

Wei-Wen Hsu, PhD

CONTACT INFORMATION	Division of Biostatistics and Bioinformatics Department of Environmental & Public Health Sciences University of Cincinnati College of Medicine 101 Kettering Lab, 160 Panzeca Way Cincinnati, OH 45267-0056	<i>Email:</i> hsuwe@uc.edu <i>Tel:</i> 513-558-2767
RESEARCH INTERESTS	<ul style="list-style-type: none">• Methodologies: two-component mixture models, classification methods for high-dimensional data, hypothesis testing, longitudinal and correlated data analysis, categorical data analysis, hierarchical models, empirical processes, resampling techniques, latent class/transition models• Subject matter applications: cancer research (early detection and biomarker discovery), geriatric research (early detection of Alzheimer's Disease), environmental exposure research, dental caries research	
EDUCATION	<p>Michigan State University, East Lansing, Michigan <i>Department of Statistics and Probability</i> Ph.D., Statistics</p> <p>National Taipei University, Taipei, Taiwan <i>Department of Statistics</i> M.B.A., Statistics</p> <p>Tamkang University, Taipei, Taiwan <i>Department of Statistics</i> B.B., Statistics</p>	<p>August 2006 - August 2011</p> <p>September 1998 - June 2000</p> <p>September 1994 - June 1998</p>
POSITIONS	<p>Associate Professor Division of Biostatistics and Bioinformatics Department of Environmental & Public Health Sciences University of Cincinnati, Cincinnati, Ohio</p> <p>Associate Professor (with tenure) Department of Statistics Kansas State University, Manhattan, Kansas</p> <p>Master of Public Health (MPH) faculty Kansas State University, Manhattan, Kansas</p> <p>Visiting Associate Professor Department of Biostatistics and Medical Informatics University of Wisconsin-Madison, Madison, Wisconsin</p> <p>Assistant Professor Department of Statistics Kansas State University, Manhattan, Kansas</p> <p>Postdoctoral Fellow Department of Epidemiology and Biostatistics Michigan State University, East Lansing, Michigan</p> <p>Research Assistant Department of Epidemiology and Biostatistics Michigan State University, East Lansing, Michigan</p> <p>Research Assistant University Outreach and Engagement Michigan State University, East Lansing, Michigan</p> <p>Teaching Assistant Department of Statistics</p>	<p>July, 2021 - Present</p> <p>August, 2018 - June, 2021</p> <p>August, 2013 - June, 2021</p> <p>August, 2019 - December 2019</p> <p>August, 2013 - August, 2018</p> <p>September, 2011 - June, 2013</p> <p>January, 2010 - August, 2011</p> <p>October, 2007 - December, 2009</p> <p>September, 2005 - June, 2006</p>

National Cheng-Chi University, Taipei, Taiwan

Teaching Assistant

September, 2003 - January, 2005

Department of Financial Engineering and Actuarial Mathematics

Soochow University, Taipei, Taiwan

Assistant Research Fellow

September, 2002 - July, 2003

Institute for Public Opinions, Shihhsin University, Taipei, Taiwan

PEER-REVIEWED
PUBLICATIONS
(*: STUDENTS)

