

Curriculum Vitae

Zhigang Li

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WORKING AFFILIATION

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MAILING ADDRESS

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Gainesville, FL 32611

METHODOLOGICAL RESEARCH INTERESTS: (1) Mediation analysis with applications to microbiome data and high-dimensional mediators which involves high-dimensional data analysis, compositional data analysis, zero-inflated data analysis and hierarchical data analysis. (2) Joint modeling of longitudinal and survival data. (3). Longitudinal/correlated data analysis.

APPLICATION AND COLLABORATIVE RESEARCH INTERESTS: I am and have collaborated with investigators from many areas including Epidemiology, Clinical Trials, Children's Health Research, Environmental Health Research, Palliative Care Research, Cancer Research, Neurology, Nursing Research, End-of-Life Research, Pediatrics, Dentistry, Bioengineering, etc. It is important to stay connected with collaborators since inspiration for new methods is likely motivated by new data and study design.

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
M.P.S. 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 (University preeminence hire), 08/2018-present
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, 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, 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

02/2013-present Associate editor for *BioData Mining*

05/2013-present Associate editor for *Frontiers in Public Health*

02/2019-present 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)

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 Teacher Award (voted by students), Department of Biostatistics, University of Florida

NATIONAL / INTERNATIONAL COMMITTEES

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

REGIONAL / LOCAL COMMITTEES

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	Chair-elect of HDS master program admission committee, GSM at Dartmouth, NH
2017-2018	ASA Boston Chapter Planning Committee list
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: \$3.7+ million as PI, \$81+ million as co-I)

Active grants

- Grant title: Mediation analysis methods to model human microbiome mediating disease-leading causal pathways in children
Role: PI (50%)
Agency: NIH R01GM123014
Period: 2017-2022
PI: Li
Total cost: \$2,323,306
- 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%)
Agency: NIH R01AG068128
Period: 2020-2025
PI: Armstrong
Total cost: \$ 3,312,647
- Grant title: T32 Predoctoral Interdisciplinary Training in Movement Disorders and Neurorestoration
Role: co-I (5%)
Agency: NIH T32
PI: Bowers
Period: 2020-2025
Total cost: \$ 1,964,808
- Grant title: Alzheimer's-gut-microbiome grant supplement for MAPLE
Role: co-I (5%)
Agency: NIH
Period: 2019-2020
PI: Robert Cook
Total cost: \$400,000
- Grant title: Randomized Trial of a multimodal sexual dysfunction intervention for hematopoietic stem cell transplant survivors
Role: UF Subaward PI (4%)
Agency: American Cancer Society – Research Scholar Grant

Period: 2018-2023

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

Total cost: \$32,000

6. ECHO – Environmental Influences on Child Health Outcomes Pediatric Cohorts

Role: consultant (co-I before moving to UF)

PI: Margaret Karagas

Agency: NIH UH3OD023275

Period: 2018-2023

Total cost: \$26,274,620

Pending/submitted grants (incomplete list)

7. Grant title: Interventions to improve alcohol-related clinical outcomes

Role: PI for the data science core (20%)

Agency: NIH P01

Period: 2021-2026

PIs: Cook, Cohen

Total cost: \$7,649,365

8. Grant title: Metabolomic Phenotyping in a Diverse Sample of Individuals with Fibromyalgia

Role: co-I (15%)

Agency: NIH R01

Period: 2021-2024

PIs: Menzies, Lyon

Total cost: \$1,299,813

Completed grants

9. 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

10. 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

11. 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

12. 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

13. 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

14. Environment, Imprinting, and Neurodevelopment

Role: Co-I (5%)

PI: Carmen Marsit

Agency: NIH R01 ES022223

Period: 2013-2016

Total cost: \$3,998,630

15. Non-Melanoma Skin Cancer in New Hampshire

Role: Co-I (7%)

PI: Margaret Karagas

Agency: NIH/NCI 2 R01 CA57494

Period: 2010 – 2015

Total cost: \$2,920,547

16. 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

17. 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

18. Family Smoking Prevention and Tobacco Control Act National Longitudinal Study

Role: Co-investigator (on Dartmouth sub-contract) (10%)

PI: Hyland, [Dartmouth sub-contract PI] Sargent

Agency: FDA NOIDA-11-5568

Period: 2013 – 2016

19. Alcohol Marketing and Underage Drinking

Role: Biostatistician (10%)

PI: Sargent/Heatherton

Agency: NIH 1R01AA021347

Period: 2012 – 2017

Total cost:

