

Curriculum Vitae

Ying Ding, Ph.D.

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Academic Interests

- Survival Analysis and Semiparametric Methods
 - Develop novel statistical methods for complex survival data, including multivariate and interval-censored outcomes
 - Establish new estimation methods and theories for semiparametric models
- Machine Learning Methods for Precision Medicine
 - Develop various neural networks for individualized risk prediction and disease progression, with major applications to age-related macular degeneration and Alzheimer's disease
 - Construct new methods and computational tools for individualized treatment effect estimation, subgroup identification, and treatment rule recommendations, with major applications to age-related macular degeneration, pediatric asthma, cancer studies, and sepsis
- High-dimensional Multi-omics Data Analysis and Integration
 - Statistical modeling of proteomics and genomics data with the construction of biological networks
 - Applications to neuropsychiatric disorders and cancer studies

Education and Training

Undergraduate

Years of attendance	University, city, state	Degree, Year Awarded	Field
1999-2003	Nanjing University, Nanjing, China	BS, 2003	Mathematics

Graduate

Years of attendance	University, city, state	Degree, Year Awarded	Field
2005-2010	University of Michigan Ann Arbor, MI	PhD, 2010	Biostatistics
2003-2005	Indiana University Bloomington, IN	MA, 2005	Mathematics

Appointments and Positions

Academic

Years Position Held	Title	Department, School, Name and location of institution
2003 - 2005	Assistant Instructor	Department of Mathematics, Indiana University Bloomington, IN
2005 - 2006	Graduate Student Instructor	Department of Biostatistics, University of Michigan, Ann Arbor, MI
2006 - 2009	Graduate Student Research Assistant	Department of Biostatistics, University of Michigan, Ann Arbor, MI

2013 - 2019	Assistant Professor (Tenure Stream)	Department of Biostatistics, University of Pittsburgh, Pittsburgh, PA
2019 - 2024	Associate Professor (Tenured)	Department of Biostatistics, University of Pittsburgh, Pittsburgh, PA
2022 - 2024	Vice Chair for Education	Department of Biostatistics, University of Pittsburgh, Pittsburgh, PA
2023 - 2024	Director of PhD Graduate Program	Department of Biostatistics, University of Pittsburgh, Pittsburgh, PA
2023 - 2024	Associate Professor (Secondary)	Department of Statistics, University of Pittsburgh, Pittsburgh, PA
2024 - Present	Associate Dean for Graduate Academic Affairs	School of Public Health, University of Pittsburgh, Pittsburgh, PA
2024 - Present	Professor (Tenured)	Department of Biostatistics and Health Data Science, University of Pittsburgh, Pittsburgh, PA

Non-Academic

Years	Position Held	Title	Name and location of company/organization
2008 - 2008		Statistics Summer Intern	Eli Lilly and Company, Indianapolis, IN
2009 - 2012		Research Scientist	Eli Lilly and Company, Indianapolis, IN
2012 - 2013		Senior Research Scientist	Eli Lilly and Company, Indianapolis, IN

Membership in Professional and Scientific Societies

Years Inclusive	Name of Society
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 (ASA)
2007 - Present	Member, International Biometric Society, Eastern North American Region (ENAR)
2014 - Present	Member, International Chinese Statistical Association (ICSA)
2017 - 2022	Member/Vice Chair/Chair, ASA Statistical Partnerships Across Academe, Industry & Government (SPAIG)
2018 - Present	Member, ASA Pittsburgh Chapter
2021 - 2023	President-Elect/President/Past-President, ASA Pittsburgh Chapter
2019 - Present	Member, ASA Lifetime Data Science (LiDS) Section
2022 - 2024	Program Chair-Elect/Chair/Past-Chair, ASA LiDS Section
2024 - 2026	Member, ASA Biopharmaceutical (BIOP) Section

Honors

Year of Award	Title of Award and Awarding Association
2000 - 2003	People's Scholarship and Outstanding Student Award, Nanjing University, China
2003 - 2005	Women in Science Fellowship, Indiana University Bloomington
2006	Best First-Year Master 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
2014	Women in Statistics Conference Travel Award

2021	James L. Craig Excellence in Education Award, University of Pittsburgh
2022	Inducted into the Delta Omega Honor Society in Public Health
2022	Ascending Star Award, Health Sciences, University of Pittsburgh
2023	American Statistical Association LiDS Section Outstanding Service Award
2025	Elected Fellow, American Statistical Association
2026	Statistician of the Year, American Statistical Association, Pittsburgh Chapter

Professional Activities

Teaching

Courses Taught

Years Taught	Institution Program (Graduate or Undergraduate) Course Number: Title	Hours of Lecture/Credits Average Enrollment	Role in Course Primary/Coordinator
2013, 2014, 2016, 2017 Fall	Pitt, BIOST 2086: Applied Mixed Model Analysis	3 credits, 8-26 enrolled	Primary Instructor
2014 Spring and Fall	Pitt, BIOST 2025: Biostatistics Seminar	1 credit, 14-15 enrolled	Primary Coordinator
2018, 2019, 2022, 2023 Spring	Pitt, BIOST 2054 / STAT2261: Survival Analysis	3 credits, 5-17 enrolled	Primary Instructor
2019, 2020, 2021, 2022, 2023 Fall	Pitt, BIOST 2066: Pitt, Applied Survival Analysis	2 credits, 7-27 enrolled	Primary Instructor
2022, 2023 Fall	Pitt, BIOST 2081: Mathematical Methods for Statistics	3 credits, 11-15 enrolled	Faculty Supervisor
2022, 2023 Fall	Pitt, BIOST 2000: Teaching Practicum	3 credits, 2 enrolled	Faculty Coordinator
2024 Fall	Pitt, BIOST 2150: Applied Survival Analysis	3 credits, 16 enrolled	Primary Instructor
2024 - 2026	Pitt; PUBHLT 2022: The Dean's PH Grand Rounds	0 credits, 212 - 232 enrolled	Faculty Supervisor
2026 Spring	Pitt; BIOST 3050 / STAT 2261 Survival Analysis	3 credits; 16 enrolled	Primary Instructor

Other Teaching (lectures, tutorials, and continuing education courses)

Date(s)	Type of Teaching	Title
11/7/2013	Continuing education	Biostatistics for Clinical Research, Department of Surgical Oncology
6/7/2016	Continuing education	Statistics in Basic Science "Research Skills and Career Advancement" Workshop, Pittsburgh Institute of Brain Disorders and Recovery (PIBDR)
2016 Fall, 2017 Fall	Guest lecture (2	BIOST 2046: Analysis of Cohort Studies

2017 Spring	lectures) Guest lecture (1 lecture)	BIOST 2062: Clinical Trials: Methods and Practice
2022 Spring	Guest lecture (1 lecture)	HUGEN 2080: Statistical Genetics
2023 Spring	Guest lecture (1 lecture)	BIOST 2062: Clinical Trials: Methods and Practice