1. Torosyan, J., Tayebi, S., **Hsu, W.-W.** and Sidana, A. (2024) Initial Experiences of Treating Prostate Cancer with Focal Irreversible Electroporation. *Journal of Endourology, Part B: Videourology*, 38(1),1-2.
2. Sidana, A., Tayebi, S., Blank, F., Lama, D.J., Meyer, M., Saeed, Y., Tobler, J., **Hsu, W.-W.** and Verma, S. (2024) Magnetic resonance imaging-ultrasound fusion guided focal cryoablation for men with intermediate-risk prostate cancer. *In Urologic Oncology: Seminars and Original Investigations*. In Press. <https://doi.org/10.1016/j.urolonc.2024.01.003>.
3. Holovach, PG, **Hsu, W.-W.**, Fleischer, AB. (2024). Number Bias in Clinicians' Documentation of Actinic Keratosis Removal. *Journal of Clinical Medicine*, 13(1):202. <https://doi.org/10.3390/jcm13010202>.
4. Yang, H. D., Chang, A.*, **Hsu, W.-W.**, and Chen, C. S. (2023). Zero-Inflated Models for Spatiotemporal Count Data with Extra Zeros: Application to 1950-2015 Tornado Data in Kansas. *Environmental and Ecological Statistics*, 31, 1–25. <https://doi.org/10.1007/s10651-023-00586-3>.
5. Blank, F., Meyer, M., Wang, H., Abbas, H., Tayebi, S., **Hsu, W.-W.**, and Sidana, A. (2023). Salvage Radical Prostatectomy after Primary Focal Ablative Therapy: A Systematic Review and Meta-Analysis. *Cancers*, 15(10), 2727, <https://doi.org/10.3390/cancers15102727>.
6. Todem, D., **Hsu, W.-W.** and Kim, K. (2023). Nonparametric Scanning Tests of Homogeneity for Hierarchical Models with Continuous Covariates. *Biometrics*. <https://doi.org/10.1111/biom.13801>.
7. Chun, C.K.Y., Roth, M., Welti, R., Richards, M.P., **Hsu, W.-W.**, O'Quinn, T., and Chao, M.D. (2023). Exploring the potential effect of phospholipase A2 antibody to extend beef shelf-life in a beef liposome model system, *Meat Science*, 198, 109091, <https://doi.org/10.1016/j.meatsci.2022.109091>.
8. Li, Y.*, and **Hsu, W.-W.** (2022). A classification for complex imbalanced data in disease screening and early diagnosis. *Statistics in Medicine*, 41(19), 3679-3695. doi:10.1002/sim.9442.
9. **Hsu, W.-W.**, Mawella, N.*, and Todem, D. (2022). On testing for homogeneity with zero-inflated models through the lens of model misspecification. *International Statistical Review*, 90, 62– 77. <https://doi.org/10.1111/insr.12462>.
10. Horn, A.G., Kunkel, O.N., Baumfalk, D.R., Simon, M.E., Schulze, K.M., **Hsu, W.-W.**, Muller-Delp, J., Poole, D.C, and Behnke, B.J. (2021). Prolonged mechanical ventilation increases diaphragm arteriole circumferential stretch without changes in stress/stretch: Implications for the pathogenesis of ventilator-induced diaphragm dysfunction. *Microcirculation*, 00:e12727. <https://doi.org/10.1111/micc.12727>
11. Schulze, K.M., Weber, R.E., Colburn, T.D., Horn, A.G., Ade, C.J., **Hsu, W.-W.**, Poole, D.C., and Musch, T. (2021). The effects of pulmonary hypertension on skeletal muscle oxygen pressures in contracting rat spinotrapezius muscle. *Experimental Physiology*, 106, 2070– 2082. <http://doi.org/10.1113/EP089631>
12. Park, S.L, Huang, Y.-J. S., Lyons, A. C., Ayers, V.B., Hettenbach, S.M., McVey, D.S., Noronha, L.E., Burton, K.R., **Hsu, W.-W.**, Higgs, S. and Vanlandingham, D.L. (2021). Mosquito saliva modulates Japanese encephalitis virus infection in domestic pigs. *Frontiers in Virology, section Emerging and Reemerging Viruses*. 1, e724016. <https://doi.org/10.3389/fviro.2021.724016>

13. Huang, Y.-J. S, Bilyeu, A.N., **Hsu, W.-W.**, Hettenbach, S.M., Willix, J.L., Stewart, S.C., Higgs, S. and Vanlandingham, D.L. (2021). Treatment with dry hydrogen peroxide accelerates the decay of severe acute syndrome coronavirus-2 on non-porous hard surfaces. *American journal of infection control*, 49(10), 1252-1255. DOI: 10.1016/j.ajic.2021.07.006
14. Wang, S.C., Liao, L.M., Ansar, M., Lin, S.Y., **Hsu, W.-W.**, Su, C.M., Chung, Y.M., Liu, C.C., Hung, C.S. and Lin, R.K. (2021). Automatic Detection of Circulating Cell-Free Methylated DNA Pattern of GCM2, ITPRIPL1 and CCDC181 for Detection of Early Breast Cancer and Surgical Treatment Response. *Cancers*, 13, 1375. <https://doi.org/10.3390/cancers13061375>.
15. Kusuma, M. T.P.L., Kidd, T., Muturi, N., Procter, S., Yarrow, L., and **Hsu, W.-W.** (2020) HIV knowledge and stigma among dietetic students in Indonesia: implications for the nutrition education system. *BMC Infectious Diseases*, <https://doi.org/10.1186/s12879-020-05379-8>.
16. **Hsu, W.-W.**, Todem, D., Mawella, N.*, Kim, K. and Rosenkranz, R. (2020). A Robust Score Test of Homogeneity for Zero-Inflated Count Data. *Statistical Methods in Medical Research*, 29 (12), 3653-3665. <https://doi.org/10.1177/0962280220937324>.
17. Kusuma, M. T.P.L., Kidd, T., Muturi, N., Procter, S., Yarrow, L., and **Hsu, W.-W.** (2020) The Symbolic Meaning of HIV: Understanding Lecturers' Ambivalence over Teaching HIV to Dietetic Students. *Journal of the International Association of Providers of AIDS Care*, <https://doi.org/10.1177/2325958220939755>.
18. Fisher, S., **Hsu, W.-W.**, Adams, Z., Arsenault, C. and Milich, R. (2020). The effect of impulsivity and drinking motives on alcohol outcomes in college students: A 3-year longitudinal analysis. *Journal of American College Health*. <https://doi.org/10.1080/07448481.2020.1817033>.
19. Chao, M.D., Donaldson, E.A., Wu, W.J., **Hsu, W.-W.**, Shulte, M.D., and Lonergan, S.M. (2020) Characterizing membrane phospholipid hydrolysis of pork loins throughout three aging periods. *Meat Science*, 163, 108065. <https://doi.org/10.1016/j.meatsci.2020.108065>
20. Young, C.L., Lyons, A.C., **Hsu, W.-W.**, Vanlandingham, D.L., Park, S.L., Bilyeu, A.N., Ayers, V.B., Hettenbach, S.M., Zelenka, A.M., Cool, K.R., Peterson, G.J., Higgs, S. and Huang, Y.-J. (2020) Protection of swine by potent neutralizing anti-Japanese encephalitis virus monoclonal antibodies derived from vaccination. *Antiviral Research*, 174, 104675. <https://doi.org/10.1016/j.antiviral.2019.104675>
21. Mailey, E.L., Irwin, B.C., Joyce, J.M. and **Hsu, W.-W.** (2019) InDependent but not Alone: A Web-Based Intervention to Promote Physical and Mental Health among Military Spouses. *Applied Psychology: Health and Well-Being*. <https://doi.org/10.1111/aphw.12168>
22. Lyons, A.C., Huang, Y.-J., Park, S.L., Ayers, V.B., Hettenbach, S.M., Higgs, S., McVey D.S., Noronha, L., **Hsu, W.-W.** and Vanlandingham, D.L. (2018) Shedding of Japanese Encephalitis Virus in Oral Fluid of Infected Swine. *Vector-Borne and Zoonotic Diseases* 18(9), 469-474.
23. Mailey, E.L., Dlugonskib, D., **Hsu, W.-W.** and Segar M. (2018) Goals Matter: Exercising for well-being but not health or appearance predicts future exercise among parents. *Journal of Physical Activity & Health* 15, 857-865.
24. Todem, D., **Hsu, W.-W.** and Fine, J. (2018). A quasi-score statistic for homogeneity testing against covariate-varying heterogeneity. *Scandinavian Journal of Statistics* 45(3), 465-481. DOI: 10.1111/sjos.12308.
25. Huang, Y.-J., Lyons, AC., **Hsu, W.-W.**, Park, S.L., Higgs, S., Vanlandingham, D.L. (2017). Differential outcomes of Zika virus infection in *Aedes aegypti* orally challenged with infectious blood meals and infectious protein meals. *PLOS ONE*. 12(8): e0182386.
26. Kolt, G.S., George, E.S., Rebar, A.L., Duncan, M.J., Vandelanotte, C., Caperchione, C.M., Maeder, A.J., Tague, R., Savage, T.N., Itallie, A.V., Mawella, N.R.*, **Hsu, W.-W.**, Mumery, W.K., Rosenkranz R.R. (2017). Associations Between Quality of Life and Duration

