

Curriculum Vitae

Zhigang Li

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WORKING ADDRESS

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Gainesville, FL 32611

METHODOLOGICAL RESEARCH INTERESTS: Causal mediation analysis, microbiome data analysis, machine learning, high-dimensional data analysis, compositional data analysis, zero-inflated data analysis and hierarchical data analysis, joint modeling of longitudinal and survival data, longitudinal/correlated data analysis.

APPLICATION AND COLLABORATIVE RESEARCH INTERESTS: I am and have collaborated with investigators from many areas including Neurology (AD, Dementia), infectious disease, Epidemiology, Clinical Trials, Children's Health Research, Environmental Health Research, Palliative Care Research, Cancer Research, Nursing Research, End-of-Life Research, Pediatrics, Dentistry, Bioengineering, etc.

EDUCATION

Columbia University, Mailman School of Public Health, New York, NY
Ph.D. in Biostatistics, Department of Biostatistics, 09/2010
Supervisor: Dr. Ian W. McKeague

Auburn University, College of Sciences and Mathematics, Auburn, AL
Master in Statistics, Department of Mathematics and Statistics, 06/2006

Nankai University, School of Mathematical Sciences, Tianjin, China
M.S. in Probability Theory, 06/2004
B.S. in Mathematics (gifted class in mathematics), 06/2001

PROFESSIONAL POSITIONS

Associate professor, 08/2018-present
With tenure since 07/2022
Department of Biostatistics, University of Florida, FL

Affiliated Member, 2018-present
UF Health Cancer Center, University of Florida, FL

Adjunct associate professor, 08/2018-present
Geisel School of Medicine at Dartmouth, NH

Associate professor (tenure track), 02/2018-07/2018
Department of Biomedical Data Science, Geisel School of Medicine at Dartmouth, NH
Department of Epidemiology, Geisel School of Medicine at Dartmouth, NH
Department of Community and Family Medicine, Geisel School of Medicine at Dartmouth, NH

Assistant professor (tenure track), 09/2010-01/2018
Department of Biomedical Data Science (2015-2018), Geisel School of Medicine at Dartmouth, NH

Department of Epidemiology (2017-2018), Geisel School of Medicine at Dartmouth, NH
Department of Community and Family Medicine, Geisel School of Medicine at Dartmouth, NH

Biostatistician, 09/2010-07/2018

Children's Environmental Health and Disease Prevention Research Center at Dartmouth, Hanover, NH

Member, 09/2011-2018

Norris Cotton Cancer Center, Geisel School of Medicine at Dartmouth, NH

Biostatistician, 05/2007-06/2010

Columbia Center for Children's Environmental Health, Columbia University, NY

Teaching assistant, 09/2006-09/2007

Department of Biostatistics, Columbia University, NY

Teaching assistant, 08/2004-05/2005, Instructor, 06/2005-06/2006

Department of Mathematics and Statistics, Auburn University, AL

EDITORIAL BOARD

2024-present Associate editor for *Journal of Alzheimer's Disease*

2013-2022 Associate editor for *BioData Mining*

2013-2020 Associate editor for *Frontiers in Public Health*

2022-2023 Associate editor for *Frontiers in Genetics*

2019-2022 Associate editor for *Surgery*

GRANT REVIEW

2015, 2016 Cancer Center Developmental Funds, Norris Cotton Cancer Center, NH

2017 The PRESTIGE post-doc fellowship program, Campus France

2016, 2017 Laura and John Arnold Foundation, Houston, Texas

2018,2019 NIH ECHO Opportunities and Infrastructure Fund review panel

2018 NIH Special Emphasis Panel ZHL1 CSR-R (F3)

2019 Natural Sciences and Engineering Research Council of Canada

2019 UF Health Cancer Center CPS_CTHR Collaborative Pilot Program, University of Florida, FL

2019 Hitchcock foundation grant review, NH

2019 Department of Defense PSAAD grant review panel, DC

02/2020 Department of Defense PHP-2 grant review panel

07/2020 NIH Special Emphasis Panel ZDK1 GRB-G (O4)

07/2021 NIH Special Emphasis Panel ZHL1 CSR-A (O2)

01/2021 Department of Defense TRP grant review panel

03/2022 NIH IRAP Study Section: Infectious Diseases, Reproductive Health, Asthma and Pulmonary Conditions, NIH, USA

07/2022 NIH Special Emphasis Panel ZRG1 PSE-F(02), NIH, USA

HONORS

1996 First Prize, Chinese National Mathematical Olympiad

2006-2010 PhD student fellowship, Columbia University

2018-present Preeminence-Hired Faculty, University of Florida, Gainesville, FL

2020 Outstanding Teaching Award (voted by students), Department of Biostatistics, University of Florida

2021 Dean's citation paper, College of Public Health & Health Professions, University of Florida

2022 Outstanding Student Support Award, Department of Biostatistics, University of Florida, USA

NATIONAL / INTERNATIONAL COMMITTEES

2023, 2024 Chair of Awards Committee, International Chinese Statistical Association (ICSA)
2023 Nominating and Election Committee, International Chinese Statistical Association (ICSA)
2023 Educational Advisory Committee, ENAR2023 conference, USA
2017 – 2019 NIH Environmental Influences on Child Health Outcomes (ECHO) Program data analysis working group webinar topic committee
2017 – 2019 NIH ECHO Program data analysis working group Data Analysis Dispute Resolution Committee
2018, 2019 NIH ECHO Opportunities and Infrastructure Fund Review Committee
2018 ICSA China conference program committee, Qingdao, China
2020 Scientific Program Committee, CM-Statistics conference, London, UK
2021-2023 Rema Lapouse Award committee, American Public Health Association (APHA)
2021-2023 Elected Section Councilor for APHA Applied Public Health Statistics Section

REGIONAL / LOCAL COMMITTEES

2022-present Elected Faculty Senate, University of Florida
2011- 2018 Clinical Cancer Review Committee, Norris Cotton Cancer Center, NH
2016-2017 Health Data Science (HDS) master program development committee, Geisel School of Medicine (GSM) at Dartmouth, NH
2017-2018 Vice Chair of HDS master program admission committee, GSM at Dartmouth, NH
2018-2019 Faculty Search Committee for CTSI Data Coordination Center (CDCC), University of Florida, FL
2019 Database Manager Search Committee for CDCC, University of Florida, FL
2019 Data Management Analyst Search Committee for CDCC, University of Florida, FL
2019-present Chair of Awards Committee, Dept of Biostatistics, University of Florida, FL
2020-present Data Integrity and Safety Committee, UF Health Cancer Center
11/2020-present COVID-19 Scientific Review Committee and Working Group, UF

GRANT SUPPORT (Aggregate total cost of all awards: \$4.6+ million as PI, \$81+ million as co-I)