Major Advisor for Graduate Student Essays, Theses, and Dissertations

Name of Student	Degree Awarded Year	Type of Document Title	Notes
Kidane Ghebrehawariat	PhD in Biostatistics, 2015	Dissertation, Parametric methods in quantile residual lifetime analysis	Co-advised with Dr. Jong Jeong
Yi Liu	PhD in Biostatistics, 2017	Dissertation, Novel Single and Gene-based Test Procedures for Large-scale Bivariate Time-to-event Data, with Application to a Genetic Study of AMD Progression	
Joanne Beer	PhD in Biostatistics, 2018	NA	Academic Advisor
Zhe Sun	PhD in Biostatistics, 2019	Dissertation, Novel Statistical Methods in Analyzing Single-Cell Sequencing Data	Co-advised with Dr. Wei Chen
Tao Sun	PhD in Biostatistics, 2020	Dissertation, New statistical methods for complex survival data with high-dimensional covariates	
Yue (Luna) Wei	PhD in Biostatistics, 2021	Dissertation, New Statistical Insights to Precision Medicine, from Targeted Treatment Development to Individualized Tailoring Recommendation	
Xinjun Wang	PhD in Biostatistics, 2022	Dissertation, Statistical Learning and Analysis of Single-Cell Multi-Omics Data	Co-advised with Dr. Wei Chen
Na Bo	PhD in Biostatistics, 2025	Dissertation, New Methods for Analyzing Heterogeneous Treatment Effects in Survival Data	

Zhiyu Sui	PhD in Biostatistics, 2025	Dissertation, Transfer learning approaches for estimation and evaluation of individualized treatment decisions	Co-advised with Dr. Lu Tang
Lang Zeng	PhD in Biostatistics, 2026	Dissertation, Rank-based Deep Learning for Survival Analysis	
Haoran Hu	PhD in Biostatistics, 2027 (Expected)	NA	Academic Advisor
Jiaqian Liu	PhD in Biostatistics, 2028 (Expected)		
Ned (Edward) Smith	PhD in Biostatistics, (Expected)		Academic Advisor
Haoling Wang	PhD in Biostatistics, (Expected)		
Zhuodiao Kuang	PhD in Biostatistics, (Expected)		
Jiaqian Liu	MS in Biostatistics, 2023	Thesis, Prediction of Severe Asthma Outcomes in Children on EHR Data	
Jerry Zhou	MS in Biostatistics, 2024	Thesis, Impact of COVID-19 on Adverse Outcomes for Congestive Heart Failure Inpatients in the Northeast Mid-Atlantic Using NIS 2020 Database	
Madeline Peterson	MS in Biostatistics, 2024	NA	Academic Advisor
Haoling Wang	MS in Biostatistics, 2025	Thesis, ODE-based Neural Network for Interval-Censored Survival Data with Application to Prediction of Alzheimer's Disease Progression	
Xin Li	MS in Biostatistics, 2026	Thesis, Identification of Emerging Risk Factors and Temporal Patterns in Hospitalized COPD Patients: A Retrospective Analysis of NIS Database (2019-2023)	
Sheng Xu	MS in Biostatistics, 2027 (Expected)		
Alexandra Tirendi	MS in Biostatistics, 2027 (Expected)		

Edward Liu

MS in Biostatistics,
2028 (Expected)

Academic Advisor

Service on Masters or Doctoral Committees

Dates Served	Name of Student	Degree Awarded	Title of Dissertation/Essay
1/2013 – 8/2013	Yimeng Liu	MS in Biostatistics	“A Comparison of Regression Methods in Data Subject to Non-detect: An Application to Lung Fiber Analysis Among Brake Workers”
4/2018 – 8/2018	Yuanyuan Jiao	MS in Biostatistics	“Causal Effects of Baseline Sleep Disturbance on Cognitive Decline Among the Elderly”
9/2020 - 12/2020	Chen’Ao Qian	MS in Biostatistics	“Genome-wide association studies in Samoans give insight into obesity by investigating skinfold thickness”
12/2023 – 4/2024	Paul Mlodgenski	MS in Epidemiology	“Quantifying Demographic Disparities of Red Tide Exposure and Complications in Sarasota and Manatee Counties: A Pilot Study”
06/2013 – 06/2015	Hui-Min Lin	PhD in Biostatistics	“Behavior of Statistics for Genetic Association in Genome-Wide Scan Context”
01/2014 – 04/2015	Beth Zamboni	PhD in Biostatistics	“Twisted Survival: Identifying Surrogate Endpoints for Mortality Using Qtwist and Conditional Disease Free Survival”
06/2014 – 12/2014	Samia Lopa	PhD in Biostatistics	“Inference on Quantile Residual Life for Length-biased Survival Data”
09/2014 – 05/2016	Jia-Yuh Chen	PhD in Biostatistics	“Joint Modeling of Bivariate Longitudinal and Bivariate Survival Data in Spouse Pairs”
07/2015 – 12/2016	Andrew Potter	PhD in Biostatistics	“Functional Mixed Models for Vector Valued Physiological Signals”
10/2015 – 04/2017	Yuvika Paliwal	PhD in Biostatistics	“Generalized linear mixed models for analysis of cross-

			correlated binary response in multi-reader studies in diagnostic radiology”
04/2016 – 04/2017	Lauren Balmert	PhD in Biostatistics	“Nonparametric and Semiparametric Inference on Quantile Lost Lifespan”
05/2016 – 05/2017	Qiyao Wang	PhD in Statistics	“Two-Sample Inference For Functional Data”
06/2016 – 07/2017	Judah Abberbock	PhD in Biostatistics	“Surrogate Endpoints in the Design and Analysis of Clinical Trials”
03/2017 – 12/2017	Yongli Shuai	PhD in Biostatistics	“Multinomial Logistic Regression and Prediction Accuracy for Interval-Censored Competing Risks Data”
09/2017 – 04/2018	Tianzhou (Charles) Ma	PhD in Biostatistics	“Differential Expression and Feature Selection in the Analysis of Multiple Omics Studies”
11/2017 – 05/2018	Zhou (Ark) Fang	PhD in Biostatistics	“Integration and Missing Data Handling in Multiple Omics Studies”
11/2018 – 04/2019	Di Zhang	PhD in Biostatistics	“Inference on Win Ratio for Clustered Semi-competing Risk Data”
10/2018 – 06/2019	Md Tanbin Rahman	PhD in Biostatistics	“Clustering and Classification for RNA-seq Data with Variable Selection”
10/2018 – 12/2020	Victor Talisa	PhD in 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”
10/2019 – 04/2020	Huang Lin	PhD in Biostatistics	“Some methodological contributions to the analyses of microbiome data with applications”
03/2020 – 08/2021	Junyao Wang	PhD in Biostatistics	“Adaptive Randomization in a Two-stage Sequential Multiple Assignment Randomized Trial”
11/2020 – 04/2022	Haeun Moon	PhD in Statistics	“Interpoint-ranking based Test of Independence”