- and Frequency of Physical Activity and Sedentary Behaviour: Baseline findings from the WALK 2.0 randomised controlled trial. *PLOS ONE*. 12(6): e0180072.
27. Mailey, E. and **Hsu, W.-W.** (2017). Is a general or specific exercise recommendation more effective for promoting physical activity among postpartum mothers? *Journal of Health Psychology* <https://doi.org/10.1177/1359105316687627>.
 28. Htoo, ZW., **Hsu, W.-W.** and Rosenkranz, R. (2016). Systematic review and meta-analysis: Is lifestyle modification effective for glycemic control among type II adults with diabetes in Southeast Asia? *Diabetes Research and Clinical Practice* 122, 14-153.
 29. Huang, Y.-J., Hettenbach, S.M., Harbin, J.N., Park, S.L., Higgs, S., Barrett, A.D.T., **Hsu, W.-W.**, Cohnstaedt, L.W., Vanlandingham, D.L. (2016). Differential Infectivities among Different Japanese Encephalitis Virus Genotypes in *Culex quinquefasciatus* Mosquitoes. *PLOS Neglected Tropical Diseases* 10(10): e0005038.
 30. Han, L., **Hsu, W.-W.**, Osuch, J.R., Todem, D., Hungerink, A.Karmaus, W. (2016). In-utero exposure to dichlorodiphenyldichloroethylene may increase fecundability in women. *Environmental Health* 15:92
 31. Park, S.L., Huang, Y.-J., **Hsu, W.-W.**, Hettenbach, S.M., Higgs, S., Vanlandingham, D.L. (2016). Virus-specific thermostability and heat inactivation profiles of alphaviruses. *Journal of Virological Methods* 152-5.
 32. **Hsu, W.-W.**, Todem, D. and Kim, K. (2016). A sup-score test for the cure fraction in mixture models for long-term survivors. *Biometrics* 72(4):1348-1357.
 33. Todem, D., Kim, K. and **Hsu, W.-W.** (2016). Marginal mean models for zero-inflated count data. *Biometrics* 72, 986-994.
 34. Zapolski, T., Fisher, S., **Hsu, W.-W.** and Barnes-Najor, J. (2016). What can parents do? Examining the role of parental support on the negative relationship between racial discrimination, depression, and drug use among African American youth. *Clinical Psychological Science* 4(4), 718-731.
 35. Obaro S.K., Daniel Y., Lawson J.O., **Hsu, W.-W.**, Dada J., Essen U., Ibrahim K., Akindele A., Brooks K., Olanipekun G., Ajose T., Stewart C.E., Inusa B.P.D. (2016). Sick-Cell Disease in Nigerian Children: Parental Knowledge and Laboratory Results. *Public Health Genomics* 19:102-107.
 36. Huang, Y.-J., **Hsu, W.-W.**, Higgs, S. and Vanlandingham, D. (2015). Temperature Tolerance and Inactivation of Chikungunya Virus. *Vector-Borne and Zoonotic Diseases*. 15(11), 674-677.
 37. **Hsu, W.-W.**, Todem, D. and Kim, K. (2015). Adjusted Supremum Score-Type Statistics for Evaluating Non-Standard Hypotheses. *Scandinavian Journal of Statistics* 42, 746-759.
 38. Wendel, S.O., Menon, S., Alshetaiwi, H., Shrestha, T.B., Chlebanowski, L., **Hsu, W.-W.**, Bossmann, S.H., Narayanan, S., Troyer, D.L. (2015). Cell Based Drug Delivery: *Micrococcus luteus* loaded Neutrophils as chlorhexidine delivery vehicles in a mouse model of liver abscesses in cattle. *PLOS ONE* 10(5): e0128144.
 39. Fisher, S., Reynolds, J., **Hsu, W.-W.**, Barnes, J. and Tyler, K. (2014). Examining Multiracial Youth in Context: Ethnic Identity Development and Mental Health Outcomes. *Journal of Youth and Adolescence* 43(10), 1688-1699.
 40. **Hsu, W.-W.**, Todem, D., Kim, K. and Sohn, W. (2014). A Wald test for zero inflation and deflation for correlated count data from dental caries research. *Statistical Modelling* 14(6), 471-488.
 41. **Hsu, W.-W.**, Osuch, J.R., Todem, D., Taffe, B., O'Keefe, M., Karmaus, W. and Adera, S. (2014). DDE and PCB serum concentration in maternal blood and in adult female offspring. *Environmental Research* 132, 384-390.

