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Education

2005 Ph.D. in Biostatistics Department of Biostatistics, University of Michigan, Ann Arbor
Co-Advisors: Xihong Lin, PhD and Roderick J.A. Little, PhD
2003 M.S. in Biostatistics Department of Biostatistics, University of Michigan, Ann Arbor
1998 B.S. in Biochemistry School of Gifted Young, University of Science and Technology of China

Other Professional Training

2023 Mack Technology Fellow Penn Wharton Commercialization Workshop
The Wharton School of the University of Pennsylvania

Professional Experience

2016-present Professor (with tenure), Department of Biostatistics, Epidemiology and Informatics
Perelman School of Medicine, University of Pennsylvania
Faculty Member, Graduate Group in Epidemiology and Biostatistics
Faculty Member, Graduate Group in Applied Mathematics and Computational Science
Faculty Member, Graduate Group in Genomics and Computational Biology
Faculty Member, Bioengineering Graduate Group
Senior Fellow, Penn Institute for Biomedical Informatics
Affiliated Faculty Member, Penn Research in Machine Learning
Senior Scholar, Center for Clinical Epidemiology and Biostatistics
2023-present Professor (secondary appointment), Department of Statistics and Data Science
The Wharton School of the University of Pennsylvania
2022-present Professor (secondary appointment), Department of Computer and Information Science
School of Engineering and Applied Science, University of Pennsylvania
2022-present Senior Fellow, Leonard Davis Institute of Health Economics, University of Pennsylvania
2011-2016 Associate Professor (with tenure), Department of Biostatistics and Bioinformatics
Rollins School of Public Health, Emory University
2015-2022 Associate Professor (secondary appointment), 2015-2016; Adjunct Professor, 2016-2022
Department of Biomedical Informatics, School of Medicine, Emory University
2005-2011 Rollins Assistant Professor
Department of Biostatistics and Bioinformatics, Emory University
2013-2016 Senior Biostatistician, Emory Clinical Cardiovascular Research Institute
2010-2016 Member, Winship Cancer Institute, Emory University
2008-2017 Biostatistician (WOC), Atlanta VA Medical Center

Administrative Leadership Positions

- 2020-present Founding Director, Center for Cancer Data Science
Perelman School of Medicine, University of Pennsylvania
- 2020-present Associate Director, Penn Institute for Biomedical Informatics
Perelman School of Medicine, University of Pennsylvania
- 2016-present Director, Biostatistics and Bioinformatics Core (Biostatistics Core, prior to 2019)
Abramson Cancer Center, University of Pennsylvania
- 2015-2016 Director of Research, Department of Biostatistics and Bioinformatics, Emory University

Honors and Awards

- Honorable Mention, NIH Long COVID Computational Challenge (L3C), 2023
- Senior Member, Institute of Electrical and Electronics Engineers (IEEE), 2023
- Elected Fellow, American Association for the Advancement of Science (AAAS), 2020
- Distinguished Paper Award, 2020 American Medical Informatics Association (AMIA) Annual Symposium, 2020
- Elected Fellow, American Statistical Association, 2016
- Elected Member, International Statistical Institute, 2015
- NSF Travel Award for the 2018 International Congress of Mathematicians (ICM), 2018
- Faculty Fellow, Faculty Fellowship Program in Israel, 2017
- Nominee for Woodruff Leadership Academy Fellow, Emory University, 2015
- Biostatistics Teaching Award, Rollins School of Public Health, Emory University, 2015
- 3rd Place, Poster Competition Award, Biopharmaceutical Section, American Statistical Association, 2015
- Rollins Endowed Assistant Professorship, Emory University, 2005-2011
- Distinguished Student Paper Award, International Biometric Society's Eastern North American Region (ENAR) Spring Meeting, 2005
- Rackham Pre-doctoral Fellowship, University of Michigan at Ann Arbor, 2004-2005
- Award for Best Performance in Ph.D. Qualifying Exams, Department of Biostatistics, University of Michigan, Ann Arbor, 2002
- Jing Zhi Zhu Scholarship, University of Science and Technology of China, 1996-1997
- First Prize Scholarship, University of Science and Technology of China, 1995-1996
- Hua Wei Scholarship, University of Science and Technology of China, 1994-1995
- Third Prize, Chinese Mathematical Olympiad, China, 1994
- First Prize, National Contest in Mathematics for High School Students, China, 1993

Research Interests

Mission Statement: To advance responsible data science and AI for equitable, intelligent health and medicine.

Methodology: Robust statistical and machine learning methods for analysis of big, complex health data including -omics, electronic health records (EHRs), imaging data, and mobile health (mHealth) data; missing data; causal learning; data privacy; bias and fairness in AI for medicine; Bayesian methods; nonparametric and semi-parametric methods; clinical trials

Subject-matter Applications: cancer; cardiovascular diseases; neurological disorders and neurodegeneration; diabetes; mental health

Professional Activities and Services

Advisory and Leadership

- At-Large Representative, Section U (Statistics Section) Steering Committee, American Association for the Advancement of Science (AAAS), 2023-2024
- Member, COPSS (Committee of Presidents of Statistical Societies) Emerging Leader Award (ELA) Committee, 2023-2026
- Treasurer (elected), Executive Committee, International Biometric Society/Eastern North American Region (ENAR), 2022-2025
- Member (elected), ENAR Regional Committee (RECOM), International Biometric Society/Eastern North American Region, 2017-2019
- Member, Statistical Methodology Group, International Consortium on Genetics of Subsequent Coronary Heart Disease (GENIUS-CHD), 2015-2018
- Member, Designing and Analyzing Clinical Trials for Personalized Medicine Working Group, NIH Clinical and Translational Science Award (CTSA) Program, 2015-2017
- Member, Committee on Scientific Freedom and Human Rights, American Statistical Association, 2014-2019
- Vice President (elected), Georgia Chapter, American Statistical Association, 2014-2016
- Member, Regional Advisory Board, International Biometric Society/Eastern North American Region, 2014-2016
- Member, Steering Committee, Georgia Coverdell Acute Stroke Registry, Georgia Department of Public Health, 2013-2016

Editorial Services

- Senior Editor, *Cancer Research*, 2018-present
- Founding Topic Editor, *Research Methods in Medicine & Health Sciences*, 2019-2023
- Associate Editor, *Statistical Analysis and Data Mining*, 2018-present; *Biometrics*, 2014-present; *BMC Medical Research Methodology*, 2012-2019
- Editorial Board Member: *Journal of the American Heart Association*, 2012-2017; *Scientific Reports*, 2016-2019
- Journal Referee (incomplete list)

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Methods Journals: Annals of Applied Statistics; Behavior Research Methods, Bioinformatics; Biometrical Journal; Biometrics; Biostatistics; BMC Medical Research Methodology; Briefings in Bioinformatics; Clinical Trials; Communications in Statistics; Contemporary Clinical Trials; Health Services and Outcomes Research Methodology; IEEE/ACM Transactions on Computational Biology and Bioinformatics; Journal of Educational and Behavioral Statistics; Journal of the National Cancer Institute; Journal of Statistical Computation and Simulation; Journal of Statistical Planning and Inference; Journal of the American Medical Informatics Association; Journal of the American Statistical Association; Scandinavian Journal of Statistics; Statistica Sinica; Statistics in Medicine; Statistical Methods in Medical Research; The American Statistician; The Canadian Journal of Statistics

Subject-matter Journals: JAMA Oncology; American Journal of Epidemiology; Annals of Epidemiology; Behavior Research Methods; British Journal of Surgery; Cancer Epidemiology Biomarkers & Prevention; Cancer Informatics; Circulation; Circulation Research; Computer Methods and Programs in Biomedicine; Journal of the American Heart Association; Journal of the National Cancer Institute; Neoplasia; PLoS ONE; Scientific Reports

Grant Review Services

- Reviewer, NCI Cancer Centers Study Section (A), NCI-A RTRB-G (E2), 2023
- Reviewer, NIH Director’s Transformative Research Award Study Section, 2022
- Member, NIH Special Emphasis Panel on Tobacco Regulatory Science B, 2022
- Standing Member, NIH Biostatistical Methods and Research Design Study Section (BMRD), 2017-2021
- Co-Chair, NIH Special Emphasis Panel on Health Informatics, 2020
- Temporary Member, NIH Biostatistical Methods and Research Design Study Section (BMRD), 2015-2017
- Reviewer, Congressionally Directed Medical Research Programs, Department of Defense, USA, 2014-present

Educational and Outreach Activities

- Speaker, The 2018 Accelerating Anticancer Agent Development and Validation (AAADV) Workshop, FDA, Bethesda, MD, May 2-4, 2018
- Instructor, Short Course on Propensity Score Methods for Observational Studies, at the Centers for Disease Control and Prevention (CDC), USA, September 22, 2017
- Organizer and Instructor, Workshop Series on Handling Missing Data, at the Georgia Department of Public Health (also open to the Centers for Disease Control and Prevention), USA, September, 2015–March, 2016
- Mentor in Statistics and Methodology, American Psychiatric Association (APA) Research Colloquium for Junior Investigators, 2016

Conference Program

- Member and ASA Representative, Program Committee, The Joint Mathematics Meetings (JMM), 2023-present.

