Yingqi Zhao (Last Updates: December 8, 2024)

CONTACT INFORMATION

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1-206-667-6752
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Address:
1100 Fairview Ave N,
M3-C102
Seattle, WA 98109, U.S.A.

RESEARCH INTERESTS

Precision Medicine; Dynamic Treatment Regimes; Biomarker Evaluation; Clinical Trials; Machine Learning; Observational Studies; Disease Surveillance.

EDUCATION

Ph.D., Biostatistics, May 2012
University of North Carolina at Chapel Hill, Chapel Hill, NC

- *Advisor*: Dr. Michael R. Kosorok

Masters Student, Control Theory and Operations Research, 2006– 2007
Fudan University, Shanghai, China

B.S., Statistics, July 2006, *with 1st class honors*
Wuhan University, Wuhan, China

B.S., Finance, July 2006
Wuhan University, Wuhan, China

PROFESSIONAL EXPERIENCE

Professor, May 2024 - Present
Biostatistics Program, Public Health Sciences Division, Fred Hutchinson Cancer (Research) Center

Associate Member/Professor, July 2018 - May 2024
Biostatistics Program, Public Health Sciences Division, Fred Hutchinson Cancer (Research) Center

Assistant Member, Sep 2015 - 2018
Biostatistics Program, Public Health Sciences Division, Fred Hutchinson Cancer (Research) Center

Affiliate Investigator, 2018
Veterans Affairs Puget Sound

Affiliate Assistant Professor, Apr 2017- present
Department of Biostatistics, University of Washington

Affiliate Faculty, Jan 2015- present
Department of Family Medicine, University of Wisconsin-Madison

Affiliate Faculty, Sep 2013- present
Department of Statistics, University of Wisconsin-Madison

Affiliate Member, May 2013-present
Wisconsin Alzheimer's Disease Research Center

Assistant Professor, Sep 2012 - Aug 2015
Department of Biostatistics and Medical Informatics, University of Wisconsin-Madison

PUBLICATIONS - *An asterisk (*) is used to indicate corresponding author;* † *is used to indicate group member.*

Statistical Methodology

Park, J., Liang, M., **Zhao, Y. Q.**, Zhong, X. (2024) "Efficient surrogate-assisted inference for patient-reported outcome measures with complex missing mechanism", ***Electronic Journal of Statistics,*** In press.

Zhu, K.†, **Zhao, Y. Q.**, Zheng, Y. (2024) "Designing cancer screening trials for reduction in late-stage cancer incidence", ***Biometrics,*** 80.3, ujae097.
[⋆⋆ **An earlier version won an ENAR Distinguished Student Paper Award** ⋆⋆]

He, Q.†, Zhang, S.†, LeBlanc, M. L., **Zhao, Y. Q.***(2024) "Estimating individualized treatment rules by optimizing the adjusted probability of a longer survival", ***Statistical Methods in Medical Research,*** 33.9, pp. 1517-1530.

Dong, X.†, **Zhao, Y. Q.***(2024) "Estimating individualized treatment regimes to optimize incremental cost-effectiveness ratio", *Accepted, Statistics in Biosciences.*

Dong, X.†, Zheng, Y., **Zhao, Y. Q.***(2023) "Constructing time-invariant dynamic surveillance rules for optimal monitoring schedule", ***Biometrics,*** 79(4), pp. 3895-3906.
[⋆⋆ **An earlier version won an ENAR Distinguished Student Paper Award** ⋆⋆]

Pan, Y.†, Laber, E. B., Smith, M. A., **Zhao, Y. Q.***(2023) "Reinforced risk prediction with budget constraint using irregularly measured data from electronic health records", ***Journal of the American Statistical Association,*** 118(542), pp. 1090-1101

Liang, M†, Choi, Y-G†, Ning, Y., Smith, M. A., **Zhao, Y. Q.*** (2022) "Estimation and inference on high dimensional individualized treatment rule in observational data using split-and-pooled de-correlated score", ***Journal of Machine Learning Research***, 23 (262), pp. 1-65.

Wang, Y., **Zhao, Y. Q.**, Zheng, Y. (2022) "Targeted search of individualized clinical decision rules to optimize clinical outcomes", ***Statistics in Biosciences***, 14, pp. 564-581.

Zhang, S.†, LeBlanc, M. L., **Zhao, Y. Q.***(2022) 'Restricted survival benefit with right-censored data', ***Biometrical Journal***, 64(4), pp. 696-713.

Choi, Y-G†, Hanrahan, L. P., Norton, D., **Zhao, Y. Q.*** (2022) "Simultaneous spatial smoothing and outlier detection using penalized regression, with application to childhood obesity surveillance from electronic health records", ***Biometrics***, 78 (1), 324-336.
[⋆⋆ **Results featured as cover image of Biometrics March 2022 issue.** ⋆⋆]

Liang, M.†, **Zhao, Y. Q.*** (2021) "Discussion of Kallus (2020) and Mo et al (2020)". ***Journal of the American Statistical Association***, 116 (533), pp. 690-693.