Active grants

1. Grant title (P01 center): Interventions to improve alcohol-related comorbidities along the gut-brain axis in persons with HIV infection
Role: Director of the data science core (20% FTE)
Agency: NIH P01AA029543
Period: 9/10/2021-8/31/2026
Total cost (data science core): \$1,349,363
2. Grant title: Photobiomodulation for the Management of Temporomandibular Disorder Pain
Role: co-I (15% FTE)
Agency: NIH UG3/UH3 1UG3DE030433-01A1
Period: 2022-2028
PIs: Ribeiro-Dasilva, Fillingim
Total cost: \$4,042,240
3. Grant title: Identifying Factors Predicting Accurately End-of-Life in Dementia with Lewy Bodies and Promoting Quality End-of-Life Experiences: the PACE-DLB Study
Role: co-I (9% FTE)
Agency: NIH R01AG068128
Period: 2020-2025

PI: Armstrong

Total cost: \$ 3,312,647

4. Grant title: Randomized Trial of a multimodal sexual dysfunction intervention for hematopoietic stem cell transplant survivors

Role: UF Subaward PI (4% FTE)

Agency: American Cancer Society – Research Scholar Grant

Period: 2018-2023

PI: El-Jawahri at Massachusetts General Hospital (Li is UF Subaward PI)

Total cost of Subaward: \$32,000

5. Southern HIV and Alcohol Research Consortium Biomedical Data Repository

Role: co-I (5% FTE)

Agency: NIH U24AA029959

Period: 9/22/2021-8/31/2026

PIs: Wu, Cook

Total cost: \$ 2,519,461

6. Real-Time and Long-Term Effects of Medical Marijuana in People Living with HIV

Role: co-I (6% FTE)

Agency: NIA R01AG071729

Period: 2021-2026

PI: Wang

Total cost: \$ 3,604,954

7. Grant title: Technology-based assessments and intervention to reduce alcohol consumption and improve HIV viral suppression in the Florida Cohort

Role: co-I (7%)

Agency: NIH R01

Period: 2022-2027

PIs: Cook, Wang

Total cost: \$3,791,117

8. Grant title: Bacteriophage-mediated microbiota modification to prevent colorectal cancer development

Role: co-I (5% FTE)

Agency: NCI R21CA264927

Period: 2022-2024

PIs: Jobin, El Haddad

Total cost: \$ 392,115

9. T32 Predoctoral Interdisciplinary Training in Movement Disorders and Neurorestoration

Role: co-I (5% FTE)

Agency: NIH T32NS082168

PI: Bowers

Period: 2020-2025

Total cost: \$ 1,964,808

Pending/submitted grants

10. Grant title: Standardized Collection of Patient Reported Outcomes across Healthcare Systems for Population Management: A Collaboration between Rural Community Facilities and the Department of Veterans Affairs

Role: UF subaward PI (10%)

Agency: NIH R01

Period: 2021-2026

PI: Turvey

Total cost of subaward: \$191,086

11. Grant title: Deciphering pathogenic changes in the gut-peripheral immune-CNS axis in PLWH

Role: UF subaward PI (15%)

Agency: NIH R01

Period: 2022-2027

PI: Barve

Total cost of subaward: \$455,912

12. Grant title: Deep learning models to accurately predict MCI-to-AD dementia progression

Role: co-I (3%)

Agency: NIH R03

Period: 2022-2024

PI: Shan

Total cost: \$152,500

13. Grant title: Optimizing a Web-Based Media Parenting Intervention to Promote Mental Health

Role: co-I (14%)

Agency: NIH R01

Period: 2022-2027

PIs: Gabrielli, Doty

Total cost: \$2,789,788

Completed grants

14. Grant title: Mediation analysis methods to model human microbiome mediating disease-leading causal pathways in children

Role: PI (30% Full Time Equivalent)

Agency: NIH R01GM123014

Period: 2017-2023 NCE

PI: Li

Total cost: \$2,323,306

15. Centers for Biomedical Research Excellence (COBRE): Center for Molecular Epidemiology

Project 4: Evaluating mediation effects of the microbiome and epigenetics using high dimensional assays

Role: Project-PI (50%)

Agency: NIH 1P20GM104416

Period: 02/01/2018 – 07/31/18

Total cost: \$1,312,785

16. Design and Analysis of Palliative Care Trials Evaluating Early Interventions

Role: PI (23%)

Agency: NIH R03NR014915

Period: 06/2014 - 05/2016

Total cost: \$159,570

17. Statistical methods for joint survival and longitudinal quality of life analysis in palliative care studies

Role: Contact-PI

PIs: Li, Tosteson, Bakitas

Agency: Norris Cotton Cancer Center

Period: 02/2012 – 04/2014

- Total cost: \$48,000
18. Grant title: Alzheimer's-gut-microbiome grant supplement for MAPLE
 Role: co-I (5%)
 Agency: NIH
 Period: 2019-2021
 PI: Robert Cook
 Total cost: \$400,000
19. ECHO – Environmental Influences on Child Health Outcomes Pediatric Cohorts
 Role: co-I (5%)
 PI: Margaret Karagas
 Agency: NIH UG3OD023275
 Period: 2016-2018
 Total cost: \$3,616,234
20. The Relation of Genetic Factors, Food Cues, and Self-Regulation with Excess Consumption and Adiposity in Children
 Role: co-I in the grant application (10%). Off the grant due to moving to UF.
 PI: Diane Gilber-Diamond
 Agency: NIH R01HD092604
 Period: 2018-2023
 Total cost: \$2,961,125
21. Environment, Imprinting, and Neurodevelopment
 Role: Co-I (5%)
 PI: Carmen Marsit
 Agency: NIH R01 ES022223
 Period: 2013-2016
 Total cost: \$3,998,630
22. Arsenic and T cell Function: an Environment Maternal/child Immunity Study
 Role: Co-I (7.5%)
 PI: Margaret Karagas
 Agency: NIH/NIEHS R21ES020936
 Period: 2012 – 2014
 Total cost: \$449,940
23. Children's Genetic Predisposition to Eat Without Hunger After Food Advertisements
 Role: Co-I (10%)
 PI: Diane Gilbert-Diamond
 Agency: NIH R21HD076097
 Period: 2013 – 2015
 Total cost: \$438,384
24. Accumulated White Matter Fiber Strain from Repetitive Head Impacts in Contact Sports
 Role: Biostatistician (5.6%)
 PI: Songbai Ji
 Agency: NIH R01NS092853
 Period: 2015 – 2017
 Total cost: \$1,943,883
25. Cancer Center Support (CORE) Grant
 Role: Biostatistician (10%)
 PI: Mark Israel
 Agency: NIH/NCI P30CA023108

Period: 2014 – 2017

Total cost:

26. SYNERGY: The Clinical and Translational Science Institute at Dartmouth

Role: Biostatistician (10%)

PI: Alan Green

Agency: NIH/NCATS UL1TR001086

Period: 2013 – 2017

Total cost:

27. Neural Mechanisms Underlying Categorical Perception in the Processing of Faces

Role: Biostatistician (2.5%)

PI: Ming Meng

Agency: NSF 1157121

Period: 2012 – 2015

Total cost: \$400,000

PUBLICATIONS (according to google scholar, total citations: 5662, h-index: 36)

Published or accepted peer-reviewed articles (*indicates corresponding/senior author and #indicates co-first author, underline indicates student)