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- Member, Program committee, The ICOSA 2023 China Conference, International Chinese Statistical Association (ICSA), Chengdu, China
- Program Co-Chair, 2022 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Las Vegas, NV, USA
- Member, Senior Program Committee, 10th IEEE International Conference on Healthcare Informatics (ICHI) in 2022, Rochester, MN, USA
- Member, Educational Advisory Committee, 2022 International Biometric Society/Eastern North American Region Spring Meeting, Houston, TX, USA
- Member, Program committee, The 11th ICOSA International Conference in 2019, International Chinese Statistical Association (ICSA), Hangzhou, China
- Program Co-Chair, 2017 Southern Regional Council on Statistics (SRCOS) Summer Research Conference, Jekyll Island, GA, USA
- Program Co-Chair, 2014 International Biometric Society/Eastern North American Region Spring Meeting, Baltimore, MD, USA
- Member, Program committee, 2016 ICOSA Applied Statistics Symposium, International Chinese Statistical Association (ICSA), Atlanta, GA, USA
- Member, Program committee, 2010 ICOSA Applied Statistics Symposium, International Chinese Statistical Association (ICSA), Indianapolis, IN, USA

Other Review Services

- Reviewer for book proposal, Oxford University Press, 2016
- Member, Student Paper Competition Committee, Health Policy Statistics Section, American Statistical Association, 2015-2016
- Member, Student Paper Competition Committee, Section on Bayesian Statistical Science, American Statistical Association, 2013-2014
- Member, University Research Committee, Emory University, 2011-2012

Consulting: Bayer Corporation (2018-2021); Eisai Inc. (2013-2014); Ideomed Inc. (2013); VA (2011-2013)

Research Funding

Active as PI/Core Director

1. Robust privacy preserving distributed analysis platform for cancer research: addressing data bias and disparities
Role: Principal Investigator (MPI with Xiaoqian Jiang)
Funding Agency: NIH/NCI (U01 CA274576)
Period: 06/01/2023 – 05/31/2026
Amount: \$1,449,765
2. Advancing Analysis of Multi-omics Data in Alzheimer’s Disease Research
Role: Principal Investigator (PI)
Funding Agency: NIH/NIA (RF1 AG063481)
Period: 08/15/2019 – 03/31/2024
Amount: \$3,635,365

3. Advancing the Coordinating Center for the Canine Cancer Immunotherapy Network
Role: Principal Investigator (MPI with Nicola Mason)
Funding Agency: NIH/NCI (U24 CA272267)
Period: 09/01/2022 – 08/31/2027
Amount: \$3,046,875
4. Coordinating Center for Canine Immunotherapy Trials and Correlative Studies
Role: Principal Investigator (MPI with Nicola Mason)
Funding Agency: NIH/NCI (U24 CA224122)
Period: 09/30/2017 – 08/31/2024
Amount: \$2,811,859
5. Statistical Methods for Modeling Alzheimer’s Disease Progression Integrating Brain Imaging and -Omics Data
Role: Principal Investigator (MPI with Suprateek Kundu)
Funding Agency: NIH/NIA (R01 AG071174)
Period: 03/01/2021 – 02/28/2026
Amount: \$3,415,970
6. Abramson Cancer Center Support Grant
Role: Director of Biostatistics and Bioinformatics Core
Funding Agency: NIH/NCI (P30 CA016520)
Period: 12/01/2020 – 11/30/2025
Amount: \$3,452,504 for Biostatistics and Bioinformatics Core
7. RURAL - Risk Underlying Rural Areas Longitudinal Study
Role: Co-PI of Statistical and Data Coordinating Center (SDCC)
Funding Agency: NIH/NHLBI (U01 HL146382)
Period: 05/15/2019 – 04/30/2025
Amount: \$35,356,200 (\$5,193,539 for SDCC)
8. University of Pennsylvania Patient-derived Xenograft Development and Trials Center
Role: Director of Bioinformatics Core
Funding Agency: NIH/NCI (U54 CA283759)
Period: 07/05/2023 – 06/30/2028
Amount: \$6,394,375 (\$690,625 for Bioinformatics Core)

Recently Completed or Relinquished as PI/Core Director (selected)

1. Privacy-preserving Methods and Tools for Handling Missing Data in Distributed Health Data Networks
Role: Principal Investigator (PI)
Funding Agency: NIH/NIGMS (R01 GM124111)
Period: 09/08/2017 – 06/30/2023
2. Development and Assessment of Decision Supporting System for Renal Studies
Role: Co-PI (Penn PI)
Funding Agency: NIH/NIDDK (R01 DK108070)
Period: 09/15/2016 – 07/31/2023
3. Statistical Methodologies and Analysis of Real World Data in Health Outcomes Research
Role: Principal Investigator (PI)
Funding Agency: Bayer Pharmaceutical Co
Period: 09/01/2018 – 08/31/2020

4. Penn Pfizer Partnership to Accelerate Real World Evidence in Cancer
Role: Co-PI
Funding Agency: Pfizer
Period: 11/01/2019 – 10/31/2020
5. Mechanisms of Esophageal Carcinogenesis
Role: Co-Director of Administrative and Biostatistics Core
Funding Agency: NIH/NCI (P01 CA098101)
Period: 07/01/2014 – 06/30/2019
6. Statistical Methods for Missing Data in Large Observational Studies
Role: Principal Investigator
Funding Agency: Patient-Centered Outcomes Research Institute (ME-1303-5840)
Period: 10/01/2013 – 05/31/2018
7. Statistical Methods for Causal Inference in Observational Studies
Role: Principal Investigator
Funding Agency: NIH/NINDS (R21 NS091630)
Period: 02/01/2015 – 01/31/2019
8. Advancing mHealth using Big Data Analytics: Statistical and Dynamical Systems Modeling of Real-Time Adaptive m-Intervention for Pain
Role: Principal Investigator (collaborative project with D. Abrams at Northwestern, C. Kang at University of Pittsburgh, J. Li at UCLA, and N. Shah at Duke)
Funding Agency: NSF (DMS 1557712)
Period: 09/15/2015 – 08/31/2016
9. Feature Selection for Genomic Data Using Known and Novel Biological Information
Role: Principal Investigator
Funding Agency: NIH/NCI (R03 CA183006)
Period: 12/01/2013 – 11/30/2016
10. Coordinating Center for Infant Aphakia Treatment Study (IATS)
[** *relinquished in September, 2016 due to moving to another institution* **]
Role: Principal Investigator
Funding Agency: NIH/NEI (UG1EY013287)
Period: 09/01/2015 – 08/31/2019
11. Evaluating Prediction Models for Cancer Endpoints Subject to Dependent Censoring
Role: Principal Investigator
Funding Agency: NIH/NCI (R03 CA173770)
Period: 02/01/2013 – 01/31/2016
12. Morehouse/Emory Cardiovascular (MECA) Center for Health Equity
[** *relinquished in September, 2016 due to moving to another institution* **]
Role: Director of Biostatistics, Bioinformatics and Data Coordinating Core
Funding Agency: American Heart Association
Period: 07/01/2015 – 06/30/2019
13. Mechanisms of Early Recurrence in Intracranial Atherosclerotic Disease (MyRIAD)
[** *relinquished in September, 2016 due to moving to another institution* **]
Role: Emory PI and Director of Statistical Coordinating Center
Funding Agency: NIH/NINDS (R01 NS084288)
Period: 03/01/2014 – 02/28/2019

14. Mental Stress Ischemia: Prognosis and Genetic Influences

Role: Co-Director of Biostatistics and Data Management Core
 Funding Agency: NIH/NHLBI (P01 HL101398)
 Period: 09/01/2010 – 11/30/2016

Publications and Manuscripts

(Mentees are underscored; ♠ senior/corresponding author; † equal contribution.)