Pan, Y.†, **Zhao, Y. Q.***(2021) "Improved doubly robust estimation in learning optimal individualized treatment rules", ***Journal of the American Statistical Association***, 116 (533), pp. 283-294.

Meng, H., **Zhao, Y. Q.**, Fu, H., Qiao, X. (2020) "Near-optimal Individualized Treatment Recommendations", ***Journal of Machine Learning Research***, 21 (183), pp.1-28.

Wang, Y., **Zhao, Y. Q.**, Zheng, Y. (2020) "Learning-based Biomarker-assisted Rules for Optimized Clinical Benefit under a Risk-constraint", ***Biometrics***, 76(3), pp. 853-862.

Zhao, Y. Q.*, LeBlanc, M. L. (2020) "Designing precision medicine trials to yield greater population impact", ***Biometrics***, 76(2), pp. 643-653.

Zhao, Y. Q.*, Zhu, R., Chen, G., Zheng, Y. (2020) "Constructing dynamic treatment regimes with shared parameters for censored data", ***Statistics in Medicine***, 39(9), 1250-1263.

Zhang, C., Chen, J, Fu, H, He, X, **Zhao, Y. Q.**, Liu, Y. (2020) "Multicategory Outcome Weighted Margin-based Learning for Estimating Individualized Treatment Rules", ***Statistica Sinica***, Vol 30, pp. 1827-1879.

Zhao, Y. Q.*, Redman, M.W., LeBlanc, M. L. (2019) "Quantifying treatment effects using the personalized chance of longer survival", ***Statistics in Medicine***, Vol 38, pp. 5317-5331.

Zhao, Y. Q.*, Laber, E. B., Ning, Y., Saha, S., Sands, B. (2019) "Efficient augmentation and relaxation learning for treatment regimes using observational data", ***Journal of Machine Learning Research***, 20(48), pp. 1-23.

Zhao, Y. Q.*, Zeng, D., Tangen, C. M., LeBlanc, M. L. (2019) "Robustifying Trial-Derived Treatment Rules to a Target Population", ***Electronic Journal of Statistics***, Vol 13, pp. 1717-1743.

Pan, Y., **Zhao, Y. Q.*** (2019) "Outcome Weighted Learning", ***Wiley StatsRef-Statistics Reference Online***, Published Online: 09 May 2019.

Liu, Y., Wang, Y., Kosorok, M. R., **Zhao, Y. Q.**, Zeng, D. (2018) "Augmented Outcome Weighted Learning for Estimating Optimal Dynamic Treatment Regimens", ***Statistics in Medicine***, Vol 37, pp. 3776-3788.

Zhu, R., **Zhao, Y. Q.**, Chen, G., Ma, S., Zhao, H. (2017) "Greedy Tree Learning of Optimal Personalized Treatment Rules", ***Biometrics***, Vol 73, pp. 391-400.

Chen, J., Liu, Y., Zeng, D., Song R., **Zhao, Y. Q.**, Kosorok, M. R. (2016) "Discussions on Bayesian Nonparametric Estimation for Dynamic Treatment Regimes with Sequential Transition Times", ***Journal of the American Statistical Association***, Vol 111, pp. 942-947.

Minsker, S., **Zhao, Y. Q.***, Cheng, G. (2016) "Active Clinical Trials for Personalized Medicine", ***Journal of the American Statistical Association***, Vol 111, pp. 875-87.

Laber, E. B., **Zhao, Y. Q.** , Regh, T., Davidian, M., Tsiatis, A., Stanford, J. B., Zeng, D., Kosorok, M. R. (2016). "Using pilot data to size a two-arm ramdomized trial to find a nearly optimal personalized treatment strategy", ***Statistics in Medicine***, Vol 35, pp. 1245-56.

Xu, Y., Yu M., **Zhao, Y. Q.**, Li Q., Wang S., Shao J. (2015) "Regularized Outcome Weighted Subgroup Identification for Differential Treatment Effects", ***Biometrics***, Vol 71, pp. 645-53.
[⋆⋆ **An earlier version won an ENAR John Van Ryzin Award** ⋆⋆]

Laber, E. B., **Zhao, Y. Q.** (2015) "Tree-based methods for individualized treatment regimes", ***Biometrika***, Vol 102 (3), pp. 501-514.

Zhao, Y. Q., Zeng, D., Laber, E. B., Kosorok, M. R. (2015) "New Statistical Learning Methods for Estimating Optimal Dynamic Treatment Regimes", ***Journal of the American Statistical Association***, Vol 110, pp. 583-98.

Song, R., Kosorok, M. R., Zeng, D., **Zhao, Y. Q.**, Laber, E. B., Yuan, M. (2015) "On Sparse Representation for Optimal Individualized Treatment Selection with Penalized Outcome Weighted Learning", ***Stat***, Vol 4, pp. 59-68.

Zhao, Y. Q.*, Zeng, D., Laber, E. B., Song, R., Yuan, M., Kosorok, M. R. (2015) "Doubly Robust Learning for Estimating Individualized Treatment with Censored Data", ***Biometrika***, Vol 102, pp. 151-168.

