CURRICULUM VITAE

Ying Ding, Ph.D.
Associate Professor (Tenured)
Department of Biostatistics
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EDUCATION and TRAINING

Undergraduate

2003	Nanjing University Nanjing, China	BS Mathematics

Graduate

2010	University of Michigan Ann Arbor, MI Advisor: Bin Nan	PhD Biostatistics
2005	Indiana University Bloomington Bloomington, IN	MA Mathematics

APPOINTMENTS and POSITIONS

Academic

2003 - 2005	Indiana University Bloomington, IN	Assistant Instructor Department of Mathematics
2005 - 2006	University of Michigan Ann Arbor, MI	Graduate Student Instructor Department of Biostatistics
2006 - 2009	University of Michigan Ann Arbor, MI	Graduate Student Research Assistant Department of Biostatistics
2013 - 2019	University of Pittsburgh Pittsburgh, PA	Assistant Professor (Tenure Stream) Department of Biostatistics
2019 - Present	University of Pittsburgh Pittsburgh, PA	Associate Professor (Tenured) Department of Biostatistics

Non-Academic

2008 - 2008	Eli Lilly and Company Indianapolis, IN	Statistics Summer Intern
2009 - 2012	Eli Lilly and Company Indianapolis, IN	Research Scientist
2012 - 2013	Eli Lilly and Company Indianapolis, IN	Senior Research Scientist

MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES

2003 - 2005	Fellow, Women in Science, Indiana University Bloomington
2003 - 2005	Member, American Mathematical Society
2005 - 2007	Fellow, Public Health Genetics Interdepartmental Concentration
2013 - 2017	Member, PLOS ONE Statistical Advisory Board
2007 - Present	Member, American Statistical Association
2007 - Present	Member, International Biometric Society, Eastern North American Region (ENAR)

HONORS and AWARDS

2000 - 2003	People's Scholarship, Nanjing University, China
2003	Outstanding Student Award, Nanjing University, China
2003 - 2005	Women in Science Fellowship Indiana University Bloomington
2006	Best First-Year Masters Student, University of Michigan
2007	Best Performance on the PhD Qualifying Exams, University of Michigan
2008	Midwest SAS User Group (MWSUG) Student Scholarship
2009	Rackham Predoctoral Fellowship, University of Michigan
2010	ENAR Distinguished Student Paper Award
2013	ENAR Junior Researcher Travel Award
2013	Nominated for 2013 Craig Teaching Award, University of Pittsburgh
2014	Women in Statistics Conference Travel Award
2020	Nominated for 2020 Craig Teaching Award, University of Pittsburgh
2021	2021 James L. Craig Excellence in Education Award, University of Pittsburgh
2022	Inducted to Delta Omega Honor Society in Public Health
2022	Ascending Star Award, Heath Sciences, University of Pittsburgh

PUBLICATIONS

*: corresponding/senior author
+: co-first author
_: PhD advisee

Statistical Papers (from independent methodological research)

1. Sun T, Li Y, Xiao Z, **Ding Y**, Wang X. (2022) Semiparametric copula method for semi-competing risks data subject to interval censoring and left truncation: Application to disability in elderly. *Statistical Methods in Medical Research. Accepted.*

2. Wang X, Xu Z, Zhou X, Zhang Y, Huang H, **Ding Y**, Duerr RH, Chen W. (2022) SECANT: a biology-guided semi-supervised method for clustering, classification, and annotation of single-cell multi-omics. *PNAS Nexus.* https://doi.org/10.1101/2020.11.06.371849

3. Sun T, **Ding Y**. (2022) Neural Network on Interval Censored Data with Application to the Prediction of Alzheimer's Disease. *Biometrics.* https://onlinelibrary.wiley.com/doi/abs/10.1111/biom.13734

4. Ganjdanesh A+, Zhang Z+, Chew EY, **Ding Y**, Chen W*, Huang H* (2022) LONGL-Net: A Temporal Correlation Structure Guided Deep Learning Framework for Predicting Longitudinal Age-related Macular Degeneration Severity. *PNAS Nexus.* PMID: 35360552 DOI: 10.1093/pnasnexus/pgab003

5. Wei Y, Hsu JC, Chen W, Chew EY, **Ding Y***. (2021) Identification and inference for subgroups with

differential treatment efficacy from randomized controlled trials with survival outcomes through multiple testing. (***An earlier version won the Best Poster Award in ASA Pittsburgh Chapter 2019 Meeting***.) *Statistics in Medicine.* https://doi.org/10.1002/sim.9196

6. Wei Y, Wang X, Chew EY, **Ding Y***. (2021) Confident Identification of Subgroups from SNP Testing in RCTs with Binary Outcomes. *Biometrical Journal.* https://doi.org/10.1002/bimj.202000170

7. Yan Q, Jiang Y, Huang H, Xin H, Swaroop A, Chew EY, Weeks DE, Chen W*, **Ding Y***. (2021) GWAS-based Machine Learning for Prediction of Age-Related Macular Degeneration Risk. *Translational Vision Science & Technology (TVST).* https://doi.org/10.1167/tvst.10.2.29

8. Sun T, **Ding Y***. (2021) Copula-based semiparametric transformation model for bivariate data under general interval censoring. (***An earlier version won the 2019 ENAR Distinguished Student Paper Award***.) *Biostatistics.* 22(2): 315–330. PMID: 31506682

9. Sun T, Wei Y, Chen W, **Ding Y***. (2020) Genome-wide Association Study-based Deep Learning for Survival Prediction. *Statistics in Medicine.* 39(30):4605-4620. PMID: 32974946

10. Chen L-W, Cheng Y, **Ding Y**, Li R. (2020) Quantile Association Regression on Bivariate Survival Data. *Canadian Journal of Statistics.* doi/10.1002/cjs.11577

11. Sun T, **Ding Y***. (2020) CopulaCenR: Copula based Regression Models for Bivariate Censored Data in R. *The R Journal.* https://doi.org/10.32614/RJ-2020-025

12. Wang X+, Sun Z+, Zhang Y, Xu Z, Huang H, Duerr R, Chen K, **Ding Y***, Chen W*. (2020) BREM-SC: A Bayesian Random Effects Mixture Model for Joint Clustering Single Cell Multi-Omics Data. (***An earlier version won the 2020 ICSA Student Paper Award.***) *Nucleic Acid Research.* doi: 10.1093/nar/gkaa314. PMID: 32379315.

13. Yan Q, Weeks DE, Xin H, Huang H, Swaroop A, Chew EY, **Ding Y***, Chen W* (2020) Deep-learning-based Prediction of Late Age-Related Macular Degeneration Progression. *Nature Machine Intelligence.* 2(2):141-150. PMID: 32285025

14. Wei Y+, Liu Y+, Sun T, Chen W, **Ding Y***. (2019) Gene-based Association Analysis for Bivariate Time-to-event Data through Functional Regression with Copula Models. (***An earlier version won the 2019 LiDS Conference Student Paper Award.***) *Biometrics.* DOI: 10.1111/biom.13165. 76:619–629. PMID: 31625595

15. Sun Z, Chen L, Xin H, Huang Q, Cillo AR, Tabib T, Kolls JK, Bruno TC, Lafyatis R, Vignali DAA, Chen K, **Ding Y***, Hu M*, Chen W*. (2019) A Bayesian mixture model for clustering droplet-based single cell transcriptomic data from population studies. (***The earlier version won the 2019 ENAR Distinguished Student Paper Award***.) *Nature Communications*. 10(1):1649. PMID: 30967541

16. Sun T+, Liu Y+, Cook RJ, Chen W, **Ding Y***. (2019). Copula-based Score Test for Bivariate Time-to-event Data, with Application to a Genetic Study of AMD Progression. (***An earlier version won the Best Poster Award in ASA Pittsburgh Chapter 2017 Meeting***.) *Lifetime Data Analysis*. 25(3):546-568. PMID: 30560439

17. Lin HM, Xu H, **Ding Y**, Hsu JC. (2019). Correct and Logical Inference on Efficacy in Subgroups and Their Mixture for Binary Outcomes. *Biometrical Journal*. 61(2): 8-26. PMID: 30353566

18. **Ding Y*,** Li GY, Liu Y, Ruberg SJ, Hsu JC. (2018). Confident Inference For SNP Effects On Treatment Efficacy. *Annals of Applied Statistics.* 12(3): 1727-1748.

