

# CURRICULUM VITAE

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## EDUCATION AND TRAINING

### Undergraduate

<b>Years of Attendance</b>	<b>University City, State</b>	<b>Degree, Year Awarded</b>	<b>Field</b>
1999-2003	Nanjing University Nanjing, China	BS, 2003	Mathematics

### Graduate

<b>Years of Attendance</b>	<b>University City, State</b>	<b>Degree, Year Awarded</b>	<b>Field</b>
2005-2010	University of Michigan Ann Arbor, MI	PhD, 2010	Biostatistics
2003-2005	Indiana University Bloomington Bloomington, IN	MA, 2005	Mathematics

## APPOINTMENTS AND POSITIONS

### Academic

<b>Years Position Held</b>	<b>Title</b>	<b>Department, School, Name and Location of Institution</b>
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
2024 - Present	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	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

### Non-Academic

<b>Years Position Held</b>	<b>Title</b>	<b>Name and Location of Company/Organization</b>
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

<b>Years Inclusive</b>	<b>Name of Society</b>
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

## HONORS

<b>Year of Award</b>	<b>Title of Award, Awarding Association</b>
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 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
2014, 2020	Nomination for James L. Craig Excellence in Education Award, University of Pittsburgh
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, Health Sciences, University of Pittsburgh
2023	American Statistical Association LiDS Section Outstanding Service Award

## PROFESSIONAL ACTIVITIES

### 1. Teaching

#### a. Courses Taught

<b>Years Taught</b>	<b>Course Number: Title</b>	<b>Hours of Lecture, credits Average Enrollment</b>	<b>Role in course Primary/Coordinator</b>
2013 Spring	BIOST 2086: Applied Mixed Model Analysis	3 credits, 26 enrolled	Primary Instructor
2014 Spring	BIOST 2025: Biostatistics Seminar	1 credit, 15 enrolled	Primary Coordinator
2014 Spring	BIOST 2086: Applied Mixed Model Analysis	3 credits, 17 enrolled	Primary Instructor
2014 Fall	BIOST 2025: Biostatistics Seminar	1 credit, 14 enrolled	Primary Coordinator
2016 Spring	BIOST 2086: Applied Mixed Model Analysis	3 credits, 17 enrolled	Primary Instructor
2017 Spring	BIOST 2086: Applied Mixed Model Analysis	3 credits, 8 enrolled	Primary Instructor
2018 Spring	BIOST 2054 / STAT 2261: Survival Analysis	3 credits, 5 enrolled	Primary Instructor
2019 Spring	BIOST 2054 / STAT 2261: Survival Analysis	3 credits, 19 enrolled	Primary Instructor
2019 Fall	BIOST 2066: Applied Survival Analysis	2 credits, 27 enrolled	Primary Instructor
2020 Fall	BIOST 2066: Applied Survival Analysis	2 credits, 7 enrolled	Primary Instructor
2021 Fall	BIOST 2066: Applied Survival Analysis	2 credits, 15 enrolled	Primary Instructor
2022 Spring	BIOST 2054 / STAT 2261: Survival Analysis	3 credits, 17 enrolled	Primary Instructor
2022 Fall	BIOST 2066: Applied Survival Analysis	2 credits, 21 enrolled	Primary co-Instructor

<b>Years Taught</b>	<b>Course Number: Title</b>	<b>Hours of Lecture, credits Average Enrollment</b>	<b>Role in course Primary/Coordinator</b>
2022 Fall	BIOST 2081: Mathematical Methods for Statistics	3 credits, 11 enrolled	Faculty supervisor
2022 Fall	BIOST 2000: Teaching Practicum	3 credits, 2 enrolled	Primary Instructor
2023 Spring	BIOST 2054 / STAT 2261: Survival Analysis	3 credits, 10 enrolled	Primary Instructor
2023 Fall	BIOST 2066: Applied Survival Analysis	2 credits, 17 enrolled	Primary Instructor
2023 Fall	BIOST 2000: Teaching Practicum	3 credits, 2 enrolled	Primary Instructor
2023 Fall	BIOST 2081: Mathematical Methods for Statistics	3 credits, 15 enrolled	Faculty supervisor