Chakraborty, B., Laber, E. B., **Zhao, Y. Q.** (2014) "Inference about the expected performance of a data-driven dynamic treatment regime". ***Clinical Trials***, Vol 11, pp. 408-417.

Zhao, Y. Q.*, Kosorok M. R. (2014) "Discussion of Combining Biomarkers to Optimize Patient Treatment Recommendations". ***Biometrics***, Vol 70, pp. 713-716.

Zhao, Y. Q.*, Laber E. B. (2014) "Estimation of Optimal Dynamic Treatment Regimes". ***Clinical Trials***, Vol 11, pp. 400-407.

Chakraborty, B., Laber, E., **Zhao, Y. Q.** (2013) "Inference for Optimal Dynamic Treatment Regimes using an Adaptive m-out-of-n Bootstrap Scheme". ***Biometrics***, Vol 69, pp. 714-723.

Zhao, Y. Q., Zeng, D. (2013) " Recent Development on Statistical Methods for Personalized Medicine Discovery". ***Frontiers of Medicine***, Vol 7, pp. 102-110.

Esserman, D., **Zhao, Y. Q.**, Tang, Y., Cai, J. (2013) "Sample Size Estimation in Educational Intervention Trials with Subgroup Heterogeneity in Only One Arm". ***Statistics in Medicine***, Vol 32, pp. 2140-2154.

Zhao, Y. Q., Zeng, D., Rush A. J., Kosorok, M. R. (2012) "Estimating Individualized Treatment Rules Using Outcome Weighted Learning". ***Journal of the American Statistical Association***, Vol. 107, pp. 1106–1118.
[⋆⋆ **Featured Article; An earlier version won an ENAR Distinguished Student Paper Award** ⋆⋆]

Zhao, Y. Q., Zeng, D., Herring, A. H., Ising, A., Waller, A., Richardson, D., Kosorok, M. R. (2011). "Detecting Disease Outbreaks Using Local Spatiotemporal Methods", ***Biometrics***, Vol. 67, pp. 1508-1517.
[⋆⋆ **Winner of both the 2011 IBS Best Paper in Biometrics Award and the 2010 ASA Statistics in Epidemiology Young Investigator Award.** ⋆⋆]

Nadkarni, N., **Zhao, Y. Q.**, Kosorok, M. R. (2011). "Inverse regression estimation for censored data", ***Journal of the American Statistical Association***, Vol. 106, pp. 178–190

Hua, S., Hawkins, D. L., Han, C., **Zhao, Y. Q.** (2011) "Multivariate Failure Time Analysis when only the Time to First Failure is Observed", ***Communications in Statistics - Simulation and Computation***, Vol. 40, pp. 125–140.

Collaborations

Tsao, A. S., Hsieh, M. H., Koczywas, M., Tu, J., Riess, J., Tanvetyanon, T., Ma, B. T., **Zhao, Y.-Q.**, Redman, M. W., Edelman, M. J., Gandara, D. R., Gray, J. E., Kelly, K. L. (2024). S1701, A randomized phase II trial of carboplatin-paclitaxel with and without ramucirumab in patients with locally advanced,

recurrent, or metastatic thymic carcinoma. ***JTO Clinical and Research Reports***. In press.

Zheng, Y., Wagner, P. D., Singal, A. G., Hanash, S. M., Srivastava, S., Huang, Y., **Zhao, Y.-Q.**, Chari, S. T., Marquez, G., Etzioni, R., Marsh, T. L., Feng, Z. (2024) "Designing Rigorous and Efficient Clinical Utility Studies for Early Detection Biomarkers". ***Cancer Epidemiology, Biomarkers & Prevention***. In press.

Chari, S. T., Maitra, A., Matrisian, L. M., Shrader, E. E., Wu, B. U., Kambadakone, A., **Zhao, Y. Q.**, Kenner, B., Rinaudo, J. A., Srivastava, S., Huang, Y., Feng, Z., on behalf of the Early Detection Initiative Consortium (2022) "Early Detection Initiative: A randomized controlled trial of algorithm-based screening in patients with new onset hyperglycemia and diabetes for early detection of pancreatic ductal adenocarcinoma". ***Contemporary clinical trial***s. Vol 113, 106659.

Zhao, Y. Q.*, Norton, D., Hanrahan, L. P. (2021) "Small area estimation and childhood obesity surveillance using electronic health records". ***PLOS One***. 16(2):e0247476.

Nguyen, A. L., Schwei, R. J., **Zhao, Y. Q.**, Rathouz, P. J., Jacobs, E. A. (2020) "What Matters When it Comes to Trust in One's Physician – Race/Ethnicity, Sociodemographic Factors, and/or Experiences Accessing Healthcare?". ***Health Equity***. Vol 4., pp. 280-289.

Bartels, C. M., Johnson, H, Voelker, K. V., Ogdie, A, McBride, P, Jacobs, E. A., **Zhao, Y. Q.**, Smith M. (2018) "Frequency and Predictors of Communication about High Blood Pressure in Rheumatoid Arthritis Visits", ***Journal of Clinical Rheumatology***. Vol 24, pp. 210-217.