20. 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
21. Cancer Center Support (CORE) Grant
Role: Biostatistician (10%)
PI: Mark Israel
Agency: NIH/NCI P30CA023108
Period: 2014 – 2017
Total cost:
22. SYNERGY: The Clinical and Translational Science Institute at Dartmouth
Role: Biostatistician (10%)
PI: Alan Green
Agency: NIH/NCATS UL1TR001086
Period: 2013 – 2017
Total cost:
23. 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
24. Developmental effects of early-life exposure to airborne PAHs
Role: Biostatistician (50%)
PI: Frederica Perera
Agency: 5R01ES015282
Period: 2009 – 2010
Total cost: \$1,657,824
25. Incentives, Cognitive Training, and Internet Therapy for Teens with Poorly Controlled Type 1 Diabetes
Role: Biostatistician (10%)
PI: Cathy Stanger
Agency: NIH/NICHHD DP3 HD076602-01
Period: 2012 – 2013
Total cost: \$2,455,757
26. Family Based Contingency-Management for Adolescent Alcohol Abuse
Role: Biostatistician (5%)
PI: Cathy Stanger
Agency: NIH/NIAAA R01 AA016917
Period: 2012 – 2013
Total cost: \$2,192,340
27. Behavioral Treatment of Adolescent Marijuana Use
Role: Co-I (5%)
PI: Alan Budney
Agency: NIH/NIDA 2R01 DA015186
Period: 2013 – 2013
Total cost: \$1,795,252
28. Comparative Effectiveness of Advanced Imaging in Cancer
Role: Biostatistician (50%)
PIs: A.Tosteson, Black, Hillner

Agency: NCI RC2CA148259

Period: 2012 – 2012

Total cost: \$3,962,575

29. A social-cognitive model of adolescent substance use

Role: Biostatistician (20%)

PI: Frederick Gibbons

Agency: R01 DA018871

Period: 2010 – 2011

Total cost: \$1,439,871

CLINICAL TRIAL PROTOCOLS

Dartmouth-Hitchcock-funded clinical trial protocol: D15113 (PI: Vergo) 2015-2017

Title: Feasibility of a creative writing intervention in an advanced cancer population: a single arm, consecutive cohort study.

Role: Biostatistician

Dartmouth-Hitchcock-funded clinical trial protocol: (PI: Lyons) 2017-2018

Title: A remotely supervised exercise program for lung cancer patients undergoing chemotherapy

Role: Biostatistician

Dartmouth-Hitchcock-funded clinical trial protocol: D14122 (PI: Kaufman) 2017-2018

Title: Phase II study of Oscillation of ER activity levels through sequential estradiol/anti-estrogen therapies in ER+/HER2- advanced breast cancer (POLLY)

Role: Biostatistician

Jie Zhou, Weston D. Viles, Boran Lu, Zhigang Li, Juliette C. Madan, Margaret R. Karagas, Jiang Gui, Anne G.

Hoen Identification of microbial interaction network: zero-inflated latent Ising model based approach

PUBLICATIONS (total citations: 3119, h-index: 29 according to google scholar)

Published or accepted peer-reviewed articles (*corresponding author and #indicates co-first author)

1. **Zhigang Li**, Lu Tian, A. James O'Malley, Margaret R. Karagas, Anne G. Hoen, Brock C. Christensen, Juliette C. Madan, Quran Wu, Raad Z. Gharaibeh, Christian Jobin, Hongzhe Li (In press) IFAA: Robust association identification and Inference For Absolute Abundance in microbiome analyses. *Journal of American Statistical Association*
2. 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*
3. 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*
4. 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*
5. 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
6. 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*
7. 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*
 8. 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*
 9. 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*
 10. Zhang H, Chen J, **Li Z** and Liu L. (In press) Testing for mediation effect with application to human microbiome data. *Statistics in Biosciences*
 11. 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*
 12. 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
 13. Rebecca Emery; 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
 14. 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*
 15. 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
 16. **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
 17. 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
 18. 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*
 19. 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*
 20. El-Jawahri A, Fishman SR, Vanderklish 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

21. 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
22. 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
23. **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
24. 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
25. 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
26. 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
27. 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.
28. 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
29. 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
30. 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
31. Scherer E, Ben-Zeev D, **Li Z**, Kane J (2017) Analyzing mHealth Engagement: Joint Models for Intensively Collected User Engagement Data. *Journal of Medical Internet Research- mhealth and uhealth*. 5(1): e1 doi: 10.2196/mhealth.6474
32. Temel JS, Greer JA, El-Jawahri A, Pirl WF, Park ER, Jackson VA, Back AL, Kamdar M, Jacobsen J, Chittenden EH, Rinaldi SP, Gallagher ER, Eusebio JR, **Li Z**, Muzikansky A, Ryan DP (2017) Effects of Early Integrated Palliative Care in Patients with Lung and Gastrointestinal Cancer: A Randomized Clinical Trial. *Journal of Clinical Oncology* 35(8):834-841 PMID: PMC5728034
33. 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.
34. 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

