomas, Ru Hongyu, and **Lu Kun***. The Organophosphate Malathion Disturbs Gut Microbiome Development and the Quorum-Sensing System. *Toxicology Letter*, 2018, 283,52-57
49. Wu Fen, Chi Liang^A, Ru Hongyu, Parvez Faruque, Slavkovich Vesna, Eunos Mahbub, Ahmed Alauddin, Islam Tariqul, Rakibuz-Zaman Muhammad, Hasan Rabiul, Sarwar Golam, Graziano Joseph H.,

Ahsan Habibul, **Lu Kun**, Chen Yu. Arsenic exposure and urinary metabolomics. *Environmental Health Perspectives*, 2017, 126,1,017005,1-7

48. Chi Liang^A, Mahbub Ridwan^A, Gao Bei^A, Bian Xiaoming^A, Tu Pengcheng^A, Ru Hongyu Ru and **Lu Kun***. Nicotine alters the gut microbiome and chemical signaling of gut-brain interactions in a sex-specific manner. *Chemical Research in Toxicology*, 2017, 30, 12, 2110-2119 (**featured by the American Chemical Society press release**)

47. Chi Liang^A, Bian Xiaoming^A, Gao Bei^A, Tu Pengcheng^A, Ru Hongyu Ru and **Lu Kun***. The Effects of an Environmentally Relevant Level of Arsenic on the Gut Microbiome and its Functional Metagenome. *Toxicological Sciences*, 2017, 160, 2, 193-204

46. Bian Xiaoming^A, Chi Liang^A, Tu Pengcheng^A, Gao Bei^A, Ru Hongyu, and **Lu Kun***. Gut microbiome response to sucralose and its potential role in inducing liver inflammation in mice. *Frontiers in Physiology*, 2017, 8, 487,1-13

45. Chi Liang^A, Gao Bei^A, Bian Xiaoming^A, Tu Pengcheng^A, Ru Hongyu Ru and **Lu Kun***. Manganese-induced Sex-specific Gut Microbiome Perturbations in C57BL/6 Mice. *Toxicology and Applied Pharmacology*, 2017, 341, 142-153

44. Gao Bei^A, Tu Pengcheng^A, Bian Xiaoming^A, Chi Liang^A, Ru Hongyu Ru, and **Lu Kun***. Profound perturbation induced by triclosan exposure in mouse gut microbiome: A less resilient microbial community with elevated antibiotic and metal resistomes. *BMC Pharmacology and Toxicology*, 2017, 18,46,1-12

43. Chen D, Fang Lei, Mei S, Li H, Xu Xia, Des Marais TL, **Lu Kun**, Liu X, and Chunyuan Jin. Regulation of chromatin assembly and cell transformation by formaldehyde exposure in human cells. *Environmental Health Perspectives*, 2017, 097019, 1-14

42. Bian Xiaoming^A, Chi Liang^A, Gao Bei^A, Tu Pengcheng^A, Ru Hongyu Ru, and **Lu Kun***. The Artificial Sweetener Acesulfame Potassium Affects the Gut Microbiome and Body Weight Gain in CD-1 Mice. *PLOS ONE*, 2017,0178426, 1-16

41. Bian Xiaoming^A, Tu Pengcheng^A, Chi Liang^A, Gao Bei^A, Ru Hongyu, and **Lu Kun***. Saccharin induced liver inflammation in mice by altering the gut microbiota and its metabolic functions. *Food and Chemical Toxicology*, 2017, 107, 530-539

40. Gao Bei^A, Bian Xiaoming^A, Mahbub Ridwan^A, and **Lu Kun***. Gender-Specific Effects of Organophosphate Diazinon on the Gut Microbiome. *Environmental Health Perspectives*, 2017, 125, 2, 198-206 (**Selected as *Papers of the Month* by the NIEHS**)

39. Gao Bei^A, Bian Xiaoming^A, Chi Liang^A, Tu Pengcheng^A, Ru Hongyu, and **Lu Kun***. Organophosphate Diazinon Altered Quorum Sensing, Cell Motility, Stress Response, and Carbohydrate Metabolism of Gut Microbiome. *Toxicological Sciences*, 2017,157, 354-364 (**selected as "*Editor's Highlight*"**)

38. Gao Bei^A, Mahbub Ridwan^A, Chi Liang^A, Bian Xiaoming^A, Tu Pengcheng^A, Ru Hongyu, and **Lu Kun***. Multi-Omics Reveals that Lead Exposure Disturbs Gut Microbiome Development, Key Metabolites, and Metabolic Pathways. *Chemical Research in Toxicology*, 2017, 30, 4, 996-1005

37. Chi Liang^A, Bian Xiaoming^A, Gao Bei^A, Ru Hongyu, Tu Pengcheng^A, and **Lu Kun***. Sex-specific effects of arsenic on the trajectories and function of the gut microbiome. *Chemical Research in Toxicology*, 2016, 29,6, 949-951