**b. Other Teaching** (lectures, tutorials, and continuing education courses)

<b>Date(s)</b>	<b>Type of Teaching</b>	<b>Title</b>
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	Guest lecture (2 lectures)	BIOST 2046: Analysis of Cohort Studies
2017 Fall	Guest lecture (2 lectures)	BIOST 2046: Analysis of Cohort Studies
2022 Spring	Guest lecture (1 lecture)	HUGEN 2080: Statistical Genetics

**c. Major Advisor for Graduate Student Essays, Theses, and Dissertations**

<b>Name of Student</b>	<b>Degree Awarded, Year</b>	<b>Type of Document and Title</b>	<b>Notes</b>
Kidane Ghebrehawariat	PhD in Biostatistics, 2015	Dissertation, “Parametric methods in quantile residual lifetime analysis”	Dissertation Co-advisor
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”	Dissertation Advisor <b>(Now Principal Biostatistician at Boehringer Ingelheim)</b>
Zhe Sun	PhD in Biostatistics, 2019	Dissertation, “Novel Statistical Methods in Analyzing Single Cell Sequencing Data”	Dissertation Advisor <b>(Now Research Scientist at Eli Lilly and Company)</b>

Tao Sun	PhD in Biostatistics, 2020	Dissertation, “New statistical methods for complex survival data with high-dimensional covariates”	Dissertation Advisor <b>(Now Associate Professor at Renmin University, China)</b>
Yue Wei	PhD in Biostatistics, 2021	Dissertation, “New Statistical Insights to Precision Medicine, from Targeted Treatment Development to Individualized Tailoring Recommendation”	Dissertation Advisor <b>(Now Senior Biostatistician at Novartis, China)</b>
Xinjun Wang	PhD in Biostatistics, 2022	Dissertation, “Statistical Learning and Analysis of Single Cell Multi-Omics Data”	Dissertation Co-advisor <b>(Now Assistant Attending Biostatistician at MSK Cancer Center)</b>
Zhiyu Sui	PhD in Biostatistics, 2025 (expected)	Dissertation	Dissertation Advisor
Na Bo	PhD in Biostatistics, 2025 (expected)	Dissertation	Dissertation Advisor
Lang Zeng	PhD in Biostatistics, 2026 (expected)	Dissertation	Dissertation Advisor
Jiaqian Liu	MS in Biostatistics, 2023	Thesis, “Prediction of Severe Asthma Outcomes in Children on EHR Data”	Thesis Advisor
Jerry Zhou	MS in Biostatistics, 2024	Thesis,	Thesis Advisor

### **MS Student Academic Advisor**

<b>Name of Student</b>	<b>Yeas of Advising</b>	<b>Type of Document and Title</b>	<b>Notes</b>
Jerry Zhou	MS in Biostatistics 08/2022 – 08/2023		Academic Advisor

### **Doctoral Student Academic Advisor**

<b>Name of Student</b>	<b>Years of Advising</b>	<b>Type of Document and Title</b>	<b>Notes</b>
Joanne Beer	PhD in Biostatistics 09/2013 – 09/2015		Academic Advisor
Tao Sun	PhD in Biostatistics 09/2015 – 08/2016		Academic Advisor
Yichen Jia	PhD in Biostatistics 08/2017 – 08/2018		Academic Advisor
Na Bo	PhD in Biostatistics 08/2020 – 08/2021		Academic Advisor
Zhiyu Sui	PhD in Biostatistics 08/2020 – 08/2021		Academic Advisor
Lang Zeng	PhD in Biostatistics 02/2021 – 07/2022		Academic Advisor
Haoran Hu	PhD in Biostatistics 08/2021 – 04/2023		Academic Advisor
Madeline Peterson	PhD in Biostatistics 08/2022 – 04/2023		Academic Advisor
Edward Smith	PhD in Biostatistics 08/2023 – Present		Academic Advisor
Jiaqian Liu	PhD in Biostatistics 08/2023 – Present		Academic Advisor