Peer-reviewed Journal Publications

- [1] Lama, V.N., Flaherty, K.R., Toews, G.B., Colby, T.V., Travis, W.D., **Long, Q.**, Murray, S., Kazerooni, E.A., Gross, B.H., Lynch, J.P., and Martinez, F.J. (2003) Prognostic value of desaturation during a 6-minute walk test in idiopathic interstitial pneumonia. *American Journal of Respiratory and Critical Care Medicine*, 168(9), 1084-1090.
- [2] Kim, K.K., Flaherty, K.R., **Long, Q.**, Hattori, N., Sisson, T.H., Colby, T.V., Travis, W.D., Martinez, J.F., Murray, S., and Simon, R.H. (2003) A plasminogen activator inhibitor-1 promoter polymorphism and idiopathic interstitial pneumonia. *Molecular Medicine*, 9, 52-56.
- [3] Flaherty, K.R., Colby, T.V., Travis, W.D., Lynch, J.P., King, T., Raghu, G., Kazerooni, E.A., Gross, B.H., **Long, Q.**, Murray, S., Toews, G.B., and Martinez, F.J. (2004) Idiopathic interstitial pneumonia: What is the effect of a multi-disciplinary approach to diagnosis? *American Journal of Respiratory and Critical Care Medicine*, 170(8), 904-910.
- [4] Clark, N.M., Janz, N.K., Dodge, J.A., Lin, X., **Long, Q.**, Little, R.J., Mosca, L., Wheeler, J.R.C., and Keteyian, S. (2008) The effect of patient choice of intervention on health outcomes. *Contemporary Clinical Trials*, 29(5), 679-686.
- [5] **Long, Q.**, Little, R.J., and Lin, X. (2008) Causal inference in hybrid intervention trials involving treatment choice. *Journal of the American Statistical Association*, 103(482), 474-484.
- [6] Fraser, L.A., Twombly, J.G., Zhu, M., **Long, Q.**, Hanfelt, J.J., Narayan, V.K.M., Wilson, P.W.F., and Phillips, L.S. (2009) Delay in diagnosis of diabetes is not the patient's fault. *Diabetes Care*, 33(1), e10.
- [7] Auyeung, S.F.[†], **Long, Q.**[†], Royster, E.B.[†], Murthy, S., McNutt, M.D., Lawson, D., Miller, A., Manatunga, A., and Musselman, D. (2009) Sequential Multiple-Assignment Randomized Trial (SMART) Design of neurobehavioral treatment for patients with metastatic malignant melanoma treated with interferon. *Clinical Trials*, 6(5), 480-490.
- [8] Fedirko, V., Bostick, R.M., Flanders, W.D., **Long, Q.**, Sidelnikov, E., Shaukat, A., Daniel, C.R., Rutherford, R.E., and Woodard J.J. (2009) Effects of vitamin D and calcium on proliferation and differentiation in normal colon mucosa: a randomized clinical trial. *Cancer Epidemiology, Biomarkers & Prevention*, 18(11), 2933-2941.
- [9] Sidelnikov, E., Bostick, R.M., Flanders, W.D., **Long, Q.**, and Seabrook, M.E. (2009) Colorectal mucosal expression of MSH2 as a potential modifiable biomarker of risk for colorectal neoplasms. *Cancer Epidemiology, Biomarkers & Prevention*, 18(11), 2965-2973.
- [10] Hsu, C.H., **Long, Q.** and Alberts D.S. (2009) Estimation of colorectal adenoma recurrence with dependent censoring. *BMC Medical Research Methodology*, 9:66.
- [11] Little, R.J.[†], **Long, Q.**[†], and Lin, X. (2009) A comparison of methods for estimating the causal effect of a treatment in randomized clinical trials subject to noncompliance. *Biometrics*, 65, 640-649.

- [12] Sidelnikov, E., Bostick, R.M., Flanders, W.D., **Long, Q.**, Cohen, V.L., Dash, C., Seabrook, M.E., and Fedirko, V. (2009) MutL-Homolog 1 expression and risk of incident sporadic colorectal adenoma: search for prospective biomarkers of risk for colorectal cancer. *Cancer Epidemiology, Biomarkers & Prevention*, 18(5), 1599-1609.
- [13] Little, R.J., **Long, Q.**, and Lin, X. (2009) Discussion of “Can Nonrandomized Experiments Yield Accurate Answers? A Randomized Experiment Comparing Random to Nonrandom Assignments” by Shadish, Clark and Steiner, *Journal of the American Statistical Association*, 103(484), 1344-1346.
- [14] Daniel, C.R., Bostick, R.M., Flanders, W.D., **Long, Q.**, Fedirko, V., Sidelnikov, E., Seabrook, M.E. (2009) TGF- α expression as a potential biomarker of risk within the normal-appearing colorectal mucosa of patients with and without incident sporadic adenoma. *Cancer Epidemiology, Biomarkers & Prevention*, 18, 65-73.
- [15] Fedirko, V., Bostick, R.M., Flanders, W.D., **Long, Q.**, Shaukat, A., Rutherford, R.E., Daniel, C.R., Cohen, V., Dash, C., and Woodard, J.J. (2009) Effects of vitamin D and calcium supplementation on markers of apoptosis in normal colon mucosa: A randomized, double-blind, placebo-controlled clinical trial. *Cancer Prevention Research*, 2(3), 213-223.
- [16] Hsu, C.H., Taylor, J.M.G., **Long, Q.**, and Alberts D.S. (2009) Analysis of colorectal adenoma recurrence data subject to informative censoring. *Cancer Epidemiology, Biomarkers & Prevention*, 18, 712-717.
- [17] Cooper, L., Gutman, D.A., **Long, Q.**, Johnson, B.A., Cholleti, S.R., Kurc, T., Saltz, J.H., Brat, D.J., and Moreno, C.S. (2010) The Proneural Molecular Signature is Enriched in Oligodendrogliomas and Predicts Improved Survival among Diffuse Gliomas. *PLoS ONE*, 5(9): e12548.
- [18] Sidelnikov, E., Bostick, R.M., Flanders, W.D., **Long, Q.**, Fedirko, V., Shaukat, A., Daniel, C.R., Rutherford, R.E. (2010) Effects of calcium and vitamin D on MLH1 and MSH2 expression in rectal mucosa of sporadic colorectal adenoma patients. *Cancer Epidemiology, Biomarkers & Prevention*, 19(4), 1022-1032.
- [19] Twombly, J.G., **Long, Q.**, Zhu, M., Wilson, P.W.F., Narayan, V.K.M., Fraser, L-A., Brian C. Webber, B.C., and Phillips, L.S. (2010) Diabetes care in black and white veterans in the southeastern United States. *Diabetes Care*, 33(5), 958-63.
- [20] **Long, Q.**, Little, R.J., and Lin, X. (2010) Estimating causal effects in multi-arm trials subject to noncompliance: A Bayesian framework. *Journal of the Royal Statistical Society, C*, 59(3), 513-531.
- [21] Zhang, X. and **Long, Q.** (2010) Stochastic modeling and prediction for patient accrual in clinical trials. *Statistics in Medicine*, 29(6), 649-658.
- [22] **Long, Q.**, Flanders, W.D., Fedirko, V., and Bostick, R.M. (2010) Robust statistical methods for analysis of biomarkers measured with batch/experiment specific errors. *Statistics in Medicine*, 29(3), 361-370.
- [23] Fedirko, V., Bostick, R.M., **Long, Q.**, Flanders, W.D., McCullough, M.L., Sidelnikov, E., Daniel, C.R., Rutherford, R.E., and Shaukat, A. (2010) Effects of vitamin D and calcium supplementation on marker of oxidative DNA damage in normal colon mucosa: A randomized clinical trial. *Cancer Epidemiology, Biomarkers & Prevention*, 19, 280-291.
- [24] Johnson, B.A., **Long, Q.**, and Chung, M. (2011) On path restoration for censored outcomes. *Biometrics*, 67, 1379-1388.

