HULIN WU, Ph.D.
The Betty Wheless Trotter Professor & Chair
Department of Biostatistics & Data Science, School of Public Health
University of Texas Health Science Center at Houston
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SUMMARY

- Strong extramural funding track-record: as PI or Co-PI, I have received the NIH FIRST (R29) award, 5 R01 grants, one center grant, one training grant (T32), several other pilot awards, subcontract awards, and the CTSI Biomedical Informatics Key Function grant with a total budget of about $30 million. In particular, as the Director/PI, I directed NIH-funded Center for Biodefense Immune Modeling (CBIM) with a total budget of about $22 million from 2005-2015.

- Provided strong statistical support to biomedical investigators for their grant applications and received the following collaboration grants: 1) Director of the Data Management, Biostatistics and Bioinformatics (DMBB) Core for the NIH-funded New York Influenza Center of Excellence (NYICE); 2) Co-Director of the Biomedical Informatics Key Function of the Clinical and Translational Sciences Award (CTSA); 3) Director of the Biomathematics/Biostatistics/Bioinformatics Core for the NIH-funded Center for AIDS Research (CFAR); 4) Director of the Data Management and Computational Biology Core for the NIH-funded Respiratory Pathogens Research Center (RPRC); 5) Co-Investigator for many R01 grants.

- Strong inter-disciplinary research track records, and published 3 books and more than 160 peer-reviewed papers: 1) publications in top statistical methodology journals such as *JASA, Biometrika, Annals of Statistics* etc.; 2) publications in top biostatistical journals such as *Biometrics, Biostatistics, Annals of Applied Statistics, JRSS-C, Statistics in Medicine* etc.; 3) publications in biomathematical/bioinformatics journals such as *Bulletin of Mathematical Biology, Mathematical Biosciences*, *BMC Bioinformatics* etc.; and 4) publications in biomedical journals (as leading and corresponding author) such *as Journal of Infectious Diseases, Journal of Virology, JAIDS, Journal of Immunology*, etc..

- Comprehensive research/collaboration experiences in clinical trials, *in vitro* experiments, *ex vivo/in vivo* animal research as well as epidemiological and community-based studies. In particular, participated in the design and data analysis for more than 15 AIDS clinical trials (including PK/PD trials). My recent research interests include Big Data analytics for health sciences and EHR data.

- Founded the Division of Biomedical Modeling & Informatics in 2004 and the Center for Integrative Bioinformatics and Experimental Mathematics in 2012, and grew this Division/Center from 5 to more than 25 faculty, staff, postdoctoral fellows and students in 10 years. Strong experience in managing both personnel and a large size of budget for center projects and the Division/Center.

- Strong leadership skills in managing a multi-disciplinary research team with biostatisticians, bioinformaticians, computational biologists, public health researchers, clinical collaborators, and administrative staff. Extensive experience in administration: financial planning, staff supervising, new faculty and staff recruiting, and junior faculty mentoring.

- Extensive experience in teaching and mentoring of pre-doctoral students and postdoctoral trainees (total of more than 45 pre-doctoral and postdoctoral trainees). As Co-PI/PI, I also received a pre-doctoral and post-doctoral NIH training grant (T32). I chaired an education committee and developed a new PhD program (concentration) in bioinformatics and computational biology at University of Rochester School of Medicine and Dentistry. Nine new courses were developed for this new concentration.

- Joined the Department of Biostatistics, School of Public Health (SPH), UT Health Science Center at Houston (UTHealth Houston) as Associate Chair in 2015, and was appointed as the Betty Wheless Trotter Professor and Department Chair in 2017.

- Founding Director, Center for Big Data in Health Sciences, UTHealth Houston SPH, 2018-present.

- Initiated and developed the "Data Science" program at UTHealth Houston SPH, and coordinated the development of 7 new data science courses.