Smith, J., Jacobs, E., Li, Z., Vogelman, B., **Zhao, Y. Q.**, Feldstein, D. (2017) "Successful Implementation of a Direct Observation Program in an Ambulatory Block Rotation", ***Journal of Graduate Medical Education***, Vol 9, pp. 113-117.

Caldera, F., Wald, A., Saha, S., Cooley, D. M., Li, Z., **Zhao, Y. Q.**, Bartels, C. M. (2016). "Comparing Guideline-based Care Quality for Inflammatory Bowel Disease and Rheumatoid Arthritis Patients within a Medical Home", ***Expert Review of Gastroenterology & Hepatology***, Vol 10, pp. 759-66.

Patterson, B., Pang, P. S., Alkhawam, L., Hamedani, A. G., Mendonca, E. A., **Zhao, Y. Q.**, Venkatesh, A. K. (2016). "The Association Between Use of Brain CT for Atraumatic Headache and 30-Day Emergency Department Revisitation", ***American Journal of Roentgenology***, Vol 207, pp. W117-W124.

Golden, S., Harringa, J., Pickhardt, P., Ebinger, A., Svenson, J., **Zhao, Y. Q.**, Li, Z., Westergaard, R., Ehlenbach, W. J., Repplinger, M. (2016). "Prospective

evaluation of the ability of clinical scoring systems and physician-determined likelihood of appendicitis to obviate the need for CT", ***Emergency Medicine Journal***, Vol 33, emermed-2015-205301.

Flood, T. L., **Zhao, Y. Q.**, Tandias, A., Tomayko, E. J., Carrel, A. L., Arndt, B. G., Hanrahan, L. P. (2015) "Electronic Health Records and Community Health Surveillance of Childhood Obesity". ***American Journal of Preventive Medicine***, Vol 48, pp. 234-240.

Saha, S., **Zhao, Y. Q.**, Shah, S., Esposti, S. D., Lidofsky, S., Bright, R., Law, M., Moniz, H., Samad, Z., Merrick, M., Sands, B. E. (2015) "Body Image Dissatisfaction in Patients with Inflammatory Bowel Disease". ***Inflammatory Bowel Diseases***, Vol 21, pp. 345-352.

Saha, S., **Zhao, Y. Q.**, Shah, S., Esposti, S. D., Lidofsky, S., Salih, S., Bright, R., Law, M., Moniz, H., Flowers, N., Merrick, M., Sands, B. E. (2014) "Menstrual Cycle Changes in Women with Inflammatory Bowel Disease: A Study from the Ocean State Crohn's and Colitis Area Registry". ***Inflammatory Bowel Diseases***, Vol 20, pp. 534-540.

- *Book Chapter*:

He, Q.†, **Zhao, Y. Q.*** "Statistical Learning Methods for Estimating Optimal Individualized Treatment Rules from Observational Data", In: Laber, E.B., Chakraborty, B., Moodie, E.E., Cai, T., van der Laan, M. ***Handbook of Statistical Methods for Precision Medicine***. CRC Press, 2024.

Zhao, Y. Q. "Outcome weighted learning methods for optimal dynamic treatment regimes." In: Kosorok MR, Moodie EEM, editors. ***Adaptive Treatment Strategies in Practice: Planning Trials and Analyzing Data for Personalized Medicine***. Philadelphia: SIAM; 2015. p.119-134.

- *Book Review*:

Zhao, Y. Q. (2022). "Dynamic Treatment Regimes: Statistical Methods for Precision Medicine." ***Journal of the American Statistical Association***, Vol 117 (537), pp. 527.

- *Abstract/Poster for Conferences*:
Zhao, Y. Q., Chari, S. T., Maitra, A., Matrisian, L. M., Shrader, E. E., Wu, B. U., Kambadakone, A., Kenner, B., Rinaudo, J. A. S., Srivastava, S., Huang, Y., Feng, Z. on behalf of the Early Detection Initiative Consortium (2022) "The Early Detection Initiative trial version 2: A platform trial to test novel approaches to pancreatic cancer screening in patients with new onset hyperglycemia and diabetes", Poster on AACR Special Conference on Pancreatic Cancer, September, 2022, Boston.

Karim, N. A., Miao, J., Reckamp, K, Gay, C. M., Byers, L., **Zhao, Y. Q.**,

Redman, M., Carrizosa, D., Wang, W-L, Petty, W. J., Mehta, K., Faller, B. A, Agamah, E. S., Kasbari, S., Malisetti, R. K., Kumar, A., Schallenkamp, J. M., Alluri, K. C., Gray, J. E., Kelly, K., "SWOG S1929: Phase II randomized study of maintenance atezolizumab (A) versus atezolizumab + talazoparib (AT) in patients with SLFN11 positive extensive stage small cell lung cancer (ES-SCLC)." Oral Presentation on 2023 ASCO Annual Meeting, June, 2023, Chicago.