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36. Yin Lei, Yu Kevin, **Lu Kun**, and Yu Xiaozhong. Benzyl Butyl Phthalate Promotes Adipogenesis in 3T3-L1 Preadipocytes: A High Content Cellomics and Metabolomic Analysis. *Toxicology In Vitro*, 2016, 25, 32, 297-309
35. **Lu Kun***, Mahbub Ridwan^A, Fox James. Xenobiotics: Interaction with the Intestinal Microflora. *Institute for Laboratory Animal Research (ILAR) Journal*, 2015, 56, 2, 218-27 (**Invited review on microbiome**)
34. **Lu Kun***, Abo Ryan, Schlieper Katherine, Graffam Michelle, Levine Stuart, Wishnok John, Swenberg James, Tannenbaum Steven, and Fox James. Arsenic Exposure Perturbs the Gut Microbiome and Its Metabolic Profile in Mice: An Integrated Metagenomics and Metabolomics Analysis. *Environmental Health Perspectives*, 2014, 122, 3, 284-291 (**Featured in Science Selection**)
33. **Lu Kun***, Mahbub Ridwan^A, Cable Peter, Ru Hongyu, Parry Nicola, Bodnar Wanda, Wishnok John, Styblo Miroslav, Swenberg James, Fox James, and Tannenbaum Steven. Gut Microbiome Phenotypes Driven by Host Genetics Affect Arsenic Metabolism. *Chemical Research in Toxicology*, 2014, 27, 2, 172-174
32. Nakamura Jun, Mutlu Esra, Sharma Vyom, Collins Leonard, Bodnar Wanda, Yu Rui, Lai Yongquan, Moeller Benjamin, **Lu Kun**, and Swenberg James. The Endogenous Exposome. *DNA Repair*, 2014, 19, 1, 3-13
31. **Lu Kun***, Cable Peter, Abo Ryan, Ru Hongyu, Graffam Michelle, Schlieper Katherine, Parry Nicola, Levine Stuart, Bodnar Wanda, Wishnok John, Styblo Miroslav, Swenberg James, Fox James, and Tannenbaum Steven. Gut Microbiome Perturbations Induced by Bacterial Infection Affect Arsenic Biotransformation. *Chemical Research in Toxicology*, 2013, 26, 12, 1893-903
30. Swenberg James, Moeller Benjamin, **Lu Kun**, Rager Julia, Fry Rebecca, and Starr Thomas. Formaldehyde Carcinogenicity Research: 30 Years and Counting for Mode of Action, Epidemiology, and Cancer Risk Assessment. *Toxicologic Pathology*, 2013, 41, 2, 181-189
29. Knutson Charles, Mangerich Aswin, Zeng Yu, Raczynski Arkadiusz, Liberman Rosa, Kang Pilsoo, Ye Wenjie, Prestwich Erin, **Lu Kun**, Wishnok John, Korzenik Joshua, Wogan Gerald, Fox James, Dedon Peter, and Tannenbaum Steven. Features of Innate Immunity Dominate Serum and Tissue Protein and Cytokine Profiles in Both Mouse and Human Inflammatory Bowel Disease. *Proceedings of the National Academy of Sciences of the United States of America*, 2013, 110, 26, E2332-41
28. Cui Liang, Lee YieHou, Kumar Yadunanda, Xu Fengguo, **Lu Kun**, OoiEngEong, Tannenbaum Steven, and Ong Choon Nam. Serum Metabolome and Lipidome Changes in Adult Patients with Primary Dengue Infection. *PLOS Neglected Tropical Diseases*, 2013, 7, 8, 1-13
27. **Lu Kun**, Knutson Charles, Wishnok John, Fox James, and Tannenbaum Steven. Serum Metabolomics in a Helicobacter Hepaticus Mouse Model of Inflammatory Bowel Disease Reveals Important Changes Originating in the Microbiome, Serum Peptides, and Intermediary Metabolism. *Journal of Proteome Research*, 2012, 11, 10, 4916-4926
26. **Lu Kun**, Craft Sessaly, Nakamura Jun, Moeller Benjamin, and Swenberg James. Use of LC-MS/MS and Stable Isotopes to Differentiate Hydroxymethyl and Methyl DNA Adducts from Formaldehyde and Nitrosodimethylamine. *Chemical Research in Toxicology*, 2012, 25, 3, 664-675 (**Featured In This Issue by the Editor**)
25. **Lu Kun**, Gul Husamettin, Upton Patricia, Moeller Benjamin, and Swenberg James. Formation of

Hydroxymethyl DNA Adducts in Rats Orally Exposed to Stable Isotope Labeled Methanol. *Toxicological Sciences*, 2012, 126, 1, 28-38

24. **Lu Kun**, Moeller Benjamin, Doyle-Eisele Melanie, McDonald Jacob, and Swenberg James. Molecular Dosimetry of *N*²-Hydroxymethyl-dG DNA Adducts in Rats Exposed to Formaldehyde. *Chemical Research in Toxicology*, 2011, 24, 2, 159-161 (**Featured In This Issue by the Editor**)

23. Swenberg James, **Lu Kun**, Moeller Benjamin, Gao Lina, Upton Patricia, Nakamura Jun, and Starr Thomas. Endogenous Versus Exogenous DNA Adducts: Their Role in Carcinogenesis, Epidemiology, and Risk Assessment. *Toxicological Sciences*, 2011, 120, 1, S130-S145

22. Moeller Benjamin, **Lu Kun**, Doyle-Eisele Melanie, McDonald Jacob, Gigliotti Andrew, and Swenberg James. Determination of *N*²-Hydroxymethyl-dG Adducts in the Nasal Epithelium and Bone Marrow of Nonhuman Primates Following ¹³CD₂-Formaldehyde Inhalation Exposure. *Chemical Research in Toxicology*, 2011, 24, 2, 162–164

21. **Lu Kun**, Moeller Benjamin, and Swenberg James. Further Considerations for the Implausibility of Leukemia Induction by Formaldehyde. *Toxicological Sciences*, 2011, 120, 1, 233

20. **Lu Kun**, Collins Leonard, Ru Hongyu, Bermudez Edilberto, and Swenberg James. Distribution of DNA Adducts Caused by Inhaled Formaldehyde is Consistent with Induction of Nasal Carcinoma but not Leukemia. *Toxicological Sciences*, 2010, 116, 2, 441-451 (**Highlighted by a Special Editor-in-Chief Commentary**)

19. **Lu Kun**, Ye Wenjie, Zhou Li, Collins Leonard, Chen Xian, Gold Avram, Ball Louise, and Swenberg James. Structural Characterization of Formaldehyde-Induced Cross-Links Between Amino Acids and Deoxynucleosides and Their Oligomers. *Journal of the American Chemical Society*, 2010, 132, 10, 3388-3399

18. **Lu Kun**, Ye Wenjie, Gold Avram, Ball Louise, and Swenberg James. The Formation of S-[1-(*N*²-Deoxyguanosinyl)Methyl]Glutathione Between Glutathione and DNA During the Detoxification of Formaldehyde. *Journal of the American Chemical Society*, 2009, 131, 10, 3414-3415

17. **Lu Kun**, Boysen Gunnar, Gao Lina, Collins Leonord, and Swenberg James. Formaldehyde-Induced Histone Modifications In Vitro. *Chemical Research in Toxicology*, 2008, 21, 8, 1586-1593

16. Li Qifang, **Lu Kun**, Yang Qingquan, and Jin Riguang. The Effect of Different Metallic Catalysts on the Coreaction of Cyanate/Epoxy. *Journal of Applied Polymer Science*, 2006, 100, 3, 2293-2302

15. Li Qifang, **Lu Kun**, Zhou Qing, Bai Doo Hyuan. A Study on Interfacial Mechanisms and Structure of Poly(ethylene-Co-Methacrylic Acid)/Copper with Reflection–Absorption Infrared Spectroscopy. *Journal of Materials Science*, 2006, 41, 24, 8271–8275

14. Zhao Junfeng, **Lu Kun**, and Li Qifang. Study on Properties of Acrylonitrile Butadiene Styrene (ABS)/LGF and ABS/LGF/SMA Composites. *Modern Plastics Processing and Applications*, 2004, 16, 2, 1-5

13. Jin Riguang, **Lu Kun**. The JRG-Fourth Statistics Scale on the Distribution Law of Biopolymer Element Active Centers in Chinese Medicine (ii): The Relationship Between the Distribution Law of Power Elements of Cardiovascular Chinese Medicines and the Sub-Cluster Parameters According to Atomic Number. *Journal of Beijing University of Chemical Technology*, 2003, 28, 1, 40-44