19. **Ding Y**[*,+], Kong S[+], Kang S, Chen W. (2018). A Semiparametric Imputation Approach for Regression with Censored Covariate, with Application to an AMD Progression Study. *Statistics in Medicine.* 37(23): 3293-3308. PMID: 39845616

20. Yan Q[+], **Ding Y**[+], Liu Y, Sun T, Fritsche LG, Clemons T, Ratnapriya R, Klein ML, Cook RJ, Liu Y, Fan R, Wei L, Abecasis GR, Swaroop A, Chew EY, Weeks DE, Chen W. (2018). Genome-wide Analysis of Disease Progression in Age-related Macular Degeneration. *Human Molecular Genetics*. 27(5):929-940. PMID: 29346644

21. Sun Z, Wang T, Deng K, Wang X-F, Lafyatis R, **Ding Y**, Hu M, Chen W. (2018). DIMM-SC: A Dirichlet mixture model for clustering droplet-based single cell transcriptomic data. *Bioinformatics.* 34(1):139-146. PMID: 29036318

22. **Ding Y**, Liu Y, Yan Q, Fritsche LG, Cook RJ, Clemons T, Ratnapriya R, Klein ML, Abecasis GR, Swaroop A, Chew EY, Weeks DE, Chen W. (2017). Bivariate Analysis of Age-Related Macular Degeneration Progression Using Genetic Risk Scores. *Genetics.* 206(1):119-133. PMID: 28341650 (***Received editorial highlight and media reports.****)*

23. Wang T, Ren Z, **Ding Y**, Zhou F, Sun Z, MacDonald ML, Sweet RA, Wang J, Chen W. (2016). FastGGM: An efficient algorithm for the inference of Gaussian graphical model in biological networks. *PLoS Computational Biology.* 12(2):e1004755. PMID: 26872036

24. Fan R, Wang Y, Yan Q, **Ding Y**, Weeks DE, Lu Z, Ren H, Cook R J, Xiong M, Swaroop A, Chew E Y, Chen W. (2016). Gene-based Association Analysis for Censored Traits Via Fixed Effect Functional Regressions. *Genetic Epidemiology*. 40(2):133-43. PMID: 26782979

25. **Ding Y**[*], Lin HM, Hsu JC. (2016). Subgroup Mixable Inference on Treatment Efficacy in Mixture Populations, with an Application to Time-to-Event Outcomes. *Statistics in Medicine.* 35(10):1580-94. PMID: 26646305

26. **Ding Y**[*], Nan B. (2015). Estimating Mean Survival Time: When is it Possible? *Scandinavian Journal of Statistics.* 42(2):397-413. PMID: 26019387 PMCID: PMC4442028

27. **Ding Y**[*], Fu H. (2013). Bayesian Indirect and Mixed Treatment Comparisons Across Longitudinal Time Points. *Statistics in Medicine.* 32 (15):2613-28. PMID: 23229717

28. Banerjee M, **Ding Y**, Noone A. (2012). Identifying Representative Trees from Ensembles. *Statistics in Medicine.* 31(15):1601-16. PMID: 22302520

29. **Ding Y,** Nan B. (2011). A Sieve M-theorem for Bundled Parameters in Semiparametric Models, with Application to the Efficient Estimation in a Linear Model for Censored Data. (***An earlier version won the 2010 ENAR Distinguished Student Paper Award***.) *Annals of Statistics.* 39(6):3032-3061. PMID: 24436500 PMCID: PMC3890689

30. **Ding Y,** Choi H, Nesvizhskii AI. (2008). Adaptive Discriminant Function Analysis and Reranking of MS/MS Database Search Results for Improved Peptide Identification in Shotgun Proteomics. *Journal of Proteome Research.* 7(11):4878-89. PMID: 18788775 PMCID: PMC3744223

Collaborative Papers (from interdisciplinary collaborative research)

31. Fan P, DeChellis-Marks MR, **Ding Y**, Kofler J, Sweet RA, Wang L. (2022) Efficacy Difference of Antipsychotics in Alzheimer's Disease and Schizophrenia: Explained with Network Efficiency and Pathway Analysis Methods. *Briefings in Bioinformatics.* https://doi.org/10.1093/bib/bbac394

32. Barakat MT, Khalid A, Yu M, **Ding Y**, Murayi J-A, Jayaraman T, Poropatich R, Akshintala V, Juakiem W, Wen L, Papachristou G, Husain SZ. (2022) A review of the rationale for the testing of the calcineurin inhibitor tacrolimus for post-ERCP pancreatitis prevention. *Pancreatology.* PMID: 35872075

DOI: 10.1016/j.pan.2022.07.003

33. McKinney BC, Hensler CM, Wei Y, Lewis DA, Wang J, **Ding Y**, Sweet RA. (2022) Schizophrenia-associated differential DNA methylation in brain is distributed across the genome and annotated to MAD1L1. *Translational Psychiatry.* doi: https://doi.org/10.1101/2020.08.02.20166777

34. DeChellis-Marks MR, Wei Y, **Ding Y**, Krivinko JM, MacDonald ML, Lopez OL, Sweet RA, Kofler J. (2022) Transcriptome-wide Study of Psychosis in Alzheimer's Disease Nominates Reduced Vulnerability of Excitatory Neurons and Post-Transcriptional Synaptic Compensation as Mechanisms Conferring Resilience. *Frontiers Neurology*. https://doi.org/10.3389/fneur.2022.778419

35. Grubisha MJ, Sun T, Erickson SL, Eisenman L, Helmer CD, **Ding Y**, Homanics GE, Penzes P, Wills ZP, Sweet RA. (2021) A Kalirin Missense Mutation Enhances Dendritic RhoA Signaling and Leads to Regression of Cortical Dendritic Arbors Across Development. *PNAS:* 118 (49) e2022546118; https://doi.org/10.1073/pnas.2022546118

36. Saito T[+], Wei Y[+], Wen L[+], Srinivasan C, Wolthers BO, Tsai C-Y, Harris MH, Stevenson K, Byersdorfer C, Oparaji J-A, Fernandez C, Mukherjee A, Abu-El-Haija M, Agnihotri S, Schmiegelow K, Showalter MR, Fogle PW, McCulloch S, Contrepois K, Silverman LB, **Ding Y**[*], Husain SZ[*]. (2021) Impact of acute lymphoblastic leukemia (ALL) induction therapy: a metabolomic approach. *Metabolomics*. 17:64. PMID: 34175981 DOI: 10.1007/s11306-021-01814-2

37. Shi L, Sun Z, Su W, Xu F, Zhang Q, Dai X, Iyer K, Xie D, Hitchens KT, Foley LM, Stolz DB, Chen K, **Ding Y**, Thomson AW, Leak RK; Chen J, Hu X. (2021). Treg cell-derived osteopontin promotes microglia-mediated white matter repair after ischemic stroke. *Immunity.* https://doi.org/10.1016/j.immuni.2021.04.022

38. Grubisha MJ, Sun X, MacDonald ML, Garver M, Sun Z, DeGiosio RA, Lewis DA, Yates NA, Camacho C, **Ding Y**, Sweet RA. (2021) MAP2 is Differentially Phosphorylated in Schizophrenia, Altering Its Function. *Molecular Psychiatry.* https://doi.org/10.1038/s41380-021-01034-z

39. MacDonald ML, Garver M, Newman J, Sun Z, Kannarkat J, Salisbury R, Glausier J, **Ding Y**, Lewis DA, Yates NA, Sweet RA. (2019) Synaptic Proteome Alterations in the Primary Auditory Cortex of Schizophrenia. *JAMA Psychiatry.* DOI: 10.1001/jamapsychiatry.2019.2974. PMID: 31642882

40. Bokvist KB, **Ding Y**, Landschulz WH, Sinha V, Pastrak A, Belin RM. (2019) Gastrin Analogue Administration Adds No Significant Glycaemic Benefit to a GLP-1 Receptor Agonist Acutely or After Washout of Both Analogues. *Diabetes, Obesity and Metabolism.* DOI: 10.1111/dom.13695 PMID: 30848033

41. MacDonald ML, Favo D, Garver M, Sun Z, Arion D, **Ding Y**, Yates NA, Sweet RA, Lewis D. (2019). Laser Capture Microdissection – Targeted Mass Spectrometry: A Method for Multiplexed Protein Quantification Within Individual Layers of The Cerebral Cortex. *Neuropsychopharmacology.* 44(4):743-748. PMID: 30390066