EDUCATION

Ph.D.	Statistics	1991 -1994	Florida State University, Tallahassee, Florida.
M.S.	Statistics	1989 -1991	Florida State University, Tallahassee, Florida.
M.S.	Engineering	1984 -1987	National University of Defense Technology, China.
B.S.	Engineering	1980 -1984	National University of Defense Technology, China.

POSITIONS AND APPOINTMENTS

- **2017-present.** The Betty Wheless Trotter Professor & Chair**,** Department of Biostatistics & Data Science, School of Public Health, University of Texas Health Science Center at Houston, Houston, TX.
- **2015-present.** Professor, School of Biomedical Informatics, University of Texas Health Science Center at Houston, Houston, TX.
- **2015-2017.** Dr. D.R. Seth Family Professor and Associate Chair, Department of Biostatistics, School of Public Health, University of Texas Health Science Center at Houston, Houston, TX.
- **2012-2015.** Founding Director, Center for Integrative Bioinformatics and Experimental Mathematics, University of Rochester School of Medicine and Dentistry, Rochester, NY.
- **2011-2015.** Appointed as Dean's Professor in recognition of my contribution in helping to shape the life of the institution in a significant way, University of Rochester School of Medicine and Dentistry, Rochester, NY.
- **2006-2011.** Co-Director, Biomedical Informatics Program, Clinical and Translational Science Institute (CTSI), University of Rochester Medical Center, Rochester, NY.
- **2005-2015.** Director, NIH-funded Center for Biodefense Immune Modeling, University of Rochester Medical Center, Rochester, NY.
- **2004-2015.** Professor, Department of Community & Preventive Medicine (Public Health Sciences), University of Rochester Medical Center, Rochester, NY.
- **2004-2015.** Professor, Department of Medicine, University of Rochester Medical Center, Rochester, NY.
- **2004-2012**. Founding Chief, Division of Biomedical Modeling and Informatics, Department of Biostatistics & Computational Biology, University of Rochester Medical Center, Rochester, NY.
- **2003-2011.** Professor of Biostatistics, Department of Biostatistics & Computational Biology, University of Rochester Medical Center, Rochester, NY.
- **2000-2003.** Adjunct Lecturer, Department of Biostatistics, Harvard University, Boston, MA.
- **2002-2003.** Principal Research Scientist, Frontier Science & Technology Research Foundation (non-profit), Chestnut Hill, MA.
- **1996-2002.** Senior Statistical Scientist, Frontier Science & Technology Research Foundation (non-profit), Chestnut Hill, MA.
- **1996-2002.** Head, Pharmacology/Dynamic Modeling Section, SDAC/AACTG, Center for Biostatistics in AIDS Research, Harvard School of Public Health, Boston, MA.
- **1994-1996.** Visiting Assistant Professor, Department of Mathematical Sciences, the University of Memphis, Memphis, TN.
- **1989-1994.** Teaching Assistant, Department of Statistics, Florida State University, Tallahassee, FL.

RESEARCH INTERESTS

- Big Health Care Data: EHR/EMR and insurance claim data
- Big Data Analytics: Complex high-dimensional data from high-throughput technologies and EHR data.
- Statistical Methods and Theories for Differential Equation Models.
- High-dimensional data analysis and inference
- Computational Systems Biology and Bioinformatics: Gene/protein network and multi-scale modeling.
- Immunological Data Analysis and Modeling: Modeling immune response to influenza and HIV infection.
- Biomathematical Modeling: Clinical trial modeling and simulations, modeling HIV RNA/cellular

dynamics, dynamic prediction of antiviral responses, and modeling AIDS epidemics.
- Clinical Trials: Clinical trial design, pharmacokinetics and pharmacodynamics (PK/PD) study and Phase I trial design and modeling.
- Longitudinal Data: Nonparametric regression methods and mixed-effects models.
- Other Statistical Methodologies: High-dimensional variable selection, Markov chain Monte Carlo (MCMC), Bayesian methods, state-space models, measurement error models, missing data, and spatial statistics.