12. Li Qifang, **Lu Kun**, Jin Dongji, and Jin Riguang. Mechanical Properties and Morphology of Super

Tough Nylon-11. *Polymeric Materials Science and Engineering*, 2002, 18, 5, 181-184

11. Jin Riguang, **Lu Kun**. The JRG-Fourth Statistics Scale on the Distribution Law of Biopolymer Element Active Centers in Traditional Medicines (i): The Relationship Between the Distribution Law of Life Elements of Anticancer Chinese Traditional Medicine and the Sub-Cluster Parameters According to Atomic Numbers. *Journal of Beijing University of Chemical Technology*, 2002, 29, 6, 46-49

10. **Lu Kun**, Wang Xiaodong, Gao Yu, and Li Qifang. Research on the Performance of ABS/SAN/SMA Ternary Polymer. *Plastics Science and Technology*, 2002, 30, 4, 29-32

9. **Lu Kun**. Advance on Preparation on Microcellular Macromolecules and Related Theory. *Modern Plastics Processing and Applications*, 2002, 14, 4, 53-56

8. Gao Yu, **Lu Kun** and Li Qifang. The Research on Properties of ABS/SAN/PMMA Copolymer. *Synthetic Resins and Plastics*, 2002, 19, 1, 14-16

7. Li Qifang, Kim Dong Gil, Wu Dezhen, **Lu Kun** and Jin Riguang. Effect of Maleic Anhydride Graft Ratio on Mechanical Properties and Morphology of Nylon-11/Ethylene-Octene. *Polymer Engineering & Science*, 2001, 41, 2, 2155-2161

6. **Lu Kun**, Li Qifang, Tian Ming and Zhang Liqun. Blending Ratio and Property of Acrylonitrile Butadiene Styrene/Poly(Methyl Methacrylate). *Plastics Industry*, 2001, 29, 2, 32-33

5. Li Qifang, **Lu Kun**, Tian Ming and Zhang Liqun. Study on Properties of Acrylonitrile Butadiene Styrene (ABS)/Styrene Maleic Anhydride (SMA) and ABS/SMA/Poly(Methyl Methacrylate) (PMMA) Macromolecules. *China Plastics*, 2001, 16, 5, 35-37

4. **Lu Kun**, Li Qifang. Compatibility of Blends of Maleic Anhydride Grafted Macromolecules for Polyamide. *Plastics Science and Technology*, 2001, 29, 2, 18-21

3. **Lu Kun**, Li Qifang and Qiao Liyan. Study on the Property of Acrylonitrile Butadiene Styrene/Poly(Methyl Methacrylate). *Modern Plastics Processing and Applications*, 2001, 13, 3, 10-12

2. Gao Yu, **Lu Kun** and Li Qifang. The Effect of Maleic Anhydride Grafting Ratio of Polyolefin Elastomer on Toughness of PA11/POE/POE-G-MAH. *Modern Plastics Processing and Applications*, 2001, 13, 4, 8-10

1. **Lu Kun**. Physical and Chemical Mechanisms in Toughening Macromolecules. *Modern Plastics Processing and Applications*, 2000, 12, 4, 50-53

CONFERENCE ABSTRACTS AND POSTER PRESENTATIONS

* = Dr. Lu as the Corresponding author

A = Advisee

33. Tu Pengcheng^A, Bian Xiaoming^A, Chi Liang^A, Gao Bei^A, Ru Hongyu, Thomas J Knobloch, Christopher M. Weghorst, and **Lu Kun***. A Simple Approach to Modulate Mouse Gut Microbiome by Boosting Akkermansiamuciniphila with Dietary Black Raspberries. Microbiome. Consortium Conference, RTP, NC, May 2018

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32. Pengcheng Tu^A, Bei Gao^A, Liang Chi^A, Yunjia Lai^A, and **Kun Lu***. Subchronic Low-dose 2,4-D Exposure Changed Plasma Acylcarnitine Levels and Induced Gut Microbiome Perturbations in Mice. The 57th Annual Meeting of Society of Toxicology, San Antonio, TX, March 11-15, 2018
 31. Chi Liang^A, Xue Jingchuan^A, Tu Pengcheng^A, Lai Yunjia^A, Bian Xiaoming^A, Gao Bei^A, Ru Hongyu, and **Lu Kun***. The Gut Microbiome Affects the Arsenic Biotransformation and Liver toxicity in Mouse. The 57th Annual Meeting of Society of Toxicology, San Antonio, TX, March 11-15, 2018
 30. Awoniyi Mu, Y. Popov, **Lu Kun**, Lai Yunjia^A, Montgomery S and Sartor Balfour. Antibiotic Depletion Reveals Multifaceted Protective and Detrimental Effects of Resident Microbiota on Hepatobiliary Inflammation in a PSC Mouse Model, The American Association for the Study of Liver Diseases annual meeting, Washington DC, October 2017
 29. Sharma Vyom, **Lu Kun**, Walker J. Nigel, and Swenberg James. Understanding the formation and repair of PARP1-AP Cross-links on Exposure to PCBs, Fanconi Anemia Symposium, Atlanta, GA, October 2017
 28. Chi Liang^A, Bian Xiaoming^A, Gao Bei^A, Tu Pengcheng^A, and **Lu Kun***. The Artificial Sweetener Acesulfame Potassium Affects the Gut Microbiome and Body Weight Gain in CD-1 Mice. NC Microbiome Consortium Conference, RTP, NC, May 2017
 27. Tu Pengcheng^A, Bian Xiaoming^A, Chi Liang^A, Gao Bei^A and **Lu Kun***. Saccharin induced liver inflammation in mice by altering the gut microbiota and its metabolic functions. NC Microbiome Consortium Conference, RTP, NC, May 2017
 26. Chi Liang^A, Bian Xiaoming^A, Gao Bei^A, Tu Pengcheng^A, and **Lu Kun***. Arsenic exposure induces oxidative stress and DNA damage and perturbs the carbohydrate metabolism in gut microbiome. The 56th Annual Meeting of Society of Toxicology, Baltimore, MD, March 12-16, 2017
 25. Gao Bei^A, Chi Ling^A, Mahbub Ridwan^A, Bian Xiaoming^A, Tu Pengcheng^A, and **Lu Kun***. Multi-Omics Reveals Lead Exposure Disturbs Gut Microbiome Development, Key Metabolites and Metabolic Pathways. The 56th Annual Meeting of Society of Toxicology, Baltimore, MD, March 12-16, 2017
 24. Tu Pengcheng^A, Chi Liang^A, Xiaoming Bian^A, Gao Bei^A and **Lu Kun***. Profound Perturbation Induced By Triclosan Exposure In Mouse Gut Microbiome. MEDx-IBIEM Joint Symposium: Frontiers in Microbiome Dynamics and Engineering, Durham, NC, March 2017
 23. Chi Liang^A, Bian Xiaoming^A, Gao Bei^A, Tu Pengcheng^A, and **Lu Kun***. Arsenic exposure alters bacterial genes related to pathogenicity. MEDx-IBIEM Joint Symposium: Frontiers in Microbiome Dynamics and Engineering, Durham, NC, March 2017
 22. Gao Bei^A, Bian Xiaoming^A, Chi Liang^A, Tu Pengcheng^A, **Lu Kun***. Metagenomics Analysis Reveals Compound-Specific Impacts of Organophosphate Malathion and Carbamate Aldicarb on Gut Microbiome and its Functional Capacity. NIEHS Environmental Health Science FEST, Durham, NC, December 6-8, 2016
 21. Bian Xiaoming^A, Gao Bei^A, ChiLiang^A, Tu Pengcheng^A, Mahbub Ridwan^A, and **Lu Kun ***. Cadmium exposure perturbs the gut microbiome and its metabolic profile in mice. NIEHS Environmental Health Science FEST, Durham, NC, December 6-8, 2016