42. Krivinko JM, Erickson SL, **Ding Y**, Sun Z, Penzes P, MacDonald ML, Jones-Laughner J, Yates NA, Ikonomovic MD, Lopez OL, Sweet RA, Kofler J. (2018). Synaptic Proteome Compensation and Resilience to Psychosis in Alzheimer's Diseases. *The American Journal of Psychiatry*. 175(10):999-1009 PMID: 30021459

43. Liu A, Chen M, Kumar R, Stefanovic-Racic M, O'Doherty RM, **Ding Y**, Jahnen-Dechent W, Borghesi L. (2018). Bone marrow lympho-myeloid malfunction in obesity requires precursor cell-autonomous TLR4. *Nature Communications.* 9(1):708 doi:10.1038/s41467-018-03145-8. PMID: 29453396

44. McKinney B, Lin H, **Ding Y**, Lewis DA, Sweet RA. (2017). DNA methylation age is not accelerated in brain or blood of subjects with schizophrenia. *Schizophrenia Research.* doi:

10.1016/j.schres.2017.09.025. PMID: 28988914

45. McKinney B, **Ding Y**, Lewis DA, Sweet RA. (2017). DNA methylation as a putative mechanism for reduced dendritic spine density in the superior temporal gyrus of subjects with schizophrenia. *Translational Psychiatry.* 7(2): e1032. PMID: 28195572

46. McKinney B, Lin H, **Ding Y**, Lewis DA, Sweet RA. (2017). DNA Methylation Evidence Against the Accelerated Aging Hypothesis of Schizophrenia. *NPJ Schizophrenia.* 3(13) PMCID: PMC5441537

47. Kazda CM, **Ding Y**, Kelly RP, Garhyan P, Shi C, Lim CN, Fu H, Watson DE, Lewin AJ, Landschulz WH, Deeg MA, Moller DE, Hardy TA. (2016). Evaluation of Efficacy and Safety of the Glucagon Receptor Antagonist LY2409021 in Patients with Type 2 Diabetes: 12- and 24-Week Phase 2 Studies. *Diabetes Care.* 39(7):1241-1249. PMID: 26681715

48. Sweet RA, MacDonald ML, Kirkwood CM, **Ding Y**, Schempf T, Kofler J, Ikonomovic M, Lopez OL, Yates NA. (2016). APOE*4 genotype is associated with altered levels of glutamate signaling proteins and synaptic co-expression networks in the prefrontal cortex in mild to moderate Alzheimer disease. *Journal of Molecular and Cellular Proteomics.* 15(7):2252-62 PMID: 27103636

49. Edmunds LR, Otero PA, Sharma L, D'Souza S, Dolezal JM, David S, Lu J, Lamm L, Basantani M, Sipula IJ, Zeng X, **Ding Y**, Ding F, Beck ME, Vockley J, Kershaw EE, O'Doherty RM, Kratz LE, Yates NA, Goetzman EP, Scott D, Duncan AW, Prochownik WV. (2016). Abnormal Lipid Processing but Normal Long-Term Re-population Potential of myc-/- Hepatocytes. *Oncotarget.* 7(21):30379-95 PMID: 27105497

50. Liu Y, Wang R, **Ding Y**, Tu S, Liu Y, Qian Y, Xu L, Tong T, Cai S, and Peng J. (2016). A predictive nomogram improved diagnostic accuracy and interobserver agreement of perirectal lymph nodes metastases in rectal cancer. *Oncotarget.* 7(12):14755-64. PMID: 26910373

51. Kirkwood CM, MacDonald ML, Schempf T, Vatsavayi A, Ikonomovic M, Koppel J, **Ding Y**, Sun M, Kofler J, Lopez O, Yates NA, Sweet RA. (2016). Altered VILIP-1 Levels Correspond to Regional Neuronal Loss in Alzheimer's Disease and Frontotemporal Lobar Degeneration. *Journal of Neuropathology and Experimental Neurology.* 75(2):175-82. PMID: 26769253

52. Polanco PM, **Ding Y**, Knox JM, Ramalingam L, Jones H, Hogg ME, Zureikat AH, Hotzman MP, Pingpank J, Ahrendt S, Zeh H, Bartlett DL, Choudry HA. (2015). Outcomes of Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemoperfusion in Patients with High-grade, High-volume Disseminated Mucinous Appendiceal Neoplasms*. Annals of Surgical Oncology.* 23(2):382-90. PMID: 26429720

53. Liu A, Wang Y, **Ding Y**, Baez I, Payne KJ, Borghesi L. (2015). Cutting Edge: Hematopoietic Stem Cell Expansion and Common Lymphoid Progenitor Depletion Require Hematopoietic-Derived, Cell-Autonomous TLR4 in a Model of Chronic Endotoxin. *Journal of Immunology.* 195(6):2524-8. PMID: 26276875

54. Edmunds LR, Sharma L, Wang H, Kang A, d'Souza S, Lu J, McLaughlin M, Dolezal JM, Gao X, Weintraub ST, **Ding Y**, Zeng X, Yates N, Prochownik EV. (2015). c-Myc and AMPK Control Cellular Energy Levels by Cooperatively Regulating Mitochondrial Structure and Function. *PLoS One*. 10(7):e0134049. PMID: 26230505

55. Banik A, Brown R E, Bamburg J, Lahiri D K, Khurana D, Friedland R P, Chen W, **Ding Y**, Mudher A, Padjen A, Mukaetova-Ladinska E, Ihara M, Srivastava S, Srivastava MVP, Masters CL, Kalaria R N, and Anand A. (2015). Translation of Pre-clinical Studies into Successful Clinical Trials for Alzheimer's disease: What are the Roadblocks and How Can They Be Overcome? *Journal of Alzheimer's Disease.* 47(4):815-843. PMID: 26401762

56. Ling X, Zhang S, Shao P, Li W, Yang L, **Ding Y**, Xu C, Stella N, Bai M. (2015). A novel near-infrared fluorescence imaging probe that preferentially binds to cannabinoid receptors CB2R over CB1R. *Biomaterials*. 57:169-178. PMID: 25916505 PMCID: PMC4426855

57. Ma X, Li X, Xu L, Shi D, Tong T, Huang D, **Ding Y**, Cai S, Peng J. (2015). Characteristics and Prognostic Significance of Preoperative Magnetic Resonance Imaging-Assessed Circumferential Margin in Rectal Cancer. *Gastroenterology Research and Practice*: 410150. PMID: 26089866 PMCID: PMC4452312

58. Zhang S, Shao P, Ling X, Yang L, Hou W, Thorne SH, Beaino W, Anderson CJ, **Ding Y**, Bai M. (2015). In Vivo Inflammation Imaging Using a CB2R-targeted Near Infrared Fluorescent Probe. *American Journal of Nuclear Medicine and Molecular Imaging.* 5(3):246-58. PMID: 26069858 PMCID: PMC4446393

59. Downs-Canner S, **Ding Y**, Magge DR, Jones H, Ramalingam L, Zureikat A, Holtzman M, Ahrendt S, Pingpank J, Zeh HJ, Bartlett DL, Choudry HA. (2015). A comparative analysis of postoperative pancreatic fistulas after surgery with and without hyperthermic intraperitoneal chemoperfusion. *Annals of Surgical Oncology*. 22(5):1651-7. PMID: 25348781

60. Polanco PM, **Ding Y**, Knox JM, Ramalingam L, Jones H, Hogg ME, Zureikat AH, Hotzman MP, Pingpank J, Ahrendt S, Zeh H, Bartlett DL, Choudry HA. (2015). Institutional Learning Curve of Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemoperfusion for Peritoneal Malignancies. *Annals of Surgical Oncology.* 22(5):1673-9. PMID: 25377640

61. MacDonald ML, **Ding Y**, Newman J, Hemby S, Penzese P, Lewis DA, Yates N, Sweet RA. (2015). Altered Glutamate Protein Co-Expression Network Topology Linked to Spine Loss in the Auditory Cortex of Schizophrenia. *Biological Psychiatry.* 77(11):959-68. PMID: 25433904

62. Peng J[+], **Ding Y**[+], Tu S, Lu JJ, Shi D., Chen W, Li X, Wu H, Cai S. (2014). Prognostic nomograms for predicting survival and distant metastases in locally advanced rectal cancers without neoadjuvant treatment. *PloS One.* 9(8):e106344 PMID: 25171093