03/2021 – 08/2021	Liwen Wu	PhD in Biostatistics	“Interim Monitoring in Sequential Multiple Assignment Randomized Trial (IM-SMART)”
09/2021 – 04/2022	Yujia Li	PhD in Biostatistics	“Clustering and Association Analysis for High-Dimensional Omics Studies”
09/2021 – 04/2022	Yichen Jia	PhD in Biostatistics	“New Model-based and Deep Learning Methods for Survival Data with or without Competing Risks”
11/2021 – 09/2022	Yang Qu	PhD in Statistics	“Concordance Measure for Variable Screening and Model Evaluation with Competing Risks Data”
05/2022 – 04/2023	Yusi Fang	PhD in Biostatistics	“Methods for combining frequent or sparse signals in omics applications”
12/2022 – 08/2023	Xueping Zhou	PhD in Biostatistics	“Feature selection and outcome prediction for high-dimensional multi-omics data”
09/2023 – 03/2025	Ziling Mao	PhD in Epidemiology	“The Association Between Timing of Intake and Healthy Aging”
09/2024 – 08/2025	Jinwoo Cho	PhD in Statistics	“Dynamic Prediction using Jointly Estimated Landmarking and Network Assisted Localized Functional Principal Component Analysis for Brain MEG Data”
08/2025 – Present	Christina Kazarov	PhD in Pharmaceutical Sciences	“Assessment of adherence to medications and the impact on progression to end-stage renal disease in patients with diabetic kidney disease”
10/2025 – 07/2026	Hajin Jang	PhD in Epidemiology	“Obesity and Muscle Phenotypes as Predictors of Falls in Aging Population”
10/2025 – Present	Yingjin Zhang	PhD in Biostatistics	“Bayesian Multi-arm Multi-stage Adaptive Clinical Trial Design for Composite Free-

			Day Endpoint”
1/2026 – Present	Jipeng Zhang	PhD in Biostatistics	“Retinal AI for Macular Degeneration: Prediction, Image Quality, and Privacy Protection”

Student Awards

Student’s Name	Award Time	Award Name
Zhe Sun	01/2017– 12/2018	RAC fellowship by the 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	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 Conference Student Poster Award
Xinjun Wang	09/2019-08/2020	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	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 Student Paper Award
Xinjun Wang	03/2021	Biostatistics Research Day Outstanding Research Award
Xinjun Wang	04/2021	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	ASA LiDS Section Student Paper Award
Yue Wei	04/2022	Outstanding PhD Student Award, SPH, University of Pittsburgh
Lang Zeng	07/2022	Best Performance in PhD Qualifying Exams, Biostatistics
Lang Zeng	01/2023	ASA Risk Analysis Section Student Paper Award
Na Bo	03/2023	Biostatistics Research Day Best Oral Presentation
Jiaqian Liu	03/2023	Biostatistics Research Day Best MS Poster Presentation
Na Bo	04/2023	Best Teaching Assistant Award Honorable Mention, Biostatistics
Lang Zeng	04/2023	Dean’s Day Presentation, Biostatistics 2nd Place
Xinjun Wang	04/2023	Delta Omega Induction Award, SPH, University of Pittsburgh
Na Bo	01/2024	ASA Health Policy Statistics Section Student Paper Award
Na Bo	02/2024	Biostatistics Research Day Poster Competition Honorable Mention
Na Bo	03/2024	Travel Award for Statistics in the Age of AI Conference
Na Bo	03/2024	Winner of the 2024 Health Disparities and Social Justice Poster Competition, Doctoral Category, University of Pittsburgh
Na Bo	06/2024	Student & Early Career Travel Award of the ASA Symposium on Data Science and Statistics

Lang Zeng	04/2024	Best Teaching Assistant Award, Biostatistics
Lang Zeng	03/2025	ENAR RAB Poster Award
Haoling Wang	04/2025	Best Performance in MS Comprehensive Exam, Biostatistics
Haoling Wang	04/2025	Outstanding Thesis Award, SPH, University of Pittsburgh
Na Bo	04/2025	ASA Pittsburgh Chapter Student of the Year Award
Na Bo	05/2025	ASA BIOP (Biopharmaceutical) Section Scholarship Award
Xin Li	01/2026	William T. Green, Jr. Award in Public Health Studies
Haoling Wang	01/2026	ASA Risk Analysis Section Student Paper Honorable Mention
Xin Li	03/2026	Biostatistics Research Day Best MS Poster Presentation
Lang Zeng	04/2026	ASA Pittsburgh Chapter Student of the Year Award
Jiaqian Liu	04/2026	ASA Pittsburgh Chapter Spring Banquet Best Poster Award

Service on Comprehensive or Qualifying Committees

Dates Served	Student Population	Type of Exam
04/2013 – 07/2014	Biostatistics PhD students	PhD Qualifying Applied Exam (Committee Member)
04/2015 – 07/2018	Biostatistics PhD students	PhD Qualifying Applied Exam (Committee Chair)
04/2023 – 07/2023	Biostatistics PhD students	PhD Qualifying Theory Exam and Applied Exam (Committee Chair)

Mentoring of Early and Mid-Career Faculty

Dates	Name of Faculty	Position of Faculty Member
04/2017 – 03/2021	Brandon Mckinney (Psychiatry, University of Pittsburgh; K23 grant, awarded)	Assistant Professor
02/2019 – 08/2023	Melanie Grubisha (Psychiatry, University of Pittsburgh; K08 grant, awarded)	Assistant Professor
01/2020 – Present	Jiebiao Wang (Biostatistics, University of Pittsburgh)	Associate Professor (tenured in 03/2026)
08/2022 – 08/2024	Jinling Liu (Engineering Management and Systems Engineering, Missouri University of Science & Technology; K01 grant, awarded)	Assistant Professor
12/2022 – Present	Jacqueline Ellison (Health Policy and Management, University of Pittsburgh; K01 grant, awarded)	Assistant Professor

03/2023 – Present	Shinnyi (Cindy) Chou (Psychiatry, University of Pittsburgh, K08 grant, awarded)	Assistant Professor
05/2023 – Present	Lu Tang (Biostatistics, University of Pittsburgh)	Associate Professor (tenured in 02/2025)
08/2023 – Present	Jenna Carlson (Human Genetics, University of Pittsburgh)	Associate Professor (promoted in 03/2025)
08/2024 - Present	Qiong Wu (Biostatistics, University of Pittsburgh)	Assistant Professor
01/2024 - Present	Rebecca Deek (Biostatistics, University of Pittsburgh)	Assistant Professor
04/2025 – Present	Joshua Krivinko (Psychiatry, University of Pittsburgh, K01 grant, submitted)	Assistant Professor
08/2025 – Present	Amanda Kreider (Health Policy and Management, University of Pittsburgh, K12 grant, awarded)	Assistant Professor