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20. Tu Pengcheng^A, Mahbub Ridwan^A, ChiLiang^A, Bian Xiaoming^A, Gao Bei^A, and **Lu Kun** *. Effects of Nicotine on the Gut Microbiome and Its Metabolic Functions. NIEHS Environmental Health Science FEST, Durham, NC, December 6-8, 2016
 19. ChiLiang^A, Bian Xiaoming^A, Gao Bei^A, Tu Pengcheng^A, and **Lu Kun** *. Arsenic exposure increases pathogenicity of gut bacteria. NIEHS Environmental Health Science FEST, Durham, NC, December 6-8, 2016
 18. Gao Bei^A, Bian X^A, Chi L^A, Tu P^A, and **Lu Kun** *. Metatranscriptomics Reveals Functional Effects of Diazinon Exposure on Gut Microbiome. The 252nd American Chemical Society National Meeting, Philadelphia, PA, August 21-25, 2016
 17. Bian Xiaoming^A, Gao Bei^A, Chi Liang^A, Mahbub Ridwan^A, and **Lu Kun** *. Gut microbiome and metabolome response to artificial sweeteners, The 252nd American Chemical Society National Meeting, Philadelphia, PA, August 21-25, 2016
 16. Tu Pengcheng^A, Chi Liang^A, Mahbub Ridwan^A, Gao Bei^A and **Lu Kun** *. The effects of nicotine on the gut microbiome and its metabolic functions, The 252nd American Chemical Society National Meeting, Philadelphia, PA, August 21-25, 2016
 15. Chi Liang^A, Bian Xiaoming^A, Gao Bei^A, Tu Pengcheng^A, and **Lu Kun** *. Gender-specific effects of arsenic on the trajectories of gut microbiome and its function, The 252nd American Chemical Society National Meeting, Philadelphia, PA, August 21-25, 2016
 14. Amosu Mayowa, Wallace Shelley, Majumder Anirban, Bian Xiaoming^A, **Lu Kun**, Stice Steven, and Smith Mary Alice. Comparison of Human Neural Progenitor and Differentiated Human Neuronal Cells for In Vitro Tests of Neurotoxicity, Birth Defects Research Part A-Clinical and Molecular Teratology. 2015, 103, 5, 432-432, The 55th Teratology Annual Meeting, Montréal, Canada, June 2015
 13. Smith Mary Alice, Amosu Mayowa, Bian Xiaoming^A, **Lu Kun**, Stice Steven, Henderson William, Wallace Shelley, and Majumder Anirban. Using Human-Derived Neural Cells As an In Vitro Model for Developmental Neurotoxicity following Exposure to Pesticides. The 54th Annual Meeting of Society of Toxicology, San Diego, CA, March 2015
 12. Gao Bei^A, Bian Xiaoming^A, Mahbub Ridwan^A, and **Lu Kun** *. Effects of Organophosphate Diazinon on the Gut Microbiome and its Function. The 250th National Meeting of American Chemical Society, Boston, MA, August 2015
 11. Bian Xiaoming^A, Smith Mary Alice, Amosu Mayowa, Stice Steven, Henderson William, Wallace Shelley and **Lu Kun** *. Metabolomics- and Human Neural Stem Cells-Based Assays for Toxicity Test. The 250th National Meeting of American Chemical Society, Boston, MA, August 2015
 10. **Lu Kun**, Moeller Benjamin, Doyle-Eisele Melanie, McDonald Jacob, and Swenberg James. Molecular Dosimetry and Half Life of *N*²-Hydroxymethyl-dG DNA Adducts in Rats Exposed to Formaldehyde. The 50th Annual Meeting of Society of Toxicology, Washington, DC, March 2011
 9. Gul Husamettin, **Lu Kun**, Upton Pat and Swenberg James. Formaldehyde-Induced Hydroxymethyl DNA Adducts in Rats Exposed to Isotope Labeled Methanol. The 50th Annual Meeting of Society of Toxicology, Washington, DC, March 2011
 8. Moeller Benjamin, **Lu Kun**, Doyle-Eisele Melanie, McDonald Jacob, Gigliotti Andrew, and Swenberg James. Molecular Dosimetry of *N*²-Hydroxymethyl-dG Adducts Following Formaldehyde Exposure to

Non-Human Primates. The 50th Annual Meeting of Society of Toxicology, Washington, DC, March 2011

7. **Lu Kun**, Ye Wenjie, Gold Avram, Ball Louise, and Swenberg James. Structural Characterization of Formaldehyde-Induced DNA-Protein Cross-Links. The 240th National Meeting of American Chemical Society, Boston, MA, August 2010
6. **Lu Kun**, Collins Leonard, Ru Hongyu, Bermudez Edilberto, and Swenberg James. Distribution and Molecular Dose of Inhalation-Derived and Endogenous DNA Adducts Support Causation of Nasal Carcinoma but not Leukemia. The 49th Annual Meeting of Society of Toxicology, Salt Lake City, UT, March 2010
5. **Lu Kun**, Ye Wenjie, Gold Avram, Ball Louise, and Swenberg James. Identification of Glutathione-DNA Adducts Induced by Formaldehyde. The 48th Annual Meeting of Society of Toxicology, Baltimore, MD, March 2009
4. **Lu Kun**, Ye Wenjie, Zhou Li, Collins Leonard, Chen Xian, and Swenberg James. Structure Elucidation of Formaldehyde-Induced DNA-Protein Cross-Links by Mass Spectrometry and NMR. The 56th Annual Meeting of American Society of Mass Spectrometry, Denver, CO, June 2008
3. **Lu Kun**, Ye Wenjie, Zhou Li, Gold Avram, Ball Louise, Chen Xian, and Swenberg James. Analysis of Formaldehyde Induced Lysine-Deoxyguanosine Cross-Links by Mass Spectrometry. The 238th National Meeting of American Chemical Society, Philadelphia, PA, August 2008
2. **Lu Kun**, Boysen Gunnar, Gao Lina, Collins Leonard, and Swenberg James. Identification of Formaldehyde Induced Histone Modifications *In Vitro* by Mass Spectrometry. The 55th Annual Meeting of American Society of Mass Spectrometry, Indianapolis, IN, June 2007
1. **Lu Kun**, Petrotchenko Evgeniy, and Borchers Christoph. Cross-Linking and Mass Spectrometry for Identifying Protein-Protein Interaction Sites in Activator-Multi-Component Protein Complexes. The 54th Annual Meeting of American Society of Mass Spectrometry, Seattle, WA, June 2006