63. Jia N, Zhang S, Shao P, Bagia C, Janjic J, **Ding Y**, Bai M. (2014). Cannabinoid CB2 Receptor as a New Phototherapy Target for Inhibition of Tumor Growth. *Molecular Pharmaceutics.* 11(6):1919-1929. PMID: 24779700

64. Santos PM, **Ding Y**, Borghesi L. (2014). Cell-intrinsic in vivo Requirement for the E47-p21 Pathway in Long-term Hematopoietic Stem Cells. *Journal of Immunology.* 192(1):160-8. PMID: 24259504 PMCID: PMC3893818

65. Peng J, Li X, **Ding Y**, Shi D, Wu H, Cai S. (2013). Is Adjuvant Radiotherapy Warranted in Curatively Resected T1- 2 Node-positive Rectal Cancer? *Radiation Oncology*. 8:290 PMID: 24350579 PMCID: PMC3907146

66. Chen F, Ding X, **Ding Y**, Xiang Z, Li X, Ghosh D, Schurig GG, Sriranganathan N, Boyle SM, He Y. (2011). Proinflammatory caspase-2 mediated macrophage cell death induced by a rough 2 attenuated Brucella suis. *Infection and Immunity.* 79(6):2460-69. PMID: 21464087 PMCID: PMC3125819

67. Peng J, Wang Z, Chen W, **Ding Y**, Wang H, Huang H, Huang W, Cai S. (2010). Integration of genetic signature and TNM staging system for predicting the relapse of locally advanced colorectal cancer. *International Journal of Colorectal Disease*. 25(11):1277-85. PMID: 20706727

68. Zhou M, Liu Z, Wei Z, Liu C, Qiao T, Ran F, Bai Y, Jiang X, **Ding Y**. (2009). Development and Validation of a Small Diameter Vascular Tissue from a Decellularized Scaffold Coated with Heparin and Vascular Endothelial Growth Factor. *Artificial Organs*. 33(3):230-239. PMID: 19245522

69. Kunju L, **Ding Y**, and Kleer CG. (2008) Convergence between Breast Flat Epithelial Atypia and Atypical Ductal Hyperplasia: Validity and Limitations. *Human Pathology.* Sept 15, 2008.

70. Kunju L, **Ding Y**, Kleer CG. (2008). Tubular Carcinoma and Grade 1 (Well- Differentiated) Invasive Ductal Carcinoma: Comparison of Flat Epithelial Atypia and other Intra-epithelial Lesions. *Pathology International.* 58:620-625. PMID: 18801081

Books and Book Chapters

71. **Ding Y***, Sun T. Copula Models and Diagnostics for Multivariate Interval-Censored Data. In: Sun J, Chen D-G, editors. *Emerging Topics in Modeling Interval-Censored Survival Data* New York: Springer, 2022. *Forthcoming.*

72. Cui X, Dickhaus T, **Ding Y**, Hsu JC. *Handbook of Multiple Comparisons. Chapman & Hall/CRC, 2021*. ISBN 9780367140670

73. **Ding Y***, Wei Y, Wang X. Logical Inference on Treatment Efficacy When Subgroups Exist. Book Chapter In: Ting N, Cappelleri JC, Ho S, Chen DG. *Design and Analysis of Subgroups with Biopharmaceutical Applications. New York: Springer, 2020*

74. **Ding Y***, Wei Y, Wang X, Hsu JC. Testing SNPs in Targeted Drug Development. *Book Chapter* In: Cui X, Dickhaus T, **Ding Y**, Hsu JC. *Handbook of Multiple Comparisons. Chapman & Hall/CRC, 2021*

75. Yan Q, **Ding Y**, Weeks, DE, Chen W. AMD Genetics: Methods and Analyses for Association, Progression, and Prediction. Book Chapter In: *Adv Exp Med Biol*, Vol. 1256, Emily Chew and Anand Swaroop (Eds): *Age-related Macular Degeneration*. *Springer Nature, 2021*

76. **Ding Y***, Wei Y, Wang X. Logical Inference on Treatment Efficacy When Subgroups Exist. Book Chapter In: Ting N, Cappelleri JC, Ho S, Chen DG. *Design and Analysis of Subgroups with Biopharmaceutical Applications. New York: Springer, 2020*

77. **Ding Y***, Lin HM. Data Analysis of in vivo Fluorescence Imaging Studies. In: Bai M, editors. In Vivo Fluorescence Imaging: *Methods and Protocols.* New York: Springer, 2016.

78. Shen L, **Ding Y**, Battioui CA. A Framework of Statistical Methods for Identification of Subgroups with Differential Treatment Effects in Randomized Trials. In: Chen Z, Liu A, Qu Y, Tang L, Ting N, Tsong Y, editors. *Applied Statistics in Biomedicine and Clinical Trials Design: Selected Papers from 2013 ICSA/ISBS Joint Statistical Meetings.* (pp. 411-425). New York: Springer, 2015.

Manuscripts under Revision/Review

79. Sun T, Cheng Y, **Ding Y***. (2022+) An Information Ratio based Goodness-of-fit Test for Copula Models on Censored Data. *Biometrics. Under revision.*

80. Wei Y+, Bo N+, Zeng L, Kang, C, **Ding Y***. (2022+) A Meta-Learner Framework to Estimate Individualized Treatment Effects for Survival Outcomes (**An earlier version won the 2022 JSM LiDS section student paper award)**. *Biometrics. Under revision.*

81. Rahman MA, Cai C, McNamara D, **Ding Y**, Cooper GF, Lu X, Liu J. (2022) A discrete method for estimating personalized genomic variants of hypertension. doi: https://doi.org/10.1101/2022.06.25.22276897 *BMC Genomics. Under revision.*

82. Tsai C-H, Saito T, Sarangdhar M, Abu-El-Haija M, Wen L, Lee B, Manohar M, Barakat MT, Contrepois K, Bo N, **Ding Y**, Stevenson K, Ladas EJ, Silverman LB, Quadro L, Anthony TG, Jegga AG, Husain SZ. (2022+) A systems approach points to a therapeutic role for retinoids in asparaginase-1 associated pancreatitis. *Science Translational Medicine. Under revision.*

83. Chen X, Chen L, Kürten CHL, Jabbari F, Vujanovic L, **Ding Y**, Kulkarni A, Tabib T, Lafyatis R, Cooper G, Ferris R, Lu X. (2022+) An individualized causal framework for learning intercellular communication networks that define microenvironments of individual tumors. *PLOS Computational Biology. Under*

revision. DOI: 10.1101/2021.11.11.467838

84. Gomez Marti JL, Nasrazadani A, **Ding Y**, Normolle D, Brufsky AM. (2022+) Twenty-Year Follow-up of a Phase II Trial of Taxotere/Carboplatin/Herceptin in Patients with Metastatic HER2-Positive Breast Cancer. *Under review.*

85. Krivinko JM, DeChellis-Marks MR, Zeng L, Fan, P, Lopez OL, **Ding Y**, Wang L, Kofler J, MacDonald ML, Sweet RA. (2022+) Targeting the Post-Synaptic Proteome in Alzheimer's Disease with Psychosis. DOI: 10.21203/rs.3.rs-1514870/v1 *Under review.*

86. Chen L, Wang Y, Cai C, **Ding Y**, Kim RS, Lipchik C, Fumagalli D, Gavin PG, Yothers G, Allegra CJ, Petrelli NJ, Suga JM, Hopkins JO, Saito NG, Evans T, Jujjavarapu S, Wolmark N, Lucas PC, O'Connell MJ, Paik S, Sun M, Pogue-Geile KL, Lu X. (2022+) Machine Learning Predicts Oxaliplatin Benefit in Colon Cancer Adjuvant Therapies. *Submitted.*

Other Published Articles

87. Natanegara F, **Ding Y** Committee Spotlight: ASA Statistical Partnerships Among Academe, Industry, and Government (SPAIG), *AMSTATNEWS*, June 1, 2021. https://magazine.amstat.org/blog/2021/06/01/spotlight-spaig/
88. **Ding Y**, Jensen W, Lee J, Natanegara F. SPAIG Awards Goes to Two. *AMSTATNEWS*, November 1, 2019. https://magazine.amstat.org/blog/2019/11/01/spaig-award-goes-to-two/.
89. Jensen W, Natanegara F, **Ding Y**. 2018 SPAIG Award Lauds Forensic Science Collaboration. *AMSTATNEWS,* October 1, 2018. https://magazine.amstat.org/blog/2018/10/01/2018-spaig-award/.
90. Natanegara F, Jensen W, **Ding Y**. 2017 SPAIG Award Winner Announced. *AMSTATNEWS,* December 1, 2017. https://magazine.amstat.org/blog/2017/12/01/spaig_2017/.