#### **d. Service on Masters or Doctoral Committees**

##### **Master Students**

<b>Dates Served</b>	<b>Name of Student</b>	<b>Degree Awarded</b>	<b>Title of Dissertation/Essay</b>
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”

##### **Doctoral Students**

<b>Dates Served</b>	<b>Name of Student</b>	<b>Degree Awarded</b>	<b>Title of Dissertation/Essay</b>
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	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”
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 – Present	Ziling Mao	PhD in Epidemiology	

### **Junior Faculty or K Grant Mentee**

<b>Dates Served</b>	<b>Mentee’s Name (Department, University)</b>	<b>Mentee’s position</b>
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)	Assistant Professor
08/2022 – Present	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, in application)	Assistant Professor
03/2023 – Present	Shinnyi (Cindy) Chou (Psychiatry, University of Pittsburgh, K08 grant, in application)	Postdoc Fellow
05/2023 – Present	Lu Tang (Biostatistics, University of Pittsburgh)	Assistant Professor
08/2023 – Present	Jenna Carlson (Human Genetics, University of Pittsburgh)	Assistant Professor

### **Awards Obtained by PhD Advisees**

<b>Student’s Name</b>	<b>Award Time</b>	<b>Award Name</b>
Zhe Sun	01/2017– 12/2018	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	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	IASA 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
Haoran Hu	04/2022	Biostatistics Research Day Best Presentation Honorable Mention
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 2 <sup>nd</sup> 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
Lang Zeng	04/2024	Best Teaching Assistant Award, Biostatistics

#### e. Service on Comprehensive or Qualifying Examination Committees

<b>Dates Served</b>	<b>Student Population</b>	<b>Type of Exam</b>
04/2013 – 07/2014	Biostatistics PhD students	PhD Qualifying Applied Exam (Committee Member, 2 years)
04/2015 – 07/2018	Biostatistics PhD students	PhD Qualifying Applied Exam (Committee Chair, 4 years)
04/2023 – 07/2023	Biostatistics PhD students	PhD Qualifying Theory Exam and Applied Exam (Committee Chair, 1 year)

#### **f. Supervision and Mentoring of Students/Graduate Student Researchers**

<b>Dates Supervised</b>	<b>Name of Student</b>	<b>Position of Student</b>
5/2013 – 12/2013	Shanshan Tu	MS hourly
05/2017 – 10/2017	Kevin Anderson	BS hourly
09/2017 – 12/2018	Gabrielle Larosa	BS hourly
09/2014 - 08/2017	Yi Liu	PhD GSR
09/2015 – 08/2019	Zhe Sun	PhD GSR
09/2016 – 04/2020	Tao Sun	PhD GSR
05/2018 – 08/2021	Yue Wei	PhD GSR
09/2020 – Present	Na Bo	PhD GSR
09/2020 – Present	Zhiyu Sui	PhD GSR
02/2021 – Present	Lang Zeng	PhD GSR
09/2021 – 08/2022	Haoran Hu	PhD GSR
06/2022 – 05/2023	Xueping Zhou	PhD GSR

#### **h. Other Teaching and Training**

<b>Dates</b>	<b>Teaching Activity</b>	<b>Program/Description</b>
12/2018, 12/2019	High School Student AP Statistics Guest Lecture	Experimental Design