Tsao, A. S., Hsieh, M. H., Koczywas M., Tu J., Riess, J., Tanvetyanon, T., Ma, B. T., **Zhao, Y. Q.**, Redman, M., Edelman, M. J., Gandara, D. R., Kelly, K. L., Gray, J. E., "S1701, A randomized phase II trial of carboplatin-paclitaxel with and without ramucirumab in patients with locally advanced, recurrent, or metastatic thymic carcinoma". Submitted to 2024 ASCO Annual Meeting.

Selected Working Papers

Cheng, G.[†,*], Chen, Y-C, Unger, J. M., Till, C., **Zhao, Y. Q.**(2023) "Long-term effect estimation when combining clinical trial and observational follow-up datasets", *In Revision, Journal of American Statistical Association.*

Park, J., Liang, M., **Zhao, Y. Q.**, Zhong, X. (2023) "Efficient surrogate-assisted inference for patient-reported outcome measures with complex missing mechanism", *In Revision, Electronic Journal of Statistics.*

Cheng, G.[†,*], Chen, Y-C, Smith, M. A., **Zhao, Y. Q.**(2023) 'Trajectory Recovery for Nonmonotone Missing Not at Random Data', *In Revision, Journal of Machine Learning Research.*

Liang, M[†], Ning, Y., Smith, M. A., **Zhao, Y. Q.** (2023) "Inference with non-differentiable surrogate loss in a general high-dimensional classification framework", *Submitted.*

Redman, M. W., **Zhao, Y. Q.**, LeBlanc, M. L. (2023) "Using the Probability of Longer Survival to Quantify the Efficacy of New Cancer Therapies", *Submitted.*

Teaching

Summer Course (Fred Hutch)

SISCR: Discovering and evaluating biomarkers for guiding treatment: Methodology for precision medicine, Summer 2016, 2017 (Co-Instructor)

Graduate Course (University of Wisconsin-Madison)

PHS 805: Epidemiologic Methods, Fall 2014 (Guest lectures on Mediation Analysis).

STAT 877: Statistical Methods for Molecular Biology, Spring 2014. (Guest lectures on Personalized Medicine and Dynamic Treatment Regimes).

BMI 826: Causal Inference, Spring 2014 (Sole-Instructor).

BMI 551: Introduction to Biostatistics for Population Health, Fall 2013 (Sole-Instructor).

STAT 642: Statistical Methods for Epidemiologic Research, Spring 2013 (Co-Instructor).

PhD Dissertation Committee (University of Wisconsin-Madison)

Student	Department	Advisor	Graduation
Lee McDaniel	Statistics	Richard Chappell	2014
Yi Chai	Statistics	Chunming Zhang	2014
Brittany Schwefel	Statistics	Richard Chappell & Thomas Cook	2014
Yaoyao Xu	Statistics	Jun Shao & Menggang Yu	2014
Rao Fu	Statistics	Jun Zhu & Sijian Wang	2015
Soo-Jin Park	Educational Psychology	David Kaplan	2016

PhD Students (University of Washington)
Xinyuan Dong, Department of Biostatistics (Co-Chair), 2018 – 2021
Gang Cheng, Department of Statistics (Committee member), 2019– 2022
Kehao Zhu, Department of Biostatistics (Committee member), 2021–
Albert Osom, Department of Biostatistics, 2023 –
Yunji Zhou, Department of Biostatistics, 2024 –

Master Students (University of Washington)
Qijia He, Department of Statistics, 2021– 2023

Postdocs
Young-Geun Choi, 2016 – 2018
Yinghao Pan, 2017 – 2018
Muxuan Liang, 2019 – 2022
Shixiao Zhang, 2019 – 2021
Jiaming Qiu, 2022 –

PhD Dissertation external examiner
Gabrielle Simoneau, Department of Epidemiology and Biostatistics, McGill University. Advisor: Erica Moodie and Robert Platt, 2019

Professional Services

- **Editorial positions**:
  Associate Editor, JASA Application & Case Studies (2024-present)
  Associate Editor, JASA Theory & Methods (2023-present)
  Associate Editor, Biometrics (2018-2020)
  Member, Statistical Advisory Panel for Nature Medicine (2024-)

- **Organizer**: Invited Session for ENAR 2015, ICSA/Graybill 2015, ENAR 2016, ICSA International 2016, WNAR 2017, ENAR 2018, ICSA International 2018, JSM 2018, ICSA Symposium 2019, ICSA International 2019, JSM 2019, ENAR 2020, CMStatistics 2022, JSM 2023, JSM 2025
  Topic Contributed Session for JSM 2014

- **Executive committee/Treasurer**: 2015 ICSA/Graybill Joint Conference

- **Member**:
  - ICSA Student Paper Competition Committee, 2019
  - SIE Young Investigator Award Committee, 2020 – 2024
  - Peter Gavin Hall IMS Early Career Prize committee (inaugural member), 2019 – 2022
  - ENAR Program Committee, 2022
  - Scientific Program Committee, ICSA 2024 Applied Statistics Symposium, 2024
  - IMS Committee on Travel Awards (Tweedie New Researcher Award; IMS Hannan Graduate Student Travel Award; IMS New Researcher Travel Award), 2023 – 2024
- **Program chair**: WNAR 2020 (cancelled due to COVID-19 in March 2019)
  WNAR 2021

- **Program Chair-Elect/Program Chair**:
  Section on Statistics in Epidemiology, 2020/2021

- **Manuscript Review**: Reviewer for Annals of Statistics, Annals of Applied Statistics, JASA (Theory and Methods), JASA (Applications and Case Studies), JRSSB, JRSSC, JSPI, Journal of Multivariate Analysis, Biometrika, Biometrics, Scandinavian Journal of Statistics, International Journal of Biostatistics, Biostatistics, Clinical Trials, Contemporary Clinical Trials, Clinical Investigation, Statistics in Biosciences, Statistics in Medicine, Statistics Sinica, International Journal of Bipolar, Quantitative Economics, Annals of the Institute of Statistical Mathematics.