35. 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 PMID: PMC4873612
36. 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
37. 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 PMID: PMC4698028
38. Farzan S, Li Z, Korrick S, Spiegelman D, Enelow R, Nadeau K, Baker E and Karagas MR (2016) Infant Infections and Respiratory Symptoms in Relation to in utero Arsenic Exposure in a USA Cohort. *Environmental Health Perspectives* 124 (6):840-7 PMID:PMC4892909
39. Frost R, Li Z and Moore J (2015) Principal component gene set enrichment (PCGSE). *BioData Mining* 8:25 doi:10.1186/s13040-015-0059-z
40. Schifferdecker KE, Adachi-Mejia AM, Butcher RL, O'Connor S, Li Z and Bazos DA (2016) Translation of an Action Learning Collaborative Model into a community-based intervention to promote physical activity and healthy eating. *Health Promotion Practice* 17(1):70-9
41. 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.
42. Budney AJ, Stanger C, Tilford JM, Scherer E, Brown PC, Li Zho, Li Z and Walker D (2015) Computer-assisted Behavioral Therapy and Contingency Management for Cannabis Use Disorder. *Psychology of Addictive Behaviors* 29(3):501-11
43. Frost R, Li Z and Moore J (2015) Spectral gene set enrichment (SGSE). *BMC Bioinformatics* 16:70. doi: 10.1186/s12859-015-0490-7
44. 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 PMID: PMC4404423
45. Bakitas MA, Tosteson TD, Li Z, Lyons K, Hull J, Li Zho, Dionne-Odom JN, Frost J, Dragnev K, Hegel M, Azuero A and Ahles T (2015) Early Versus Delayed Initiation of Concurrent Palliative Oncology Care: Patient Outcomes in the ENABLE III Randomized Controlled Trial. *Journal of Clinical Oncology* 33(13):1438-45 PMID: PMC4404422
46. Davis MA, Li Z, Gilbert-Diamond D, MacKenzie T, Cottingham KL, Jackson BP, Lee JS, Baker ER, Marsit CJ and Karagas MR (2014) Infant Toenails as a Biomarker of *In Utero* Arsenic Exposure. *Journal of Exposure Science and Environmental Epidemiology* 24(5): 467–473 PMID: PMC4141012
47. 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
48. 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 PMID: PMC4309995
49. Davis M, Gilbert-Diamond D, Karagas MR, Li Z, Moore JH, Williams SM, Frost HR (2014) A Dietary-wide Association Study (DWAS) of Environmental Metal Exposures in US Children and Adults. *PLOS ONE* 9(9):e104768. doi: 10.1371/journal.pone.0104768
50. Li Z*, McKeague IW and Lumey LH (2014) Optimal Design Strategies for Sibling Studies with Binary Exposures. *The International Journal of Biostatistics* 10:185-96 PMID: PMC4412035
51. Lesseur C, Armstrong DA, Paquette AG, Li Z, Padbury JF and Marsit CJ (2014) Maternal Obesity and Gestational Diabetes are Associated with Placental Leptin DNA Methylation. *The American Journal of Obstetrics & Gynecology* 211(6):654.e1-9 PMID:PMC4254188