INVITED TALKS

30. Advances in Stable Isotope Labeling and Mass Spectrometry (SILMS) Technology and Use for Characterizing Molecular Dosimetry for Potential Molecular Targets in Target Organs, Alliance for Risk Assessment, Washington DC, Feb 2022
31. Dose response and risk assessment using endogenous and exogenous DNA adduct, American Chemistry Council, April 2021
29. Decipher Signaling Molecules of Gut Microbiome Toxicity: Mechanism, Biomarker, and Intervention, Workshop on Impact of environmental exposures on the microbiome and human health, NIEHS, February 2021
28. DNA adducts and its risk assessment in formaldehyde carcinogenicity, Society of Risk Analysis, May 2020
27. *Effects of Heavy Metals on the Gut Microbiome*. National Academy of Science Microbiome Symposium, Environmental and Health: What's the Human Microbiome Have to Do With It? Washington, DC, January 2016

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26. Functional interaction of arsenic and gut microbiome. Annual ONES meeting at the NIEHS, RTP, NC, May 2018
 25. *Artificial sweeteners, gut microbiome and host metabolism*. Center for Gastrointestinal Biology and Disease, Chapel Hill, NC, November 2017
 24. *Mass spectrometry based less-invasive biomarker development for inflammatory bowel diseases*, Center for Gastrointestinal Biology and Disease, Chapel Hill, NC, June 2017
 23. *The gut microbiome toxicity and omics approaches*. The Bortree Lecture, Center of Molecular Toxicology and Carcinogenesis Pennsylvania State University, State College, PA, February, 2017
 22. *Multi-omics to study the microbiome toxicity induced by environmental chemicals*. The NIEHS Environmental Health Science FEST, RTP, NC, December 2016
 21. *The gut microbiome toxicity induced by heavy metals*. The 10th Metal Toxicity and Carcinogenesis Meeting, Lexington, KY, October 2016
 20. *Gut microbiome, arsenic biotransformation and toxicity*. International Congress of Toxicology, Merida, Mexico, October 2016
 19. *Interactions between Environmental Exposure and Gut Microbiome: From 16S to Functional Characterization*. UGA Microbiome Seminar Serials, Athens, GA, March 2016
 18. *Use of Animal Models Infected with Helicobacter Spp. to Study Chronic Inflammation and Metal Toxicity*. Department of Infectious Diseases, College of Veterinary Medicine, UGA, February 2016
 17. *The Role of Gut Microbiome in Chemical Toxicity*. The 245th National Meeting of American Chemical Society, Boston, MA, August 2015
 16. *Biomarker Discovery of Inflammatory Bowel Diseases*. The Exposome and Systems Biology Workshop. Georgia Tech, Atlanta, GA, May 2015
 15. *Biomarker Discovery: From 1 to 1000s Molecules*. College of Public Health, Ohio State University, Columbus, OH, May 2015
 14. *System-Level Approach to Study the Gut Inflammation*. Department of Pharmaceutical Science, University of Colorado, CO, February 2015
 13. *Arsenic Exposure and Gut Microbiome for Toxicity and Individual Response*. The 244th National Meeting of American Chemical Society, San Francisco, CA, August 2014
 12. *Functional Interaction between Gut Microbiome and Arsenic Exposure*. NIEHS Superfund Arsenic Workshop, Expert Panel, RTP, NC, March 2014
 11. *The Effects of Gut Microbiome in Obesity and Potential Roles of Chemical Exposure on the Gut Microbiome*. UGA Obesity Initiative, Athens, GA, January 2014
 10. *Modulation of Arsenic Toxicity in Animals with Different Gut Microbiome Phenotypes*. UGA Department of Animal and Dietary Science, Athens, GA, November 2013
 9. *The Role of Gut Microbiome in Environmental Exposure and Human Disease*. UGA Department of Pharmacology and Physiology, Athens, GA, October 2013
 8. *Omics-Based Biomarker Discovery for Inflammatory Bowel Disease: From Animal Models to Patients*.

The 242nd National Meeting of American Chemical Society, Philadelphia, PA, August 2012

7. *Integration of Targeted and System-Level Approaches to Understand Environmental Exposure and Human Disease*. Superfund Research Program Seminar, Brown University, Providence, RI, February 2012
6. *Biomarker Discovery for Evaluating Chemical Exposure and Human Disease*. Department of Environmental Health Science, University of Massachusetts, Amherst, MA, January 2012
5. *Structural Characterization of Formaldehyde-Induced DNA-Protein Cross-Links*. The 240th National Meeting of American Chemical Society, Boston, MA, August 2010
4. *Analysis of Formaldehyde-induced DNA and Protein Damage*. The National Institute of Environmental Health Sciences, Research Triangle Park, NC, July 2010
3. *Quantitative Biomarkers to Understand Formaldehyde Genotoxicity*. Massachusetts Institute of Technology, Boston, MA, May 2010
2. *Molecular Binding of Formaldehyde to DNA and Protein and its Application in Risk Assessment*. Vanderbilt University, Nashville, TN, April 2010
1. *Identification of a Novel Formaldehyde-induced Glutathione-DNA Adduct*. The 48th Annual Meeting of Society of Toxicology, Baltimore, MD, March 2008

TEACHING ACTIVITIES

Detailed Record of Courses taught

Semester	Course#	Title	Credit hours	Role	Student enrolled
2022 Spring	ENVR/TOXI 707	Advanced Toxicology	3	Director	11
2021 Fall	ENVR/430	Health effects of environmental agents	3	Instructor	36
2020 Spring	ENVR/TOXI 707	Advanced Toxicology	3	Director	13
2020 Spring	ENVR/TOXI 707	Advanced Toxicology	3	Director	7
2019 Spring	ENVR/TOXI 707	Advanced Toxicology	3	Director	9
2018 Spring	ENVR/TOXI 707	Advanced Toxicology	3	Co-director	6
2017 Fall	ENVR 430	Health effects of environmental agents	3	Instructor	38
	TOXI 442	Biochemical and Molecular Toxicology	3	Co-Instructor (2 lectures)	10
	ENVR 630	Systems Biology in Environmental Health	3	Guest lecturer (1 lecture)	14
2017 Spring	ENVR 400	In house seminar series	1	Guest lecturer	-
2016 Fall	TOXI 442	Biochemical and Molecular Toxicology	3	Co-Instructor (1 lecture)	12
	ENVR 630	Systems Biology in Environmental Health	3	Guest lecturer (2 lectures)	15