1. Armstrong M, LaBarre B, Sovich K, Maixner S, Paulson H, Manning C, Fields J, Lunde A, Forsberg L, Boeve B, Galvin J, Taylor A, **Li Z*** (In press) Patient- and Proxy-Reported Quality of Life in Advanced Dementia with Lewy Bodies. *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*
2. Armstrong M, Dai Y, Sovich K, LaBarre B, Paulson H, Maixner S, Fields J, Lunde A, Boeve B, Manning C, Galvin J, Taylor A, **Li Z*** (In press) Caregiver Experiences and Burden in Moderate-Advanced Dementia with Lewy Bodies. *Neurology: Clinical Practice*
3. Shan G, Lu X, **Li Z**, Caldwell J, Bernick C, Cummings J (In press) ADSS: a composite score to detect disease progression in Alzheimer's disease. *Journal of Alzheimer's Disease Reports*
4. Cook R et al. (In press) Experimentally Induced Reductions in Alcohol Consumption and Brain, Cognitive, and Clinical Outcomes in Older Persons with and without HIV Infection (30-Day Challenge Study): Protocol for a Nonrandomized Clinical Trial. *Journal of Medical Internet Research*
5. Wu Q, Michael Daniels, Areej El-Jawahri, Marie Bakitas, **Li Z*** (In press) Joint modeling in presence of informative censoring in palliative care research. *Biostatistics (R package)*: <https://github.com/quranwu/RetroJM>
6. Song S, Asken B, Armstrong M, Yang Y, **Li Z***. (2023) Prediction of AD Dementia Onset Using the Random Survival Forest. *Journal of Alzheimer's Disease* 2023;95(2):535-548
7. Alexandra N. McMahon, Deepthi S. Varma, Hannah Fechtel, Kimberly Sibille, Zhigang Li, Robert L Cook, Yan Wang (2023) Perceived Effectiveness of Medical Cannabis Among Adults with Chronic Pain: Findings from Interview Data in a Three-Month Pilot Study. *Cannabis*
8. Jiang M, Seonjoo Lee, James O'Malley, Yaakov Stern, **Li Z*** (2023) Causal Mediation Analysis for Zero-Inflated Mediators. *Statistics in Medicine* 42(13):2061-2081 (R package: <https://cran.r-project.org/web/packages/MAZE/index.html>)
9. Wodan Ling, Anju Lulla, Ni Zhao, Anna M. Plantinga, Weijia Fu, Angela Zhang, Hongjiao Liu, **Zhigang Li**, Jun Chen, Timothy Randolph, Susan A. Tuddenham, James R. White, Cynthia L. Sears, Lenore J. Launer, Anthony A. Fodor, Katie A. Meyer, and Michael C. Wu (2022) Batch effects removal for microbiome data via conditional quantile regression (ConQuR). *Nature Communications*.
10. Yuka Moroishi, Antonio J. Signes-Pastor, **Zhigang Li**, Kathryn L. Cottingham, Brian Jackson, Tracy Punshon, Juliette Madan, Kari Nadeau, Jiang Gui, Margaret R. Karagas (In press) The relationship

between the gut microbiome and the risk of respiratory infections among newborns. *Communications Medicine*

11. Wu Q, O'Malley J, Datta S, Gharaibeh RZ, Jobin C, Coker M, Hoen AG, Christensen BC, Madan JC, Karagas MR, **Li Z*** (2022) MarZIC: A Marginal mediation model for Zero-Inflated Compositional mediators with applications to microbiome data. *Genes* Vol 13 Issue 6 (R package: <https://github.com/quranwu/MarZIC>)
12. Aaron M. Carlson, Carlos Vervloet Sollero, Kavita V. Nair, Stefan Sillau, Quran Wu, Tirisham Gyang, **Zhigang Li**, Melissa J. Armstrong (In press) Prevalence of multiple sclerosis and treatment utilization in a large, highly diverse population. *Multiple Sclerosis and Related Disorders*
13. Armstrong M, Song S, Kurasz A, **Li Z*** (In press) Predictors of Mortality in Individuals with Dementia in the National Alzheimer's Coordinating Center. *Journal of Alzheimer's Disease*
14. Vergo M, Klassen-Landis M, **Li Z**, Jiang M, Arnold RM (In press) Getting Creative: Feasibility Study of a Coached Writing Intervention in Patients with Advanced Cancer at a Rural Academic Medical Center. *Journal of Palliative Medicine*
15. Yan Wang, Jennifer Jean Jacques, **Zhigang Li**, Kimberly Sibille, Robert L. Cook (In press) Health Outcomes among Adults Initiating Medical Cannabis for Chronic Pain: A 3-month Prospective Study Incorporating Ecological Momentary Assessment (EMA). *Cannabis*
16. Movassagh H, Halchenko Y, Sampath V, Nygaard U, Jackson B, Robbins D, **Li Z**, Nadeau K, Karagas M (Accepted) Maternal gestational mercury exposure in relation to cord blood T cell alterations and placental gene expression signatures. *Environmental Research*
17. Melissa J. Armstrong, Henry L. Paulson, Susan M. Maixner, Julie Fields, Angela Lunde, Bradley Boeve, Carol Manning, James E. Galvin, Angela Taylor, **Zhigang Li*** (Accepted) A Protocol for an Observational Cohort Study Identifying Factors Predicting Accurately End-of-Life in Dementia with Lewy Bodies and Promoting Quality End-of-Life Experiences: the PACE-DLB Study. *BMJ Open*
18. Modupe O. Coker, Hannah E. Laue, Anne G. Hoen, Margaret Hilliard, Erika Dade, **Zhigang Li**, Thomas Palys, Hilary G. Morrison, Emily Baker, Margaret R. Karagas and Juliette C. Madan (2021) Infant Feeding Alters the Longitudinal Impact of Birth Mode on the Development of the Gut Microbiota in the First Year of Life. *Frontiers in Microbiology*. <https://doi.org/10.3389/fmicb.2021.642197>
19. Greer JA, Moy B, El-Jawahri A, Jackson V, Kamdar M, Jacobsen J, Lindvall C, Shin JA, Rinaldi S, Carlson H, Sousa A, Gallagher ER, **Li Z**, Moran S, Ruddy M, Anand M, Carp JE, Temel JS (In press) Randomized Trial of a Palliative Care Intervention to Improve End-of-Life Care Discussions in Patients with Metastatic Breast Cancer. *Journal of the National Comprehensive Cancer Network*.
20. **Li Z**, Tian L, O'Malley J, Karagas M, Hoen A, Christensen B, Madan J, Wu Q, Gharaibeh R, Jobin C, Li H (2021) IFAA: Robust association identification and Inference For Absolute Abundance in microbiome analyses. *Journal of the American Statistical Association* 116(536):1595-1608 (R package: <https://github.com/gitlzf/IFAA>)
21. Jie Zhou, Weston D. Viles, Boran Lu, **Zhigang Li**, Juliette C. Madan, Margaret R. Karagas, Jiang Gui, Anne G. Hoen (In press) Identification of microbial interaction network: zero-inflated latent Ising model based approach. *BioData Mining*
22. Areej El-Jawahri, Lara Traeger, Joseph A. Greer, Olivia Vanbenschoten, Netana Markovitz, Barbara Cashavelly, Lee Ann Tata, Ryan D. Nipp, Kerry Reynolds, Lipika Goyal, Sunil Bhatt, Sara Fishman, Nora Horick, Zhigang Li, Angelo Volandes, Jennifer S. Temel (In press) Randomized Trial of a Hospice Video Educational Tool for Patients with Advanced Cancer and Their Caregivers. *Cancer*
23. Corey B. Simon, Carolina Valencia, Rogelio A. Coronado, Samuel S. Wu, **Zhigang Li**, Yunfeng Dai, Kevin W. Farmer, Michael M. Moser, Thomas W. Wright, Roger B. Fillingim, Steven Z. George (2019) Biopsychosocial Influence on Shoulder Pain: Analysis of Post-Operative Pain, Physical Impairment, and Emotional Recovery States. *Journal of Pain*
24. Tracy Punshon, **Zhigang Li**, Brian P. Jackson, W. Tony Parks, Megan Romano, David Conway, Emily R. Baker and Margaret R. Karagas (2019) Placental metal concentrations in relation to placental growth, efficiency and birth weight. *Environment International*. 126:533-542