List of Published Work in My Bibliography:
http://www.ncbi.nlm.nih.gov/sites/myncbi/1f510URSbxjQh/bibliography/47222780/public/?sort=date&direction=ascending

Google Scholar:
https://scholar.google.com/citations?user=g1oszqIAAAAJ&hl=en

RESEARCH

Current research support

Funding Agency:	NIH/NIBIB
Grant Number:	R01EB034116
Title of Grant:	SCH: New Advanced Machine Learning Framework for Mining Heterogeneous Ocular Data
Principal Investigator:	Huang, H. and Chen, W.
Ding Role on Grant:	Co-Investigator
Years Inclusive:	07/15/2022 – 03/31/2026
Percent Effort:	10.0%

Funding Agency:	NIH/NIGMS
Grant Number	R01GM141076
Title of Grant:	New statistical methods and software for modeling complex multivariate survival data with large-scale covariates
Principal Investigator:	Ding, Y.
Ding Role on Grant:	**Principal Investigator**
Years Inclusive:	6/1/2022 – 5/31/2026

Percent Effort: 22 % + 200 % Graduate Student Researchers

Funding Agency: Pitt CTSI
Title of Grant: Precision care in asthma using EHR analytics
Principal Investigator: Ding, Y. and Forno, E.
Dinge Role on Grant: **Principal Investigator**
Years Inclusive: 6/1/2022 – 5/31/2023
Percent Effort: In kind + 60 % Graduate student Researcher

Funding Agency: NIH/NIA
Grant Number R01AG069912
Title of Grant: Genetic and Molecular Correlates of White Matter Pathology in Alzheimer's Disease
Principal Investigator: Kofler, J.
Ding Role on Grant: Co-Investigator
Years Inclusive: 1/1/2021 – 12/31/2025
Percent Effort: 5.0 % + 50% Graduate Student Researcher

Funding Agency: NIH/NIMH
Grant Number R01MH125235
Title of Grant: Fine-Mapping Genome-Wide Associated Loci using Multi-omics Data to Identify Mechanisms Affecting Serious Mental Illness
Principal Investigator: MacDonald, M. and Devlin, B. and Trinidad, J.
Ding Role on Grant: Co-Investigator
Years Inclusive: 1/1/2021 – 10/31/2024
Percent Effort: 5.0 % + 50% Graduate Student Researcher

Funding Agency: NIH/NEI
Grant Number R21EY030488
Title of Grant: Deep-learning-based prediction of AMD and its progression with GWAS and fundus image data
Principal Investigator: Ding, Y. (contact) and Chen, W.
Ding Role on Grant: **Principal Investigator**
Years Inclusive: 8/1/2020 – 5/31/2023
Percent Effort: 20.0 % + 100% Graduate Student Researcher

Funding Agency: NIH/NIMH
Title of Grant: Synaptic Protein Networks, Genetic Risk, and Spine Loss in Schizophrenia
Principal Investigator: MacDonald, M
Ding Role on Grant: Co-Investigator
Years Inclusive: 9/1/2019 – 7/31/24
Percent Effort: 10.0 %

Funding Agency: NIH/NIMH
Grant Number: R01MH116046
Title of Grant: Synaptic Resilience to Psychosis in Alzheimer Disease
Principal Investigator: Sweet, R.A.; Kofler, J.K; Wang, L
Ding Role on Grant: Co-Investigator
Years Inclusive: 9/25/2018 – 6/30/2023
Percent Effort: 15.0 %

Funding Agency: NIH/NIA
Grant Number: R01AG027224
Title of Grant: Prediction of Psychosis in Alzheimer Disease
Principal Investigator: Sweet, R.A.
Ding Role on Grant: Co-Investigator
Years Inclusive: 5/1/2018 – 4/30/2022

Percent Effort: 10.0 % + 50% Graduate Student Researcher

Funding Agency: NIH/NCI
Grant Number: P30CA4790413
Title of Grant: Cancer Center Support Grant (Biostatistics Facility)
Principal Investigator: Ferris, R.
Ding Role on Grant: Biostatistician
Years Inclusive: 8/1/2020 – 7/31/2025
Percent Effort: 10 %

Funding Agency: Department of Defense
Title of Grant: Optimizing a novel intraductal delivery of calcineurin inhibitors as a radiocontrast infusion formulation to prevent post-ERCP pancreatitis
Principal Investigator: Husain, S.
Ding Role on Grant: Subaccount Principal-Investigator
Years Inclusive: 9/30/2019 – 9/29/22
Percent Effort: 5.0 %

Funding Agency: Department of Defense
Title of Grant: Exploiting Metabolic Vulnerabilities to Target Multidrug-Resistant Ovarian Cancer
Principal Investigator: Aird, K.
Ding Role on Grant: Co-Investigator
Years Inclusive: 9/1/2021 – 8/29/23
Percent Effort: 5.0 %

Completed research support

Funding Agency: American Hematological Society
Title of Grant: Cellular and Molecular Mechanisms of HSC Dysfunction in Chronic Inflammation
Principal Investigator: Borghesi, L.
Ding Role on Grant: Co-Investigator
Years Inclusive: 9/15/2014 – 9/15/2015
Percent Effort: 3.0 %

Funding Agency: NIH/NAI
Grant Number: R56AI079047
Title of Grant: Cellular and Molecular Mechanisms of HSC Dysfunction in Chronic Inflammation
Principal Investigator: Borghesi, L.
Ding Role on Grant: Co-Investigator
Years Inclusive: 08/01/2015 – 07/31/2016
Percent Effort: 8.5 %

Funding Agency: UPMC Competitive Medical Research Fund
Title of Grant: Novel and Robust Methods for Protein Network Analysis of Proteomics Data in Psychiatric Disorders
Principal Investigator Ding, Y.
Ding Role on Grant: **Principal Investigator**
Years Inclusive: 7/1/2015 – 12/31/2017
Percent Effort: In-kind + 40% Graduate Student Researcher

Funding Agency: NIH/NEI
Grant Number: R01EY024226
Title of Grant: AMD Genetics: Methods and Analysis for Progression, Prediction and Association

Principal Investigator: Chen, W.
Ding Role on Grant: Co-Investigator
Years Inclusive: 4/1/2014 – 3/31/2018
Percent Effort: 15.0 %

Funding Agency: NIH/NIMH
Grant Number: R03MH108849
Title of Grant: Novel and Robust Methods for Differential Protein Network Analysis of Proteomics Data in Schizophrenia Research
Principal Investigator: Ding, Y.
Ding Role on Grant: **Principal Investigator**
Years Inclusive: 7/1/2016 – 6/30/2018
Percent Effort: 15.0 %

Funding Agency: NIH/NIAID
Grant Number: R21AI126440
Title of Grant: TLR4 Shapes BM HSCs and Lymphopoiesis
Principal Investigator: Borghesi, L.
Ding Role on Grant: Co-Investigator
Years Inclusive: 02/06/2017 – 01/31/2019
Percent Effort: 10.0 %

Funding Agency: NIH/NIMH
Grant Number: R01MH071533
Title of Grant: Plasticity of Auditory Cortical Circuits in Schizophrenia
Principal Investigator: Sweet, R.A.
Ding Role on Grant: Co-Investigator
Years Inclusive: 4/1/2014 – 3/31/2019
Percent Effort: 15.0 %

Funding Agency: Baxalta US Inc.
Title of Grant: Preventing Asparaginase-associated Pancreatitis Using the Novel Dimension of Metabolomics
Principal Investigator: Husain, S.Z.
Ding Role on Grant: Co-Investigator
Years Inclusive: 11/27/2017 – 10/26/2019
Percent Effort: 4.0 % + 25% Graduate Student Researcher

Funding Agency: NIH/CTSI (University of Pittsburgh)
Grant Number: UL1TR001857
Title of Grant: Deep Learning with GWAS to Predict AMD Progression
Principal Investigator Ding, Y.
Ding Role on Grant: **Principal Investigator**
Years Inclusive: 1/1/2019 – 12/31/2019
Percent Effort: In-kind + 40% Graduate Student Researcher

Funding Agency: Alzheimer Disease Research Center
Grant Number: ADRC/Project III
Title of Grant: Neuropathology of Psychosis in Alzheimer's disease
Principal Investigator: Sweet, R.A.
Ding Role on Grant: Co-Investigator
Years Inclusive: 4/1/2015 – 3/31/2020
Percent Effort: 5.0 %
Funding Agency: UPMC Immune Transplant and Therapy Center (ITTC)

Title of Grant: Discovering the Protein Signature of Synapse Loss and Cognitive Decline During Aging
Principal Investigator MacDonald, M.