Research and Training

Grants and Contracts Received

Principal Investigator, Multiple Principal Investigator, or Program Project Director
**as listed in NIH RePORT and/or on Notice of Award*

Years Inclusive	Grant and/or Contract Number and Title	Source	Annual Direct Costs	%Effort
7/21/2026 – 3/31/2031	R35GM164304 Advancing Deep Survival Methods for Prediction, Subgroup Identification, and Causal Inference	NIH/NIGMS	\$402,932	45% + 200% GSR
5/1/2025 – 8/31/2025	Multiomic Profiling of Lipidomic and Proteomic Associations in Patients Prior to Developing Asparaginase-Associated Pancreatitis: Signals to Novel Disease Signatures	Stanford University	\$25,000	12% + 50% GSR
3/1/2025 – 8/31/2026	Enhancing Pulmonary Function Assessment and Out-of-Clinic Care through Smartphone-Based Ultrasonic Technology (SURE)	Pitt SSOE/SPH/C TSI	\$85,000	In-kind + 75% GSR
6/1/2022-5/31/2027 (with NCE)	R01GM141076 New statistical methods and software for modeling complex multivariate survival data with large-scale covariates	NIH/NIGMS	\$200,000	25% + 200% GSR

6/1/2022-5/31/2023	Precision care in asthma using EHR analytics	Pitt SPH/SOM/CT SI	\$45,000	In-kind + 75% GSR
8/1/2020-5/31/2022	R21EY030488 Deep-learning-based prediction of AMD and its progression with GWAS and fundus image data	NIH/NEI	\$135,000	20% + 100% GSR
1/1/2019 – 12/31/2019	UL1TR001857 Deep Learning with GWAS to Predict AMD Progression	NIH/CTSI	\$10,000	In-kind + 33% GSR
7/1/2016-6/30/2018	R03MH108849 Novel and Robust Methods for Differential Protein Network Analysis of Proteomics Data in Schizophrenia Research	NIH/NIMH	\$50,000	15% + 50% GSR
7/1/2015-6/30/2017	CMRF Novel and Robust Methods for Protein Network Analysis of Proteomics Data in Psychiatric Disorders	UPMC	\$25,000	In-kind + 25% GSR

Site Principal Investigator

****include grants where serving as a significant Site PI (e.g., in a large clinical study, clinical trial, consortium grant, or center grant) not identifiable in NIH RePORT***

Years Inclusive	Grant and/or Contract Number and Title (PI: Name; Institution)	Source	Annual Direct Costs	%Effort
9/30/2019-5/31/2024	Optimizing a novel intraductal delivery of calcineurin inhibitors as a radiocontrast infusion formulation to prevent post-ERCP pancreatitis (PI: Husain, S., Stanford University)	DoD	\$300,000	5%

Co-Investigator

****include institutional grants as well as inter-institutional subcontracts for which you are officially listed as Co-Investigator (e.g., key personnel designation in NIH grant)***

Years Inclusive	Grant and/or Contract Number and Title (PI: Name; Institution)	Source	Annual Direct Costs	%Effort
09/30/2024 – 7/31/2025	P30EY008098 Core Grant for Vision Research – Analytics,	NIH/NEI		5%

	Biostatistics, and Machine Learning Module		
12/1/2023 – 10/31/2028	R01MH132586 Providing New Insight Into Adolescent Dendritic Development	NIH/NIMH	10-15%
5/15/2023 – 5/14/2025	Epigenetic reprogramming to target senescent ovarian cancer cells and overcome therapeutic resistance	DoD	2.5-5%
7/15/2022 – 3/31/2027	R01EB034116 SCH: New Advanced Machine Learning Framework for Mining Heterogeneous Ocular Data	NIH/NIBIB	10%
1/1/2021 – 12/31/2025	R01AG069912 Genetic and Molecular Correlates of White Matter Pathology in Alzheimer's Disease	NIH/NIA	5% + 50% GSR
1/1/2021 – 12/31/2024	R01MH125235 Fine-Mapping Genome-Wide Associated Loci using Multi-omics Data to Identify Mechanisms Affecting Serious Mental Illness	NIH/NIMH	5% + 50% GSR
9/1/2019 – 7/31/24	R01MH118497 Synaptic Protein Networks, Genetic Risk, and Spine Loss in Schizophrenia	NIH/NIMH	10%
9/25/2018 – 6/30/2028	R01MH116046 Accelerating Treatment Development for Psychosis in AD: MODEL-AD+P	NIH/NIMH	10-15%
5/1/2017 – 4/30/2024	R01AG027224 Prediction of Psychosis in Alzheimer's Disease	NIH/NIA	10% + 50% GSR
8/1/2020 – 8/31/2022	P30CA047904 Cancer Center Support Grant (Biostatistics Facility)	NIH/NCI	15%
9/1/2021 – 8/29/23	Exploiting Metabolic Vulnerabilities to Target Multidrug-Resistant Ovarian Cancer	DoD	5%

9/15/2014 – 9/15/2015	Cellular and Molecular Mechanisms of HSC Dysfunction in Chronic Inflammation	American Hematological Society	3%
08/01/2015 – 07/31/2016	R56AI079047 Cellular and Molecular Mechanisms of HSC Dysfunction in Chronic Inflammation	NIH/NAID	8.5%
4/1/2014 – 3/31/2017	R01EY024226 AMD Genetics: Methods and Analysis for Progression, Prediction and Association	NIH/NEI	15%
02/06/2017 – 01/31/2019	R21AI126440 TLR4 Shapes BM HSCs and Lymphopoiesis	NIH/NIAID	10%
4/1/2014 – 3/31/2019	R01MH071533 Plasticity of Auditory Cortical Circuits in Schizophrenia	NIH/NIMH	15%
11/27/2017 – 11/30/2022	Preventing Asparaginase- associated Pancreatitis Using the Novel Dimension of Metabolomics	Stanford/Servier Pharmaceuticals	5%
4/1/2015 – 3/31/2020	ADRC/Project III Neuropathology of Psychosis in Alzheimer's disease	Alzheimer Disease Research Center	5%
11/1/2018 – 10/31/2021	Discovering the Protein Signature of Synapse Loss and Cognitive Decline During Aging	UPMC Immune Transplant and Therapy Center (ITTC)	In-kind + 50% GSR
9/15/2020 – 5/31/2021	OIA-2040588 NSF Convergence Accelerator - Track D: A Trusted Integrative Model and Data Sharing Platform for Accelerating Artificial Intelligence	NSF	10%

Invited Presentations Related to Your Research

Date	Title of Presentation	Venue
2026	Estimating Interpretable Heterogeneous Treatment Effect with Causal Subgroup Discovery in Survival Outcomes	ICSA Symposium