25. Yaohua Yang, Wei Zheng, Qiuyin Cai, Martha J. Shrubsole, Zhiheng Pei, Robert Brucker, Jennifer Sonderman, Mark Steinwandel, Seth R. Bordenstein, **Zhigang Li**, William J. Blot, Xiao-Ou Shu, Jirong Long (In press) Racial Differences in Oral Microbiome: Data from African-ancestry and European-ancestry Populations. *mSystems*
26. Victoria Charoonratana, Talia Stewart, Runzhi Zhang, **Zhigang Li**, Martha T DesBiens, Scott Slogic, Maxwell T Vergo. (In press) What's in a Do-Not-Resuscitate Order? Understanding the Impact on Pre-Arrest Life Support and Factors Influencing Misconceptions. *Journal of General Internal Medicine*
27. Meghan E. Muse, **Zhigang Li**, Emily R. Baker, Kathryn L. Cottingham, Susan A. Korrick, Margaret R. Karagas, Diane Gilbert-Diamond (Accepted) Relation between *in utero* arsenic exposure and growth during the first year of life in a New Hampshire pregnancy cohort. *Environmental Health*
28. Yaohua Yang, Wei Zheng, Qiuyin Cai, Martha J. Shrubsole, Zhiheng Pei, Robert Brucker, Jennifer Sonderman, Mark Steinwandel, Seth R. Bordenstein, **Zhigang Li**, William J. Blot, Xiao-Ou Shu, Jirong Long (In press) Cigarette Smoking and Oral Microbiome in Low-income and African American Populations. *Journal of Epidemiology & Community Health*
29. Zhang H, Chen J, **Li Z** and Liu L. (2021) Testing for mediation effect with application to human microbiome data. *Statistics in Biosciences*
30. Modupe O. Coker, Anne G. Hoen, Erika F. Dade, Sara Lundgren, **Zhigang Li**, Wong A, Michael S Zens, Thomas Palys, Hilary G. Morrison, Mitchell L. Sogin, Emily Baker, Margaret R. Karagas, J Madan (In press) Specific class of intrapartum antibiotics relate to maturation of the infant gut microbiome: a prospective cohort study. *BJOG: An International Journal of Obstetrics and Gynaecology*
31. Winterbottom E, Yuka Moroishi, David A. Armstrong, Paul J. Beach, Quang P. Nguyen, Anthony J. Capobianco, Nagi G. Ayad, Carmen J. Marsit, **Zhigang Li**, Margaret R. Karagas, David J. Robbins (2019) Prenatal arsenic exposure alters the placental expression of multiple epigenetic regulators in a sex-dependent manner. *Environmental Research* 18:18
32. Rebecca Emeny; Susan Korrick; **Zhigang Li**; Kari Nadeau; Juliette Madan; Brian Jackson; Emily Baker; Margaret Karagas (2019) Prenatal exposure to mercury in relation to immune outcomes in the New Hampshire Birth Cohort Study. *Environmental Research* 171:523-529
33. Anne Hoen, Juliette C. Madan, **Zhigang Li**, Modupe Coker, Sara N. Lundgren, Hilary G. Morrison, Thomas Palys, Brian Jackson, Mitchell L. Sogin, Kathryn L. Cottingham, Margaret R. Karagas (In press) Sex-specific gut microbiome impacts of infant arsenic exposure in a US population. *Scientific Reports*
34. El-Jawahri A, Nelson-Low M, VanDusen H, Traeger L, Abel G, Greer J, Fathi A, Steensma D, LeBlanc T, **Li Z**, DeAngelo D, Wadleigh M, Hobbs G, Foster J, Brunner A, Amrein P, Stone R, Temel JS. (2018) Patient-Clinician Discordance in Perceptions of Treatment Risks and Benefits in Older Patients with AML. *The Oncologist* 2018; doi:10.1634/theoncologist.2018-0317
35. **Li Z***, Lee K, Karagas M, Madan J, Hoen A, O'Malley J and Li H (2018) Conditional regression based on a multivariate zero-inflated logistic normal model for modeling microbiome data. *Statistics in Biosciences* 10 587–608
36. Cai Y, Wu S, Zhao W, **Li Z**, Wu Z, Ji S (2018) Concussion classification via deep learning using whole-brain white matter fiber strains. *PLoS one* 13(5): e0197992
37. Shohreh F Farzan, Caitlin G Howe, Michael S Zens, Thomas Palys, Jacqueline Y Channon, **Zhigang Li**, Yu Chen, Margaret R Karagas (2017) Urine Arsenic and Arsenic Metabolites in US Adults and Biomarkers of Inflammation, Oxidative Stress, and Endothelial Dysfunction: A Cross-Sectional Study. *Environmental Health Perspectives*
38. Olofson AM, Biernacka A, **Li Z**, Boonipat T, Gutmann EJ, Smith KD, Gardner TB, Gordon SR, Padmanabhan V, Marotti JD, Liu X (In press) Indeterminate Cytologic Diagnoses in EUS-guided FNA of the Pancreas: Analysis of Cytologist and Clinician Perception, Clinical Outcomes, and Cytologic Features. *Journal of the American Society of Cytopathology*