- [25] Hsu, C.H., Li, Y., **Long, Q.**, and Zhao, Q. (2011) Estimation of recurrence of colorectal adenomas with dependent censoring using weighted logistic regression. *PLoS ONE*, 6(10): e25141.
- [26] Wasse, H., Rivera A.A., Huang R., Martinson D.E., **Long, Q.**, McKinnon, W., Naqvi, N., Husain, A. (2011) Increased plasma chymase concentration and mast cell chymase expression in venous neointimal lesions of CKD and ESRD patients. *Seminars in Dialysis*, 24(6), 688-693.
- [27] **Long, Q.**, Chung, M., Moreno, C.S. and Johnson, B.A. (2011) Risk prediction for prostate cancer recurrence through regularized estimation with simultaneous adjustment for nonlinear clinical effects. *Annals of Applied Statistics*, 5(3), 2003-2023.
- [28] **Long, Q.**, Zhang, X. and Hsu, C.H. (2011) Nonparametric multiple imputation for ROC analysis when some biomarker values are missing. *Statistics in Medicine*, 30(26), 3149-61.
- [29] Johnson, B.A., and **Long, Q.** (2011) Survival ensembles by the sum of pairwise differences with application to lung cancer microarray studies. *Annals of Applied Statistics*, 5(2A), 1081-1101.
- [30] **Long, Q.**, Johnson, B.A., Osunkoya, A.O., Lai, Y., Zhou, W., Abramovitz, M., Xia, M., Bouzyk, M., Nam, R., Sugar, L., Stanimirovi, A., Leyland-Jones, B.R., Seth, A.K., Petros, J.A., Moreno, C.S. (2011) Protein-coding and microRNA biomarkers of recurrence of prostate cancer following radical prostatectomy. *American Journal of Pathology*, 179(1), 46-54.
- [31] **Long, Q.**, Zhang, X., and Johnson, B.A. (2011) Robust estimation of area under ROC curve using auxiliary variables in the presence of missing biomarker values. *Biometrics*, 67(2), 559-567.
- [32] **Long, Q.**, Zhang, X. and Bostick, R.M. (2011) Semiparametric estimation for joint modeling of colorectal cancer risk and functional biomarkers measured with errors. *Biometrical Journal*, 53(3), 393-410.
- [33] Wang, M. and **Long, Q.** (2011) Modified robust variance estimator for generalized estimating equations with improved small-sample properties. *Statistics in Medicine*, 30(11), 1278-1291.
- [34] Goodman, S., Rouse, M., **Long, Q.**, Ji, S., and Brand, S. (2011) Deconstructing antenatal depression: What is it that matters for neonatal behavioral functioning? *Infant Mental Health Journal*, 32(3), 339-361.
- [35] Twombly, J., **Long, Q.**, Zhu, M., Wilson, P.W.F., Venkat, N.K., and Phillips, L. (2011) Validity of the diagnosis of diabetes in veterans in the southeastern United States. *Diabetes Research and Clinical Practice*, 91(3), 395-400.
- [36] Ahearn, T.U., McCullough, M.L., Flanders, W.D., **Long, Q.**, Sidelnikov, E., Fedirko, V., Daniel, C.R., Rutherford, R.E., Shaukat, A., and Bostick, R.M. (2011) A randomized clinical trial of calcium and vitamin D3 supplementation on markers of their metabolism in normal colonic mucosa. *Cancer Research*, 71(2), 413-423.
- [37] Ji, S., **Long, Q.**, Newport, J., Na, H., Knight, B.T., Zach, E.B., Morris, N.J., Kutner, M., and Stowe, Z.N. (2011) Validity of depression rating scales during pregnancy and the postpartum period: Impact of trimester and parity. *Journal of Psychiatric Research*, 45(2), 213-219.
- [38] Monk, C., Newport, D.J., Korotkin, J.H., **Long, Q.**, Knight, B.T., and Stowe, Z.N. (2012) Uterine blood flow in a psychiatric clinical population: impact of maternal depression, anxiety, and psychotropic medication. *Biological Psychiatry*, 72(6), 483-490.
- [39] Zhang, X. and **Long, Q.** (2012) Modeling and prediction of subject accrual and event times in clinical trials: a systematic review. *Clinical Trials*, 9(6), 681-8.

- [40] Zhang, X. and **Long, Q.** (2012) Joint monitoring and prediction of accrual and event times in clinical trials. *Biometrical Journal*, 54(6), 735-749.
- [41] Wang, M., Flanders, W.D., Bostick, R.M., and **Long, Q.** (2012) A conditional likelihood approach for regression analysis using biomarkers measured with batch-specific error. *Statistics in Medicine*, 31(29), 3896-906.
 [★ An earlier version won Ming Wang the R.L. Anderson Award at the 2011 Southern Regional Council on Statistics (SRCOS) Summer Research Conference and a Young Investigator Award from American Statistical Association's Section on Statistics in Epidemiology (SIE) in 2012 ★]
- [42] **Long, Q.** (2012) A note on generalized functional linear model and its application. *Journal of Statistical Planning and Inference*, 142(9), 2599-2606.
- [43] Newport, D.J., Ji, S., **Long, Q.**, Knight, B.T., Zach, E.B., Smith, E.N., Morris, N.J., and Stowe, Z.N. (2012) Maternal depression and anxiety differentially impact fetal exposures during pregnancy. *Journal of Clinical Psychiatry*, 73(2), 247-251.
- [44] Wasse, H., Huang, R., **Long, Q.**, Singapuri, S., Raggi, P., and Tangpricha, V. (2012) Efficacy and safety of a short course of very high dose cholecalciferol in hemodialysis. *The American Journal of Clinical Nutrition*, 95(2), 522-528.
- [45] **Long, Q.**, Hsu, C.H., and Li, Y. (2012) Doubly robust nonparametric multiple imputation for ignorable missing data. *Statistica Sinica*, 22, 149-172.
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- [143] Chang, C., Bu, Z., and **Long, Q.** (2023) CEDAR: Communication Efficient Distributed Analysis for Regressions. *Biometrics*, 79(3):2357-2369.
- [144] Bu, Z., Wang, H., Dai, Z., and **Long, Q.** (2023) On the Convergence and Calibration of Deep Learning with Differential Privacy. *Transactions on Machine Learning Research*, in press.
- [145] Sha J, Bao J, Liu K, Yang S, Wen Z, Wen J, Cui Y, Tong B, Moore JH, Saykin AJ, Davatzikos C, **Long Q**, and Shen L, for the ADNI. (2023) Preference matrix guided sparse canonical correlation analysis for mining brain imaging genetic associations in Alzheimer’s disease. *Methods*, in press.
- [146] Bao, J., Wen, J., Wen, Z., Yang, S., Cui, Y., Yang, Z., Erus, G., Andrew J Saykin, A.J., **Long Q**, Christos Davatzikos, C., and Li Shen. (2023) Brain-wide genome-wide colocalization study for integrating genetics, transcriptomics and brain morphometry in Alzheimer’s disease. *NeuroImage*, in press.
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 [** An earlier version won Kan Chen the Jiann-Ping Hsu Pharmaceutical and Regulatory Sciences Student Paper Award from the International Chinese Statistical Association in 2022.**]
- [148] Jang, A., Chang, C., Manatunga, A., Taylor, A.T., and **Long, Q.** (2023) An Integrative Latent Class Model of Heterogeneous Data Modalities for Diagnosing Kidney Obstruction. *Biostatistics*, in press.
- [149] Chen, S., Zheng, Q., **Long, Q.**, Su, W. (2023) Minimax Estimation for Personalized Federated Learning: An Alternative between FedAvg and Local Training. *Journal of Machine Learning Research*, in press.

Peer-reviewed Conference Papers in Machine Learning and Data Science

- [150] Min, E.J.[†], Chang, C.[†], and **Long, Q.** (2018) Generalized Bayesian Factor Analysis for Integrative Clustering with Applications to Multi-Omics Data. *The 5th IEEE International Conference on Data Science and Advanced Analytics (IEEE DSAA 2018)*, 109-119.
- [151] Sun, W.[†], Chang, C.[†], Zhao, Y., and **Long, Q.** (2018) Knowledge-guided Bayesian Support Vector Machine for High-Dimensional Data with Application to Genomic Data. *2018 IEEE*

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[** *An earlier version won Wenli Sun the Best Student Poster Award at the 2018 GSK Quantitative Sciences Annual Conference* **]

- [152] Chang, C., Min, E.J., Oh, J., and **Long, Q.** (2019) Knowledge-Guided Biclustering via Sparse Variational EM Algorithm. *2019 IEEE International Conference on Big Knowledge (IEEE ICBK 2019)*, 25-32.
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- [154] Chang, C., Oh, J., and **Long, Q.** (2020) GRIA: Graphical Regularization for Integrative Analysis. *2020 SIAM International Conference on Data Mining (SDM 2020)*, 604-612.
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[** *This paper won the Distinguished Paper Award at the AMIA 2020 Annual Symposium. An earlier version won Yi Deng the Jiann-Ping Hsu Pharmaceutical and Regulatory Sciences Student Paper Award from the International Chinese Statistical Association in 2017***]
- [159] Zheng, Q., Dong, J., **Long, Q.** and Su, W. (2020) Sharp Composition Bounds for Gaussian Differential Privacy via Edgeworth Expansion. *Proceedings of the 37th International Conference on Machine Learning (ICML)*, 119:11420–11435.
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- [162] Zheng, Q., Chen, S., **Long, Q.** and Su, W. (2021) Federated f-Differential Privacy. *The 24th International Conference on Artificial Intelligence and Statistics (AISTATS 2021)*, 2251-2259.
- [163] Sun, W., Chang, C. and **Long, Q.** (2021) Graph-guided Bayesian SVM with Adaptive Structured Shrinkage Prior for high-dimensional data. *2021 IEEE International Conference on Big Data (Big Data)*, 4472-4479, doi: 10.1109/BigData52589.2021.9671712.
- [164] Chen, K., and **Long, Q.** Distributed Gaussian Differential Privacy Via Shuffling. *ICLR 2021 Workshop: Distributed and Private Machine Learning (DPML)*.