Ding Role on Grant:	Co-Investigator
Years Inclusive:	11/1/2018 – 10/31/2021
Percent Effort:	In kind + 50% Graduate Student Researcher
Funding Agency:	NSF
Grant Number	OIA-2040588
Title of Grant:	NSF Convergence Accelerator - Track D: A Trusted Integrative Model and Data Sharing Platform for Accelerating Artificial Intelligence
Principal Investigator:	Huang, H.
Ding Role on Grant:	Co-Investigator
Years Inclusive:	9/15/2020 – 5/31/2022
Percent Effort:	5.0 %

INVITED PRESENTATIONS

1. Logic Inference and Testing in Targeted Treatment Development with Survival Outcomes. International Seminar on Selective Inference, 2022.
2. New Statistical Development in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Recommendation. Peking University, China, 2021.
3. New Statistical Insights in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Recommendation. Renmin University, China, 2021.
4. Modeling complex survival outcomes with large-scale covariates: methods and applications, SUSTech University, China, 2021.
5. Multi-omics Analysis of Psychosis in Alzheimer's Disease. Joint Statistical Meeting (JSM), 2021
6. Modeling Complex Survival Outcomes with Large-scale Genetic Covariates: Methods and Applications. ASA Philadelphia Chapter Webinar, 2021.
7. Deep Neural Network for Interval-Censored Survival Outcome Using Genetic Data, with an Application to Predict AD Progression. International Chinese Statistical Association (ICSA) Symposium, 2020.
8. GWAS-based Deep Learning for Survival Prediction. Department of Public Health, University of California Davis, 2020.
9. Logical Inference on Treatment Efficacy When Subgroups Exist. JSM, 2019.
10. Bivariate Sieve Transformation Model for Interval-Censored Data. ICSA Conference, China, 2019.
11. GWAS-based Deep-Learning for Age-Related Macular Degeneration (AMD) Progression. Department of Statistics, Jilin University, China, 2019.
12. A Novel Bivariate GWAS of AMD Progression. ICSA Symposium, 2019.
13. A Copula-Based Semiparametric Model for Progression Prediction of AMD using GWAS Data. 2nd Lifetime Data Science (LiDS) Conference, 2019.
14. Copula-based Semiparametric Method for Modeling Bivariate Data Under General Interval Censoring. Department of Biostatistics and Data Science, George Mason University, 2019.
15. Copula-based Sieve Semiparametric Transformation Model for Bivariate Interval-Censored Data. Department of Biostatistics and Data Science, University of Texas Health Science Center at Houston, 2018.
16. A Bayesian Hierarchical Mixture Model for Clustering Droplet-based Single Cell Transcriptomic Data from Population Studies. ICSA Symposium, 2018.
17. Network Analysis of Proteomics Data, with Applications in Psychiatry Research. Critical Care BDMC Speaker Series, University of Pittsburgh, 2017.
18. Copula-based Semiparametric Sieve Models for Bivariate Interval-Censored Data. Department of Biostatistics, Epidemiology, Informatics, University of Pennsylvania, 2017.
19. Progression Risk Prediction with Copula Model in Age-related Macular Degeneration (AMD) Patients. JSM, 2017.
20. Confident Inference for SNP Effects on Treatment Efficacy. ICSA Symposium, 2017.
21. Confident Inference for SNP Effects on Treatment Efficacy. Multiple Comparison Procedures (MCP) Conference, 2017.
22. Progression risk estimation with Copula Model in Age-related Macular Degeneration (AMD) patients. Lifetime Data Analysis Conference (LIDA), 2017.

23. Logical Inference on Treatment Efficacy in Subgroups and Their Mixture. Presented at: The 10th ICSA International Conference, 2016.
24. A General Semiparametric AFT Model Imputation Approach for Censored Covariate. ICSA Symposium, 2016.
25. Simultaneous Confidence Intervals for Assessing SNP effects on Treatment Efficacy. Department of Statistics, Purdue University, 2015.
26. Logical Inference on Treatment Efficacy in Subgroups and Their Mixture, with an Application to Time-to-event Outcomes. ASA FDA/Industry Statistical Workshop, 2015.
27. Statistical Design and Analysis of Quantitative Proteomic Experiments. Proteomic Core, University of Pittsburgh Cancer Institute (UPCI), 2013.
28. Biostatistics for In Vivo Imaging Experiment and Analysis. Department of Radiology, University of Pittsburgh, 2014.
29. Confident Effect Method for Assessing the Effects of a SNP on Clinical Efficacy. ASA FDA/Industry Statistical Workshop, 2013.
30. Emerging Methods for Biomarker and Subgroup Identification – Review and Compare. ICSA Symposium, 2013.
31. A Sieve M-Theorem for Bundled Parameters in Semiparametric Models. Department of Biostatistics, University of Pittsburgh, 2013.
32. A Sieve M-Theorem for Bundled Parameters in Semiparametric Models. Department of Statistics, University of Pittsburgh, 2013.
33. Identifying Representative Trees in Random Forest. Department of Biostatistics, University of Pittsburgh, 2012.

OTHER PRESENTATIONS

34. Logical Inference on Treatment Efficacy in Subgroups and Their Mixture, with an Application to Time-to-event Outcomes. Eastern North American Region (ENAR) International Biometric Society Spring Meeting; 2016.
35. Bivariate Analysis and Prediction of AMD Progression Using Genetic Scores. Poster presented at: The American Society of Human Genetics (AHSG) Annual Meeting; 2015.
36. Subgroup Mixable Inference with Time-to-Event Outcomes for Mixture Treatment Efficacy. JSM; 2015.
37. Subgroup Mixable Inference for Time-to-Event Outcomes in Personalized Medicine Development. Women in Statistics Conference, 2014.
38. Simultaneous Confidence Intervals for Assessing the Effects of a SNP on Treatment Efficacy in Personalized Medicine Development. ENAR, 2014.
39. Estimating Mean Survival Time: When is it Possible? IMS China International Conference on Statistics and Probability; 2013.
40. Bayesian Indirect and Mixed Treatment Comparisons Across Longitudinal Time Points. ENAR, 2012
41. Combing Multiple Biomarkers using U-Scores to Assess Treatment Effects in Early Phase Clinical Studies. ENAR, 2011.
42. Sieve Maximum Likelihood Estimation Using B-Splines for the AFT Model. ENAR, 2010.
43. Efficient Estimation Method for the AFT Model. JSM, 2009.
44. Asymptotics of Intercept Estimator in the Semiparametric Linear Model for Censored Data. ENAR, 2009.
45. Strong Consistency of the Intercept Estimator in the Semiparametric Accelerated Failure Time Model. JSM, 2008.
46. Identifying Representative Trees in Random Forest for Survival Data. ENAR, 2008.

TEACHING

Graduate Courses

Year(s)	Course Number & Title	Role	Credit & Class Size
2013 Spring	BIOST 2086, Applied Mixed Model Analysis	Primary Instructor	3 credits, 26 enrolled

2014 Spring	BIOST 2025, Biostatistics Seminar	Primary Coordinator	1 credit, 15 enrolled
2014 Spring	BIOST 2086, Applied Mixed Model Analysis	Primary Instructor	3 credits, 17 enrolled
2014 Fall	BIOST 2025, Biostatistics Seminar	Primary Coordinator	1 credit, 14 enrolled
2016 Spring	BIOST 2086, Applied Mixed Model Analysis	Primary Instructor	3 credits, 17 enrolled
2016 Fall	BIOST 2046, Analysis of Cohort Studies	Guest Lecturer (2 lectures)	3 credits, 35 enrolled
2017 Spring	BIOST 2086, Applied Mixed Model Analysis	Primary Instructor	3 credits, 8 enrolled
2017 Fall	BIOST 2046, Analysis of Cohort Studies	Guest Lecturer (2 lectures)	3 credits, 31 enrolled
2018 Spring	BIOST 2054 / STAT 2261, Survival Analysis	Primary Instructor	3 credits, 5 enrolled
2019 Spring	BIOST 2054 / STAT 2261, Survival Analysis	Primary Instructor	3 credits, 19 enrolled
2019 Fall	BIOST 2066, Applied Survival Analysis	Primary Instructor	2 credits, 27 enrolled
2020 Fall	BIOST 2066, Applied Survival Analysis	Primary Instructor	2 credits, 7 enrolled
2021 Fall	BIOST 2066, Applied Survival Analysis	Primary Instructor	2 credits, 15 enrolled
2022 Spring	BIOST 2054 / STAT 2261, Survival Analysis	Primary Instructor	3 credits, 17 enrolled
2022 Fall	BIOST 2066, Applied Survival Analysis	Primary co-Instructor	2 credits, 21 enrolled
2022 Fall	BIOST 2081, Mathematical Methods for Statistics	Faculty supervisor	3 credits, 12 enrolled

Continuing Education

11/7/2013 Biostatistics for Clinical Research (2.0 hrs). Department of Surgical Oncology, University of Pittsburgh.