42. Cao, Q., **Hsu, W.-W.** and Todem, D. (2014). A score-type test for homogeneity in zero-inflated models in a stratified population. *Statistics in Medicine* 33(12), 2103-2114.
43. Osuch, J.R., **Hsu, W.-W.**, Todem, D., Landgraf J., Mikucki, D., Haan, P.S. and Karmaus, W. (2012). Female reproductive status and circulating blood leukocyte expression of selected metabolic or signaling genes involved in sex. *International Journal of Molecular Epidemiology and Genetics* 3(2), 134-143.
44. Todem, D., **Hsu, W.-W.** and Kim, K. (2012). On the efficiency of score tests for homogeneity in two-component parametric models for discrete data. *Biometrics* 68(3), 975-982.

NON-PEER
REVIEWED
PUBLICATIONS
(*: STUDENTS)

1. **Hsu, W.-W.** and Mailey, L.E. (2018). A two-measurement longitudinal study with excess zeros. *Taipei Medical University Biostatistics eNews* 26.
2. Cepeda, I.E.* and **Hsu, W.-W.** (2017). Early detection of Alzheimer's Disease in the military population. *Taipei Medical University Biostatistics eNews* 19.

TEACHING

Instructor **Jan, 2022 - Present**

Department of Environmental and Public Health Sciences

University of Cincinnati, Cincinnati, OH

- BE/PH 7011: Statistical Computation and Software (summer 2022; fall 2022)
- BE/PH 7088: Regression Analysis (spring 2022; spring 2023; spring 2024)
- BE/PH 7090: Applied Survival Analysis (spring 2023)
- BE/PH 7091: Applied Multivariate Analysis (spring 2022)
- BE/PH 8029: Biostatistics Seminar (spring 2023, fall 2023)

Instructor

August, 2013 - May, 2021

Department of Statistics

Kansas State University, Manhattan, Kansas

- STAT 950: Regression Analysis for Count Data (fall 2015)
- STAT 818: Theory of Life-Data Analysis (fall 2018)
- STAT 771: Theory of Statistics II (spring 2016; spring 2018)
- STAT 720: Design of Experiments (summer 2016)
- STAT 706: Basic Elements Of Statistical Theory (2020 Fall)
- STAT/MPH 701: Fundamental Methods of Biostatistics (fall 2013; spring fall 2014; falls 2015 2016 2017 2018 2020)
- STAT/MPH 701 (Online): Fundamental Methods of Biostatistics (springs 2015 2016 2017 2018 2019 2020 2021)
- STAT 510: Introductory Probability and Statistics I (springs 2014 2015 2017 2020)

Co-Instructor

August, 2012 - December, 2012

Department of Epidemiology and Biostatistics

Michigan State University, East Lansing, Michigan

- EPI 808: Introduction to Biostatistics I (fall 2012)

Workshop Instructor

November, 2009

University Outreach and Engagement

Michigan State University, East Lansing, Michigan

- Introduction to SPSS
- Data manipulation and statistical analysis: Using SPSS

Teaching Assistant

September, 2005 - June, 2006

Department of Statistics

National Cheng-Chi University, Taipei, Taiwan

- Mathematical Statistics (fall 2005 and spring 2006)
- SAS programming (fall 2005)
- Multivariate analysis (for MBA) (spring 2006)

Teaching Assistant (full time) **September, 2003 - January, 2005**
 Department of Financial Engineering and Actuarial Mathematics
 Soochow University, Taipei, Taiwan
 • Introductory Calculus (fall 2003 and spring 2004)
 • Probability and Statistics (fall 2004)