- [165] Bu, Z., Wang, H., **Long, Q.**, and Su, W. (2021) On the Convergence of Deep Learning with Differential Privacy. *ICML 2021 Workshop: Theory and Practice of Differential Privacy*.
- [166] Zhang, Y., and **Long, Q.** (2021) Fairness in Missing Data Imputation. *ICML 2021 Workshop: Socially Responsible Machine Learning*.
- [167] Dai, Z., Bu, Z., and **Long, Q.** (2021) Multiple Imputation via Generative Adversarial Network for High-dimensional Blockwise Missing Value Problems. *20th IEEE International Conference on Machine Learning and Applications (ICMLA 2021)*, 791-798, doi: 10.1109/ICMLA52953.2021.00131.
- [168] Kim, M., Kim, J., Qu, J., Huang, H., **Long, Q.**, Sohn K.A., Dokyoon Kim, D., and Shen, L. (2021) Interpretable temporal graph neural network for prognostic prediction of Alzheimer’s disease using longitudinal neuroimaging data. *IEEE International Conference on Bioinformatics and Biomedicine 2021 (IEEE BIBM 2021)*, 1381-1384.
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- [172] Zhang, Q., Bu, Z., Chen, K., and **Long, Q.** (2022) Differentially Private Bayesian Neural Network on Accuracy, Privacy and Reliability. *In Machine Learning and Knowledge Discovery in Databases: European Conference, ECML PKDD 2022, Grenoble, France, September 19–23, 2022, Proceedings*, Part IV: 604-619. Cham: Springer Nature Switzerland.
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- [174] Bu, Z., Dai, Z., Zhang, Y., and **Long, Q.** (2023) MISNN: Multiple Imputation via Semi-parametric Neural Networks. *The 27th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2023)*, 430–442.
- [175] Wei, T., Yang, S., Ataee Tarzanagh, D., Bao, J., Xu, J., Orzechowski, P., Wagenaar, J.B., **Long, Q.**, and Shen, L. for the ADNI (2023) Clustering Alzheimer’s Disease Subtypes via Similarity Learning and Graph Diffusion. *ICIBM’23: Int. Conf. on Intelligent Biology and Medicine*, in press.
- [176] Zhou, Z., Tong, B., Ataee Tarzanagh, D., Hou, B., Andrew, J.S., **Long, Q.**, and Shen, L. (2023) Multi-Group Tensor Canonical Correlation Analysis. *The 14th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM-BCB 2023)*, in press.
[** This paper won the Best Paper Award at ACM-BCB 2023 **]
- [177] Ataee Tarzanagh, D., Hou, B., Tong, B., **Long, Q.**[♣] and Shen, L.[♣] (2023) Fairness-Aware Class Imbalanced Learning on Multiple Subgroups. *39th Conference on Uncertainty in Artificial Intelligence (UAI 2023)*, 2123-2133.
- [178] Zhou, Z., Ataee Tarzanagh, D., Hou, B., Tong, B., Xu, J., Feng, Y., **Long, Q.**[♣] and Shen, L.[♣] (2023) Fair Canonical Correlation Analysis. *2023 Conference on Neural Information Processing Systems (NeurIPS 2023)*, accepted.

Manuscripts in revision (selected)

- [179] Bao, J., Wen, J., Chang, C., Wen, Z., Chen, J., Cui, Y., Erus, G., Yang, Z., Shivakumar, Kim, D., Saykinc, A.J., Davatzikos, C., Long, Q.♣ and Li Shen♣ (2023) GIANT: Genetically informed brain atlas for enhancing imaging genomics. *Nature Neuroscience*, invited revision.
- [180] Zhang, Q., Chang, C., Shen, L. and Long, Q. (2023) Incorporating Graph Information in Bayesian Factor Analysis with Robust and Adaptive Shrinkage Priors. *Biometrics*, invited revision.
- [181] Lin, J.K., Hearn, C.M., Getzen, E., Long, Q., Lee, D.C., Keaveny, T.M., Jayadevappa, R., Robinson, K.W., Wong, Y.N., Maxwell, K.N., Narayan, V., Haas, N.B., Takvorian, S.U., Bikle, D.D., Chiang, J.M., Khan, A.N., Rajapakse, C.S., Morgans, A.K., Parikh, R.B. (2023) Validation of Biomechanical Computed Tomography for Fracture Risk Classification in Metastatic Hormone Sensitive Prostate Cancer. *European Urology Oncology*, minor revision.
- [182] Li, W., Chang, C., Kundu, S., and Long, Q. (2023) Accounting for Network Noise in Graph-Guided Bayesian Modeling of Structured High-Dimensional Data. *Biometrics*, invited revision.

Plenary and Keynote Talks

- [1] “Advancing Data Science for Intelligent and Equitable Health”, 2023 Statistical Practice in Cancer Conference, Tampa Bay, FL, USA (March, 2023)
- [2] “Big Data in Precision Medicine and Population Health: Challenges and Opportunities”, Academic Conference of the Association of Neurodegenerative Disease of the National Clinical Research Center for Geriatric Disorders, Changsha, China (December, 2017)

Invited Talks and Seminars (since 2016)

2023

- [1] Quantitative Science Grand Rounds, Moffitt Cancer Center, Tampa, FL (December, 2023)
- [2] Oncology Grand Rounds, University of Florida Health Cancer Center, Gainesville, FL (November, 2023)
- [3] Department of Statistics, Kansas State University (November, 2023)
- [4] Department of Biostatistics and Health Data Science, Indiana University, Indianapolis, IN (October, 2023)
- [5] 2nd CANSSI-NISS Health Data Science Workshop, Waterloo, ON, Canada (August, 2023)
- [6] 9th International Forum in Statistics, Beijing, China (July, 2023)
- [7] 2023 ICSA Applied Statistics Symposium, Ann Arbor, MI (June, 2023)
- [8] 36th New England Statistics Symposium, Boston, MA (June, 2023)
- [9] Biomedical Data Science Grand Rounds, Dartmouth College (April, 2023)
- [10] 2023 ENAR Spring Meeting, Nashville, TN USA (March, 2023)
- [11] Center for AI-enabled systems: Safe, Explainable and Trustworthy (ASSET), School of Engineering and Applied Science, University of Pennsylvania (March, 2023)
- [12] Division of Biostatistics, University of Maryland, School of Medicine (January, 2023)

2022

- [13] The 8th International Forum on Statistical Genetics and Genomics, virtual (November, 2022)

- [14] Department of Biostatistics, Bioinformatics and Biomathematics, Georgetown University, (November, 2022)
- [15] Department of Biostatistics, University of Iowa, Iowa City (October, 2022)
- [16] Department of Biostatistics, University of Michigan, Ann Arbor (September, 2022)
- [17] 2022 ICSA Applied Statistics Symposium, Gainesville, FL (June, 2022)
- [18] Symposium on Biostatistics, Data Science and Genomics, University of Michigan, Ann Arbor, MI, USA (May, 2022)
- [19] 2022 ENAR Spring Meeting, Houston, TX USA (March, 2022)

2021

- [20] Biostatistics and Bioinformatics Seminar, University of Illinois Chicago (December, 2021)
- [21] 2021 WNAR/IMS/KISS/JR Meeting, Anchorage, Alaska (June, 2021)
- [22] Biostatistics/Biomedical Informatics - Big Data (B3D) seminar, Harvard University (May, 2021)
- [23] Department of Bioinformatics and Biostatistics, Shanghai Jiaotong University, Shanghai, China (April, 2021)
- [24] 2021 ENAR Spring Meeting, Baltimore, MD, USA (March, 2021)

2020

- [25] 2020 ICSA Applied Statistics Symposium, Houston, TX (December, 2020)
- [26] 2020 Symposium on Clinical Research Enlighten and Transform Era, Shanghai Jiaotong University, China (December, 2020)
- [27] The Immuno-Oncology Translational Network (IOTN) Bioinformatics And Computational Biology Working Group Online Meeting (September, 2020)
- [28] 2020 ASA Biopharmaceutical Section Regulatory-Industry Statistics Workshop, Rockville, MD, USA (September, 2020)
- [29] Penn Center for Cancer Care Innovation, University of Pennsylvania (May, 2020)
- [30] 2020 ENAR Spring Meeting, Nashville, TN, USA (March, 2020)
- [31] Division of Biostatistics, University of Minnesota, Twin Cities, MN (March, 2020)
- [32] Center for Clinical Epidemiology and Biostatistics , University of Pennsylvania (February, 2020)
- [33] Department of Biostatistics and Data Science, University of Texas Health Science Center at Houston (January, 2020)
- [34] Department of Bioinformatics and Biostatistics, Shanghai Jiaotong University, Shanghai, China (January, 2020)

2019

- [35] 2019 ICSA International Conference, Hangzhou, China (December, 2019)
- [36] ASA Philadelphia Chapter (December, 2019)
- [37] Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania (December, 2019)
- [38] iBRIGHT 2019 Conference, The University of Texas MD Anderson Cancer Center, USA (November, 2019)
- [39] Department of Statistics and Actuarial Science, University of Waterloo, Canada (October, 2019)