2016 Spring	EHSC 8650	Advanced Environmental Chemistry	4	Instructor	7
	EHSC 8800	Special Problems in Environmental Health Sciences	3	Instructor	1
2015 Fall	EHSC4350/4350L	Environmental Chemistry	4	Instructor	11
	EHSC 8010	Advanced topics in Environmental Health Sciences	3	Co-instructor (1 of 4)	6
2015 Spring	EHSC 7010	Fundamentals of Environmental Health Science	3	Guest lecturer (1 lecture)	40
	EHSC 8800	Special Problems in Environmental Health Sciences	3	Instructor	1
	EHSC 8110	Fundamentals of Chemical and Microbial Risk Assessment	3	Co-Instructor (1 of 4)	18
2014 Fall	EHSC 8800	Special Problems in Environmental Health Sciences	3	Instructor	2
	EHSC 4350/6350 4350L/6350L	Environmental Chemistry and Lab	4	Instructor	10
2014 Spring	EHSC 8800	Special Problems in Environmental Health Sciences	3	Instructor	3
	EHSC 4960	Undergraduate Research in Biology	4	Instructor	1
	EHSC 7010	Fundamentals of Environmental Health Science	3	Guest lecturer	45
	EHSC 8020	Advanced topics in Environmental Health Sciences II	3	Co-instructor (1 of 4)	10
2013 Fall	EHSC4350/6350	Environmental Chemistry	3	Instructor	11
	EHSC 2020	Orientation to Environmental Health Science	1	Guest lecturer (1 lecture)	25
2012 Fall	EHSC 2020	Orientation to Environmental Health Science	1	Guest lecturer (1 lecture)	22

Major courses at UGA received an average score of 4.69/5.0 in student evaluations (5.0 is the best).

ADVISING ACTIVITIES

I have advised 20 trainees, including 6 PhD students, 5 Master's student, 6 undergraduate students, 3 post-doctoral researchers, and 1 visiting student. I have also served in 11 student committees of other research groups.

A. Ph.D or Master Students with me as the Advisor

Current (three PhD students)*

- Greg Johnson, PhD students, UNC-CH, ESE, 2021-present

Dissertation title: Development of new exposome mapping approaches to detect and measure environmental chemicals

- Yifei Yang, PhD students, UNC-CH, ESE, 2019-present

Dissertation title: The interaction of arsenic exposure, gut microbiome and FXR signaling in diabetes

- Yun-Chong Hsia, Master students, UNC-CH, ESE, 2019-present

Thesis title: The impact of gut microbiome on the formation of DNA adducts

*2 new PhD and 1 master student will join in the Fall 2022

Graduated (two PhD students, one master student)

- Yunjia Lai, PhD students, UNC-CH, ESE, 2017-2021

Dissertation title: Development of exposome mapping approaches to study microbiome-exposure interaction and human diseases

- Xia Sheng, Master students, UNC-CH, ESE, 2019-2021

Thesis title: The effects of heavy metal exposure on the gut microbiome

- Yu Hong Shu, Master students, UNC-CH, ESE, 2019-2021

Thesis title: Development of protein biomarker of formaldehyde exposure

- Chi Liang, PhD student, UNC-CH, ESE, 2015-2020

Dissertation title: Decipher the functional interaction between arsenic exposure and the gut microbiome

- Gao Bei, PhD student, UGA, Environmental Health Science, graduated December 2016

Dissertation title: Understanding the role of gut microbiome in pesticide-induced toxicity

- Bian Xiaoming, PhD student, UGA, Environmental Health Science, graduated April 2017

Dissertation title: Effects of artificial sweeteners on gut microbiome, metabolome and inflammation

- Mahbub Ridwan, MS student, UGA, Environmental Health Science, graduated May 2015

Thesis title: The effects of nicotine on the gut microbiome and the serum metabolic profile of mice

- Tu Pengcheng, PhD student, UNC-CH, ESE, 2019

Dissertation title: Development of microbiome-based intervention methods to reduce toxicity of environmental chemicals

B. Ph.D or Master Students with me as a Committee Member

Current

- Lauren Koval, PhD student, UNC-CH, ESE, 2022-present

- Anastasia Freedman, PhD student, UNC-CH ESE, 2021-present

- Jennifer N. Style, PhD student, UNC-CH, ESE, 2018-present

Dissertation: Residential, outdoor air microbiom

- Elise Hickman, PhD student, UNC-CH, Toxicology, 2018-present

Dissertation: e-cigarettes, inflammatory responses and nasal microbiome

Completed

- Alyssa Grube, PhD student, UNC-CH, ESE, Defense in 2021
- Celeste K. Carberry, BSPH-ENHS, UNC-CH ESE, Defense in 2020
- Avula Vennela, ENHS, UNC-CH ESE, Defense in 2020
- Pati Sumitra, PhD student, UGA, Pharmaceutical and Biomedical Science, 2013-2018
Dissertation: Cocaine-induced lipidomics alterations for the study of addictive behaviors
- Paige Bommarito, PhD student, UNC-CH, ESE, 2017-2019
Dissertation: Cadmium exposure, microRNA signaling and preeclampsia
- Martha Scott Tomlinson, PhD student, UNC-CH, ESE, 2017-2019
Dissertation: Extremely low gestational age newborns (ELGAN) study, bacteria in the placenta and epigenetic modifications
- Jennifer Griggs, PhD student, UNC-CH, ESE, 2017-2020
Dissertation: Bioaccessibility of arsenic from different types of contaminated soils
- Zhenyu Tian, PhD student, UNC-CH, ESE, 2017
Dissertation: Structural characterization and toxicity of degradation products of PHA in soil
- Sloane Tilley, Master Student, UNC-CH, ESE, 2017
Thesis: Analysis of Bladder Cancer Tumor CpG Methylation and Gene Expression within The Cancer Genome Atlas Identifies GRIA1 as a Prognostic Biomarker for Basal-Like Bladder Cancer
- Lee Sun Hye, PhD student, UGA, Nutrition, 2013-2017
Dissertation title: Preserving the intestinal epithelial barrier against inflammation
- Li Jiaojiao, PhD student, UGA, Molecular Biology, Florida International University, 2013-2017
Dissertation title: The effects of hAS3MT genetic polymorphisms on arsenic biomethylation
- Wang Jincheng, PhD student, UGA, Toxicology, 2012-2016
Dissertation title: Interaction between the microbiome and aflatoxin/green tea polyphenols
- Myer Mark, MS student, UGA, Environmental Health Science, 2013-2015
Thesis title: Effects of multi walled carbon nanotubes and sediment on the toxicity and bioavailability of diphenhydramine
- Chan Monica, MS student, UGA, Environmental Health Science, 2014-2016
Thesis title: Prevalence and location of Cronobacter species and Enterobacteriaceae in households