39. El-Jawahri A, Fishman SR, Vanderklisch J, Dizon D, Pensak N, Traeger L, Greer JA, Park E, Markovitz N, Waldman L, Hunnewell C, Saylor M, Driscoll J, **Li Z**, Spitzer T, McAfee S, Chen Y-B, Temel JS. (2018) Pilot Study of a Multimodal Intervention to Enhance Sexual Function in Hematopoietic Stem Cell Transplant (HCT) Survivors. *Cancer* 124(11):2438-2446
40. Howe C, Karagas M, Chen Y, Zens M, **Li Z**, Palys T, Smith J and Farzan S (2017) Dietary B Vitamin Intake is Associated with Lower Urinary Monomethyl Arsenic and Oxidative Stress Marker 15-F2t-Isoprostane among New Hampshire Adults. *Journal of Nutrition* 147(12):2289-2296
41. El-Jawahri A, Greer JA, Pirl WF, Park ER, Jackson VA, Back AL, Kamdar M, Jacobsen J, Chittenden EH, Rinaldi SP, Gallagher ER, Eusebio JR, Fishman S, VanDusen H, **Li Z**, Muzikansky A, Temel JS (2017) Effects of Early Integrated Palliative Care on Caregivers of Patients with Lung and Gastrointestinal Cancer: A Randomized Clinical Trial. *The Oncologist* 22(12):1528-1534
42. **Li Z***, H. R. Frost, Tor Tosteson, Lihui Zhao, Lei Liu, Kathleen Lyons, Huaihou Chen, Bernard Cole, David Currow, Marie Bakitas (2017) A Semiparametric Joint Model for Terminal Trend of Quality of Life and Survival in Palliative Care Research. *Statistics in Medicine* 1 36(29):4692-4704 PMID: PMC5698117
43. Emond JA, Tovar A, **Li Z**, Lansigan RK, Brand J, Gilbert-Diamond D (2017) FTO genotype and weight status among preadolescents: assessing mediating effects of appetite drive and regulation. *Appetite* 117:321-329
44. El-Jawahri A, Traeger L, Greer JA, Vandusen H, Fishman SR, LeBlanc TW, Pirl WF, Jackson VA, Telles J, Rhodes A, **Li Z**, Spitzer TR, McAfee S, Chen YA and Temel JS (2017) Effect of Inpatient Palliative Care during Hematopoietic Stem Cell Transplant (HCT) on Psychological Distress Six Months Post-Transplant: Results of a Randomized Clinical Trial. *Journal of Clinical Oncology* 35(32):3714-3721 PMID: PMC5675739
45. Prescott A, Hull J, Dionne-Odom J, Tosteson T, Lyons K, **Li Z**, Li Zho, Dragnev K, Hegel M, Ahles T and Bakitas M (2017) The role of a palliative care intervention in moderating the relationship between depression and survival among individuals with advanced cancer. *Health Psychology* 36(12), 1140-1146 PMID: PMC5709150
46. Nygaard UC*, **Li Z***, Palys T, Jackson B, Subbiah M, Malipatlolla M, Sampath V, Maecker H, Karagas MR, Nadeau KC (2017) Cord blood T cell subpopulations and associations with maternal cadmium and arsenic exposures. *PLoS One* 12(6):e0179606. doi: 10.1371/journal.pone.0179606. eCollection 2017.
47. Taylor VF, **Li Z**, Scholtz-Bright RA, Karagas MR (2017) Exposure risk, bioaccessibility and metabolism of arsenic compounds found in seaweed. *Scientific Reports* 7:3920 doi: 10.1038/s41598-017-03883-7
48. Zhao W, Cai Y, **Li Z**, Ji S (2017) Injury Prediction and Vulnerability Assessment Using Strain and Susceptibility Measures of the Deep White Matter. *Biomechanics and Modeling in Mechanobiology* 16(5):1709-1727
49. Farzan SF, Brickley EB, **Li Z**, Gossai A, Chen Y, Howe CG, Palys T, Karagas MR (2017) Maternal and Infant Inflammatory Markers in Relation to Prenatal Arsenic Exposure in a U.S. Pregnancy Cohort. *Environmental Research* 156:426-433
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52. Vergo M, Whyman J, **Li Z**, Kestel J, James SL, Rector C, Salsman J (2017) Assessing preparatory grief in advanced cancer patients as an independent predictor of distress in an American population. *Journal of Palliative Medicine* 20(1):48-52.

53. Morgenstern M, Li Zho, **Li Z** and Sargent JD (2017) The party effect: prediction of future alcohol use based on exposure to specific alcohol advertising content. *Addiction* 112(1):63-70
54. Punshon T, **Li Z**, Marsit C, Jackson BP and Karagas MR. (2016) Placental metal concentrations in relation to maternal and infant biomarkers of exposure in a US cohort. *Environmental Science & Technology* 50 (3), pp 1587–1594 PMCID: PMC4873612
55. McClure A, Tanski S, **Li Z**, Jackson K, Morgenstern M, Li Zho and Sargent JD (2016) Internet Alcohol Advertising and Underage Alcohol Use. *Pediatrics* 137(2) 2015-2149 PMID: 26738886
56. Emond J, Bernhardt A, Gilbert-Diamond D, **Li Z** and Sargent J (2016) Commercial TV exposure, fast-food toy collecting, and family visits to fast food restaurants among families living in rural communities. *The Journal of Pediatrics* 168:158-163 PMCID: PMC4698028
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60. Frost R, **Li Z**, Asselbergs F and Moore J (2015) An independent filter for gene set testing based on spectral enrichment. *IEEE/ACM Transactions on Computational Biology and Bioinformatics* 12(5): 1076–1086.
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62. Frost R, **Li Z** and Moore J (2015) Spectral gene set enrichment (SGSE). *BMC Bioinformatics* 16:70. doi: 10.1186/s12859-015-0490-7
63. Dionne-Odom JN, Azuero A, Lyons K, Hull J, Tosteson TD, **Li Z**, Li Zho, Frost J, Dragnev K, Akyar I, Hegel M and Bakitas M (2015) Benefits of Immediate versus Delayed Palliative Care to Informal Family Caregivers of Persons with Advanced Cancer: Outcomes from the ENABLE III Randomized Clinical Trial. *Journal of Clinical Oncology* 33(13):1446-52 PMCID: PMC4404423
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66. Tanski S, McClure AC, **Li Z**, Jackson K, Morgenstern M, Li Zho and Sargent JD (2015) Cued-Recall of Alcohol Advertising on Television and Underage Drinking Behavior. *JAMA Pediatrics* 169(3):264-71
67. Nadeau K[#], **Li Z**[#], Farzan S, Koestler D, Robbins D, Fei DL, Malipatlolla M, Maecker H, Enelow R, Korrick S and Karagas MR (2014) In utero arsenic exposure and fetal immune repertoire in a US pregnancy cohort. *Clinical Immunology* 155(2):188-97 PMCID: PMC4309995
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69. **Li Z**^{*}, McKeague IW and Lumley LH (2014) Optimal Design Strategies for Sibling Studies with Binary Exposures. *The International Journal of Biostatistics* 10:185-96 PMCID: PMC4412035

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72. Ji S, Zhao W, **Li Z**, McAllister TW (2014) Head impact accelerations for brain strain-related responses in contact sports: a model-based investigation. *Biomechanics and Modeling in Mechanobiology*. 13: 1121-1136
73. Jenson EG, Baker M, Paydarfar JA, Gosselin BJ, **Li Z** and Black CC (2014) MCM2/TOP2A (ProExC) Immunohistochemistry as a Predictive Marker in Head and Neck Mucosal Biopsies. *Pathology - Research and Practice*. 210: 346-350
74. Adachi-Mejia A, Gibson J, **Li Z** and Sargent J (2014) The relative roles of types of extracurricular activity on smoking and drinking initiation among tweens. *Academic Pediatrics*. 14: 271-278
75. Primack B, McClure A, **Li Z** and Sargent JD (2014) Receptivity to and Recall of Alcohol Brand Appearances in U.S. Popular Music and Alcohol-Related Behaviors. *Alcoholism: Clinical and Experimental Research*. 38:1737-1744
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77. Gilbert-Diamond D, **Li Z**, Adachi-Mejia A, McClure A, Sargent J (2014) Television in the Bedroom is Associated with Increased Adiposity Gain in a Nationally Representative Sample of Adolescents. *JAMA pediatrics*. 168: 427-434
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81. Gilbert-Diamond D, **Li Z**, Perry A, Spencer S, Gandolfi AJ and Karagas MR (2013) A Population-based Case–Control Study of Urinary Arsenic Species and Squamous Cell Carcinoma in New Hampshire, USA. *Environmental Health Perspectives*. 121:1154-1260 PMID: PMC3801199
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83. Farzan SF, Korrick S, **Li Z**, Enelow R, Gandolfi AJ, Madan J, Nadeau K and Karagas MR (2013) In utero arsenic exposure and infant infection in a United States cohort: A prospective study. *Environmental Research* 126: 24-30 PMID: PMC3808159
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85. Dionne-Odom J, Karita E, Kilembe W, Henderson F, Vwalika B, Bayingana R, **Li Z**, Mulenga J, Chomba E, del-Rio C, Htee-Khu N, Tichacek A, Allen S (2013) Syphilis Treatment Response among HIV Discordant Couples in Zambia and Rwanda. *Clinical Infectious Diseases* 56:1829-37 PMID: 23487377