- [40] Department of Biostatistics, Columbia University, USA (October, 2019)
- [41] Department of Statistics, Xiamen University, China (August, 2019)
- [42] Anhui Province Key Laboratory of Big Data Analysis and Application, The University of Science and Technology of China, Hefei, China (June, 2019)
- [43] School of Computer Science, Central South University, China (May, 2019)
- [44] 2019 Hangzhou International Conference on Frontiers of Data Science, Hangzhou, China (May, 2019)
- [45] Department of Biostatistics, Yale University, USA (April, 2019)
- [46] 2019 ENAR Spring Meeting, Philadelphia, PA, USA (March, 2019)
- [47] Division of Biostatistics, Washington University School of Medicine, USA (March, 2019)
- [48] Division of Biostatistics, Sidney Kimmel Medical College, Thomas Jefferson University, USA (March, 2019)
- [49] National Clinical Research Center for Mental Disorders, Central South University, Changsha, China (January, 2019)
- 2018**
- [50] Center for Data Science, Zhejiang University, Hangzhou, China (December, 2018)
- [51] School of Medicine, Shanghai Jiaotong University, Shanghai, China (December, 2018)
- [52] 11th International Conference of the ERCIM WG on Computational and Methodological Statistics, Pisa, Italy (December, 2018)
- [53] Penn's Working Group on ICT and Governance, Democracy and Development, University of Pennsylvania (November, 2018)
- [54] Working Group on Statistical Methods for Analyzing EHR Data, University of Pennsylvania (November, 2018)
- [55] Medical Affairs SBU Oncology, Bayer U.S., Whippany NJ, USA (November, 2018)
- [56] CMO/BIRS Workshop on Statistical and Computational Challenges in High-Throughput Genomics with Application to Precision Medicine, Oaxaca, Mexico (November, 2018)
- [57] Biomedical Engineering Symposium, University of Science and Technology of China, Hefei, China (September, 2018)
- [58] The Second Xiangya Hospital of Central South University, Changsha, China (September, 2018)
- [59] Center for Statistical Science, Tsinghua University, Beijing, China (September, 2018)
- [60] SAS Institute, Cary, North Carolina, USA (August, 2018)
- [61] 2018 Joint Statistical Meetings, Vancouver, Canada (July, 2018)
- [62] 2018 International Chinese Statistical Association (ICSA) China Conference, Qingdao, China (July, 2018)
- [63] The 4th International Symposium on Data Driven Health and Medicine, Shanghai, China (July, 2018)
- [64] 2018 Institute of Mathematical Statistics Asia Pacific Rim Meeting, Singapore (June, 2018)
- [65] ASA Princeton-Trenton Chapter Spring 2018 Symposium, Piscataway, New Jersey (May, 2018)
- [66] 2018 ENAR Spring Meeting, Atlanta, GA (March, 2018)

- [67] Didi Chuxing Inc., Beijing, China (March, 2018)
- [68] Department of Statistics, Chinese University of Hong Kong, Hong Kong (March, 2018)
- [69] School of Science, Hong Kong University of Science and Technology, Hong Kong (March, 2018)
- [70] Department of Biostatistics, University of North Carolina at Chapel Hill, USA (February, 2018)
- [71] Population Science Research Seminar, Abramson Cancer Center, University of Pennsylvania (January, 2018)

2017

- [72] SHJT-Yale Joint Center for Biostatistics, Shanghai Jiaotong University, Shanghai, China (December, 2017)
- [73] 2017 Academic Conference of the Association of Neurodegenerative Disease of the National Clinical Research Center for Geriatric Disorders, Changsha, China (December, 2017)
- [74] Department of Statistics and Probability, Michigan State University, USA (December, 2017)
- [75] School of Information Technology and Mathematical Science, University of South Australia, Adelaide, Australia (November, 2017)
- [76] Department of Epidemiology and Biostatistics, Memorial Sloan-Kettering Cancer Center, New York, USA (November, 2017)
- [77] Center for Cancer Biostatistics, University of Michigan, Ann Arbor, MI, USA (September, 2017)
- [78] Division of Biostatistics and Bioinformatics, Penn State University, USA (August, 2017)
- [79] 2017 Joint Statistical Meetings, Baltimore, MD, USA (August, 2017)
- [80] The First International Conference on the Theoretical Foundation of the Data Science, Beijing, China (July, 2017)
- [81] 2017 IMS-China International Conference on Statistics and Probability, Nanning, Guangxi, China (June, 2017)
- [82] Xiang-Ya School of Public Health, Central South University, Changsha, China (June, 2017)
- [83] Department of Mathematics, Southern University of Science and Technology, Shenzhen, China (June, 2017)
- [84] Statistics Workshop on High-dimensional and Spatial Data Analysis, Hong Kong Baptist University, Hong Kong (June, 2017)
- [85] The 1st International Conference on Econometrics and Statistics (EcoSta 2017), Hong Kong (June, 2017)
- [86] The 26th ICSA Applied Statistics Symposium, Chicago, IL, USA (June, 2017)
- [87] 2017 Conference on Lifetime Data Science, Storrs, Connecticut, USA (May, 2017)
- [88] Division of Biostatistics and Epidemiology, Weill Cornell Medical College, Cornell University, USA (May, 2017)
- [89] Population Science Programs Retreat, Abramson Cancer Center, University of Pennsylvania, USA (April, 2017)
- [90] Biostatistics Workshop on Statistical Inference for Biomedical Big Data, University of Florida, USA (April, 2017)

2016

Qi Long, Ph.D.

- [91] Information Security and Big Data Research Institute, Central South University, China (December, 2016)
- [92] The 10th ICOSA International Conference, Shanghai, China (December, 2016)
- [93] The 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016), Seville, Spain (December, 2016)
- [94] SAMSI Workshop on Distributed and Parallel Data Analysis (DPDA), Raleigh, NC, USA (September, 2016)
- [95] PCORI Improving Methods Evidence-to-Action Network Webinar, Patient-Centered Outcomes Research Institute (July, 2016)
- [96] The Third Workshop on the Statistical Analysis of Multi-outcome Data, Beijing, China (July, 2016)
- [97] The Third Taihu International Statistics Forum, Shanghai, China (July, 2016)
- [98] The 2nd International Symposium on Data Driven Health and Medicine, Shanghai, China (July, 2016)
- [99] The 25th ICOSA Applied Statistics Symposium, Atlanta, GA, USA (June, 2016)
- [100] Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania, Philadelphia, PA, USA (March, 2016)
- [101] Modeling and Computation Seminar, University of Arizona, Tucson, AZ, USA (March, 2016)
- [102] Department of Biomedical Informatics, University of California, San Diego, CA, USA (February, 2016)
- [103] Department of Biostatistics, University of California, Los Angeles, CA, USA (February, 2016)
- [104] Department of Biostatistics, Duke University, Durham, NC, USA (January, 2016)

Mentoring

Postdoctoral Fellow (current)

- Nilanjana Chakraborty (PhD in Statistics, University of Florida)
- Wenrui Li (PhD in Statistics, Boston University)
- Davoud Ataee Tarzanagh (PhD in Mathematics, University of Florida; joint with Li Shen)
- Yinjun Wu (PhD in Computer Science, University of Pennsylvania; joint with Mayur Naik)
- Qiyiwen (Amber) Zhang (PhD in Statistics, Washington University in St. Louis)
- Jiancong Xiao (PhD in Computer and Information Engineering, Chinese University of Hongkong, Shenzhen; joint with Weijie Su)
- Xiang Li (PhD in Mathematics, Peking University; joint with Weijie Su)
- Yi Lian (PhD in Biostatistics, McGill University)

Doctoral Dissertation Advising (current)

- Emily Getzen (Biostatistics, University of Pennsylvania)
 - * Gertrude M. Cox Scholarship, American Statistical Association, 2023
 - * Best Poster Award, the Penn Institute for Biomedical Informatics (IBI) and the Graduate Group in Genomics and Computational Biology (GCB) Joint Retreat, 2023

Qi Long, Ph.D.