AWARDS AND HONORS
- Best First-Year Student Award (1990), Department of Statistics, Florida State University.
- First Prize, Student Paper Awards, the 1993 Joint Statistical Meetings, San Francisco, Section on Statistics and the Environment, American Statistical Association.
- The ENAR Student Paper Award, the 1994 Spring Meetings, Cleveland, Ohio, the Eastern North American Region of the Biometrics Society (ENAR).
- Ralph A. Bradley Award (for the most outstanding Ph.D graduate), 1994, Department of Statistics, Florida State University (FSU).
- The Young Investigator Award, the 1995 Joint Statistical Meetings, Epidemiology Section, American Statistical Association.
- Young Scientist Scholarship Fund Award, 1997, International Workshop on HIV Drug Resistance, Treatment Strategies and Eradication, St. Petersburg, Florida.
- The First Independent Research Support & Transition (FIRST) Awards, 1998-2003, National Institutes of Health (NIH).
- Young Scientist Scholarship Fund Award, 1998, the 2nd International Workshop on HIV Drug Resistance and Treatment Strategies, Lake Maggiore, Italy.
- Fellow, American Statistical Association, 2008.
- The Scientific Advisory Board member, the BMGF-funded (Gate's Foundation) Vaccine Immunology Statistical Center, Fred Hutchinson Cancer Research Center, Seattle, WA, 2009-2015.
- Long-term Visitor, the Statistical and Applied Mathematical Science Institute (SAMSI), Research Triangle Park, North Carolina, Spring, 2011.
- Active Appointed Member of NIH review (eligible for Continuous Submission of grant proposals), 2014-present.
- Standing Committee Member, NIH AIDSRRC Review Section, 2016-2018.
- The ICSA 2022 President Citation, in great appreciation of his generosity, dedication and devoted effort for ICSA as the Chair of the Organizing Committee of the 2020 ICSA Applied Statistics Symposium and as the Chair of the ICSA Program Committee (2021-2022).

WORKING EXPERIENCE IN CLINICAL TRIALS
1996–2003. Senior Statistician and Section Head
Statistical and Data Analysis Center, the AIDS Clinical Trials Group (ACTG).
Center for Biostatistics in AIDS Research (CBAR), Harvard School of Public Health and
Frontier Science & Technology Research Foundation (FSTRF).
- Serving as Senior Statistician in more than 15 multi-center AIDS clinical trials developed by NIH-sponsored AIDS Clinical Trials Group (ACTG): 1) Collaborate with clinical teams to plan, design and monitor the clinical trials, and 2) analyze clinical data, prepare the final analysis reports, and draft manuscripts for publication based on the trial results.
- Serving as an executive member of Pharmacology Committee, AIDS Clinical Trials Group.
- Analyzing pharmacokinetics and pharmacodynamics data.
- Developing models for HIV dynamics and cellular kinetics in viral dynamic studies.
- Supervising a group of postdoctoral fellows and statisticians for trial design and data analysis as well as

development of related statistical methodologies.

2022-present. Serve as study statistician on two clinical trials on nonpharmaceutical treatment on pain.

TEACHING EXPERIENCE
09/2015-present. As Professor at University of Texas School of Public Health, courses developed and/or taught:
- *Communication, Collaboration and Leadership for Biostatisticians and Data Scientists*
- *Big Data in Practice*
- *Data Science Analytics Methods (I)*
- *Categorical Data Analysis*

08/2003–08/2015. As Full Professor at the University of Rochester, courses taught and developed: M.S. and Ph.D. graduate students
- *Linear Models*
- *Seminar in Statistical Literature*
- *Topics in Biostatistics: Monte Carlo Methods and Modeling of Biomedical Dynamic Systems*
- *Statistical Inference*
- *Advanced Topics in Object Data Analysis*
- *Advanced Topics in Big Data Issues in Bioinformatics and Computational Biology*