- **Grant Reviewer**:
  - National Institute of Diabetes and Digestive and Kidney Diseases Special Emphasis Panel, March 2018; March 2019
  - Clinical Oncology study section Ad hoc reviewer, June 2019
  - ZCA1 SRB-5(J1) NCI Program Project II reviewer, October 2019
  - NIH Director's Early Independence Award program (DP5) mail reviewer, October 2019 NIDDK dkNET New Investigator Bioinformatics Pilot Program, March 2020; March 2021
  - Canada research chair program reviewer, September 2020

- Emergency Awards: RADx-rad Predicting Viral-Associated Inflammatory Disease Severity in Children with Laboratory Diagnostics and Artificial Intelligence (PreVAIL kIds), October 2020
- Organization and Delivery of Health Services study section Ad hoc reviewer, March 2021
- ZRG1 F18 E(20) F18 Fellowships: Epidemiology and Population Sciences reviewer, March 2022
- Cancer Biomarker study section Ad hoc reviewer, June 2022
- NIDDK, Diabetes, Endocrinology, and Metabolic Diseases B (DDK-B) Study Section, Ad hoc reviewer, October 2023
- NIDDK Continuation of the Childhood Liver Disease Research Network (ChiLDReN), March 2024

- **Data and Safety Monitoring Board (DSMB)**:
  DSMB member: Phase I study of autologous CD8+ and CD4+ Transgenic T cells expressing high affinity KRASG12V mutation-specific T cell receptors in participants with metastatic pancreatic, colorectal and non-small cell lung cancers with KRAS G12V mutations (PI: Chiorean, E. G.)

- **Service**:
  - Graduate Admissions Committee, Department of Biostatistics, University of Washington (2023-2024)
  - Member of Faculty Search Committee, Cancer Prevention Program, Fred Hutchinson Cancer Research Center (2022)
  - Member of Scientific Review Committee, Fred Hutchinson Cancer Research Center (2020-2023)
  - Seminar Chair, FHCRC (2016-2017)
  - Member of Scientific Review Committee, Univ. of Wisconsin-Madison (2013-2015)
  - Co-chair of the Seminar Committee, Dept. of Biostatistics and Medical Informatics, University of Wisconsin-Madison (2013-2015)

Honors & Awards

- UNC Biostatistics Grizzle Alumni Award, Biostatistics, UNC-CH, 2020
- Co-supervisor of the work, winner of the John Van Ryzin Award, ENAR, International Biometric Society, 2014
- Greenberg Award for Excellence in Doctoral Research, UNC-CH, 2013
- Barry H. Margolin Dissertation Award, Biostatistics, UNC-CH, 2013
- Kupper Dissertation Publication Award, Biostatistics, UNC-CH, 2013
- J.P. Hsu Memorial Award, ICSA, 2012
- Delta Omega Graduate Awards, Biostatistics, UNC-CH, 2012
- ENAR Distinguished Student Paper Award, ENAR, 2012

- Best Paper in Biometrics, International Biometrics Society, 2011
- The Statistics in Epidemiology Young Investigator Award, ASA, 2010
- Max Halperin Scholarship Award, Biostatistics, UNC-CH, 2009
- Honorary Graduate, Wuhan University, 2006
- Distinguished thesis in Hubei Province, Wuhan University, 2006
- First Class People's Scholarship, Wuhan University, 2003-2005
- Distinguished Student Award, Wuhan University, 2004