- * 2023 Student Scholarship Award, Biopharmaceutical Section, American Statistical Association, 2023
- * 2023 Exceptional Achievement Award for Graduate Students, Philadelphia Chapter, American Statistical Association, 2023
- * Best Poster Award, The 2nd Penn Conference on Big Data in Biomedical and Population Health Sciences, 2022
- * Best Flash Talk Award in Biostatistics, DBEI/CCEB Research Day, 2021
- Zongyu Dai (Applied Mathematics and Computational Science, University of Pennsylvania)
- Kan Chen (Applied Mathematics and Computational Science, University of Pennsylvania; joint with Dylan Small)
 - * Jiann-Ping Hsu Pharmaceutical and Regulatory Sciences Student Paper Award, the International Chinese Statistical Association (ICSA), 2022.
 - * Young Investigator Award, American Statistical Association Section on Statistics in Epidemiology, 2023.
- Jingxuan Bao (Genomics and Computational Biology, University of Pennsylvania; joint with Li Shen)
 - * The First Place Award in Student Paper Competition, American Statistical Association Statistics in Imaging Section, 2023.
- Zhuoping Zhou (Applied Mathematics and Computational Science, University of Pennsylvania; joint with Li Shen)
 - * Best Paper Award, 14th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB), 2023
- Inyoung (Erica) Choi (Computer and Information Science, University of Pennsylvania; joint with Mayur Naik)
- Jenna Ballard (Genomics and Computational Biology, University of Pennsylvania; joint with Li Shen)

Research Associate/Instructor (past)

- Changgee Chang (PhD in Statistics, University of Chicago)
Current Position: Assistant Professor, Department of Biostatistics and Health Data Science, Indiana University School of Medicine
 - * Young Researcher Travel Grant, 2016 ISBA World Meeting
- Kefei Liu (PhD in EE from City University of Hong Kong, joint with Li Shen)
Current Position: Associate Professor, Suzhou Institute for Advanced Research, University of Science and Technology of China (USTC)

Postdoctoral Fellow (past)

- Chong Jin, (PhD in Biostatistics, University of North Carolina at Chapel Hill)
Current Position: Assistant Professor, Department of Mathematical Sciences, NJIT
- Cong Fang, (PhD in Computer Science, Peking University; joint with Weijie Su)
Current Position: Assistant Professor, Department of Machine Intelligence, Peking University
- Qinqing Zheng (PhD in Computer Science, University of Chicago; joint with Weijie Su)
Current Position: Research Engineer at Facebook AI Research

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- Eun Jeong Min (PhD in Statistics, North Carolina State University)
Current Position: Assistant Professor, College of Medicine, Catholic University of Korea
- Siliang Gong (PhD in Statistics, University of North Carolina at Chapel Hill)
Current Position: Senior Biostatistician, Foundation Medicine
- Sandra E. Safo (PhD in Statistics, University of Georgia)
Current Position: Assistant Professor, Division of Biostatistics, University of Minnesota, Twin Cities
 - * K12 Scholar in the NIH-supported Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) Program at Emory, 2016-2017
 - * Scholarship in the NIH-Supported Program to Increase Diversity Among Individuals Engaged in Health-Related Research (PRIDE) at Washington the University, 2016-2018
- JiHwan Oh (PhD in Statistics, Purdue University)
Current Position: Senior Scientist, Merck

Doctoral Dissertation Advising (past)

- Yiliang Zhang (Ph.D. in 2023, University of Pennsylvania; joint with Weijie Su)
Current Position: Quantitative Researcher, DRW Holdings, LLC
 - * Student Paper Award, Statistical Learning and Data Science (SLDS) Section, American Statistical Association, 2020
- Zhiqi (Woody) Bu (Ph.D. in 2021, University of Pennsylvania; joint with Weijie Su)
Current Position: Applied Research Scientist, Amazon AWS AI
- Wenli Sun (Ph.D. in 2019, University of Pennsylvania)
Current Position: Senior Data Scientist, IQVIA
 - * Best Flash Talk Award, The 2019 DBEI/CCEB Research Day
 - * Best Student Poster Award, The 2018 GSK Quantitative Sciences Annual Conference
- Ziyi Li (Ph.D. in 2018, Emory)
Current Position: Assistant Professor, Department of Biostatistics, The University of Texas MD Anderson Cancer Center
 - * Michael and Pinina Haber Dissertation Award, Emory University, 2018
 - * ENAR Poster Award, 2018 ENAR Spring Meeting
 - * Student paper award, 2016 International Chinese Statistical Association Applied Statistics Symposium, 2016
 - * 2nd place prize award, NSF/Anderson Student Poster Competition, the Southern Regional Council On Statistics (SRCOS) 2016 Summer Research Conference, 2016
- Yi Deng (Ph.D. in 2017, Emory)
Current Position: Data Science Manager at Google
 - * Jiann-Ping Hsu Pharmaceutical and Regulatory Sciences Student Paper Award, the International Chinese Statistical Association (ICSA), 2017
 - * 1st place team, the Atlanta Big Data Team Challenge, sponsored by Booz Allen Hamilton and hosted by Emory RSPH, 2016
 - * 3rd place, Poster Competition Award, Biopharmaceutical Section, American Statistical Association, 2015

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- Will Zhu (Ph.D. in 2017, joint with Amita Manatunga, Emory)
Current Position: Statistician at the Centers for Disease Control and Prevention (CDC)
- Domonique Watson Hodge (Ph.D. in 2016, Emory)
Current Position: Delivery Data Scientist at Microsoft
 - * Emory Initiative for Maximizing Student Development (IMSD) Predoctoral Fellowship (funded by NIH to enhance diversity), 2013-2015
 - * 2016 JSM Student Travel Award, Survey Research Methods Section, American Statistical Association, 2016
 - * SAS Fellowship, 2015-2016
- Pallavi S. Mishra-Kalyani (Ph.D. in 2014, Emory, joint with Brent A. Johnson,)
Current Position: Deputy Director at the US Food and Drug Administration (FDA)
 - * Student Travel Award and Finalist for the Best Student Paper Award, 2014 International Indian Statistical Association (IISA) Conference
 - * Student Paper Award Honorable Mention, Biopharmaceutical Section, American Statistical Association, 2014
 - * Student Travel Award, American Statistical Association/National Science Foundation, 2014
 - * Emory Graduate Diversity Fellowship, 2009-2014
- Yize Zhao (Ph.D. in 2014, Emory, joint with Jian Kang)
Current Position: Associate Professor, Department of Biostatistics, Yale University
 - * David P. Byar Young Investigator Travel Award, Biometrics Section, American Statistical Association, 2014
 - * Student Paper Award (Declined), Statistical Learning and Data Mining Section, American Statistical Association, 2014
 - * Student Paper Award, Section on Bayesian Statistical Science, American Statistical Association, 2013
 - * NSF travel award for the 9th Conference on Bayesian Nonparametrics (Declined), National Science Foundation, 2013
 - * Nominated by Emory University for the Howard Hughes Medical Institute (HHMI) International Student Research Fellowship, 2012

Masters Thesis Advising

- Konstantinos Tsingas (2023-present, University of Pennsylvania; joint with Noam Auslander)
- Gary Hettinger (2021-2022, University of Pennsylvania; joint with Ravi Parikh)
- Emily Getzen (2020-2021, University of Pennsylvania)
- Yuwen Xu (2019-2020, Drexel)
- Zhifan Sang (2016, Emory)
Current Position: Software Engineer, AI/ML at Apple, Inc.
- Chenchen Yu (joint with Yi-An Ko, 2015, Emory)
Current Position: Data Scientist, LinkedIn
- Jessica Vakili (2012, Emory)
Current Position: Epidemiologist at the Tennessee Department of Health

Undergraduate Advising

- Sewon Park (Computer Science, University of Pennsylvania), Senior Capstone Thesis, 2021
- Ashley Francisco (Computer Science, Dartmouth), Research Intern, 2019-2020
- Abdullah Ali (Swarthmore College), Research Intern (as part of the Swarthmore Summer Scholars Program), 2022
- Tin Do (Computer Science, University of Pennsylvania), Research Intern, 2022
- Ryan Liu (University of Pennsylvania), Research Assistant, 2023-present
- Harrison Beard (University of Pennsylvania), 2018
- Shujian Zhang (Rochester University), Research Assistant, 2018-2019
- Kai Lu (University of Pennsylvania), Research Assistant, 2018-2021

Graduate Student Research Assistants Supervised

- Ming Wang, 2009-2013, Emory
Current Position: Associate Professor, Case Western Reserve University
Awards received under the supervision of Qi Long:
 - * R.L. Anderson Award, SRCOS Summer Research Conference, 2011
 - * Young Investigator Award, Section on Statistics in Epidemiology, American Statistical Association, 2012
- Jeong Hoon Jang, 2013-2019, Emory (Joint with Amita Manatunga)
Current Position: Assistant Professor, Yonsei University, South Korea
- University of Pennsylvania: Raul Torres Allende (2017-2018); Toshitha Kannan (2018-2019); Yucheng Ruan (2019-2020); Jingxuan Bao (2020-2021); Qishuo Yin (2021-2023); Yuxuan Lin (2022-2023); Konstantinos Tsingias (2022-2023); Yihao Wang (2022-present)
- Emory: Samantha Noreen, 2013-2017; Yunchuan Kong, 2016; Quran Wu, 2016; Zheyu Hu, 2014-2015; Lijia Wang, 2012-2016; Qing He, 2011-2014; Zhuxuan Jin, 2013-2014; Wenqiong Xue, 2011-2013; Ming Zhu, 2009-2011; Shuang Ji, 2008-2012

Doctoral Dissertation Committees Served as Member or Chair

- University of Pennsylvania:
Jakob Woerner (GCB, Committee Chair), 2023-present; Rachit Kumar (GCB, Committee Chair), 2023-present; Alice Wang (GCB, Committee Chair), 2023-present; Karl Keat (GCB, Committee Chair), 2022-present; Jenny Shen (GGEB, Committee Chair), 2022-present; Benny Ren (GGEB, Committee Chair), 2021-2023; Jill Schnall (GGEB, Committee Chair), 2021-2022; Francesca Mandel (GGEB), 2020-2023; Lu Huang (GGEB, Committee Chair), 2018-2020; Le Wang (GGEB), 2017-2018.
- Department of Biostatistics and Bioinformatics, Emory:
Xin Lu, 2014-2015; Emily Mitchell, 2012-2013; Ming Wang, 2011-2013; Shannon McClin-
tock, 2010-2012; Li Li, 2009-2011; Tielin Qin, 2009-2011; Yuemei Wang, 2007-2009; Jian
Chen, 2008-2009; Megan Price, 2008-2009.
- Department of Epidemiology, Emory:
Huakang Tu, 2012-2014; Lauren Christiansen-Lindquist, 2012; Edward Sidelnikov, 2007-
2009.
- Nutrition and Health Sciences Program, Emory:
Lisa Staimez, 2010-2013; Sandra L. Jackson 2012-2014.