2025	Mini-batch Estimation for Deep Cox Models: Statistical Foundations and Practical Guidance	ICSA and Joint 2025 Conference, Taipei, Taiwan
2025	Mini-batch Estimation for Deep Cox Models: Statistical Foundations and Practical Guidance	Department of Preventive Medicine, College of Medicine, The University of Tennessee
2025	Mini-batch Estimation for Deep Cox Models: Statistical Foundations and Practical Guidance	Division of Biostatistics, College of Public Health, The Ohio State University
2025	Deep Learning in Survival Data Analysis	ASA LiDS Conference Half-Day Short Course (>25 participants)
2025	Mini-batch Estimation for Deep Cox Model via SGD	Albert Einstein College of Medicine
2024	Meta-learners to analyze treatment heterogeneity in survival data: application to pediatric asthma care under COVID-19 disruption	University of Vanderbilt
2024	Causal Survival Analysis on Pediatric Asthma Care Heterogeneity with COVID-19 Disruption	Department of Biomedical Informatics, University of Pittsburgh
2023	Deep Learning in Survival Analysis	ASA LiDS Section 2-hour Webinar Series(>100 participants)
2023	Semiparametric Copula Model for Survival Data	Center for Biostatistics, Icahn School of Medicine at Mount Sinai
2023	Causal Subgroup Identification via Meta-Learning Algorithms on Time-to-Event Outcomes	Renmin University, China
2022	Logic Inference and Testing in Targeted Treatment Development with Survival Outcomes.	International Seminar on Selective Inference
2022	Statistics in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Rule Recommendations	Senior Vice Chancellor's Ascending Star Award Seminar
2021	New Statistical Development in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Recommendation	Peking University, China
2021	New Statistical Insights in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Recommendation	Renmin University, China
2021	Modeling complex survival outcomes with large-scale covariates: methods and applications	SUSTech University, China
2021	Modeling Complex Survival Outcomes with Large-scale Genetic Covariates: Methods and Applications	ASA Philadelphia Chapter Webinar (>30 participants)
2020	GWAS-based Deep Learning for Survival Prediction	Department of Public Health, University of California Davis
2019	GWAS-based Deep-Learning for Age-Related Macular Degeneration (AMD) Progression	Department of Statistics, Jilin University, China

2019	Copula-based Semiparametric Method for Modeling Bivariate Data Under General Interval Censoring	Department of Biostatistics and Data Science, George Mason University
2018	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
2017	Network Analysis of Proteomics Data	with Applications in Psychiatry Research, Critical Care BDMC Speaker Series, University of Pittsburgh
2017	Copula-based Semiparametric Sieve Models for Bivariate Interval-Censored Data	Department of Biostatistics, Epidemiology, Informatics, University of Pennsylvania
2015	Simultaneous Confidence Intervals for Assessing SNP effects on Treatment Efficacy	Department of Statistics, Purdue University
2015	Logical Inference on Treatment Efficacy in Subgroups and Their Mixture with an Application to Time-to-event Outcomes	ASA FDA/Industry Statistical Workshop
2013	Statistical Design and Analysis of Quantitative Proteomic Experiments	Proteomic Core, University of Pittsburgh Cancer Institute (UPCI)
2014	Biostatistics for In Vivo Imaging Experiment and Analysis	Department of Radiology, University of Pittsburgh
2013	Confident Effect Method for Assessing the Effects of a SNP on Clinical Efficacy	ASA FDA/Industry Statistical Workshop
2013	A Sieve M-Theorem for Bundled Parameters in Semiparametric Models	Department of Biostatistics, University of Pittsburgh
2013	A Sieve M-Theorem for Bundled Parameters in Semiparametric Models	Department of Statistics, University of Pittsburgh
2012	Identifying Representative Trees in Random Forest	Department of Biostatistics, University of Pittsburgh

Publications

Refereed Articles – Published or In Press

_ : Ph.D. or M.S. student advisees

*: corresponding or co-corresponding author

+: co-first author

Statistical and Bioinformatics Articles (Independent Research)

1. Zhang Y, Fan N, Zheng H, **Ding Y**, Sun T. (2026) Flexible Copula-Based Variable Selection for Interval-Censored Semi-Competing Risks Data: Application to Aging Research. *Biometrics*. *Accepted*.
2. Liu J, Bo N, Nana-Sinkam P, **Ding Y*** (2026) Brief Report: Reassessment of bTMB as a Predictive Biomarker in Non–Small Cell Lung Cancer Immunotherapy: A Reanalysis of OAK and POPLAR. *JTO Clinical and Research Report*. *Accepted*.

3. Zeng L, Tang W, Ren Z, **Ding Y***. (2026). Mini-batch Estimation for Deep Cox Model via SGD: Statistical Foundations and Practical Guidance. *Journal of the American Statistical Association*. <https://doi.org/10.1080/01621459.2026.2644611>
4. Bo N, **Ding Y***. (2026). Estimating Interpretable Heterogeneous Treatment Effect with Causal Subgroup Discovery in Survival Outcomes. *Lifetime Data Analysis*. 32(1):11. [doi: 10.1007/s10985-026-09688-z](https://doi.org/10.1007/s10985-026-09688-z) PMID: 41617934.
5. Yue M, Cai M, Zhao C, Liu J, Gairtto K, Tao S, Hu H, Chen Y, **Ding Y**, Huang H, Celedón JC, Wang J, Chen W. (2026). MOFUN-CCC: A Multi-Omics Intermediate Fusion Network for Digital White Blood Cell Count Prediction. *Genomics, Proteomics & Bioinformatics*. DOI: [10.1093/gpbjnl/qzag080](https://doi.org/10.1093/gpbjnl/qzag080) PMID: 42606575.
6. Zhang J, Zhao C, Zeng L, Huang H, **Ding Y**, Chen W. (2025). TV-LSTM: Multimodal Deep Learning for Predicting the Progression of Late Age-Related Macular Degeneration Using Longitudinal Fundus Images and Genetic Data. *AI Sensors*. 1(1), 6-19. <https://doi.org/10.3390/aisens1010006>
7. Sui Z, **Ding Y**, Tang L. (2025). Robust Transfer Learning for Individualized Treatment Rules Under the Presence of Missing Data. *Biostatistics*. DOI: [10.1093/biostatistics/kxaf023](https://doi.org/10.1093/biostatistics/kxaf023). PMID: 40795861.
8. Liu K, Zu Y, Yi D, **Ding Y**, Sun T. (2025). Neural network-based dynamic prediction for interval-censored data with time-varying covariates: Application to Alzheimer's disease. *Statistics in Medicine*. DOI: [10.1002/sim.70190](https://doi.org/10.1002/sim.70190) PMID: 40679169.
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10. Zeng L, Zhang J, Chen W, **Ding Y***. (2025). tdCoxSNN: Time-dependent Cox survival neural network for continuous-time dynamic prediction. (**An earlier version won the 2023 JSM Risk Analysis section student paper award**). *Journal of the Royal Statistical Society Series C*. 71(1): 187-203. DOI: [10.1093/jrssc/qlae051](https://doi.org/10.1093/jrssc/qlae051). PMID: 39807175
11. Zhou X, Cai M, Yue M, Celedon J, **Ding Y**, Chen W, Li Y. (2024). Molecular Group and Correlation Guided Structural Learning for Multi-Phenotype Prediction. *Briefings in Bioinformatics*. DOI: [10.1093/bib/bbae585](https://doi.org/10.1093/bib/bbae585) PMID: 39541190
12. Hu H, Wang X, Feng S, Xu Z, Liu J, Heidrich-O'Hare E, Chen Y, Yue M, Zeng L, **Ding Y**, Huang H, Duerr R, Chen W. (2024). A unified model-based framework for doublet/multiplet detection in single-cell multiomics data. *Nature Communications* 15, 5562. <https://doi.org/10.1038/s41467-024-49448-x>
13. Liu J, Bo N, Zhou X, Forno E, **Ding Y***. (2024). Predicting Pediatric Asthma Severe Outcomes using Machine Learning Methods for EHR Data with Repeated Clinic Visits. *Journal of Statistical Research*. 58(1): 131-149. <https://doi.org/10.3329/jsr.v58i1.75419>
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15. Sun T, Lang W, Zhang G, Yi D, **Ding Y**, Zhang L. (2024). Penalised semiparametric copula method for semi-competing risks data: Application to hip fracture in elderly. *Journal of the Royal Statistical Society Series C*. 73(1): 241-256 <https://doi.org/10.1093/jrssc/qlad093> PMID: 37065470
16. Zhou X, Zhang J, **Ding Y**, Li Y, Huang H, Chen W. (2023) Predicting Late-Stage Age-Related Macular Degeneration by Integrating Marginally Weak SNPs in GWA Studies. *Frontiers in Genetics*. <https://doi.org/10.3389/fgene.2023.1075824> PMID: 37065470
17. Sun T, Li Y, Xiao Z, **Ding Y**, Wang X. (2023) 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*. <https://doi.org/10.1177/09622802221133552> PMID: 36735020
18. Sun T, Cheng Y, **Ding Y***. (2022) An Information Ratio based Goodness-of-fit Test for Copula Models on Censored Data. *Biometrics*. <https://doi.org/10.1111/biom.13807> PMID: 36440608