## **2. Research and Training**

### **a. Grants and Contracts Received**

#### **Principal Investigator, Multiple Principal Investigator, or Program Project Principal Investigator**

*\*as listed in NIH RePORT and/or on Notice of Award*

<b>Years Inclusive</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>	<b>Annual Direct Costs</b>	<b>% Effort</b>
6/1/2022 – 5/31/2026	R01GM141076 New statistical methods and software for modeling complex multivariate survival data with large-scale covariates	NIH/NIGMS	\$200,000	25 % + 200 % Graduate Student Researchers
6/1/2022 – 5/31/2023	Precision care in asthma using EHR analytics	Pitt CTSI	\$45,000	In-kind + 60 % Graduate student Researcher
8/1/2020 – 5/31/2023	R21EY030488 Deep-learning-based prediction of AMD and its progression with GWAS and fundus image data	NIH/NEI	\$135,000	20.0 % + 100 % Graduate Student Researcher
1/1/2019 – 12/31/2019	UL1TR001857 Deep Learning with GWAS to Predict AMD Progression	NIH/CTSI	\$10,000	In-kind + 25 % Graduate Student Researcher
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	15.0 % + 50 % Graduate Student Researcher
7/1/2015 – 12/31/2017 (with NCE)	Novel and Robust Methods for Protein Network Analysis of Proteomics Data in Psychiatric Disorders	UPMC Competitive Medical Research Fund	\$25,000	In-kind + 40 % Graduate Student Researcher

### **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***

<b>Years Inclusive</b>	<b>Grant and/or Contract Number and Title (PI: Name; Institution)</b>	<b>Source</b>	<b>Annual Direct Costs</b>	<b>% Effort</b>
9/30/2019 – 5/31/24	Optimizing a novel intraductal delivery of calcineurin inhibitors as a radiocontrast infusion formulation to prevent post-ERCP pancreatitis (PI: Husain, S., Stanford University)	Department of Defense	\$300,000	5.0 %

## 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)*

<b>Years Inclusive</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>	<b>Annual Direct Costs</b>	<b>% Effort</b>
12/1/2023 – 10/31/2028	Providing New Insight Into Adolescent Dendritic Development	NIH/NIMH	\$325,934	5.0 %
5/15/2023 – 5/14/2024	Epigenetic reprogramming to target senescent ovarian cancer cells and overcome therapeutic resistance	DoD	\$15,027	4.0 %
7/15/2022 – 3/31/2026	R01EB034116 SCH: New Advanced Machine Learning Framework for Mining Heterogeneous Ocular Data	NIH/NIBIB	\$202,000	10.0 %
1/1/2021 – 12/31/2025	R01AG069912 Genetic and Molecular Correlates of White Matter Pathology in Alzheimer's Disease	NIH/NIA	\$384,000	5.0 % + 50 % Graduate Student Researcher
1/1/2021 – 10/31/2024	R01MH125235 Fine-Mapping Genome-Wide Associated Loci using Multi-omics Data to Identify Mechanisms Affecting Serious Mental Illness	NIH/NIMH	\$483,000	5.0 % + 50 % Graduate Student Researcher
9/1/2019 – 7/31/24	R01MH118497 Synaptic Protein Networks, Genetic Risk, and Spine Loss in Schizophrenia	NIH/NIMH	\$347,000	10.0 %
9/25/2018 – 6/30/2028	R01MH116046 Accelerating Treatment Development for Psychosis in AD: MODEL-AD+P	NIH/NIMH	\$380,000	15.0 %
5/1/2017 – 4/30/2024	R01AG027224 Prediction of Psychosis in Alzheimer Disease	NIH/NIA	\$738,000	10.0 % + 50 % Graduate Student Researcher
8/1/2020 – 8/31/2022	P30CA047904 Cancer Center Support Grant (Biostatistics Facility)	NIH/NCI	\$134,000	10 %
9/1/2021 – 8/29/23	Exploiting Metabolic Vulnerabilities to Target Multidrug-Resistant Ovarian Cancer	Department of Defense	\$257,000	5.0 %