C. Undergraduate Students

- Amy Cheng, UNC, Environmental Sciences and Engineering, Undergraduate Honor thesis, 2022
Project title: Arsenic exposure on the microbiome and metabolic profiles
- Cao Fang, UNC, Environmental Sciences and Engineering, Undergraduate Honor thesis, 2019
Project title: Exposomic analysis of amniotic fluid of pre-term birth patients using high resolution Orbitrap mass spectrometry
- Kim Erica, UGA, Environmental Health Science, Undergraduate Research, 2014

Project title: Evaluate the effects of ergothioneine on modulating the DNA oxidation products using LC-MS

- Crider Robert, UGA, Environmental Health Science, Summer Research, 2015
Project title: Characterization of pesticide-induced metabolic perturbation in C57/BL6 mice by mass spectrometry
- Min Andreana, UGA, Biology, Undergraduate Research, 2014
Project title: Analysis of oxidative stress biomarkers in urine of mice exposed to arsenic in drinking water

D. Post-doctoral Researchers

- Jingchuan Xue, Postdoctoral Associate, UNC-CH, ESE, 2017-present
Project title: Development of mass spectrometry based exposome mapping methods for drugs and emerging environmental contaminants.
- Chih-Wei Liu, Postdoctoral Associate, UNC-CH, ESE, 2017-present
Project title: Development of high-resolution mass spectrometry based metaproteomics and pipeline to analyze the functional changes of the gut microbiome.
- Jiapeng Leng, Postdoctoral Associate, UNC-CH, ESE, 2017-2018
Project title: Formaldehyde-induced DNA adducts and DNA-protein crosslinks in rats exposed to low doses of formaldehyde.

E. Visiting Students

- Fei Ding, Chemistry, visiting PhD student, Chinese Agriculture University, 2012
Project title: Use of mass spectrometry to identify and characterize protein modifications induced by lipid peroxidation and oxidative stress.

E. Academic Advising

- I regularly provided academic advising for undergraduate students (~6 students per semester) at UGA.

RESEARCH GRANTS

Ongoing Research Support

1. RO3, NIH/NIEHS

8/2020-7/2022

Title: The gut microbiome and glyphosate neurotoxicity

Description: Study how glyphosate alters the gut microbiome and how altered gut microbiome contributes to neurotoxicity

Role: PI

2.P42, NIH/NIEHS

02/2020–1/2025

Title: UNC Superfund Research Program

Description: This programs investigates the effects of arsenic on diabetes using animal models and human population samples.

Role: Project Leader for the Project 3 and Chemistry Analytical Core (CAC)

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- 3.UNC Center for Early Life Exposures And Neurotoxicity (UNC CLEAN) 07/2021-06/2025
Title: EPA UNC CLEAN
Description: provide new knowledge on the role of early life phthalate exposures on neurobehavioral development
Role: Co-PI of Project 1
4. 1R01ES033518-01 08/2021-07/2026
Title: Early Life Phthalate Exposures in Relation to Structural and Functional Brain Development
Description: To examine the functional relationship between phthalate exposure and brain development using an existing and new cohort.
Role: Investigator
- 5.P30ES010126 06/2021-01/2026
Title: UNC Center for Environmental Health Susceptibility
Description: The theme of the UNC Center for Environmental Health and Susceptibility (UNC-CEHS) is translating interdisciplinary research on environmental health threats to improve public health in North Carolina.
Role: Director of Molecular Analysis Facility Core
6. UH3/NIH 08/2018-07/2023
Title: Environment, Epigenetics, Neurodevelopment & Health of Extremely Preterm Children
Description: The over-arching hypothesis of the study to be addressed is that prenatal exposures can initiate early life inflammation, thus increasing the risk of neurodevelopmental impairments.
Role: Investigator
- 7.R35ES028366/NIH 07/2019-06/2027
Title: Environmental-use chemicals that target pathways linked to autism and other neurodevelopmental disorders
Description: Use of mass spectrometry to measure pesticides and their metabolites in urine of mice and human samples.
Role: Investigator
- 8.P01/NIH/NIDDK 09/2019-08/2024
Title: Identifying microbial, epithelia and immune cell interactions that mediate mucosal homeostasis and determine IBD phenotypes
Description: Use of mass spectrometry to measure metabolite profiles in mouse models with different disease phenotypes
Role: Investigator
- 9.CEHS Pilot Grant 01/2020-07/2022
Title: Identify chemicals that lead to neurological diseases
Description: to measure chemical induced protein damage using proteomic approach
Role: Investigator
10. Leona M and Harry B Helmsley Charitable Trust 12/2020-11/2023
Title: Genomic and Microbial Signatures Predict Post-Operative Crohn's Disease Outcomes
Description: to discover new markers for individual outcomes of CD.

Role: Investigator

Selected Completed Research Grants

1. P01, NIH Grompe, PI 06/2016-05/2021
Title: Pathophysiology and Treatment of Fanconi Anemia
Description: Use of mass spectrometry to measure the changes of DNA adductome in children with Fanconi Anemia, who are treated with novel therapeutic drugs.
Role: PI of UNC subcontract
2. RO1, NIH/NIEHS Lu, PI 11/2015-11/2020
Title: Functional interactions between the gut microbiome and arsenic exposure
Description: Study how arsenic alters the gut microbiome gut microbiome-arsenic interaction impacts host metabolism.
Role: PI
- 3.R43NS107067/NIH Vitek, PI 11/2018-08/2020
Title: Novel Therapy for Huntington's Disease
Description: Examination of major metabolites in the mouse model of Huntington's Disease
Role: PI of the UNC Sub-contract
- 4.RO1-S1, NIH (Lu, PI) 09/2016-12/2017
Title: Functional interaction between the gut microbiome and arsenic exposure Administrative Supplement
Description: The supplement will examine the role of sex in gut microbiome response to arsenic exposure using animal models.
Role: PI
5. CEHS Interdisciplinary Pilot Grant (Redinbo, PI) 06/2017-07/2018
Title: Alleviating environmental toxin damage via the gut microbiota
Description: Using metabolomics to understand how gut bacterial enzyme inhibition reduces cancer incidence and progression
Role: Co-I
6. Center for Human Health and the Environment Pilot Grant (Lu, Co-PI) 06/2017-07/2018
Title: Exposome mapping in inflammatory bowel disease
Description: Develop analytical and statistical method to map exposome in human inflammatory bowel disease patients.
Role: Co-PI
7. IBM Junior Faculty Development Award, UNC (Lu, PI) 01/2017-12/2017
Title: IBM Junior Faculty Development Award
Description: Study the effects of pesticides on the gut microbiome, its development trajectory and neurotoxicity
Role: PI
- 8.CEHS Pilot Grant (Lu, PI) 09/2016-09/2017
Title: Interaction between infectious disease and environmental exposure
Description: Study the impact of bacterial infection on the liver toxicity of arsenic exposure in mice.
Role: PI