52. Karagas MR, Zens MS, **Li Z**, Stukel TA, Perry AE, Gilbert-Diamond D, Sayarath V, Stephenson R, Torti D, Joffe M, Spencer S and Nelson H (2014) Early-onset basal cell carcinoma and indoor tanning: a population-based study. *Pediatrics* 134 e4-e12
53. 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
54. 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
55. 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
56. 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
57. Gifford A, Alexandru D, **Li Z**, Dorman D, Moulton L, Zuckerman J, Parker HW, Stanton B, and O'Toole G (2014) Iron Supplementation Does Not Worsen Respiratory Health or Alter the Sputum Microbiome in Cystic Fibrosis. *Journal of Cystic Fibrosis* 13: 311-8 PMID: PMC3972336
58. 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
59. O'Hara, R. E., Gibbons, F. X., **Li, Z.**, Gerrard, M., & Sargent, J. D. (2013). Specificity of early movie effects on adolescent sexual behavior and alcohol use. *Social Science & Medicine*. 96: 200-207 PMID: PMC3804111
60. Fei DL, Koestler DC, **Li Z**, Giambelli C, Sanchez-Mejias A, Gosse JA, Marsit CJ, Karagas MR, Robbins DJ (2013) Association between In Utero arsenic exposure, placental gene expression, and infant birth weight: a US birth cohort study. *Environmental Health* 12:58 PMID: PMC3733767 PMID:PMC3733767
61. McClure AC, Tanski SE, Gilbert-Diamond D, Adachi-Mejia AM, **Li Z**, Li Zho, Sargent JD. (2013) Receptivity to TV Fast Food Restaurant Marketing and Obesity Among U.S. Youth. *American Journal of Preventive Medicine*. 45: 560-568
62. 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
63. Stanger C, Ryan SR, Delhey LM, Thrailkill K, **Li Z**, Li Zho, Budney AJ (2013) A Multicomponent Motivational Intervention to Improve Adherence Among Adolescents With Poorly Controlled Type 1 Diabetes: A Pilot Study. *J Pediatr Psychol*. 38: 629-637 PMID: 23699750
64. 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
65. Dionne-Odom J, Karita E, Kilembe W, Henderson F, Vwalika B, Bayingana R, **Li Z**, Mulenga J, Chomba E, Del Rio C, Khu NH, Tichacek A, Allen S. (2013) Reply to Yang et al. *Clin Infect Dis*. 57(8):1212-3. PMID: 23709651.
66. 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
67. 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

68. 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
69. **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 PMID:PMC3623280
70. **Li Z*** and McKeague IW (2013) Power and sample size calculations for generalized estimating equations via local asymptotics. *Statistica Sinica* 23, 231-250 PMID: PMC3903421
71. 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 PMID: PMC3779897
72. 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. PMID: PMC4324554
73. 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
74. 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
75. 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
76. 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
77. **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
78. 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 (provisionally Accepted/Revision/Under Review/In preparation)

1. **Li Z**, O'Malley J, Datta S, GharaiBeh RZ, Jobin C, Wu Q, Coker M, Hoen AG, Christensen BC, Madan JC, Karagas MR (Under review) MedZIM: Mediation analysis for zero-inflated mediators with applications to microbiome data.

2. Wu Q, Daniels M, Zhao L, **Li Z** (In preparation) Joint modeling longitudinal data and survival under informative censoring in palliative care research.
3. **Li Z**, McKeague I (In preparation) Estimating equations with inverse probability weighting for microbiome analysis.
4. Joseph A. Greer, Beverly Moy, Areej El-Jawahri, Vicki Jackson, Mihir Kamdar, Juliet Jacobsen, Charlotta Lindvall, Jennifer A. Shin, Simone Rinaldi, Heather Carlson, Angela Sousa, Emily Gallagher, **Zhigang Li**, Samantha Moran, Margaret Ruddy, Maya Anand, Julia E. Carp, Jennifer S. Temel (under review) Randomized Trial of a Collaborative Palliative and Oncology Care Intervention to Improve Communication about End-of-Life Care in Patients with Metastatic Breast Cancer
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 (In prep) Infant infections, Respiratory Symptoms, and Allergy in Relation to Timing of Rice Cereal Introduction in a United States Cohort
6. Yan Wang, Jennifer Jean Jacques, **Zhigang Li**, Kimberly Sibille, Robert L. Cook (under review) Real-time effects of medical marijuana on adults living with chronic pain: Feasibility and preliminary findings from an ecological momentary assessment (EMA) study

Selected Posters and Abstracts

Emond J, Bernhardt A, Gilbert-Diamond D, **Li Z** and Sargent J (2015) Commercial TV exposure, fast-food toy collecting and family visits to fast food restaurants. APHA Annual Meeting and Exposition, Chicago, IL, 11/2015

Bauer RN, **Li Z**, Nygaard UC, Subbiah M, Farzan S, Malipatlolla M, Maecker H, Karagas MR and Nadeau KC (2014) In Utero Arsenic and Cadmium Exposure is Associated With Altered T Lymphocyte Populations in Infant Cord Blood. PPTOX, Boston, MA 10/2014

Lesseur C, Armstrong DA, Paquette AG, **Li Z**, Padbury JF, Marsit CJ (5/2014) Maternal Obesity and Gestational Diabetes are Associated with Leptin Promoter DNA Methylation in Human Placenta. The Pediatric Academic Societies (PAS) Annual Meeting, Vancouver, Canada

Ji S, Zhao W, **Li Z**, Greenwald RM, Beckwith JG, Bolander RP, and McAllister TW (03/2014) Head impact accelerations for brain strain-related responses in contact sports: a model-based investigation. Tenth World Congress on Brain Injury, San Francisco, CA

Schifferdecker KE, Adachi-Mejia AM, Butcher RL, O'Connor S, Imset I, **Li Z**, Bazos DA. (11/2013) InSHAPE® Together: A community-based program to promote physical activity, healthy eating, and reduced sedentary behavior. American Public Health Association's 141st Annual Meeting and Exposition, Boston, MA.