Talks & Presentations

Invited talk

- Conference and Festschrift In Honor Of Michael Kosorok, Chapel Hill, NC (November 2024)
- Conference on Innovative Statistics and Machine Learning for Data Science and AI, Bend, OR (August 2024)
- ICSA Applied Statistics Symposium, Nashville, TN (June 2024)
- CFE-CMStatistics 2023 (December 2023)
- Joint Statistical Meeting 2023, Toronto, ON. (August 2023)
- WNAR 2023, Anchorage, AK. (June 2023)
- Department of Statistics, University of Georgia (March 2023)
- Department of Biostatistics, Yale University (January 2023)
- CFE-CMStatistics 2022 (December 2022)
- Pacific Causal Inference Conference, Virtual. (September 2022)
- Joint Statistical Meeting, Washington D.C. (August 2022)
- Statistical Society of Canada 2022 Annual meeting, Virtual conference (June 2022)
- ENAR, Houston, TX (March 2022)
- Department of Biostatistics, Columbia University (Virtual) (March 2022)
- CFE-CMStatistics 2021 (December 2021)
- ICSA Applied Statistics Symposium, Virtual conference (September 2021)
- WNAR, Virtual conference (June 2021)
- TDS IRC Retreat Seminar, Fred Hutch Cancer Research Center (Virtual) (Apr 2021)
- Department of Biostatistics, UC Davis (Virtual) (Feb 2021)
- Department of Biostatistics, Peking University, Beijing, China (Virtual) (Dec 2020)
- Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC (Virtual) (Nov 2020)
- Joint Statistical Meeting, Virtual conference (August 2020)
- ENAR, Virtual conference (March 2020)
- NeurIPS workshop: "Do the right thing": machine learning and causal inference for improved decision making, Vancouver, BC (December 2019)
- Division of Biostatistics, Ohio State University, Columbus, OH (November 2019)
- ICSA applied statistics symposium, Raleigh, NC (June 2019)
- Conference on Lifetime data science, Pittsburgh, PA (May 2019)

- Division of Biostatistics, University of Utah, Salt Lake City, UT (Apr 2019)
- Workshop on Statistical Methods for Developing Personalized Mobile Health Interventions, Singapore (Feb 2019)
- SAMSI PMED opening workshop, Raleigh, NC (Aug 2018)
- JSM, Vancouver, BC (July 2018)
- WNAR, Edmonton, AB (June 2018)
- Division of Biostatistics, University of Minnesota, Minneapolis, MN (Apr 2018)
- Department of Statistics, University of Washington, Seattle, WA (Nov 2017)
- Innovative Statistics and Machine Learning in Precision Medicine, Minneapolis, MN (Sep 2017)
- Quantitative Medicine Forum, Centre for Quantitative Medicine, DukeNUS Academic Medical Centre, Singapore (Jul 2017)
- IMS Singapore Quantitative methods for Drug Discovery and Development: Workshop on Perspectives and Analysis Methods for Personalized Medicine, Singapore (Jul 2017)
- IMS China, Nanning, China (Jun 2017)
- ICSA Conference, Chicago, IL (June 2017)
- Lifetime in Data Science conference, Storrs, CT (May 2017)
- Department of Biostatistics, University of Washington, Seattle, WA (Nov 2016)
- 2nd Seattle Symposium on Health Care Data Analysis, Seattle, WA (Oct 2016)
- Department of Statistics, Kansas State University, Manhattan, KS (Sep 2016)
- JSM, Chicago, IL (Aug 2016)
- Conference on Statistical Learning and Data Science, Chapel Hill, NC (Jun 2016)
- JSM, Seattle, WA (Topic Contributed presentation, Aug 2015)
- ISI's World Statistics Congress, Rio de Janeiro, Brazil (Jul 2015)
- IMS China, Kunming, China (Jun 2015)
- International Conference on Frontiers of Statistics, Beijing, China (Jun 2015)
- ICSA/Graybill Joint Conference, Fort Collins, CO (Jun 2015)
- Department of Biostatistics, University of North Carolina at Chapel Hill, Chapel Hill, NC (Mar 2015)
- Department of Statistics, North Carolina State University, Raleigh, NC (Feb 2015)
- Fred Hutchinson Cancer Research Center, Seattle, WA. (Jan 2015).
- Third Annual IMPACT Symposium–Advances in Clinical Trial Statistics: Multiplicity Adjustment and Sequential, Multiple Assignment, Randomized Trials, Cary, NC. (November 2014).
- International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC. (Oct 2014)
- Department of Statistics, North Carolina State University, Raleigh, NC (Oct 2014)
- JSM, 2014, Boston, MA (Topic Contributed presentation, Aug 2014)
- International Symposium on Business and Industrial Statistics/ Conference of the ASA Section on Statistical Learning and Data Mining, Durham, NC.

(June 2014)
- 2014 Atlantic Causal Inference Conference, Providence, RI. (May 2014)
- Department of Biostatistics, University of Washington, Seattle, WA. (Feb 2014).
- Fred Hutchinson Cancer Research Center, Seattle, WA. (Feb 2014).
- Department of Statistics, Purdue University, West Lafayette, IN. (Oct 2013).
- Department of Mathematical and Statistical Sciences, University of Alberta, Edmonton, AB, Canada. (Oct 2013).
- JSM, Montreal, QC, Canada. (Aug 2013).
- SAMSI Data-Driven Decisions in Healthcare: Transition Workshop, SAMSI, Research Triangle Park, NC. (May 2013).
- 6th Annual Conference on Statistical Issues in Clinical Trials, University of Pennsylvania, Philadelphia, PA. (April 2013).
- Wisconsin-Alzheimer's Disease Research Center, University of Wisconsin-Madison, Madison, WI. (March 2013).
- Department of Statistics, University of Wisconsin-Madison, Madison, WI. (March 2013).
- Boston Scientific Corporation, Los Angeles, CA. (February 2013).
- ICSA, Boston, MA. (June 2012).
- Department of Biostatistics, Columbia University, New York, NY. (March 2012).
- Department of Biostatistics and Medical Informatics, University of Wisconsin-Madison, Madison, WI . (March 2012).
- Division of Biostatistics, Yale School of Public Health, Yale University, New Haven, CT. (February 2012).
- Department of Biostatistics, Indiana University-Purdue University Indianapolis, Indianapolis, IN. (February 2012).
- Department of Biostatistics, University of Pittsburgh, Pittsburgh, PA. (February 2012).
- Department of Statistics, Columbia University, New York, NY. (January 2012).
- First Annual IMPACT Symposium – "New Paradigms in Clinical Trial Methodology", Durham, NC. (November 2011).
- Institute for Advanced Analytics, NCSU, NC. (March 2011). - Joint Presentation with Dr. Henry E. Schaffer.
- PoPMED Forum, College of Veterinary Medicine, NCSU, NC. (October 2010).
- Pfizer Oncology, Cambridge, MA. (August 2010).