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- 9.RO3, NIH (Lu, PI) 06/2014-06/2016
Title: Biomarker of formaldehyde based on DNA-protein cross-links
Description: Develop novel biomarkers of formaldehyde exposure based on proteins cross-linked with DNA using highly sensitive mass spectrometry.
Role: PI
- 10.STAR Grant, EPA (Stice, PI) 10/2013-10/2016
Title: Neural stem cell adverse outcome pathways for endocrine disrupting chemicals (EDCs)
Description: Development of GC-MS-based metabolomics approach to examine the toxicity of EDCs in neural stem cell *in vitro* assays,
Role: Co-I
- 11.SBIR R43 Grant, NIH (Smith, PI) 06/2014-06/2015
Title: Metabolic assays utilizing neurodevelopmental cells derived from human pluripotent stem cells
Description: Developing mass spectrometry-based metabolomics for neurotoxicity test using stem cells
Role: Co-I
- 12.FRG Grant, UGARF (Lu, PI) 07/2013-06/2015
Title: Characterization of chemical-induced perturbations in the gut microbiome and its functions
Description: Examine the effects of a number of important environmental chemicals on the gut microbiome profiles and metabolic functions.
Role: PI
- 13.CPH Grant, UGA (Lu, PI) 01/2013-01/2014
Title: The effects of arsenic exposure on the gut microbiome and its functions
Description: Examine the time- and dose-dependent effects of arsenic in drinking water on the gut microbiome community structures.
Role: PI
- 14.Pilot Grant of MIT CEHS Center Grant (P30), NIH (Tannenbaum, Fox, Lu, PI) 02/2012-02/2013
Title: Functional interactions between gut microbiome and arsenic exposure
Description: Using 16S sequencing, metabolomics and arsenic speciation to investigate the functional interaction between arsenic exposure and gut microbiome in C57BL/6 mice.
Role: Co-PI
15. Gusto Global research grant Sartor, PI 12/2018-3/2019
Title: The effects of GUT-103 bacteria on treating T-cell mediated colitis in IL-10 deficient gnotobiotic mice
Description: This study will use both targeted and global metabolomics to investigate the effects of 13 gut bacteria on altering key signaling molecules of gut microbiome-host interaction.
Role: PI of UNC subcontract on metabolomics
16. Interdisciplinary grant of CEHS, NIH Styblo, PI 04/2018-03/2019
Title: Susceptibility to arsenic-induced diabetes: The role of As3mt polymorphisms and the microbiome
Description: Study how genetics and microbiome variation contribute to arsenic-induced diabetes
Role: Investigator

PROFESSIONAL SERVICES

1. National or International (other than grant reviewing)

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- Guest editor, the special issue on biomarker of environmental toxicants, Toxics Editorial Office, Switzerland, 2017
 - *Environmental Chemicals, the Human Microbiome, and Health Risk: A Research Strategy*, joint effort of the US EPA, NIEHS and National Academies of Sciences, Engineering and Medicine, 2017 (serve to review the report)
 - National Academy of Science Microbiome Symposium, *Environmental and Health: What's the Human Microbiome Have to Do With It?* Washington DC, 2016 (serve as keynote speaker and panelist)
 - American Chemical Society, 256th National Conference, Division of Chemical Research in Toxicology, Section Chair, Boston, MA, 2015
 - National Institute of Environmental Health Science workshop on health effects of arsenic, RTP, NC, 2014 (serve as expert panelist on microbiome)

2. National or International (grant review panels)

- 2018 Review panel for career development K grants, NIH/NIEHS
- 2018 Review panel for small business grants, NIH/CSR
- 2018 Review panel for SIEE study section, NIH/CSR
- 2018 Review panel for ONES grants, NIH/NIEHS
- 2017 Review panel for R13 grants, NIH/NIEHS
- 2017 PAR Review Panel: DNA Adducts, NIH/CSR
- 2017 Review panel for career development K grants, NIH/NIEHS
- 2017 PAR Review Panel: DNA Adducts, NIH/CSR
- 2017 COBRE Review Panel, NIH/NIGMS
- 2017 PAR Review Panel: Fogarty Global Brain Disorders, NIH/CSR
- 2017 Review Panel of Outstanding New Environmental Scientist Award, NIH/NIEHS
- 2017 Review Panel ViCTER, NIH/NIEHS
- 2017 External grant reviewer for the Hong Kong Baptist University
- 2016 External grant reviewer for the Swiss Federal Institute of Technology, Switzerland
- 2016 Review Panel of Outstanding New Environmental Scientist Award, NIH/NIEHS
- 2016 Superfund Project Review Panel, NIH/NIEHS
- 2016 COBRE Review Panel, NIH/NIGMS
- 2015 Review Panel of Outstanding New Environmental Scientist Award, NIH/NIEHS
- 2015 Superfund Project Review Panel, NIH/NIEHS
- 2013 Superfund Project Review Panel, NIH/NIEHS
- 2013 External Grant Reviewer for the New York University CEHS

3. School or University

- University Library Committee at UGA (2016)
- UGA Microbiome Initiative (2015-2016)
- UGA Obesity Initiative (2013-2016)
- The Diversity Committee, College of Public Health, UGA (2014-2015)

4. Department

- Departmental Graduate Admission Committee, ESE, UNC (2018-present)
- Departmental Graduate Admission Committee, EHS, UGA (2013-2016)
- Departmental Faculty Search Committee, EHS, UGA (2013)

5. Regular reviewers for over 30 journals, including:

Nature Communication, Environmental Health Perspectives, Nanotoxicology, Toxicology Letter, Toxicology in vitro, Molecular Biosystems, Toxicology, Toxicology and Applied Pharmacology, Mutagenesis, Cancer Research, Carcinogenesis, Chemical Biology Interaction, Rapid Communications in Mass Spectrometry, PLOS ONE, Vaccine, PLOS genetics, Anaerobe, Chemical Research in Toxicology, Toxicological Sciences, Environmental Microbiology, Archives of Toxicology, Microbiome, Water Research, Environmental Science and Technology, etc.