6/7/2016 Statistics in Basic Science (2.0 hrs). "Research Skills and Career Advancement" Workshop, Pittsburgh Institute of Brain Disorders and Recovery (PIBDR), University of Pittsburgh.

MENTORING AND ADVISING

Master's Students

Year(s)	Student's Name (Department), Thesis	Role
1/2013 – 8/2013	Yimeng Liu (Biostatistics), "A Comparison of Regression Methods in Data Subject to Non-detect: An Application to Lung Fiber Analysis Among Brake Workers"	Thesis Committee Member
5/2013 – 12/2013	Shanshan Tu (Statistics)	Summer Research Advisor
4/2018 – 8/2018	Yuanyuan Jiao (Biostatistics), "Causal Effects of Baseline Sleep Disturbance on Cognitive Decline Among the Elderly"	Thesis Committee Member
09/2020 – 12/2020	Chen'Ao Qian (Biostatistics), "Genome-wide association studies in Samoans give insight into obesity by investigating skinfold thickness	Thesis Committee Member
06/2022 – Present	Jiaqian Liu (Biostatistics)	Thesis Advisor
08/2022 – Present	Jerry Zhou (Biostatistics)	Academic Advisor

Doctoral Students

Part A: as Primary PhD Dissertation Advisor

Year(s)	Student's Name (Department), Dissertation	Role

6/2013 – 12/2015	Kidane Ghebrehawariat (Biostatistics), "Parametric methods in quantile residual lifetime analysis"	Dissertation Co-advisor
09/2014 – 08/2017	Yi Liu (Biostatistics), "Novel Single and Gene-based Test Procedures for Large-scale Bivariate Time-to-event Data, with Application to a Genetic Study of AMD Progression" (Now senior biostatistician at Boehringer Ingelheim**)**	Dissertation Advisor
09/2015 – 8/2019	Zhe Sun (Biostatistics), "Novel Statistical Methods in Analyzing Single Cell Sequencing Data" (Now research scientist at Eli Lilly and Company)	Dissertation Advisor
09/2016 – 04/2020	Tao Sun (Biostatistics), "New statistical methods for complex survival data with high-dimensional covariates"	Dissertation Advisor
09/2017 – 08/2021	Yue Wei (Biostatistics), "New Statistical Insights to Precision Medicine, from Targeted Treatment Development to Individualized Tailoring Recommendation"	Dissertation Advisor
09/2018 – 06/2022	Xinjun Wang (Biostatistics), "Statistical Learning and Analysis of SingleCell Multi-Omics Data"	Dissertation Co-advisor
09/2021 – Present	Zhiyu Sui (Biostatistics)	Dissertation Advisor
09/2021 – Present	Na Bo (Biostatistics)	Dissertation Advisor
07/2022 – Present	Lang Zeng (Biostatistics)	Dissertation Advisor

Part B: as PhD Dissertation Committee Member

Year(s)	**Student's Name (Department), Dissertation**	**Role**
06/2013 – 06/2015	Hui-Min Lin (Biostatistics), "Behavior of Statistics for Genetic Association in Genome-Wide Scan Context"	Dissertation Committee Member
01/2014 – 04/2015	Beth Zamboni (Biostatistics), "Twisted Survival: Identifying Surrogate Endpoints for Mortality Using Qtwist and Conditional Disease Free Survival"	Dissertation Committee Member
06/2014 – 12/2014	Samia Lopa (Biostatistics), "Inference on Quantile Residual Life for Length-biased Survival Data"	Dissertation Committee Member
09/2014 – 05/2016	Jia-Yuh Chen (Biostatistics), "Joint Modeling of Bivariate Longitudinal and Bivariate Survival Data in Spouse Pairs"	Dissertation Committee Member
07/2015 – 12/2016	Andrew Potter (Biostatistics), "Functional Mixed Models for Vector Valued Physiological Signals"	Dissertation Committee Member
10/2015 – 04/2017	Yuvika Paliwal (Biostatistics), "Generalized linear mixed models for analysis of cross-correlated binary response in multi-reader studies in diagnostic radiology"	Dissertation Committee Member
05/2016 – 05/2017	Qiyao Wang (Statistics), "Two-Sample Inference For Functional Data"	Dissertation Committee Member
06/2016 – 07/2017	Judah Abberbock (Biostatistics), "Surrogate Endpoints in the Design and Analysis of Clinical Trials"	Dissertation Committee Member

03/2017 – 12/2017	Yongli Shuai (Biostatistics), “Multinomial Logistic Regression and Prediction Accuracy for Interval-Censored Competing Risks Data”	Dissertation Committee Member
09/2017 – 04/2018	Tianzhou (Charles) Ma (Biostatistics), “Differential Expression and Feature Selection in the Analysis of Multiple Omics Studies”	Dissertation Committee Member
11/2017 – 05/2018	Zhou (Ark) Fang (Biostatistics), “Integration and Missing Data Handling in Multiple Omics Studies”	Dissertation Committee Member
11/2018 – 04/2019	Di Zhang (Biostatistics), “Inference on Win Ratio for Clustered Semi-competing Risk Data”	Dissertation Committee Member
10/2018 – 06/2019	Md Tanbin Rahman (Biostatistics), “Clustering and Classification for RNA-seq Data with Variable Selection”	Dissertation Committee Member
10/2018 – 12/2020	Victor Talisa (Biostatistics), “Post-hoc Responder Subgroup Identification in Clinical Trials: Variations on the Subgroup Identification based on Differential Effect Search (SIDES) Procedure, and a New Model Extension for Missing Covariate Data”	Dissertation Committee Member
10/2019 – 04/2020	Huang Lin (Biostatistics), “Some methodological contributions to the analyses of microbiome data with applications”	Dissertation Committee Member
03/2020 – 08/2021	Junyao Wang (Biostatistics), “Adaptive Randomization in a Two-stage Sequential Multiple Assignment Randomized Trial”	Dissertation Committee Member
11/2020 – 04/2022	Haeun Moon (Statistics), “Interpoint-ranking based Test of Independence”	Dissertation Committee
03/2021 – 08/2021	Liwen Wu (Biostatistics), “Interim Monitoring in Sequential Multiple Assignment Randomized Trial (IM-SMART)”	Dissertation Committee
09/2021 – 04/2022	Yujia Li (Biostatistics), “Clustering and Association Analysis for High-Dimensional Omics Studies”	Dissertation Committee
09/2021 – 04/2022	Yichen Jia (Biostatistics), “New Model-based and Deep Learning Methods for Survival Data with or without Competing Risks”	Dissertation Committee
11/2021 – 09/2022	Yang Qu (Statistics), “Concordance Measure for Variable Screening and Model Evaluation with Competing Risks Data”	Dissertation Committee
05/2022 – Present	Yusi Fang (Biostatistics)	Dissertation Committee

Part C: as PhD Academic Advisor

Year(s)	**Student’s Name (Department)**	**Role**
09/2013 – 09/2015	Joanne Beer (Biostatistics)	Academic Advisor
09/2015 – 08/2016	Tao Sun (Biostatistics)	Academic Advisor
08/2017 – 08/2018	Yichen Jia (Biostatistics)	Academic Advisor

08/2020 – 08/2021	Na Bo (Biostatistics)	Academic Advisor
08/2020 – 08/2021	Zhiyu Sui (Biostatistics)	Academic Advisor
02/2021 – 07/2022	Lang Zeng (Biostatistics)	Academic Advisor
08/2021 – Present	Haoran Hu (Biostatistics)	Academic Advisor
08/2022 – Present	Madeline Peterson (Biostatistics)	Academic Advisor