19. 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*. 1(4): 165. PMID: 36157595
20. Sun T, **Ding Y**. (2023) Neural Network on Interval Censored Data with Application to the Prediction of Alzheimer's Disease. *Biometrics*. 79(3): 2677-2690. doi: 10.1111/biom.13734. PMID: 35960189
21. 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*. 1:1-13. PMID: 35360552
22. 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*. 40(29):6523-6540. PMID: 34542190.
23. Wei Y, Wang X, Chew EY, **Ding Y**^{*}. (2021) Confident Identification of Subgroups from SNP Testing in RCTs with Binary Outcomes. *Biometrical Journal*. 64(2):256-271. PMID: 33751636.
24. 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)*. 10(2):29. PMID: 34003914.
25. 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
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31. Wei Y⁺, Liu Y⁺, Sun T, Chen W, **Ding Y**^{*}. (2020) 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*. 76:619–629. PMID: 31625595
32. 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
33. 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
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35. **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.

36. **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
37. 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
38. 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
39. **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.**)
40. 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
41. 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
42. **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
43. **Ding Y***, Nan B. (2015). Estimating Mean Survival Time: When is it Possible? *Scandinavian Journal of Statistics*. 42(2):397-413. PMID: 26019387
44. **Ding Y**, Fu H. (2013). Bayesian Indirect and Mixed Treatment Comparisons Across Longitudinal Time Points. *Statistics in Medicine*. 32 (15):2613-28. PMID: 23229717
45. Banerjee M, **Ding Y**, Noone A. (2012). Identifying Representative Trees from Ensembles. *Statistics in Medicine*. 31(15):1601-16. PMID: 22302520
46. **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
47. **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

Collaborative Articles (Interdisciplinary Research)

48. Ku S, Mullett SJ, Sui Z, Zeng L, **Ding Y**, Yocum A, MacDonald M, Gelhaus SL, Kofler J, Sweet AR (2026) Proteomic Analysis in Alzheimer's Disease with Psychosis Reveals Separate Molecular Signatures for Core AD Proteinopathy and Postsynaptic Density Disruption. *Schizophrenia Bulletin*, *Accepted*.
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50. Tsai C-Y*, Bo N*, Tran TH, Abu-El-Haija M, Swaminathan G, Lee B, Ghandikota S, Wen L, Theoret Y, Mittelman SD, Ladas EJ, Jegga AG, Silverman LB, **Ding Y***, Husain SZ* (2026) A lipid-immune network signature defines susceptibility to asparaginase-associated pancreatitis. *JCI Insight*. [10.1172/jci.insight.202662](https://doi.org/10.1172/jci.insight.202662).

51. Jiang C, Krivinko J, Yu Z, Sweet RA, Zeng L, Wang H, **Ding Y**, Zeng Z, Kofler J, Wang L. (2026) Comparative Mortality Risk of Aripiprazole, Olanzapine, Quetiapine and Risperidone in Alzheimer's Disease: A Real-World Cohort Study with Treatment Effect Heterogeneity Analysis. *CNS Drugs*. PMID: 41903051 doi: [10.1007/s40263-026-01286-9](https://doi.org/10.1007/s40263-026-01286-9)
52. Swaminathan G, Lin Y-C, Ni J, Khalid A, Tsai C-Y, **Ding Y**, Bo N, Murayi J-A, Jayaraman T, Poropatich R, Bottino R, Papachristou GI, Sheth SG, Wen L, Barakat MT, Frymoyer AR, Yu M, Husain SZ. (2025) Why is the rectal route for NSAIDs favorable for preventing post-ERCP pancreatitis? *Pancreatology*. <https://doi.org/10.1016/j.pan.2025.02.004>
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56. Lin Y-C, Ni J, Swaminathan G, Khalid A, Barakat MT, Frymoyer AR, Tsai C-H, **Ding Y**, Murayi J-A, Jayaraman T, Poropatich R, Bottino R, Wen L, Papachristou GI, Sheth SG, Yu M, Husain SZ. (2023). Rectal administration of tacrolimus protects against post-ERCP pancreatitis in mice. *Pancreatology*. <https://doi.org/10.1016/j.pan.2023.09.080>
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65. 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*. 12(340). doi: <https://doi.org/10.1101/2020.08.02.20166777>
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76. 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*. 196:39-44. PMID: 28988914
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102. 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

Referred Articles – Submitted or Preprint

103. Wang H, Zeng L, Sun T, Cho Y, **Ding Y*** (2026+) ICODEN: Ordinary Differential Equation Neural Networks for Interval-Censored Data. (**An earlier version won the 2026 JSM Risk Analysis section student paper honorable mention**). *Lifetime Data Analysis*. Under Revision.
104. Ma Y⁺, Liu J⁺, Zhou J, Wang H, Zhang M, **Ding Y*** (2026+) Impact of Respiratory Infections on Hospitalized Congestive Heart Failure Patients: A Retrospective Analysis of NIS Database (2019–2022). *BMC Cardiovascular Disorders*. Under Revision.
105. Jiang H, Miljkovic I, Farsijani S, **Ding Y**, Freeland KS, Heilmann NZ, Langer LR, Roberts JE, Ensrud LE, LaCroix AZ, Schousboe JT, Newman AB, Cauley JA, Strotmeyer ES. (2026+) Associations

of Whole-Body, Abdominal, and Sarcopenic Obesity with Incident, Recurrent, and Number of Falls in Older Adults: A Cross-Cohort Analysis. *Under Review*.