<b>Years Inclusive</b>	<b>Grant and/or Contract Number and Title</b>	<b>Source</b>	<b>Annual Direct Costs</b>	<b>% Effort</b>
9/15/2014 – 9/15/2015	Cellular and Molecular Mechanisms of HSC Dysfunction in Chronic Inflammation	American Hematological Society	\$150,000	3.0 %
08/01/2015 – 07/31/2016	R56AI079047 Cellular and Molecular Mechanisms of HSC Dysfunction in Chronic Inflammation	NIH/NAID	\$249,000	8.5 %
4/1/2014 – 3/31/2017	R01EY024226 AMD Genetics: Methods and Analysis for Progression, Prediction and Association	NIH/NEI	\$200,000	15.0 %
02/06/2017 – 01/31/2019	R21AI126440 TLR4 Shapes BM HSCs and Lymphopoiesis	NIH/NIAID	\$150,000	10.0 %
4/1/2014 – 3/31/2019	R01MH071533 Plasticity of Auditory Cortical Circuits in Schizophrenia	NIH/NIMH	\$460,000	15.0 %
11/27/2017 – 11/30/2022	Preventing Asparaginase-associated Pancreatitis Using the Novel Dimension of Metabolomics	Stanford/Servier Pharmaceuticals	\$37,560	4.0 % + 25 % Graduate Student Researcher
4/1/2015 – 3/31/2020	ADRC/Project III Neuropathology of Psychosis in Alzheimer's disease	Alzheimer Disease Research Center	\$138,000	5.0 %
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)	\$1,226,000	In-kind + 50% Graduate Student Researcher
9/15/2020 – 5/31/2022	OIA-2040588 NSF Convergence Accelerator - Track D: A Trusted Integrative Model and Data Sharing Platform for Accelerating Artificial Intelligence	NSF	\$966,000	5.0 %

**b. Invited Lectureships and Major Seminars Related to Your Research**

<b>Date</b>	<b>Title of Presentation</b>	<b>Venue</b>
02/10/2022	Logic Inference and Testing in Targeted Treatment Development with Survival Outcomes.	International Seminar on Selective Inference

Date	Title of Presentation	Venue
11/03/2022	Statistics in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Rule Recommendations	Senior Vice Chancellor's Ascending Star Award Seminar
11/2023	Deep Learning in Survival Analysis	American Statistical Association (ASA) Lifetime Data Science (LiDS) Section Webinar Series

## PUBLICATIONS

\*: corresponding/senior author

+: co-first author

\_: PhD advisee or GSR

### 1. Refereed Articles

#### Statistical Papers (from independent methodological research)

1. Bo N<sup>+</sup>, Wei Y<sup>+</sup>, Zeng L, Kang C, **Ding Y<sup>\*</sup>**. (2024). A Meta-Learner Framework to Estimate Individualized Treatment Effects for Survival Outcomes (*An earlier version won the 2022 JSM LiDS section student paper award*). *Journal of Data Science*. <https://doi.org/10.6339/24-JDS1119>
2. Sun T, Lang W, Zhang G, Yi D, **Ding Y**, Zhang L. (2023). Penalized semiparametric copula method for semi-competing risks data: Application to hip fracture in elderly. *Journal of the Royal Statistical Society Series C. In Press*
3. 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
4. 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*. DOI: [10.1177/09622802221133552](https://doi.org/10.1177/09622802221133552) PMID: 36735020
5. Sun T, Cheng Y, **Ding Y<sup>\*</sup>**. (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
6. 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
7. 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> PMID: 35960189

8. Ganjdanesh A<sup>+</sup>, Zhang Z<sup>+</sup>, 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
9. 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.
10. 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.
11. 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.
12. 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
13. Chen L-W, Cheng Y, **Ding Y**, Li R. (2021) Quantile Association Regression on Bivariate Survival Data. *Canadian Journal of Statistics*. 49(3):612-636. PMID: 34720345
14. 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
15. Sun T, **Ding Y**\*. (2020) CopulaCenR: Copula based Regression Models for Bivariate Censored Data in R. *The R Journal*. 12(1): 266-282. <https://doi.org/10.32614/RJ-2020-025>
16. Wang X<sup>+</sup>, Sun Z<sup>+</sup>, 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*. 48(11):5814-5824. PMID: 32379315.
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18. Wei Y<sup>+</sup>, Liu Y<sup>+</sup>, 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
19. 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
20. Sun T<sup>+</sup>, Liu Y<sup>+</sup>, 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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24. Yan Q<sup>+</sup>, **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
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33. **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
34. **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 Papers (from interdisciplinary collaborative research)