PENDING/FUNDED
 RESEARCH
 GRANTS

1. Title: **R01-Advancing technology-based metrics and tools that identify and promote environmental justice in urban parks and greenspace to address health disparities**
 Agency: NIH
 Dates of Project: 12/1/2024 - 11/30/2028
 Role: Co-I (7-15%) (PI: Dr. Gina Besenyi, Kansas State University)
 Amount: \$2,480,370
 Status: Under Review
2. Title: **Enhance Performance and Applications of Exposure-Protection Integrated Communicator (EPIC)**
 Agency: Ohio Bureau of Workers Compensation
 Dates of Project: 7/01/2023 - 6/30/2024
 Role: Biostatistician (10%) (PI: Dr. Jun Wang, University of Cincinnati)
 Amount: \$1,384,025
 Status: Awarded
3. Title: **Clinical Implications of Implementing Remote Therapeutic Monitoring for Individuals with Breast Cancer within Real World Environments**
 Agency: Shirley Ryan Ability Lab
 Dates of Project: 3/01/2024 - 2/28/2025
 Role: Biostatistician (6%) (PI: Dr. Anne Fleischer, University of Cincinnati)
 Amount: \$25,000
 Status: Awarded
4. Title: **R21-Uranium Exposure and Infertility in Reproductive Partners in the Fernald Community Cohort**
 Agency: NIH
 Dates of Project: 7/18/2022 - 8/30/2024
 Role: Biostatistician (20%) (PI: Dr. Susan Pinney, University of Cincinnati)
 Amount: \$258,577
 Status: Awarded
5. Title: **UCCC Pilot Grant Award-CanRestoreFunction: Cancer-Related Fatigue Management**
 Agency: NIH
 Dates of Project: 11/15/2022 - 11/14/2023
 Role: Co-I (1.8%) (PI: Dr. Anne Fleischer, University of Cincinnati)
 Amount: \$50,000
 Status: Awarded
6. Title: **R34-Physical Activity to Reduce Cardiometabolic Risk in Adults with Serious Mental Illness (PARCS Study)**
 Agency: NIH
 Dates of Project: 4/1/2022 - 3/31/2025
 Role: Co-I (3%) (PI: Dr. Gina Besenyi, Kansas State University)
 Amount: \$684,446
 Status: Awarded
7. Title: **Sustained Delivery of Simvastatin to Augment Meniscal Healing: Is Regenerative Healing Possible?**
 Agency: DOD
 Dates of Project: 7/1/2019 - 6/30/2024
 Role: Biostatistician (5%) (PI: Dr. Brian Grawe, University of Cincinnati)

Amount: \$1,998,671

Status: Awarded

8. Title: **Exercise and nutritional interventions on the prevention of cancer and improving the efficacy of anti-cancer treatments**
Agency: Planning Grant for Center of Excellence Award, Johnson Cancer Center - Kansas State University
Dates of Project: 7/1/2020 – 12/31/2020
Role: Co-PI (PI: Dr. Brad Behnike, Kansas State University)
Amount: \$6,000
Status: Awarded
9. Title: **1P20GM13044801A1-Rational Design of Live-Attenuated Vaccines for Flaviviruses**
Agency: NIH
Dates of Project: 12/1/2019 - 11/30/2020
Role: Statistician (PI: Dr. Yan-Jang Huang, Kansas State University)
Amount: \$220,203
Status: Awarded
10. Title: **Statistical Classification Models for Emerging Molecular Analysis in Early Detection of Cancer**
Agency: Faculty Enhancement Program, College Arts & Sciences, Kansas State University
Dates of Project: 4/1/2015 - 3/31/2016
Role: PI (mentor: Dr. Gary Gadbury, Kansas State University)
Amount: \$10,000
Status: Awarded

RESEARCH
GRANT
PROPOSALS
SINCE JULY 2021

1. Title: **R01-Advancing Collaborative Care and Evidence-based Strategies for Surgical Services in Transgender Voice (ACCESS-Voice)**
Agency: NIH
Dates of Project: 7/1/2024 - 6/30/2029
Role: Co-I (15%) (PI: Dr. Victoria Sue McKenna, University of Cincinnati)
Amount: \$2,099,581
Status: Denied
2. Title: **R01-Per- and Polyfluoroalkyl Substances (PFAS) and Human Heart Health**
Agency: NIH
Dates of Project: 7/1/2024 - 6/30/2029
Role: Co-I (10%) (PI: Dr. Hong-Sheng Wang, University of Cincinnati)
Amount: \$1,983,501
Status: Denied
3. Title: **Can Next-Generation Sequencing Predict the Likely Pathogen When Severe Open Fractures Result in Fracture-Related Infections?**
Agency: DOD
Dates of Project: 9/30/2024 - 09/29/2028
Role: Biostatistician (5%) (PI: Dr. H. Claude Sagi, University of Cincinnati)
Amount: \$1,617,134
Status: Denied
4. Title: **R21-Impact of social determinants of health and clinical factors on cancer patients' healthcare utilization**
Agency: NIH
Dates of Project: 3/1/2024 - 2/28/2026
Role: Co-I (10%) (PI: Dr. Caroline Frances Morrison, University of Cincinnati)
Amount: \$275,000
Status: Denied