86. Adachi-Mejia A, Longacre M, Skatrud-Mickelson M, **Li Z**, Purvis L, Titus-Ernstoff L, Beach M and Dalton M (2013) Variation in access to sugar-sweetened beverages in vending machines across rural, town, and urban high schools. *Public Health* 127: 485-91 PMID: 23498924
87. Cambron SC, McIntyre J, Guerin S, **Li Z** and Pastel D (2013) Lumbar Facet Joint Synovial Cysts: Does T2 Signal Intensity Predict Outcomes Following Percutaneous Rupture? *American Journal of Neuroradiology* 34: 1661-1664 PMID: 23449657
88. **Li Z***, Tosteson TD and Bakitas M (2013) Joint Modeling Quality of Life and Survival Using a Terminal Decline Model in Palliative Care Studies. *Statistics in Medicine* 32(8):1394-406 PMCID:PMC3623280
89. **Li Z*** and McKeague IW (2013) Power and sample size calculations for generalized estimating equations via local asymptotics. *Statistica Sinica* 23, 231-250 PMCID: PMC3903421
90. O'Hara R, Gibbons F, Gerrard M, **Li Z** and Sargent J (2012) Greater exposure to sexual content in popular movies predicts earlier sexual debut and increased sexual risk taking. *Psychological Science* 23(9):984-93 PMCID: PMC3779897
91. Gibbons F, Roberts M, Gerrard M, **Li Z**, Beach S, Simons R, Weng C-Y and Philibert R (2012) The Impact of Stress on the Life History Strategies of African American Adolescents: Cognitions, Genetic Moderation, and the Role of Discrimination. *Developmental psychology* 48 722-739. PMCID: PMC4324554
92. Edwards SC, Jedrychowski W, Butscher M, Camann D, Kieltyka A, Mroz E, Flak E, **Li Z**, Wang S and Perera FP (2010) Prenatal Exposure to Airborne Polycyclic Aromatic Hydrocarbons and Children's Intelligence at 5 Years of Age in a Prospective Cohort Study in Poland. *Environmental Health Perspectives* 118 1326-1331. PMID: 20406721
93. Wang S, Chanock S, Tang D, **Li Z**, Edwards SC, Jedrychowski W and Perera FP (2010) Effect of gene-environment Interactions on mental development in African American, Dominican, and Caucasian mothers and newborns. *Annals of Human Genetics* 74 46-56. PMID: 19860743
94. Perera FP, **Li Z**, Whyatt R, Hoepner L, Wang S, Camann D and Rauh V (2009) Prenatal Airborne Polycyclic Aromatic Hydrocarbon Exposure and Child IQ at Age 5. *Pediatrics* 124 e195-e202. PMID: 19620194
95. Wang S, Chanock S, Tang D, **Li Z**, Jedrychowski W and Perera FP (2008) Assessment of Interactions between PAH Exposure and Genetic Polymorphisms on PAH-DNA Adducts in African American, Dominican, and Caucasian Mothers and Newborns. *Cancer Epidemiology, Biomarkers & Prevention* 17 405-413. PMID: 18268125
96. **Li Z***, Wu R and Du Y (2007) The distribution of the first β point in the classical risk model with interest. *Statistics & Probability Letters* 77 873-880. doi:10.1016/j.spl.2006.12.015
97. He S, Johnson P, **Li Z** et al. (2007) An example in elementary probability. *Alabama Journal of Mathematics* 31 23-25.

Book Review

1. **Li, Z** (2013). Review of Newsom J, Jones R and Hofer S (eds.). *Longitudinal data analysis*. Routledge, New York, NY. *Journal of American Statistical Association* Vol 108, Issue 504, 1550--1551
2. **Li, Z** (2014). Review of Alexander R. de Leon, and Keumhee Carriere Chough (eds.). *Analysis of Mixed Data: Methods & Application*. Chapman and Hall/CRC, Boca Raton, FL. *Journal of Biopharmaceutical Statistics* Vol 24, Issue 5.

Conference Proceedings

1. **Li Z** and McKeague IW (2011) Power under Local Alternatives for Generalized Estimating Equations. *Statistics and Information Forum* 26 81-82.

Incomplete list of manuscripts (Conditionally Accepted/Revision/Under Review/In preparation, *Senior author, underline indicates my student)

1. Wu Q, McKeague I, Tian L, **Li Z*** (In preparation) Estimating equations with inverse probability weighting for microbiome analysis.
2. Jiang M, **Li Z*** (In preparation) Causal Mediation Analysis using Machine Learning.
3. Wu Q, **Li Z*** (In preparation) Mixture Mediation Modeling for Zero-Inflated Compositional mediators with applications to microbiome data.
4. Jiang M, **Li Z*** (In preparation) Mixture Mediation Modeling for Zero-Inflated Count Mediators.
5. Yuka Moroishi, Antonio J. Signes-Pastor, **Zhigang Li**, Kathryn L. Cottingham, Brian Jackson, Tracy Punshon, Juliette Madan, Kari Nadeau, Jiang Gui, Margaret R. Karagas (under review) Infant infections, Respiratory Symptoms, and Allergy in Relation to Timing of Rice Cereal Introduction in a United States Cohort. *Scientific Reports*
6. Yuka Moroishi, Jiang Gui, Anne G. Hoen, Hilary G. Morrison, Emily R. Baker, Kari Nadeau, Hongzhe Li, **Zhigang Li**, Juliette Madan, Margaret R. Karagas (under review) The Developing Infant Gut Microbiome and Risk of Infection in a Prospective Birth Cohort

TEACHING EXPERIENCE (Total classroom teaching hours: 340+)

Graduate courses:

Department of Biostatistics, University of Florida, Gainesville, FL

PHC6020: Clinical Trials Methods

Spring 2019 - present

Quantitative Biomedical Sciences Program, the Geisel School of Medicine at Dartmouth, NH

QBS110: Integrative Biomedical Sciences I (taught a 1-hour guest lecture)

Fall 2014-2017

QBS120: Foundations of Biostatistics I (co-created this course and taught 15 of total 30 hours of this course)