08/1994–07/1996. As Assistant Professor at the University of Memphis, courses taught for undergraduate, non-statistics major students, M.S. and Ph.D. graduate students
- *Introduction to Probability Theory*
- *Applied Probability and Queueing Theory*
- *Multivariate Statistical Methods*
- *Experimental Design*
- *Inference Theory*

09/1989–08/1994. As Teaching Assistant at the Florida State University, assisted in teaching following courses:
- *Fundamental Business Statistics, Statistics through Example, Analysis of Variance and Design of Experiments, Mathematical Statistics, Introductory Probability, Time Series and Forecasting Methods.*

SUPERVISOR FOR POSTDOCTORAL FELLOWS
1. 2018-2020, Braja Gopal Patra, Postdoctoral Fellow, Ph.D. in Computer Science and Engineering, Department of Computer Science & Engineering, Jadavpur University, Kolkata, India.
2. 2016-2018, Vahed Maroufy, Postdoctoral Fellow, Ph.D. in Statistics, Department of Statistics and Actual Science, University of Waterloo, Canada (Co-directing with Dr. Sheng Luo)
3. 2016-2017, Juan Camilo Ramirez Idarraga, Postdoctoral Fellow, Ph.D. in Computer Science, Department of Computer Science, University of Sheffield, UK.
4. 2014-2020, Nan Deng, Postdoctoral Fellow, Ph.D. in microbiology and immunology, University of Rochester School of Medicine and Dentistry (2013).
5. 2014, Jason E Pike, Postdoctoral Fellow, Ph.D. in Biochemistry, University of Rochester (2010).
6. 2013-2015, Yogeshwar D. Kelkar, Postdoctoral Fellow, Ph.D. in Integrated Biosciences Program (Bioinformatics and Genomics), Penn State University (2010).
7. 2013-2015, Fang Hu, Postdoctoral Fellow, Ph.D. in Solid Mechanics, Institute of Mechanics, Zhejiang University, China (2013).
8. 2013-2015, Carey Michelle, Postdoctoral Fellow, Ph.D. in Statistics, Department of Mathematics and Statistics, University of Limerick, Ireland (2012).
9. 2013-2014, Xiaodian Sun, Postdoctoral Fellow, Ph.D. in Bioinformatics, School of Life Sciences, Fudan University, Shanghai, China (2009).
10. 2012-2014, Leqin Wu, Postdoctoral Fellow, Ph.D. in Applied Mathematics (Nonlinear Optimization), Institute of Computational Mathematics and Scientific/Engineering Computing, Academy of Mathematics and Systems Science, Chinese Academy of Sciences (2012).