5. Title: **Mapping Neuroinflammation in Adults with Sickle Cell Disease**
Agency: American Society of Hematology
Dates of Project: 7/1/2024 - 6/30/2026
Role: Biostatistician (PI: Dr. Kristine Anne Karkoska, University of Cincinnati)
Amount: \$150,000
Status: Denied
6. Title: **R21-Laryngeal sensorimotor reflexes in hyperfunctional voice disorders**
Agency: NIH
Dates of Project: 7/1/2023 - 6/30/2026
Role: Co-I (7.5%) (PI: Dr. Victoria McKenna, University of Cincinnati)
Amount: \$375,000
Status: Denied
7. Title: **The Utility of Molecular Diagnostics and Extended Antibiotic Therapy in the Prevention of Post-Traumatic Osteomyelitis Following Open Fracture**
Agency: DOD
Dates of Project: 10/01/2023 - 9/30/2027
Role: Biostatistician (PI: Dr. H. Claude Sagi, University of Cincinnati)
Amount: \$1,773,232
Status: Denied
8. Title: **R01-Immunosensor/Lab-on-a-chip for Antigen monitoring in Cutting Fluids Causing Occupational Lung Disease**
Agency: NIH
Dates of Project: 7/1/2023 - 6/30/2028
Role: Co-I (5%) (PI: Dr. Jagjit Yadav, University of Cincinnati)
Amount: \$2,149,766
Status: Denied
9. Title: **R01-Cytosolic Self-DNA Sensing by the AIM2-like Receptor Proteins in Alterations of the Aging Hallmarks**
Agency: NIH
Dates of Project: 7/1/2023 - 6/30/2028
Role: Co-I (8.3%) (PI: Dr. Divaker Choubey, University of Cincinnati)
Amount: \$3,893,962
Status: Denied
10. Title: **R01-Gene and environment interactions regulating Rho signaling in epithelial morphogenesis**
Agency: NIH
Dates of Project: 7/1/2023 - 6/30/2028
Role: Co-I (5%) (PI: Dr. Ying Xia, University of Cincinnati)
Amount: \$2,965,350
Status: Denied
11. Title: **R21-Sleep Disturbance and Early Onset of Alzheimer's Disease: A New Exploration with the Use of Existing Datasets**
Agency: NIH
Dates of Project: 04/01/2023 - 03/31/2025
Role: **PI**
Amount: \$275,000
Status: Denied
12. Title: **R01-Pollution Effects on Biological Aging: A New Paradigm for Understanding Adolescent Mental Health Risk**
Agency: NIH
Dates of Project: 04/01/2023 - 03/31/2028
Role: Co-I (PI: Dr. Kelly Jo Brunst, University of Cincinnati)
Amount: \$2,180,333
Status: Denied

13. Title: **R01-Clinical Impact of Alcohol Consumption During and After Treatment for Head and Neck Cancer**
 Agency: NIH
 Dates of Project: 04/01/2023 - 03/31/2028
 Role: Co-I (PI: Dr. Scott M Langevin, University of Cincinnati)
 Amount: \$2,491,161
 Status: Denied
14. Title: **R01-Integrated assessment of in-vitro toxicity-based inhalation risk for welding fume**
 Agency: NIH
 Dates of Project: 04/01/2023 - 03/31/2027
 Role: Co-I (PI: Dr. Jun Wang, University of Cincinnati)
 Amount: \$1,597,648.53
 Status: Denied
15. Title: **R21-Exploring the metabolome in women with breast cancer and uranium exposure**
 Agency: NIH
 Dates of Project: 04/01/2023 - 03/31/2025
 Role: Co-I (PI: Dr. Cecily Lyn Shimp Fassler, University of Cincinnati)
 Amount: \$337,339.00
 Status: Denied
16. Title: **Role of Prescription Drugs on Worker Health, Recovery, and Longevity**
 Agency: Ohio Bureau of Workers' Compensation
 Dates of Project: 2022 - 2024
 Role: Co-I (PI: Dr. Kermit Davis, University of Cincinnati)
 Amount: \$298,489
 Status: Denied
17. Title: **Developing an integrated and interdisciplinary data science (IIDS) core**
 Agency: University of Cincinnati CCTST Pilot and Innovative Core Grant Program
 Dates of Project: 4/1/2022 - 3/31/2024
 Role: Co-I (PI: Dr. Danny T.Y. Wu, University of Cincinnati)
 Amount: \$50,000
 Status: Denied

PRESENTATIONS
AFTER 2021

2024

- Invited department seminar at the University of Louisville, Department of Bioinformatics and Biostatistics, Louisville, Kentucky, USA. **March.**

2023

- Oral presentation (Contributed) at the 2023 Joint Statistical Meetings, Toronto, Canada. **August.**
- International Conference Invited speaker. **2023 International Conference of Statistics and Data Science**, Taipei, Taiwan. **July.**
- Conference Invited speaker. The 23th South Taiwan Statistics Conference, Hualien, Taiwan. **June.**
- Invited department seminar at the University of Cincinnati, Division of Biostatistics & Bioinformatics, Department of Environmental & Public Health Sciences, Cincinnati, Ohio, USA. **January.**