Fall 2012-Winter 2017

Department of Community and Family Medicine, the Geisel School of Medicine at Dartmouth, NH

CFM104: Intro to Biostatistics and Epidemiology (taught small group recitation sessions) Spring 2011- 2013

The Geisel School of Medicine at Dartmouth, NH

Bio1: The Clinical Biomedical Research (taught a 3-hour lecture as guest lecturer)

Fall 2011 - 2012

Department of Biostatistics, Columbia University, NY

P6103: Introduction to biostatistics (taught small group recitation sessions)

Fall 2006

Undergraduate courses (I was the sole instructor for all listed courses):

Department of Mathematics and Statistics, Auburn University, AL

MATH 1610: Calculus I

Summer 2006

STAT 2510: Statistics for Biological and Health Sciences

Fall 2005 & Spring 2006

MATH 1130: Pre-Calculus Trigonometry

Summer 2005

MENTORSHIP

Faculty Mentee

Laura Marks (co-mentor on K23: K23AA030602), Assistant Professor, Department of Educational Psychology and Learning Systems, Florida State University, FL, 09/2022-present

Post-Doctoral Fellows

Hildreth Rob Frost (40% FTE under my mentorship), Department of Biomedical Data Science, Geisel School of Medicine at Dartmouth, 08/2015-05/2016. He is now a tenure-track assistant professor at Dartmouth.

Janaka Liyanage, Department of Biostatistics, University of Florida, 09/2018-06/2020

Doctoral Students (with me being the dissertation supervisor)

Meilin Jiang, Dept of Biostatistics, University of Florida, 2019-2023

Quran Wu, Dept of Biostatistics, University of Florida, 2019-2023

Shangchen Song, Dept of Biostatistics, University of Florida, 2020-present (co-advise with Dr. Ira Longini)

Yimiao Pang, Dept of Biostatistics, University of Florida, 2023-present

Doctoral Students (with me in dissertation committee)

Hildreth Rob Frost, Quantitative Biomedical Sciences Program (QBS), Geisel School of Medicine at Dartmouth, graduated in 2014

David Qian, QBS, Geisel School of Medicine at Dartmouth, graduated in Spring 2016

Lia Harrington, QBS, Geisel School of Medicine at Dartmouth, graduated in 2018

Yuka Moroishi, QBS, Geisel School of Medicine at Dartmouth, graduated in 2022

Archie Sachdeva, Department of Biostatistics, University of Florida, graduated in 2022

Tingting Hou, Department of Biostatistics, University of Florida, graduation (expected) in 2023

Dorothy Ellis, Department of Biostatistics, University of Florida, graduation (expected) in 2023

Runzhi Zhang, Department of Biostatistics, University of Florida, graduation (expected) in 2023

Christina Parisi, Department of Epidemiology, University of Florida, graduation (expected) in 2023

Sidney Baudendistel, Department of Applied Physiology & Kinesiology, University of Florida, graduated in 2021

Jake Boles, Department of Neurology, University of Florida, graduation (expected) in 2023

Master Students (with me being the academic advisor)

Dongyuan Wu, Dept of Biostatistics, University of Florida, 2018-2019

Zachary Thompson (online), Dept of Biostatistics, University of Florida, 2018-2019

Zhang Li (Online), Dept of Biostatistics, University of Florida, 2021-2022

Paul Deen (Online), Dept of Biostatistics, University of Florida, 2018-2019

Awards of Mentee's

Shangchen Song, American Public Health Association Scholar Award, 2023

Shangchen Song, Cluff Aging Research Award, University of Florida, 2023

Meilin Jiang, Preliminary Examination Award, Department of Biostatistics, University of Florida, 2020

Dongyuan Wu, UF's International Achievement Award, PHHP, University of Florida, 2019

Dongyuan Wu, Outstanding Master Student Award, Department of Biostatistics, University of Florida, 2020

PRESENTATIONS

Terminal trend model under informative censoring, *JSM*, DC, USA 8/2022

IFAA: Robust Association Identification and Inference for Absolute Abundance in Microbiome Analyses, *ICSA Applied Statistics Symposium*, Gainesville, USA 6/2022

Terminal trend model under informative censoring. *Annual conference on Computational and Methodological Statistics, Virtual*, 12/2021 UK

Terminal trend model under informative censoring. *WNAR, Virtual*, 6/2021

IFAA: Robust Association Identification and Inference for Absolute Abundance in Microbiome Analyses. *Department of Biostatistics, SUNY at Buffalo, Virtual*, 4/2021

IFAA: Robust Association Identification and Inference for Absolute Abundance in Microbiome Analyses. *ENAR, Virtual, 3/2021*

Terminal trend model under informative censoring. *12th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, UK, 12/2020*

Mediation model for zero-inflated mediators with applications to microbiome data. *USF, Florida 6/2020*

IFAA: Robust association identification and Inference for Absolute Abundance in microbiome analyses. *Department of Biostatistics, Columbia University, New York, 12/2019*

Terminal trend model under informative censoring. *12th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, UK, 12/2019*

Terminal trend model under informative censoring. *ICSA International Conference, Hangzhou, China, 12/2019*

Mediation model for zero-inflated mediators. *IISA 2019 conference, Mumbai, India, 12/2019*

Mediation analysis for zero-inflated mediators with applications to microbiome data. *Department of Mathematics and Statistics, Georgia State University, Atlanta, USA, 11/2019*

Mediation analysis for zero-inflated mediators with applications to microbiome data. *Department of Population Health Sciences, University of Utah, Salt Lake City, USA, 09/2019*

Mediation analysis for zero-inflated mediators with applications to microbiome data. *JSM, Denver, CO, USA, 08/2019*

Joint modeling of quality of life and survival in palliative care research. *2019 ICSA applied symposium, Raleigh, NC, USA 06/2019*

Joint modeling of quality of life and survival in palliative care research. *Annual meeting of Society of Statistics of Canada, Calgary, Alberta, Canada, 05/2019*

Joint modeling of quality of life and survival in palliative care research. *Lifetime Data Science: Foundations and Frontiers, University of Pittsburgh, Pittsburgh, PA, 05/2019*

Mediation model for zero-inflated mediators. *ENAR, Philadelphia, PA, USA, 03/2019*

Mediation model for zero-inflated mediators. *BIRS workshop on the role of Genomics and Metagenomics in Human Health: Recent Developments in Statistical and Computational Methods. Banff, Alberta, Canada, 02/2019*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *CM-Statistics annual meeting, Pisa, Italy, 12/2018*

Challenges in microbiome analysis and recent developments. *UF Health Cancer Center, Gainesville, FL, 12/2018*

Challenges in microbiome analysis and recent developments. *The 4th symposium of Humanity and Social Sciences & the 8th Symposium of Science, Engineering, and Biomedicine, Clearwater Beach, FL, 9/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *Dept of Preventive Medicine, Northwestern University, Chicago, USA 07/2018*

Joint modeling of quality of life and survival times in palliative care research. *The fourth International Workshop on the Statistical Analysis of Multi-outcome Data (SAM 2018), Washington University in St. Louis, Missouri, 06/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *ICSA 2018 Applied Statistics Symposium, New Brunswick, New Jersey, 06/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *2018 IMS Asia Pacific Rim Meeting, Singapore, 06/2018*