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37. 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*. DOI: [10.1016/j.pan.2023.09.080](https://doi.org/10.1016/j.pan.2023.09.080)
38. 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*. DOI: [10.1016/j.pan.2023.09.080](https://doi.org/10.1016/j.pan.2023.09.080)
39. Gomez Marti JL, Nasrazadani A, **Ding Y**, Normolle D, Brufsky AM. (2023) Twenty-Year Follow-up of a Phase II Trial of Taxotere/Carboplatin/Herceptin in Patients with Metastatic HER2-Positive Breast Cancer. *The Oncologist*. <https://doi.org/10.1093/oncolo/oyad258>
40. Krivinko JM, DeChellis-Marks MR, **Zeng L**, Fan P, Lopez OL, **Ding Y**, Wang L, Kofler J, MacDonald ML, Sweet RA. (2023) Targeting the Post-Synaptic Proteome in Alzheimer's Disease with Psychosis. *Communications Biology*. 6: 598. PMID: 37268664 DOI: <https://www.nature.com/articles/s42003-023-04961-5>
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43. Tsai C-H, Saito T, Sarangdhar M, Abu-El-Haija M, Wen L, Lee B, Manohar M, Barakat MT, Contrepolis 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*. 16(687). DOI: [10.1126/scitranslmed.abn2110](https://doi.org/10.1126/scitranslmed.abn2110)
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45. 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*.

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49. 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. PMID: 34848542
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#### Manuscripts under revision/review

85. 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/multipler detection in single-cell multiomics data. *Nature Communications*. Under revision.
86. Krivinko JM, Sui Z, Happe C, Hensler C, McKinney BC, Newman J, **Ding Y**, MacDonald ML, Sweet RA. (2024+). Loss of large dendritic spines during normal aging is mediated by alterations in discrete protein networks within the precuneus. *Molecular Psychiatry*. Under revision.
87. Zeng L, Zhang J, Chen W, **Ding Y**\*. (2024+). 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*. Under revision.
88. 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*. Under revision.
89. Dumrongprechachan V, Zhu Y, Klei L, Gilardi L, Salisbury RB, Happe C, Newman J, **Ding Y**, Lewis DA, Chikina M, Devlin B, Sweet RA, MacDonald ML (2024+). Multilevel proteomics links aberrant synaptic proteostasis and kinase signaling to dendritic spine pathology in schizophrenia. Under review.
90. Bo N, Jeong J-H, Forno E, **Ding Y**\*. (2024+). A meta-learner-based framework to analyze treatment heterogeneity in survival outcomes: application to pediatric asthma care under COVID-19 disruption (*An earlier version won the 2024 JSM Health Policy Statistics section student paper award*). Under review.
91. Liu J, Bo N, Forno E, **Ding Y**\*. (2024+). Predicting Pediatric Asthma Severe Outcomes using Machine Learning Methods for EHR Data with Repeated Clinic Visits. Under review.

## 2. Books and Book Chapters

## Books

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**, 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.