2022

- Invited department seminar at National Dong Hwa University, Department of Applied Mathematics, Hualien, Taiwan. **November.**
- Invited department seminar at Taipei Medical University, College of Pharmacy, Taipei, Taiwan. **October.**

2021

- Invited department seminar at the University of Cincinnati, Department of Medical Engineering, Cincinnati, Ohio, USA. **November.**

- Invited department seminar at the University of Cincinnati, Division of Biostatistics & Bioinformatics, Department of Environmental & Public Health Sciences, Cincinnati, Ohio, USA. **October.**
- Invited department seminar at the University of Nebraska Medical Center, Department of Biostatistics, College of Public Health, Omaha, Nebraska, USA. **February.**
- Invited department seminar at George Mason University, Department of Global and Community Health, College of Health and Human Services, Fairfax, Virginia, USA. **February.**
- Invited department seminar at the University of Cincinnati, Division of Biostatistics & Bioinformatics, Department of Environmental & Public Health Sciences, Cincinnati, Ohio, USA. **February.**

PROFESSIONAL
SERVICE

Referee Service

- Annals of Applied Statistics (2022)
- Biometrics (2019, 2020)
- Chemosphere (2022)
- Communications in Statistics - Case studies and data analysis (2018)
- Frontiers Pediatrics (2021)
- International Journal of Obesity (2014)
- Journal of Applied Statistics (2013, 2015)
- Journal of Agricultural, Biological, and Environmental Statistics (2013, 2014)
- Journal of Statistical Computation and Simulation (2018, 2021, 2022)
- Journal of Statistical Distributions and Applications (2016)
- PLOS ONE (2019, 2020)
- Scientific Reports (2020)
- Statistics and Probability Letters (2017)
- Statistics in Medicine (2014, 2017, 2018, 2019, 2021, 2023)
- Statistical Methods in Medical Research (2023)
- Surgery for Obesity and Related Diseases (2024)
- Zoonoses and Public Health (2020)
- ELSEVIER textbooks (2020)

UNIVERSITY
SERVICE

Kansas State University

- Member, MPH Faculty Advisory Council, Kansas State University, Aug. 2013 - Jun. 2021
- Member, Visioning Committee for Chapman Center for Rural Studies, College of Arts and Sciences, Mar. - May 2018
- Department Representative, Undergraduate Research Fair, College of Arts and Sciences, Sept. 2016, 2017
- Outside chairperson, Marvin Petingco's PhD defense, Biological and Agricultural Engineering, October, 2020
- Outside chairperson, Wenji Zhang's PhD defense, Electrical and Computer Engineering, Nov. 2018
- Outside chairperson, Kaitlynn Abell's PhD defense, Diagnostic Medicine Pathobiology, Apr. 2017
- Outside chairperson, Scott Marshall's PhD defense, Curriculum and Instruction, Jul. 2016

DEPARTMENT
SERVICE

University of Cincinnati

- Member, Departmental Task Committee, Apr. 2022 - Jul. 2022

Kansas State University

- **Chair**, 2019 Statistics Faculty Search Committee, Sept. 2018 - Mar. 2019
- Member, 2018 Statistics Department Head Search Committee, Jun. 2018 - Sept. 2018
- Member, 2015 Statistics Faculty Search Committee, Nov. 2014 - Feb. 2015
- Member, PhD Qualifying Exam Committee - Linear model exam, Oct. 2020 - Present
- Member, PhD Qualifying Exam Committee - Applied exam, Dec. 2018 - Jan. 2019, Nov. 2019 - Jan. 2020

- Member, PhD Qualifying Exam Committee - Theory exam, Nov. 2016 - Jan. 2017, Nov. 2017 - Jan. 2018
- **Chair**, 2020 MS Qualifying Exams Committee, Oct. 2020 - Present.
- Member, 2017 MS Qualifying Exams Committee, Mar. 2017 - May 2017.
- Member, Promotion and Tenure Update Committee, Oct. 2016 - Nov. 2016
- Advisor, STAT club, Kansas State University, Aug. 2014 - May. 2018
- Seminar Chair, 2015 Fall semester, Aug. 2015 - Dec. 2015

OTHER SERVICE

- Innovations in Design, Analysis, and Dissemination: Frontiers in Biostatistics and Data Science (IDAD) planning committee (2018, 2019, 2020, 2021)
- **Chapter Representative**, Kansas-Western Missouri Chapter of ASA, Jul. 2019 - Present
- **President**, Kansas-Western Missouri Chapter of ASA, Jul. 2018 - Jul. 2019
- Vice President, Kansas-Western Missouri Chapter of ASA, Jul. 2017 - Jul. 2018
- Secretary/Treasurer, Kansas-Western Missouri Chapter of ASA, Jul. 2014 - Jul. 2017
- Session Chair, 2014 Kansas State University Conference on Applied Statistics in Agriculture
- Session Chair, 2014 Joint Statistical Meetings