Contributed talk

- IBS, Florence, Italy. (July 2014).
- ENAR, Baltimore, MD. (March 2014).
- ENAR, Orlando, FL. (March 2013).
- JSM, San Diego, CA. (August 2012).
- ENAR, Washington DC. (March 2012).
- ICSA, New York, NY. (June 2011).

- ENAR, Miami, FL. (March 2011).
- JSM, Vancouver, Canada. (August 2010).
- ENAR, New Orleans, LA. (March 2010).

Research Grant

Active

- Patient-Centered Outcomes Research Institute (PCORI), ME-2023C3-35543 (Zhao/Zheng)
  11/2024–10/2027
  Improving the Design and Analysis of Randomized Screening Trials in a New Era of Cancer Early Detection
  Role: Contact PI (20%)

- NIH/NCI, R01 CA236558 (Zheng)
  07/17/2019 - 06/30/2024
  Statistical Methods for Prospective Evaluation of Biomarkers
  Role: Co-Investigator (10%)

- NIH/NCI, U10 CA180819 (Leblanc)
  04/01/2019 - 02/28/2025
  SWOG Statistics and Data Management Center
  Role: Faculty Biostatistician (25%)

- NIH/NCI, U24 CA086368 (Feng/Etzioni/Zheng)
  4/01/2000 – 06/30/2027
  Early Detection Research Network: Data Management and Coordinating Center
  Role: Co-Investigator (15%)

- NIH/NCI, R01 CA263144 (Chow)
  7/1/21 – 6/30/26
  SALSA: Study of Active LifeStyle Activation
  Role: Co-Investigator (4%)

Completed

- PanCAN (Feng)
  07/01/2019-06/30/2024
  Early Detection Initiative for Pancreatic Cancer (EDI)
  Role: Co-Investigator (10%)

- NIH/NIDDK, R01 DK108073 (Zhao)
  09/17/15 - 08/31/20 (NCE)
  Statistical methods for healthcare in complex patients with diabetes
  Role: Principal Investigator

- Hope Foundation, Coltman Early Career Fellowship (Zhao)
  06/01/18 - 05/31/20
  Improving design and analysis of cancer immunotherapy trials
  Role: Principal Investigator

- NIH/NCI, P01 CA142538 (Kosorok)
  04/01/15 - 03/31/20
  Statistical Methods for Cancer Clinical Trials - Project 4: Methods for Discovery and Evaluation of Dynamic Treatment Regimes
  Role: Co-Investigator

- NIH/NICHD, R21 HD086754 (Zhao)
  08/08/16 - 07/31/18
  Childhood obesity surveillance using electronic health records data
  Role: Principal Investigator

- Patient-Centered Outcomes Research Institute (PCORI), ME-1409-21219 (Yu)
  09/01/15 - 08/31/18
  Matching Complex Patients to Treatments: Innovative Statistical Scoring Methods for Treatment Selection
  Role: Subcontract PI

- Wisconsin Partnership Program (A. Adams)
  7/1/14 - 6/30/19
  University of Wisconsin-Madison
  Wisconsin Obesity Prevention Initiative
  Role: Co-Investigator

- Pfizer Independent Grants for Learning & Change (C. Bartels)
  8/1/14-1/31/17
  Pfizer
  Systems-Based CVD Prevention Protocols for Rheumatology Teams: A low-cost multidisciplinary approach
  Role: Co-Investigator

- ICTR-CAP Clinical & Community Outcomes Research Pilot (C. Bartels)
  8/1/14-7/31/15
  University of Wisconsin-Madison
  Stepping Up in Specialty Clinics to Reduce Blood Pressure
  Role: Co-Investigator

- 1 UL1RR025011 (M. Drezner)
  10/01/07-5/31/17
  DHHS/NCRR
  Institute for Clinical and Translational Research
  Role: Statistician Co-Investigator

Computational Skills

- Software: proficient in MATLAB, R, SAS
- Programming Languages: knowledge of C, C++
- Operating Systems: Unix and Windows

Professional Memberships

- Eastern North American Region, International Biometric Society (2008 – Present)
- American Statistical Association (2009 – Present)
- International Chinese Statistical Association (2010 – Present)