Part D: as PhD GSR Supervisor

Year(s)	**Student's Name (Department)**	**Role**
09/2015 – 08/2019	Zhe Sun (Biostatistics)	GSR Supervisor
09/2016 – 04/2020	Tao Sun (Biostatistics)	GSR Supervisor
05/2018 – 08/2021	Yue Wei (Biostatistics)	GSR Supervisor
09/2020 – Present	Na Bo (Biostatistics)	GSR Supervisor
09/2020 – Present	Zhiyu Sui (Biostatistics)	GSR Supervisor
02/2021 – Present	Lang Zeng (Biostatistics)	GSR Supervisor
09/2021 – Present	Haoran Hu (Biostatistics)	GSR Supervisor
06/2022 – Present	Xueping Zhou (Biostatistics)	GSR Supervisor

Junior Faculty

Year(s)	**Mentee's Name (Department)**	**Mentee's position**
01/2020 – Present	Jiebiao Wang (Biostatistics)	Assistant Professor

Awards Obtained by PhD Advisees

Student's Name	**Time**	**Award**
Zhe Sun	01/2017–12/2018	Awarded a two-year RAC fellowship by Children's Hospital of UPMC for her research proposal: "Statistical method for biological network analysis of omics data"
Yi Liu	04/2017	Mihaela Serban Best Poster Award in ASA Pittsburgh Chapter 2017 Spring Meeting
Yue Wei	07/2017	Best Performance in PhD Qualifying Exams, Biostatistics
Yue Wei	03/2018	Outstanding Research Presentation Award, Biostatistics Student Research Day
Tao Sun	03/2018	Honorable Mention, Biostatistics Student Research Day
Tao Sun	12/2018	ENAR Distinguished Student Paper Award
Zhe Sun	12/2018	ENAR Distinguished Student Paper Award
Tao Sun	01/2019-12/2019	Award a CTSI QuMP grant (co-PI) for the research proposal "Deep Learning with GWAS to Predict AMD Progression"
Yue Wei	03/2019	LiDS (Lifetime Data Science) Conference Student Paper Award
Tao Sun	04/2019	American Statistical Association (ASA) Pittsburgh Chapter Student of the Year Award
Tao Sun	04/2019	Outstanding Teaching Fellow Award, Department of Biostatistics, University of Pittsburgh
Yue Wei	04/2019	Mihaela Serban Best Poster Award in ASA Pittsburgh Chapter 2019 Spring

		Meeting
Tao Sun	04/2019	ICSA (International Chinese Statistical Association) Student Paper Award
Tao Sun	05/2019	LiDS (Lifetime Data Science) Conference Student Poster Award
Xinjun Wang	09/2019-08/2020	Award a CTSI QuMP grant (co-PI) for the research proposal "Multi-source Analysis of Cellular Transcriptomes and Epitopes of Sequencing (CITE-seq) Data"
Tao Sun	03/2020	Best Oral Presentation, Biostatistics Student Research Day
Yue Wei	03/2020	Honorable Mention for Oral Presentation, Biostatistics Student Research Day
Zhe Sun	04/2020	Outstanding PhD Student Award, SPH, University of Pittsburgh
Tao Sun	04/2020	Delta Omega Induction Award, SPH, University of Pittsburgh
Xinjun Wang	07/2020–06/2022	Awarded a two-year RAC fellowship by Children's Hospital of UPMC for his research proposal: "Machine Learning and Statistical Methods for Analyzing Single-cell Multi-omics Data"
Xinjun Wang	10/2020	ICSA (International Chinese Statistical Association) Student Paper Award
Xinjun Wang	03/2021	Biostatistics Research Day Outstanding Student Research Award
Xinjun Wang	04/2021	American Statistical Association (ASA) Pittsburgh Chapter Student of the Year Award
Yue Wei	04/2021	Outstanding Teaching Fellow Award, Department of Biostatistics, University of Pittsburgh
Xinjun Wang	04/2021	Outstanding Graduate Student Researcher Award, Department of Biostatistics, University of Pittsburgh
Xinjun Wang	04/2021	Dean's Day Biostatistics Doctoral Award, Graduate School of Public Health, University of Pittsburgh
Na Bo	01/2022	2022 JSM LiDS Section Student Paper Award
Haoran Hu	04/2022	2022 Biostatistics Research Day Best Presentation Honorable Mention
Yue Wei	04/2022	Outstanding PhD Student Award, SPH, University of Pittsburgh

SERVICE

Department Committees

05/2013 – 07/2014	Applied Exam Committee Member, PhD Qualifying Exam
01/2014 – 07/2018	Member, PhD Admission Committee
05/2015 – 07/2018	Applied Exam Committee Chair, PhD Qualify Exam
09/2018 – 02/2019	Member, Biostatistics Faculty Search Committee
03/2017 – Present	Member, Student Award Committee
01/2018 – Present	Member, Faculty Award Nomination Committee
09/2013 – Present	Member, Doctoral Monitoring Committee
08/2019 – Present	Chair, PhD Admissions Committee
04/2021 – 02/2022	Chair, Biostatistics Faculty Search Committee

School/University Committees

09/2014 – 08/2020	Department Representative, EPCC (Educational Policies and Curriculum Committee)
05/2016 - 04/2017	Member, Biostatistics Department Chair Search Committee
10/2018 – 03/2019	Member, Biostatistics Department Faculty Search Committee
03/2020 – 11/2020	Member, Graduate School of Public Health Dean Search Committee
11/2020 - Present	Member, Basic Science Council
09/2022 - Present	Member, Advisory Council on Instructional Excellence (ACIE)

Manuscript Reviewer/Journal Editorial Board

2021 - Present	Associate Editor	Statistics in Medicine
2019 - Present	Associate Editor	Journal of Statistical Research
2009 - Present	Reviewer	Biostatistics, Biometrics, Statistics in Medicine, Statistics and Its Interface, Lifetime Data Analysis,

		Statistics in Biosciences, Electronic Journal of Statistics, Journal of Biopharmaceutical Statistics, Journal of Statistical Theory and Practice, Statistica Sinica, Bioinformatics, Biometrical Journal, Scandinavian Journal of Statistics, Journal of American Statistical Association, Annals of Statistics, Annals of Applied Statistics, Journal of Statistical Theory and Practice, The American Statistician, Journal of Computational and Graphical Statistics
2013 - 2017	Statistical Advisory Board Member	PloS ONE

International Organizations

9/2016 - 10/2016	Department of Defense (DoD) grant review panel: for Clinical Research Intramural Initiative Program, Precision Medicine Research Award
1/2017 - 12/2020	Member, The Statistical Partnerships Among Academe, Industry & Government Committee (SPAIG), American Statistical Association
12/2017 – 5/2019	(co-)Chair, Lifetime Data Science 2019 Conference Local Organization Committee
8/2019 – 7/2020	Member, Nomination Committee for Lifetime Data Science (LiDS) Section, American Statistical Association (ASA)
2/2020 – 12/2021	co-Chair, Webinar Committee ASA LiDS Section
9/2020 – 08/2021	President-Elect, ASA Pittsburgh Chapter
1/2021 – 12/2021	Vice Chair, Statistical Partnerships Among Academe, Industry & Government (SPAIG) Committee, ASA
6/2021 – 7/2021	NEI Study Section ZEY VSN (05) Panelist
5/2020 – Present	Affiliate liaison, National Institute of Statistical Sciences (NISS)
9/2020 - Present	Member, International Conference on Multiple Comparison Procedures (MCP) Organization Committee
9/2021 - Present	President, ASA Pittsburgh Chapter
1/2022 - Present	2022 Program-Chair-Elect, ASA, LiDS Section
1/2022 - Present	Chair, SPAIG Committee, ASA
2/2022 – 3/2022	NIA Study Section ZAG1 ZIJ-D (M4) Panelist
9/2022 – 10/2022	NIA Study Section ZAG1 ZIJ-Y (J3) Panelist

Community Services

07/2013 - Present	Member, Chinese Association for Science and Technology, Pittsburgh Chapter (CAST-P)
05/2019 – 05/2020	Board Member, Pittsburgh Chinese School
06/2020 – 05/2021	Vice Chair of Board, Pittsburgh Chinese School
06/2021 – 06/2022	Chair of Board, Pittsburgh Chinese School