- Emory Business School:
Yi Wang, 2011-2012.

Masters Thesis Served as Committee Member

- Kevin Park (Biostatistics, Emory, 2018)
- Cherie James (Biostatistics, Emory, 2007)

Ph.D. Qualifier Committee

- Xinxian Shao (Department of Physics, Emory, 2012)

Graduate Students Advised as Academic Advisor

- Doctoral Students at University of Pennsylvania: Konstantinos Tsingas, 2023-present; Benny Ren, 2019-2020; Rebecca Deek, 2018-2019; Justin Lakkis, 2017-2018
- Doctoral Students at Emory: Xin Lu, 2010-2012; Xiaoyan Sun, 2009-2011; Yaping Wang, 2006-2008.
- Masters Students at University of Pennsylvania: Konstantinos Tsingas, 2022-present.
- Masters Students at Emory: Keun Ok Lee 2015-2016; Junhan Fang, 2014-2015; Zheyu Hu, 2014-2015; Alice Parish, 2012-2013; Tiffany William, 2010-2011; Sebastian D Perez, 2007-2008.

Faculty Mentoring

- Ian Barnett, University of Pennsylvania (2017-present)
- Yun Li, University of Pennsylvania (2019-present)
- Kristin Linn, University of Pennsylvania (2017-2019)
- Sandra Safo, Emory University (2016)
- Suprateek Kundu, Emory University (2015-2016)
- Yi-An Ko, Emory University (2014-2016)

Visiting Scholars

- Thuc Duy Le, Senior Lecturer, The University of South Australia, Adelaide, Australia (2019)
- Feng Lian, Associate Professor, Xi'an Jiaotong University, China (2017-2018)

Teaching

University of Pennsylvania

- Course Director, Applied Bayesian Analysis (BSTA 771), 2023
- Course Director, Statistical Methods for Incomplete Data (BSTA 782), 2019-2020, 2022, 2024
- Module Director (Fairness and Bias in AI for Medicine), Special Topics in Biomedical and Health Informatics (BMIN 504), 2022-present
- Guest Lecturer, Biostatistics in Practice (BSTA 511), 2018

Emory University

Qi Long, Ph.D.

- Course Director, Generalized Linear Models and Extensions (BIOS 709, 4 credit hours), Department of Biostatistics and Bioinformatics, 2013-2016.
- Course Director, Generalized Linear Models (BIOS 709, 2 credit hours), Department of Biostatistics and Bioinformatics, 2009-2012.
- Course Director, Advanced Methods for Categorical Data (BIOS 708, 2 credit hours), Department of Biostatistics and Bioinformatics, 2007-2011.
- Course Director, Categorical Data Analysis (BIOS 708, 4 credit hours), Department of Biostatistics and Bioinformatics, 2006.
- Course Director, Biostatistics Seminar (BIOS 590R and 790R), Department of Biostatistics and Bioinformatics, 2008 and 2014.

Academic Committees and Activities

National (not listed above)

- External Reviewer for Appointments and Promotions: American University of Beirut; Boston University; Columbia University; Duke University; Harvard University; Hong Kong Baptist University; Georgia State University; Johns Hopkins University; Shanghai Jiao Tong University; Thomas Jefferson University; University of Michigan; University of Pittsburgh; University of Texas MD Anderson Cancer Center; University of Virginia; University of Wisconsin-Madison; Washington University

University of Pennsylvania

- Co-Chair, Strategic Planning Working Group for Data Science, Abramson Cancer Center, 2023-present
- Co-organizer, 2023 SEAS/PSOM Symposium on Trustworthy AI for Health Care, 2023
- Member, Organizing Committee, 2nd and 3rd Penn Conference on Big Data in Biomedical and Health Sciences, 2022-2023
- Member, Review Committee for Pilot Grants for Collaborative Research in Trustworthy AI for Medicine, PSOM/SEAS, 2022
- Co-organizer, SEAS/PSOM Workshop Series on Trustworthy AI for Medicine, 2021-2022
- Member, Flatiron and Penn Joint Steering Committee, Abramson Cancer Center, 2021-present
- Member, Immune Health Council, 2021-present
- Member, Advisory Committee for the Clinical Research Computing Unit (CRCU), Perelman School of Medicine, 2018-present
- Member, Advisory Committee for the Bioinformatics Core of the Institute for Biomedical Informatics, 2018-present
- Member, Strategic Planning Working Group for Clinical and Medical Bioinformatics, Abramson Cancer Center, 2018
- Member, Strategic Planning Working Group for Shared Resources, Abramson Cancer Center, 2018

University of Pennsylvania, Department of Biostatistics, Epidemiology and Informatics (DBEI)

Qi Long, Ph.D.

- Chair, Committee on Appointments and Promotions, 2021-2023 (Member, 2017-2023)
- Chair, Biostatistics Faculty Awards Committee, 2021-present (Member, 2017-present)
- Co-Chair, DBEI/CCEB Research Day Committee, 2017-2021
- Member, Admissions Committee for the Graduate Group in Applied Mathematics and Computational Science, 2020
- Member, DBEI Faculty Awards Committee, 2019-present
- Member, Biostatistics Faculty Recruitment Committee, 2016-2023
- Member, Biostatistics Advisory Committee, 2018-2019
- Member, Biostatistics Qualifying Exams Committee, 2017-2018

Emory University

- Member, Research Advisory Committee at Rollins School of Public Health, Emory University, 2015-2016
- Member, Appointment, Promotion and Tenure Committee at Rollins School of Public Health, Emory University, 2014-2016
- Member, Search Committee for Founding Director of VA Analytics Center, 2016
- Member, Search Committee for Director of the Biostatistics and Bioinformatics at Winship Cancer Institute, Emory University, 2010
- Member, University Research Committee, Emory University, 2011-2012
- Member, Shepard Award Committee at Rollins School of Public Health, Emory University, 2007-2011

Emory University, Department of Biostatistics and Bioinformatics

- Organizer, Biostatistics Research Incubator Series, 2015-2016
- Chair, Research Strategic Planning Group, 2015
- Co-Chair, Admissions Committee, 2012-2014
- Chair, Tenured and Tenure-Track Faculty Meeting, 2010-2012
- Member, Curriculum Committee, 2009-2016
- Member, Collaborative Research Committee, 2014-2016
- Member, Faculty Search Committee, 2005-2007, 2015-2016
- Member, Brogan Lecture Committee, 2009-2015
- Member, Admissions Committee, 2006-2015
- Member, Kutner Alumni Award Selection Committee, 2013-2015
- Member, 50th Anniversary Celebration Planning Committee, 2013-2014
- Member, Computer Advisory Committee, 2006-2013
- Member, Qualifying Exams Committee, 2012
- Member, Technical Reports Committee, 2009-2012

University of Michigan, Department of Biostatistics

- Member, Student Activity Committee, 2003-2004
- Member, Student Computing Committee, 2003-2004

Professional Membership

Life Member, American Statistical Association, 2002-present
Member, International Biometric Society (Eastern North American Region), 2003-present
Permanent Member, International Chinese Statistical Association, 2007-present
Life Member, Institute of Mathematical Statistics, 2007-present
Lifetime Member, International Society for Bayesian Analysis, 2014-present
Member, International Statistical Institute, 2015-present
Member, American Association for the Advancement of Science, 2016-present
Fellow, Royal Statistical Society, 2016-2018
Member, Society for Clinical Trials, 2016-2018
Member, Statistical Modelling Society, 2015-2016, 2022-present
Active Member, American Association for Cancer Research (AACR), 2018-present
Full Member, American Society of Clinical Oncology (ASCO), 2018-2020
Member, American Medical Informatics Association (AMIA), 2020-present
Member, Institute of Electrical and Electronics Engineers (IEEE), 2022-present
Member, Association for Computing Machinery (ACM), 2023-present

References

F. DuBois Bowman, Ph.D.
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<https://sph.umich.edu/about/bowman.html>

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<https://sph.umich.edu/faculty-profiles/little-roderick.html>

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<https://cancer.columbia.edu/anil-k-rustgi-md>