11. 2012-2013, Zhiping Liu, Postdoctoral Fellow, Ph.D. in Applied Mathematics (Operation Research and Bioinformatics), Academy of Mathematics and Systems Science, Chinese Academy of Sciences (2008).
12. 2011- 2014, Patrice Linel, Postdoctoral Fellow, Ph.D. in Applied Mathematics, Université Lyon 1, France (2011)
13. 2011-2013, Na Lv, Postdoctoral Fellow, Ph.D. in Electronic and Information Engineering, Xi'an Jiaotong University, China (2009).
14. 2011-2012, Jinhai Chen, Postdoctoral Fellow, Ph.D. in Applied Mathematics, Hong Kong Polytechnic University (2009).
15. 2010-2012, Shuang Wu, Postdoctoral Fellow, Ph.D. in Statistics (2010), Department of Statistics, University of California, Davis, CA.
16. 2010-2011, Tendai Mugwagwa, Postdoctoral Fellow, Ph.D. in Theoretical Biology (2010), Utrecht University, The Netherlands.
17. 2009-2010, Shenghua Li, Postdoctoral Fellow, Ph.D. in Genetics, Bioinformatics and Computational Biology (2008), Virginia Tech. Blacksburg, VA.
18. 2009-2011, Wei Gu, Postdoctoral Fellow, Ph.D. in Mathematics, School of Huazhong University of Science and Technology, HuBei, P.R. China.
19. 2008–2010, Arun Kumar, Postdoctoral Fellow, Ph.D. in Statistics (2008), The Ohio State University, Columbus, Ohio.
20. 2008–2010, Yeonok Lee, Postdoctoral Fellow, Ph.D. in Statistics (2008), The University of Iowa, Iowa City, IA.
21. 2008–2010, Kaja Abbas, Postdoctoral Fellow, Ph.D. in Computer Science (2006), University of North Texas, Denton, TX.
22. 2007–2010, Hongqi Xue, Postdoctoral Fellow, Ph.D. in Mathematical Statistics (1999), Institute of Systems Science of Chinese Academy of Sciences, Beijing, P.R. China.
23. 2006–2007, Hongyu Miao, Postdoctoral Fellow, Ph.D. in Mechanic Engineering (2006), University of Rochester, Rochester, NY.
24. 2006-2007, Sun Yong Park, Postdoctoral Fellow, Ph.D. in Physics (1999), Seoul National University, Seoul, Korea.
25. 2004-2005, Xiaoguang Chang, Postdoctoral Fellow, Ph.D. in Computer Engineering (2001), Department of Computer Science and Technology, Tsinghua University, Beijing, P.R. China.
26. 2003–2005, Dacheng Liu, Postdoctoral Fellow, Ph.D in Statistics (2003), the Florida State University, FL.
27. 2002–2007, Jianwei Chen, Postdoctoral Fellow, Ph.D. in Statistics (1999), The Chinese University of Hong Kong, Hong Kong, China.
28. 2002–2006, Haihong Zhu, Postdoctoral Fellow, Ph.D. in Statistics (2002), University of Minnesota, MN.
29. 2001–2003, Jeong-Gun Park, Postdoctoral Fellow, Ph.D. in Statistics (2000), University of Georgia, GA.
30. 2001–2003, Yangxin Huang, Postdoctoral Fellow, Ph.D. in Statistics (1999), Liverpool John Moores University, UK.
31. 2001–2003, Haihong Li, Postdoctoral Fellow, Ph.D. in Statistics (2001), Pennsylvania State University, PA.
32. 2000–2002, Hua Liang, Postdoctoral Fellow, Ph.D. in Statistics (2001), Texas A&M University, TX.
33. 1999–2000, Jin-Ting Zhang, Postdoctoral Fellow, Ph.D. in Statistics (1999), University of North Carolina at Chapel Hill, NC.
34. 1998–2000, Lang Wu, Postdoctoral Fellow, Ph.D. in Statistics (1998), University of Washington. Co-advisor: Prof. DeGruttola (Harvard Biostatistics Department).

SERVED AS STUDENT ADVISOR OR COMMITTEE MEMBER
As dissertation supervisor for PhD students
- 2018-2023, Chenguang Zhang, PhD student, Department of Biostatistics and Data Science, UTHealth Houston School of Public Health. <u>Dissertation:</u> Missing Data Methods for Electronic Health Records (EHR) Data.
- 2018-2022, Gen Zhu, PhD student, Department of Biostatistics and Data Science, UTHealth School of Public

Health. <u>Dissertation:</u> Machine Learning and Statistical Modeling for Electronic Health Records (EHR) Data. Co-supervised with Dr. Xi Luo.

- 2018-2022, Xueying Wang, PhD student, Department of Biostatistics and Data Science, UTHealth School of Public Health. <u>Dissertation:</u> Bias-Corrected Machine Learning Methods for Risk Predictions Using EHR Data with Censoring

- 2016-2021, Duo Yu, PhD student, Department of Biostatistics and Data Science, School of Public Health, University of Texas Health Science Center at Houston. <u>Dissertation:</u> Interpretable machine learning and ODE-powered deep learning for clinical outcome predictions with Applications to EHR.