106. Bo N⁺, Zeng L⁺, Kuang Z, **Ding Y^{*}** (2026+) Deep Learning in Survival Analysis: A Tutorial with Applications to Prediction and Causal Inference. *Lifetime Data Analysis*. *Under Review*.
107. Li X, Liu J, Purkayastha S, Talisa VB, Rosser FJ, **Ding Y^{*}** (2026+) Emerging Risk Factors and Temporal Patterns in Hospitalized Patients With COPD: A Retrospective Analysis of NIS Data (2019–2023). *Under Review*.
108. Zeng L, Tang W, Wang W, Ren Z, Mao L, **Ding Y^{*}** (2026+) Nonparametric Probabilistic Index Model. *Under Review*.

Books and Book Chapters

Book

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

Book Chapters

2. **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 p141–165 New York: Springer, 2022.
3. **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
4. 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
5. **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
6. **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.
7. Shen L, **Ding Y**, Battoui 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.

Presentations

1. Mini-batch Estimation for Deep Cox Model. Statistical Properties and Practical Guidance, LiDS Conference, 2025.
2. Meta-learners to Estimate Individualized Treatment Effects on Delaying AMD Progression. JSM, 2024.
3. Meta-learners to analyze treatment heterogeneity in survival data. EcoStat, 2024.
4. Estimating Interpretable Heterogeneous Treatment Effect with Survival Outcomes. ICSA China, 2024.
5. tdCoxSNN: Time-dependent Cox Survival Neural Network for Continuous-time Dynamic Prediction. ENAR, 2024.
6. Dynamic Prediction of AMD Progression Using Longitudinal Fundus Images. JSM, 2023.
7. Neural Network on Interval Censored Data with Application to the Prediction of Alzheimer's Disease. ICSA Applied Statistical Symposium, 2023.
8. An Information Ratio based Goodness-of-fit Test for Copula Models on Multivariate Censored Data. ASA Lifetime Data Science (LiDS) Conference, 2023.
9. Deep Learning on Interval Censored Survival Data. ENAR, 2023.
10. Multi-omics Analysis of Psychosis in Alzheimer's Disease. Joint Statistical Meeting (JSM), 2021.
11. Modeling Complex Survival Outcomes with Large-scale Genetic Covariates: Methods and Applications. ASA Philadelphia Chapter Webinar, 2021.
12. 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.

13. Logical Inference on Treatment Efficacy When Subgroups Exist. JSM, 2019.
14. Bivariate Sieve Transformation Model for Interval-Censored Data. ICSA Conference, China, 2019.
15. A Novel Bivariate GWAS of AMD Progression. ICSA Symposium, 2019.
16. A Copula-Based Semiparametric Model for Progression Prediction of AMD using GWAS Data. 2nd Lifetime Data Science (LiDS) Conference, 2019.
17. A Bayesian Hierarchical Mixture Model for Clustering Droplet-based Single Cell Transcriptomic Data from Population Studies. ICSA Symposium, 2018.
18. Progression Risk Prediction with Copula Model in Age-related Macular Degeneration (AMD) Patients. JSM, 2017.
19. Confident Inference for SNP Effects on Treatment Efficacy. ICSA Symposium, 2017.
20. Confident Inference for SNP Effects on Treatment Efficacy. Multiple Comparison Procedures (MCP) Conference, 2017.
21. Progression risk estimation with Copula Model in Age-related Macular Degeneration (AMD) patients. Lifetime Data Analysis Conference (LIDA), 2017.
22. Logical Inference on Treatment Efficacy in Subgroups and Their Mixture. Presented at: The 10th ICSA International Conference, 2016.
23. A General Semiparametric AFT Model Imputation Approach for Censored Covariate. ICSA Symposium, 2016.
24. Emerging Methods for Biomarker and Subgroup Identification – Review and Compare. ICSA Symposium, 2013.
25. 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.
26. Bivariate Analysis and Prediction of AMD Progression Using Genetic Scores. Poster presented at: The American Society of Human Genetics (ASHG) Annual Meeting; 2015.
27. Subgroup Mixable Inference with Time-to-Event Outcomes for Mixture Treatment Efficacy. JSM; 2015.
28. Subgroup Mixable Inference for Time-to-Event Outcomes in Personalized Medicine Development. Women in Statistics Conference, 2014.
29. Simultaneous Confidence Intervals for Assessing the Effects of a SNP on Treatment Efficacy in Personalized Medicine Development. ENAR, 2014.
30. Estimating Mean Survival Time: When is it Possible? IMS China International Conference on Statistics and Probability; 2013.
31. Bayesian Indirect and Mixed Treatment Comparisons Across Longitudinal Time Points. ENAR, 2012.
32. Combining Multiple Biomarkers using U-Scores to Assess Treatment Effects in Early Phase Clinical Studies. ENAR, 2011.
33. Sieve Maximum Likelihood Estimation Using B-Splines for the AFT Model. ENAR, 2010.
34. Efficient Estimation Method for the AFT Model. JSM, 2009.
35. Asymptotics of Intercept Estimator in the Semiparametric Linear Model for Censored Data. ENAR, 2009.
36. Strong Consistency of the Intercept Estimator in the Semiparametric Accelerated Failure Time Model. JSM, 2008.
37. Identifying Representative Trees in Random Forest for Survival Data. ENAR, 2008.

Non-Print Media (Software, electronic)

1. R package: {CopulaCenR}, <https://cran.r-project.org/web/packages/CopulaCenR/index.html>
2. GitHub packages: {SME}, {CE4}, {HTESurv}, {tdCoxSNN}

Other Publications

1. 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/>
2. Ding Y, Jensen W, Lee J, Natanegara F. SPAIG Award Goes to Two. *AMSTATNEWS*, November 1, 2019. <https://magazine.amstat.org/blog/2019/11/01/spaig-award-goes-to-two/>.

3. 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/>.
4. 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/.