## 3. Presentations

### Invited Presentations

1. Meta-learners to analyze treatment heterogeneity in survival data: application to pediatric asthma care under COVID-19 disruption, University of Vanderbilt, 2024
2. tdCoxSNN: Time-dependent Cox Survival Neural Network for Continuous-time Dynamic Prediction, ENAR, 2024.
3. Causal Survival Analysis on Pediatric Asthma Care Heterogeneity with COVID-19 Disruption, Department of Biomedical Informatics, University of Pittsburgh, 2024.
4. Semiparametric Copula Model for Survival Data, Center for Biostatistics, Icahn School of Medicine at Mount Sinai, 2023.
5. Dynamic Prediction of AMD Progression Using Longitudinal Fundus Images, JSM, 2023.
6. Causal Subgroup Identification via Meta-Learning Algorithms on Time-to-Event Outcomes, Renmin University, China, 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. New Statistical Development in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Recommendation. Peking University, China, 2021.
11. New Statistical Insights in Precision Medicine: From Targeted Treatment Development to Individualized Treatment Recommendation. Renmin University, China, 2021.
12. Modeling complex survival outcomes with large-scale covariates: methods and applications, SUSTech University, China, 2021.
13. Multi-omics Analysis of Psychosis in Alzheimer's Disease. Joint Statistical Meeting (JSM), 2021
14. Modeling Complex Survival Outcomes with Large-scale Genetic Covariates: Methods and Applications. ASA Philadelphia Chapter Webinar, 2021.
15. 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.
16. GWAS-based Deep Learning for Survival Prediction. Department of Public Health, University of California Davis, 2020.
17. Logical Inference on Treatment Efficacy When Subgroups Exist. JSM, 2019.
18. Bivariate Sieve Transformation Model for Interval-Censored Data. ICSA Conference, China, 2019.
19. GWAS-based Deep-Learning for Age-Related Macular Degeneration (AMD) Progression. Department of Statistics, Jilin University, China, 2019.
20. A Novel Bivariate GWAS of AMD Progression. ICSA Symposium, 2019.
21. A Copula-Based Semiparametric Model for Progression Prediction of AMD using GWAS Data. 2nd Lifetime Data Science (LiDS) Conference, 2019.
22. Copula-based Semiparametric Method for Modeling Bivariate Data Under General Interval Censoring. Department of Biostatistics and Data Science, George Mason University, 2019.
23. 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.
24. A Bayesian Hierarchical Mixture Model for Clustering Droplet-based Single Cell Transcriptomic Data from Population Studies. ICSA Symposium, 2018.
25. Network Analysis of Proteomics Data, with Applications in Psychiatry Research. Critical Care BDMC Speaker Series, University of Pittsburgh, 2017.
26. Copula-based Semiparametric Sieve Models for Bivariate Interval-Censored Data. Department of Biostatistics, Epidemiology, Informatics, University of Pennsylvania, 2017.
27. Progression Risk Prediction with Copula Model in Age-related Macular Degeneration (AMD) Patients. JSM, 2017.
28. Confident Inference for SNP Effects on Treatment Efficacy. ICSA Symposium, 2017.
29. Confident Inference for SNP Effects on Treatment Efficacy. Multiple Comparison Procedures (MCP) Conference, 2017.
30. Progression risk estimation with Copula Model in Age-related Macular Degeneration (AMD) patients. Lifetime Data Analysis Conference (LIDA), 2017.
31. Logical Inference on Treatment Efficacy in Subgroups and Their Mixture. Presented at: The 10th ICSA International Conference, 2016.

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

#### **Other presentations**

42. 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.
43. Bivariate Analysis and Prediction of AMD Progression Using Genetic Scores. Poster presented at: The American Society of Human Genetics (ASHG) Annual Meeting; 2015.
44. Subgroup Mixable Inference with Time-to-Event Outcomes for Mixture Treatment Efficacy. JSM; 2015.
45. Subgroup Mixable Inference for Time-to-Event Outcomes in Personalized Medicine Development. Women in Statistics Conference, 2014.
46. Simultaneous Confidence Intervals for Assessing the Effects of a SNP on Treatment Efficacy in Personalized Medicine Development. ENAR, 2014.
47. Estimating Mean Survival Time: When is it Possible? IMS China International Conference on Statistics and Probability; 2013.
48. Bayesian Indirect and Mixed Treatment Comparisons Across Longitudinal Time Points. ENAR, 2012
49. Combining Multiple Biomarkers using U-Scores to Assess Treatment Effects in Early Phase Clinical Studies. ENAR, 2011.
50. Sieve Maximum Likelihood Estimation Using B-Splines for the AFT Model. ENAR, 2010.
51. Efficient Estimation Method for the AFT Model. JSM, 2009.
52. Asymptotics of Intercept Estimator in the Semiparametric Linear Model for Censored Data. ENAR, 2009.
53. Strong Consistency of the Intercept Estimator in the Semiparametric Accelerated Failure Time Model. JSM, 2008.
54. Identifying Representative Trees in Random Forest for Survival Data. ENAR, 2008.

#### **4. Non-Print Media (Software, electronic)**



1. (As applicable) Authors (same order as publication). Title of Article. *Title of Media* [Indication of Media]. Publishing Company. Year and Date. Volume (Issue): pages or path.