- 2010-2013, Iris Chen, Ph.D. student, Department of Biostatistics and Computational Biology, University of Rochester School of Medicine and Dentistry. <u>Dissertation</u>: State Space Models and Differential Equations for Dynamic Gene Regulatory Network Identification.

- 2009-2011, Tao Lu, Ph.D. student, Department of Biostatistics and Computational Biology, University of Rochester School of Medicine and Dentistry. <u>Dissertation</u>: ODE Based Statistical Models for Dynamic Gene Regulatory Network Identification.

As thesis supervisor for MS students

- 2022-2023, Saipranathi Gunda, MS student, Department of Biostatistics and Data Science, UTHealth School of Public Health. <u>Thesis:</u> Risk Factors after Acute Ischemic Stroke.

- 2021-2022, Qinyi Hu, MS student, Department of Biostatistics and Data Science, UTHealth School of Public Health. <u>Thesis:</u> Prediction of Hospital Readmission in Heart Failure Patients: A Data-driven Analysis.

- 2021-2022, Junwei Lu, MS student, Department of Biostatistics and Data Science, UTHealth School of Public Health. <u>Thesis:</u> Identification of Potential Risk Factors of Hospitalization for Heart Failure Patients with Hypertension based on a Nationwide EHR Database.

- 2021, Yushu Wang, MS student, Department of Biostatistics and Data Science, School of Public Health, University of Texas Health Science Center at Houston. <u>Thesis:</u> Statistical methods for risk factor analyses of T2DM symptoms based on a nationwide EHR database: A nested case-control.

- 1999–2000, Ya-qi Li, MPH student, University of Massachusetts Medical Center. Thesis advisor. <u>Thesis:</u> Evaluation of anti-HIV therapies in a pediatric AIDS clinical trial by modeling viral dynamics.

As academic advisor or committee chair for PhD and MS students

2023-present, Yueming Kou, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth-Houston School of Public Health

2023-present, Zhongya (Sonia) Nguyen, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth-Houston School of Public Health

2023-present, Catherine O. Balogun, MS student academic advisor, Department of Biostatistics and Data Science, UTHealth-Houston School of Public Health

2022-present, Tianheng Zhang, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-present, Ziqi Liu, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-present, Jingru Zhou, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-2023, Zeyu Miao, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-present, Manqi Li, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-2024, Kyung Serk Cho, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022, Chengxue Zhong, PhD student academic advisor and dissertation committee chair, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022, Han Feng, PhD student academic advisor and dissertation committee chair, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-present, Feng Wang, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-2023, Pengwei Zhu, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2022-present, Qian Qian, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2021-present, Wanqi Chen, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2021-present, Bo Zhang, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2021-2023, Runze Li, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2021-2023, Rebecca Schaefer, MS student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2021-present, Yanwen Zhai, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2020-2023, Jeanette Deason, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2019-2022, Tia Sara Lai, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2019-2022, Katherine Wall, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2019-present, Zitong Zhang, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2019-present, Xun Xu, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2018-present, Yuxuan Gu, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2018-present, Yashar Talebi, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2018-2023, Chenguang Zhang, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2018-2022, Gen Zhu, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2018-2022, Xueying Wang, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2018-2020, Hong Thoai Nga Tran, MS student academic advisor and thesis committee chair, Department of Biostatistics and Data Science, UTHealth School of Public Health

2017-present, Babak Soltanalizadeh, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2017-2019 Ngoc Quynh Hoang Nguyen, MS student academic advisor and thesis committee chair, Department of Biostatistics and Data Science, UTHealth School of Public Health

2016-2021, Duo Yu, PhD student academic advisor, Department of Biostatistics and Data Science, UTHealth School of Public Health

2016-2019 Xuehan Ren, PhD student academic advisor and dissertation committee chair, Department of Biostatistics and Data Science, UTHealth School of Public Health