ADVISING AND MENTORING

Major Advisor

University of Cincinnati

- PhD
 - Chen Hu, PhD in Biostatistics, Jan. 2023 - Present
- MS
 - Parneet Kaur, MS in Biostatistics, May 2023 - April 2024
 - Brevish Dixit, MPH, Capstone Project, Jan. 2023 - May 2023

Kansas State University

- PhD
 - Yiming Li, Statistics, Jan. 2020 - Aug. 2022 (graduated)
 - Jianfeng Chen, Statistics, Feb. 2016 - Dec. 2019 (graduated)
 - Suizhi Yu, Statistics, Feb. 2016 - May 2019 (graduated)
 - Nadeesha Mawella, Statistics, Mar. 2015 - May 2018 (graduated)
- MS
 - Jennifer Delzeit, Statistics, Dec. 2017 - May 2019 (graduated)
 - Jiali Zhu, Statistics, Feb. 2016 - Nov. 2018 (graduated)
 - Shenshen Lu, Statistics, Oct. 2015 - Aug. 2017 (graduated)
 - Xianzhe Xue, Statistics, Oct. 2015 - Aug. 2017 (graduated)
 - Ileana Cepeda, MPH, Sept. 2016 - Apr. 2017 (graduated)
 - Jiena Gu, Statistics, Jan. 2015 - Aug. 2016 (graduated)
 - Gaowei Nien, Statistics, Sept. 2013 - Jul. 2014 (graduated)
 - Siyu Gao, Statistics, Sept. 2013 - May 2014 (graduated)
- Undergraduate Research
 - Shimeng Ji, Statistics, Apr. 2020 - Dec. 2020
(Award: 2020 Fall Arts & Sciences Undergraduate Research Scholarship)
 - Audrey Chang, Statistics, Apr. 2016 - May 2018
(Awards: 2016 Fall & 2017 Spring Arts & Sciences Undergraduate Research Scholarship; 2017 Fall KSU Office of Undergraduate Research and Creative Inquiry Award)

Supervisory Committee

University of Cincinnati

- Sara Burcham, PhD in Epidemiology, Sept. 2023 - Present
- Michael Grabel, PhD in Biostatistics, April 2022 - Present
- John Singletary, PhD in Environmental & Industrial Hygiene, May 2022 - Present
- Daniella Saul, MPH, May 2023 - Nov. 2023
- Victoria (Tori) Besser, Master of Clinical & Translational Research, Jun. 2022 - July 2023

- Jason Greenberg, Master of Clinical & Translational Research, Dec. 2022 - Mar. 2023
- Elissa Engel, Master of Clinical & Translational Research, Feb. 2022 - Mar. 2023
- Meghan Fanta, Master of Clinical & Translational Research, Dec. 2021 - Mar. 2022

Kansas State University

- Statistics
 - LinRuo Guo, PhD, Nov. 2020 - April, 2022 (graduated)
 - Shengnan Chen, PhD, Jan. 2019 - April, 2022 (graduated)
 - Shiqiang Jin, PhD, May 2017 - April, 2021 (graduated)
 - Yan McGowan, PhD, Mar. 2017 - Nov. 2018 (graduated)
 - Jinguang Lin, MS, Sept. 2017 - Jul. 2018 (graduated)
 - Chendi Cao, MS, Jul. 2015 - May 2016 (graduated)
- MPH and others
 - Marissa Komp, MPH, Dec. 2020 - Jun. 2022 (graduated)
 - Madeline Burke, MPH, Jun 2020 - May 2021 (graduated)
 - Tim Manges, MPH, Oct 2019 - May 2020 (graduated)
 - Yanqun Peng, Marriage & Family Therapy PhD, May 2018 - Aug. 2019 (graduated)
 - Jesseca Milholm, MPH, May 2018 - Aug. 2019 (graduated)
 - Dana Johnson, MPH, Jan. 2017 - May 2018 (graduated)
 - Jonathan Yang, MPH, Oct. 2016 - Sept. 2017 (graduated)
 - Mutiara Kusuma, Human Nutrition PhD, Jan. 2015 - May 2017 (graduated)
 - Sara Bubenik, MPH, Jul. 2015 - May 2016 (graduated)
 - Ashley Thackrah, MPH, Mar. 2015 - Nov. 2015 (graduated)
 - Zachary Stein, MPH, Mar. 2015 - Aug. 2015 (graduated)
 - Erica McGinley, MPH, Aug. 2014 - Nov. 2015 (graduated)
 - Zaw Wai Htoo, MPH, Mar. 2014 - May, 2015 (graduated)

CONCENTRATION
IN STATISTICAL
CONSULTING

zero-inflated models, survival cure rate models, multivariate analysis, linear or non-linear model, logistic regression, ordinal logistic regression, longitudinal and correlated data analysis, hierarchical models, structure equation models, path analysis, sample size/power calculation in mixed models, Intraclass Correlation Coefficient, survey sampling design, missing value imputation, classification Methods, cluster randomized control trial, clinical trial

PROFESSIONAL
SOCIETIES

- American Statistical Association (ASA), since 2008
- International Biometric Society (ENAR), since 2010

Last updated on: 4/1/2024