R package: {CopulaCenR}, <https://cran.r-project.org/web/packages/CopulaCenR/index.html>

GitHub packages: {SME}, {CE4}, {HTEsurv}, {tdCoxSNN}

## 5. 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 Awards 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/](https://magazine.amstat.org/blog/2017/12/01/spaig_2017/).

## SERVICE

### 1. Service to School and University

#### Department Committees

Years	Committee	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 – 03/2024	PhD Student Award Committee	Co-Chair

#### School Committees

Years	Committee	Position
09/2014 – 08/2020	EPCC (Educational Policies and Curriculum Committee)	Department Representative

<b>Years</b>	<b>Committee</b>	<b>Position</b>
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 – Present	School of Public Health Faculty Senate Executive Committee (FSEC)	President-Elect

### **University Committees**

<b>Years</b>	<b>Committee</b>	<b>Position</b>
11/2020 - Present	Basic Science Council	Member
09/2022 - 07/2023	Advisory Council on Instructional Excellence (ACIE)	Member

## **2. Service to Field of Scholarship**

### **a. Editorial Boards, Editorships**

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

### **b. Manuscript and Other Document/Publication Review**

<b>Date</b>	<b>Position</b>	<b>Organization</b>
2009 - Present	Reviewer	Biostatistics, Biometrics, Biometrika, 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

### **c. Study Sections, Review Panels, and Advisory Boards**

#### **Grant Review Panels**

<b>Date</b>	<b>Position</b>	<b>Organization and Nature of Activity</b>
2013 - 2017	Statistical Advisory Board Member	PloS ONE
9/2016 - 10/2016	Panelist	Department of Defense (DoD) Clinical Research Intramural Initiative Program, Precision Medicine Research Award

<b>Date</b>	<b>Position</b>	<b>Organization and Nature of Activity</b>
3/2019 – 4/2019	Reviewer	LiDS Conference Student Paper Awards Committee
6/2021 - 7/2021	Panelist	NEI Study Section ZEY VSN (05)
2/2022 - 3/2022	Panelist	NIA Study Section ZAG1 ZIJ-D (M4)
9/2022 - 10/2022	Panelist	NIA Study Section ZAG1 ZIJ-Y (J3)
10/2022 - 12/2022	Panelist	NEI Study Section ZEY1 VSN 02
2020 - 2022	Reviewer	ENAR Student Paper Awards Committee
2022 - 2023	Reviewer	JSM LiDS Student Paper Awards Committee
2023 - 2024	Chair	JSM LiDS Student Paper Awards Committee

#### **d. Leadership in Scholarly and Professional Organizations and Honorary Societies**

##### **National/International Organizations**

<b>Date</b>	<b>Position</b>	<b>Organization</b>
1/2017 - 12/2021	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
9/2020 – 07/2022	Member	International Conference on Multiple Comparison Procedures (MCP) Organization Committee
5/2020 - Present	Affiliate Faculty liaison	National Institute of Statistical Sciences (NISS)
9/2021 – 08/2021	President	ASA Pittsburgh Chapter
1/2022 – 12/2022	Chair	SPAIG Committee, ASA
1/2022 – 12/2022	Program-Chair-Elect	ASA, LiDS Section
9/2022 – 8/2023	Past-President	ASA Pittsburgh Chapter
1/2023 – 12/2023	Program-Chair	ASA, LiDS Section
1/2024 – 12/2024	Past-Program-Chair	ASA, LiDS Section

#### **4. Non-Professional Service**

<b>Year(s)</b>	<b>Position and Organization</b>	<b>Type of Service</b>
07/2013 - Present	Member, Chinese Association for Science and Technology, Pittsburgh Chapter (CAST-P)	Volunteer

<b>Year(s)</b>	<b>Position and Organization</b>	<b>Type of Service</b>
05/2019 – 05/2020	Board Member, Pittsburgh Chinese School	Volunteer
06/2020 – 05/2021	Vice Chair of Board, Pittsburgh Chinese School	
06/2021 – 06/2022	Chair of Board, Pittsburgh Chinese School	Volunteer
07/2022 - Present	Secretary, Pittsburgh Chinese School	Volunteer