2016-2018 Jun Zhang, PhD student academic advisor and dissertation committee chair, Department of Biostatistics and Data Science, UTHealth School of Public Health

2016-2018 Kan Li, PhD student academic advisor and dissertation committee chair, Department of

Biostatistics and Data Science, UTHealth School of Public Health

As a committee member for graduate students
  2023- PhD student committee member, Mathew Roth, Department of Epidemiology, UTHealth Houston School of Public Health
  2022. PhD student committee member (external reviewer), Jie Zhu, Department of Biostatistics and Data Science, UTHealth School of Public Health.
  2022, PhD student committee member, Pankil K. Shah, Department of Epidemiology, Human Genetics & Environmental Sciences, UTHealth School of Public Health
  2016, PhD student defense committee member, Xiao Su, Department of Biostatistics, UTHealth School of Public Health
  2013, PhD student qualifying exam (thesis proposal) committee chair, Hui Yang, Department of Biostatistics and Computational Biology, University of Rochester. Thesis title "Model Selection and Model Averaging for Longitudinal Data."
  2013, PhD student defense committee for Yan Zeng, Department of Mathematics, University of Rochester. Thesis title "Blow-up Results for Stochastic Heat Equations."
  2012, MPH student committee for Kaja M. Abbas, Department of Public Health Sciences, University of Rochester School of Medicine and Dentistry. Thesis title "System science modeling of epidemiological outcomes of latent tuberculosis treatment policy for India in the era of tuberculosis drug resistance."

HOSTED AND SUPPORTED VISITING SCHOLARS AND EXCHANGE STUDENTS
  2023 Aug-Oct, Catherine Higgins, Visiting PhD student, Department of Mathematics and Statistics, University College Dublin, Dublin, Ireland.
  2019 Jan-Dec, Xiaoli Zhang, Ph.D., visiting scholar, Associate Professor, Medical Department of Xi Diao Yu Tai Hospital, Beijing, China.
  2018-2019, Qinling Yan, Exchange PhD student, School of Mathematics and Information Science, Shaanxi Normal University, Xi'an, China.
  2017 Fall, Gen Zhu, Exchange MS student, Department of Statistics, East China Normal University, Shanghai, China.
  2016 July-Nov, Dr. Yangxin Huang, Professor, Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida.
  2015-2016, Dr. Jie Zhou, Associate Professor, School of mathematics and Statistics, Xidian University, Xi'an, Shaanxi, China.
  2014 Xia Wang, Exchange PhD student from Department of Applied Mathematics, Xi'an Jiaotong University, China.
  2012 summer, Dr. Sanyi Tang, Professor, College of Mathematics and Information Science, Shaanxi Normal University, China.
  2012 summer, Dr. Yanni Xiao, Department of Applied Mathematics, Xi'an Jiaotong University, China.
  2012 summer, Dr. Adam A. Ding, Associate Professor, Northeastern University, Boston, MA.
  2012 February, Dr. Ya-xiang Yuan, Professor and Elected Fellow, Chinese Academy of Sciences, Beijing, China.
  2011-2012, Dr. Anna Liu, Associate Professor from Department of Mathematics and Statistics, University of Massachusetts Amherst, Amherst, MA.
  2010 September, Dr. Adam A. Ding, Associate Professor, Northeastern University, Boston, MA
  2009-2010, Dr. Wei Gu, Lecturer, Information School, Zhongnan University of Economic and Law, Wuhan, China.
  2007–2010, Yun Fang, Visiting Ph.D. student in Statistics from East China Normal University, Shanghai, P.R. China.
  2004-2005, Jin-Ting Zhang, Assistant Professor, National University of Singapore, Singapore.
  2001 Summer, Dacheng Liu, Internship Ph.D. Student, Department of Statistics, Florida State University, FL.
  2001 Summer, Dr. Zongwu Cai, Associate Professor, UNC at Charlotte, NC.