A terminal trend model under informative censoring. *2018 ICSA China conference, Qingdao, Shandong province, China, 07/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *2018 IBS-China Symposium, Guangzhou, Guangdong province, China, 07/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *QBS symposium, Hanover, NH, 03/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *Department of Biostatistics, Vanderbilt University Medical Center, Nashville, TN, 03/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *Department of Biostatistics, University of Florida, Gainesville, FL, 02/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *Department of Health Sciences, Northeastern University, Boston, MA, 02/2018*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *Department of Mathematical Sciences, Worcester Polytechnic Institute, Worcester, MA, 11/2017*

Terminal trend model in palliative care research. *Norris Cotton Cancer Center Grand Rounds, Lebanon, NH 09/2017*

A semiparametric joint model for terminal trend of quality of life and survival in palliative care research. *Department of Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, MA, 09/2017*

Conditional regression based on a multivariate zero-inflated logistic normal model for analyzing human microbiome data. *NIH Environmental Influences on Child Health Outcomes Program data analysis working group webinar, National Webinar, 08/2017*

A multivariate zero-inflated logistic normal model for analyzing human microbiome data. *Conference on Frontiers of Big Data and Statistical Sciences, Vancouver, British Columbia, Canada, 08/2017*

A multivariate zero-inflated logistic normal model for analyzing human microbiome data. *The 26th ICSA Applied Statistics Symposium, Chicago, IL, USA, 06/2017*

Conditional regression based on a zero-inflated logistic normal model for analyzing human microbiome data. *Workshop on complex data, Qingdao, China, 12/2016*

A Semiparametric Joint Model for Terminal Trend of Quality of Life and Survival in Palliative Care Research. *The 10th ICSA Annual conference, Shanghai, China, 12/2016*

A Semiparametric Joint Model for Terminal Trend of Quality of Life and Survival in Palliative Care Research. *The 25th ICSA Applied Statistics Symposium, Atlanta, GA, USA, 06/2016*

A Semiparametric Joint Model for Longitudinal and Survival Data in End-of-Life Research Studies. *Department of Biomedical Data Science, Geisel School of Medicine, Dartmouth College, NH, 11/2015*

A Semiparametric Joint Model for Longitudinal and Survival Data in End-of-Life Research Studies. *Department of Statistics and Applied Probability, National University of Singapore, Singapore, 06/2015*

Designing Palliative Care Research Studies. *Department of Medicine, Palliative Care Tuesday Educational Conference, Geisel School of Medicine, Dartmouth College, NH, 10/2014*

Joint Modeling Quality of Life and Survival Using a Terminal Decline Model in Palliative Care Studies. *Department of Preventive Medicine, Northwestern University, Chicago, IL, 03/2014*

Structural equation modeling and its application in health sciences. *Children's Environmental Health and Disease Prevention Research center, Dartmouth College, NH. 12/2013*

Power under local alternatives for generalized estimation equations. *Department of Health Studies, University of Chicago, Chicago, IL, 07/2010*

Power under local alternatives for generalized estimation equations. *Department of Environmental Health, University of Cincinnati, Cincinnati, OH, 07/2010*

Power under local alternatives for generalized estimation equations. *Department of Community and Family Medicine, Dartmouth Medical School, NH, 06/2010*

Efficiency for sibling study designs. *Department of Biostatistics, Columbia University, NY, 05/2009*

Surplus, ruin and absolute ruin in the classical risk model under interest. *The 12th International Conference on Statistics, Combinatorics, Mathematics and Applications, Auburn University, AL, 12/2005*

Contributed talks

Joint Modeling Quality of Life and Survival Using a Terminal Decline Model in Palliative Care Studies. *The 2012 Joint Statistical Meetings, San Diego, USA, 08/2012*

Power under local alternatives for generalized estimation equations. *The 2010 Joint Statistical Meetings, Vancouver, Canada, 08/2010*

PROFESSIONAL SERVICES AND AFFILIATIONS

Elected Section Councilor for APHA Applied Public Health Statistics Section 2021-2024

Invited session organizer for CM-Statistics annual meeting, Virtual conference, 12/2020

Invited session organizer and chair for JSM, Virtual conference (due to covid-19), USA 08/2020

Invited session organizer for ENAR, Virtual conference (due to covid-19), USA 03/2020

Invited session chair for ENAR, Virtual conference (due to covid-19), USA 03/2020

Session moderator for American Public Health Association annual meeting, Philadelphia, PA, USA 11/2019

Session chair for Joint Statistical Meetings, Denver, CO, USA 07/2019

Invited session organizer for *ICSA 2019 China Conference, Tianjin, China, 12/2019*

Invited session organizer for *the 26th ICSA Applied Statistics Symposium, Piscataway, NJ, USA, 06/2018*

Invited session organizer for *the 25th ICSA Applied Statistics Symposium, Chicago, USA, 06/2017*

Invited session organizer for *the 10th ICSA Annual conference, Shanghai, China, 12/2016*

Judge for ASA Section on Genomics and Genetics JSM distinguished student paper competition, 2018, 2019

Judge for Statistical Analyses of Multi-outcome Data Workshop poster competition, Saint Louis, USA, 2018

Judge for PPHP Research Day poster competition, University of Florida, Gainesville, FL 2019, 2020

Reviewer for APHA Applied Public Health Statistics Section abstracts 2020

Reviewed journals in the past two years: *Nature Communications, Statistical Science, Nature Metabolism, Journal of American Statistical Association, Annals of Applied Statistics, Statistics in medicine, Bioinformatics, Surgery, Biometrics, Biostatistics, Frontiers in Genetics, BioData Mining, Statistics in Medicine, Pediatrics, Journal of Biopharmaceutical Statistics, Complementary Therapies in Medicine, Health and Quality of Life Outcomes, Journal of Statistical Theory and Practice*

Reviewed Journals: *Nature Communications, Statistical Science, Nature Metabolism, Journal of American Statistical Association, Annals of Applied Statistics, Statistics in medicine, Bioinformatics, Surgery, Biometrics, Biostatistics, Frontiers in Genetics, Complementary Therapies in Medicine, BioData Mining, Pediatrics, Health and Quality of Life Outcomes, Journal of American Statistical Associations, PLOS ONE, Statistics in Medicine, Bioinformatics, Journal of Biopharmaceutical Statistics, International Journal of Environmental Research and Public Health, International Journal of Biostatistics, Model Assisted Statistics and Applications, Journal of Statistical Theory and Practice*

Member, American Statistical Associations	2008-present
Member, Eastern North American Region/International Biometric Society	2010-present
Member, International Chinese Statistical Association	2009-present (Lifetime member since 2023)
Member, American Public Health Association	2017- present
Member, Association for the Advancement of Artificial Intelligence	2017- present

EXTERNAL REVIEWER FOR FACULTY PROMOTION

Stanford University, 2019

Columbia University (with tenure), 2019

Duke University, 2020

University of Wisconsin – Madison (with tenure), 2021

STATISTICAL SOFTWARE

R, SAS, Mplus, SPSS

OTHER INTERESTS

Running, Tennis, Volleyball, Music, Soccer