AH Gifford, DM Alexandru, **Z Li**, DB Dorman, LA Moulton, KE Price, TH Hampton, ML Sogin, JB Zuckerman, HW Parker, BA Stanton and GA O'Toole (10/2013) Iron Supplementation Does Not Worsen Respiratory Health In Cystic Fibrosis. North American Cystic Fibrosis Conference, Salt lake city, UT

TEACHING EXPERIENCE (Total classroom teaching hours: 278)

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

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-present
Quran Wu, Dept of Biostatistics, University of Florida, 2019-present
Shangchen Song, Dept of Biostatistics, University of Florida, 2020-present

Doctoral Students (with me in dissertation committee)

Hildreth Rob Frost, Quantitative Biomedical Sciences Program (QBS), Geisel School of Medicine at Dartmouth, graduated in Fall 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, graduation (expected) in 2021
Archie Sachdeva, Department of Biostatistics, University of Florida, graduation (expected) in 2022
Dorothy Ellis, Department of Biostatistics, University of Florida, graduation (expected) in 2022

Doctoral Students (with me in qualify committee or as the academic advisor)

Fan Yi (academic advisor), Dept of Biostatistics, University of Florida, 2018-present
Qian Yang (Qualify exam committee chair), QBS, Geisel School of Medicine at Dartmouth, 2013-2018
Sara N. Lundgren (qualify exam committee member), QBS, Geisel School of Medicine at Dartmouth, 2017
Monica Espinoza (qualify exam committee member), QBS, Geisel School of Medicine at Dartmouth, 2017
Jai Woo Lee (qualify exam committee member), QBS, Geisel School of Medicine at Dartmouth, 2018
Xingyu Zheng (qualify exam committee member), QBS, Geisel School of Medicine at Dartmouth, 2018
Guanqing Chen (Qualify exam committee chair), QBS, Geisel School of Medicine at Dartmouth, 2018

Master Student (I am the academic advisor)

Dongyuan Wu, Dept of Biostatistics, University of Florida, 2018-2019, UF's International Achievement Award
Zachary Thompson (online), Dept of Biostatistics, University of Florida, 2018-2019

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

Master student research assistant

Chen Bai (20% FTE), Department of Biostatistics, University of Florida, 09/2018-01/2019

Jiaqi Chen (20% FTE), Department of Biostatistics, University of Florida, 03/2019-08/2019

Awards of Mentee's

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

PRESENTATIONS

Uncoming (invited) talks

2021 ENAR

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

Finished invited talks

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*

ORGANIZOR OF INVITED CONFERENCE SESSIONS

(Accepted invited session) Challenges and breakthroughs in biomedical high-dimensional data analysis in the big data era. *JSM 2020 annual meeting, Virtual conference (due to covid-19), 08/2020*

(Accepted invited session) Advances in causal inference and joint modeling with survival and complex longitudinal data. *ENAR 2020 annual meeting, Virtual conference (due to covid-19), 03/2020*

Recent methodological innovations for longitudinal and survival data. *ICSA 2019 China Conference, Tianjin, China, 12/2019*

Recent development in microbiome research. *The 26th ICSA Applied Statistics Symposium, Piscataway, NJ, USA, 06/2018*

High dimensional modeling in medicine. *The 25th ICSA Applied Statistics Symposium, Chicago, USA, 06/2017*

Joint modeling in clinical trials. *The 10th ICSA Annual conference, Shanghai, China, 12/2016*

PROFESSIONAL SERVICES AND AFFILIATIONS

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 ENAR, Virtual conference (due to covid-19), USA 03/2020

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

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

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 PHHP 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, 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, 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	2011- present
Member, American Public Health Association	2017- present
Member, Association for the Advancement of Artificial Intelligence	2017- present

EXTERNAL REVIEWER FOR FACTULY PROMOTION

Stanford University, 2019
Columbia University, 2019
Duke University, 2020

STATISTICAL SOFTWARE

R, SAS, Mplus, SPSS

OTHER INTERESTS

Running, Tennis, Volleyball, Music, Soccer