Service

Service to School and University

Department Committees

Years	Activity	Position
01/2014 – 07/2018	PhD Admissions Committee	Member
03/2017 – 12/2023	PhD Student Award Committee	Member
01/2018 – Present	Faculty Award Nomination Committee	Member
09/2013 – 12/2022	Doctoral Monitoring Committee	Member
04/2021 – 02/2022	Biostatistics Faculty Search Committee	Chair
08/2019 – 03/2024	PhD Admissions Committee	Chair
09/2022 – 03/2024	PhD Program Working Group	Chair
02/2023 – 03/2024	Doctoral Monitoring Committee	Co-Chair
01/2023 – 04/2023	PhD Student Award Committee	Co-Chair
09/2024 – 03/2025	Faculty Search Committee	Chair
07/2024 - Present	Alumni Award Committee	Member
10/2024 – Present	MS Admissions Committee	Member

School Committees

Years	Activity	Position
09/2014 – 08/2020	EPCC (Educational Policies and Curriculum Committee)	Department Representative
05/2016 - 04/2017	Biostatistics Department Chair Search Committee	Member
10/2018 – 03/2019	Biostatistics Department Faculty Search Committee	Member
03/2020 – 11/2020	Graduate School of Public Health Dean Search Committee	Member
01/2023 – 07/2023	School of Public Health BSPH Faculty Search Committee	Member
09/2023 – 08/2024	School of Public Health Faculty Senate Executive Committee (FSEC)	President-Elect

09/2024 – 08/2025	School of Public Health FSEC	President
09/2025 – 08/2026	School of Public Health FSEC	Past President
09/2026 – 08/2029	FAPTC (Faculty Appointment, Promotion and Tenure Committee)	Member

University Committees

Years	Activity	Position
11/2020 – 08/2023	Basic Science Council	Member
09/2022 - 07/2023	Advisory Council on Instructional Excellence (ACIE)	Member
04/2024 – 02/2025	Provost's Postdoctoral Affairs Advisory Committee	Member
09/2024 – Present	University Council on Graduate Study (UCGS)	Member

Service to Field of Scholarship

Editorial Boards, Editorships

Date	Organization	Position
2021 - Present	Statistics in Medicine	Associate Editor
2019 - Present	Journal of Statistical Research	Associate Editor

Study Sections, Review Panels, and Advisory Boards

Date	Organization	Position
2013 - 2017	PLOS ONE	Statistical Advisory Board Member
9/2016 - 10/2016	DoD Clinical Research Intramural Initiative Program, Precision Medicine Research Award	Panelist
3/2019 – 4/2019	LiDS Conference Student Paper Awards Committee	Reviewer
6/2021 - 7/2021	NEI Study Section ZEY VSN (05)	Panelist
2/2022 - 3/2022	NIA Study Section ZAG1 ZIJ-D (M4)	Panelist
9/2022 - 10/2022	NIA Study Section ZAG1 ZIJ-Y (J3)	Panelist
10/2022 - 12/2022	NEI Study Section ZEY1 VSN 02	Panelist
2020 - 2022	ENAR Student Paper Awards Committee	Reviewer

2022 - 2023	JSM LiDS Student Paper Awards Committee	Reviewer
2023 - 2024	JSM LiDS Student Paper Awards Committee	Chair
08/2024	Gavin Herbert Eye Institute and ICTS grant at the University of California, Irvine	Reviewer
12/2024 – 01/2025	William H. Gates Sr. Fellowship applications from the AD Data Initiative	Reviewer
03/2025 – 04/2025	NIH ASPA Study Section	Panelist
08/2025 – 09/2025	DoD Congressionally Directed Medical Research Programs (CDMRP) Peer-Reviewed Medical Research Program (PRMRP25) IBD-1 and IBD-2 Panels	Panelist
07/2026 – 06/2030	Analytics and Statistics for Population Research Panel A Study Section (ASPA)	Standing Member

Manuscript and other Documentation/Publication Review

Journal Title

Biostatistics
 Biometrics
 Biometrika
 Canadian Journal of Statistics
 Statistics in Medicine
 Statistics and Its Interface
 Lifetime Data Analysis
 Statistics in Biosciences
 Electronic Journal of Statistics
 Journal of Biopharmaceutical Statistics
 Statistics in Biopharmaceutical Research
 Journal of Statistical Theory and Practice
 Journal of Applied Statistics
 Statistica Sinica
 Bioinformatics
 Biometrical Journal
 Scandinavian Journal of Statistics
 Journal of the 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

Patterns

Leadership in Scholarly and Professional Organizations and Honorary Societies

Date	Organization	Position
1/2017 - 12/2020	The Statistical Partnerships Among Academe, Industry & Government Committee (SPAIG), American Statistical Association (ASA)	Member
12/2017 - 5/2019	Lifetime Data Science 2019 Conference Local Organization Committee	(co-)Chair
8/2019 - 7/2020	Nomination Committee for Lifetime Data Science (LiDS) Section, American Statistical Association	Member
2/2020 - 12/2021	Webinar Committee, ASA LiDS Section	(co-)Chair
9/2020 - 08/2021	ASA Pittsburgh Chapter	President-Elect
1/2021 - 12/2021	Statistical Partnerships Among Academe, Industry & Government (SPAIG) Committee, ASA	Vice Chair
9/2020 – 07/2022	International Conference on Multiple Comparison Procedures (MCP) Organization Committee	Member
5/2020 - Present	National Institute of Statistical Sciences (NISS)	Affiliate Faculty Liaison
9/2021 – 08/2021	ASA Pittsburgh Chapter	President
1/2022 – 12/2022	SPAIG Committee, ASA	Chair
1/2022 – 12/2022	ASA, LiDS Section	Program-Chair-Elect
1/2022 – 12/2024	ICSA Publication Committee	Member
9/2022 – 8/2023	ASA Pittsburgh Chapter	Past President
1/2023 – 12/2023	ASA, LiDS Section	Program-Chair
1/2024 – 12/2024	ASA, LiDS Section	Past Program-Chair
10/2024 – Present	ICSA 2025 Taipei Conference Program Committee	Member
07/2025 – Present	Sixth International Workshop on Statistical Analyses of Multi-outcome Data (SAM) Program Committee	Member
08/2025 – Present	Eli Lilly Data Monitoring Committee (DMC)	Advisor

Non-Professional Service

Date	Organization/Agency	Position and/or Type of Service
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07/2013 – 06/2018	Member, Chinese Association for Science and Technology, Pittsburgh Chapter (CAST-P)	Volunteer
05/2019 – 05/2020	Board Member, Pittsburgh Chinese School	Volunteer
06/2020 – 05/2021	Vice Chair of the Board, Pittsburgh Chinese School	Volunteer
06/2021 – 06/2022	Chair of the Board, Pittsburgh Chinese School	Volunteer
07/2022 – 06/2025	Secretary of the Board, Pittsburgh Chinese School	Volunteer