1997–2000 (part-time), Dr. Adam A. Ding, Associate Professor, Northeastern University, Boston, MA
1998 and 2001 Summers, Fall semester 2002, Dr. Yanqing Sun, Associate Professor, University of North Carolina (UNC) at Charlotte, NC.
1998 Summer, Dr. Samuel S. Wu, Assistant Professor, University of Florida, FL.

SERVED IN UNIVERSITY AND DEPARTMENT COMMITTEES

- 2013, chaired an education committee and developed a new PhD concentration in bioinformatics and computational biology, and 9 new courses (syllabus) were developed.
- 2013-2014: Served on the student admission committee.
- 2015-present: chair a Big Data Working Group at the Department of Biostatistics, School of Public Health, University of Texas Health Science Center at Houston.
- 2016, The faculty search committee member, Department of Biostatistics, School of Public Health, University of Texas Health Science Center at Houston.
- 2017-present, Member, School of Public Health Executive Committee (SPHEC), University of Texas Health Science Center at Houston.
- 2018-present, Member, IT Faculty Advisory Committee, School of Public Health, University of Texas Health Science Center at Houston.
- 2021-2023, Member, Faculty Search Committee for health policy-related simulation modeling, School of Public Health, University of Texas Health Science Center at Houston.
- 2021-2022, PI of the IRB for the project, HSC-SN-19-0469 - Self-Administered Transcranial Direct Current Stimulation for Pain in Older Adults with Knee Osteoarthritis: A Phase II Randomized Sham-Controlled Trial.
- 2021-2022, PI of the IRB for the project, HSC-SN-20-0640-Home-based Transcranial Direct Current Stimulation for Pain Management in Persons with Alzheimer's Disease and Related Dementias.
- 2021-2022, PI of the IRB for the project, HSC-SN-19-1050 - Combination Therapy of Home-based Transcranial Direct Current Stimulation and Mindfulness-based Meditation for Self-management of Clinical Pain and Symptoms in Older Adults with Knee Osteoarthritis
- 2024-present, Member, the University AI Advisory Council, UTHealth Houston

INDUSTRY CONSULTING

- 2011, Analytica International, Inc., 24 West 40th Street, 8th Floor, New York, NY 10018.
- 2016, Sidley Austin LLP, 787 Seventh Avenue, New York, NY 10019.
- 2017-2018, Boehringer Ingelheim Pharmaceuticals, Inc., 900 Ridgebury Road, P.O. Box 368, Ridgefield, CT 06877-0368

ACADEMIC SERVICES: EVALUATION AND REVIEW FOR FACULTY PROMOTION

- Department of Mathematics, University of North Carolina at Charlotte, Promotion to Full Professor, 2004
- Division of Epidemiology, Statistics & Prevention Research, NICHD/NIH, Tenure promotion, 2006
- Department of Community and Preventive Medicine, University of Rochester Medical Center, Promotion to Associate Professor, 2006
- Department of Mathematics and Statistics, Mississippi State University, Promotion to Associate Professor with tenure, 2006
- Department of Statistics, Iowa State University, Promotion to Associate Professor with tenure, 2006
- Department of Microbiology, University of Washington, Promotion to Associate Professor with tenure, 2006
- Department of Medicine, University of Rochester Medical Center, Promotion to Full Professor, 2007
- Department of Medicine, University of Rochester Medical Center, Promotion to Associate Professor, 2007
- Department of Communication, State University of New York at Geneseo, Promotion to Associate Professor with tenure, 2007

- Department of Medicine, University of Rochester Medical Center, Promotion to Full Professor, 2008
- Center for Vaccine Biology & Immunology, Department of Microbiology & Immunology, University of Rochester Medical Center, Promotion to Associate Professor with tenure, 2008 and Promotion to full professor, 2010
- Department of Biostatistics and Epidemiology, University of Pennsylvania, Promotion to Full Professor, 2009 and ASA Fellow recommendation, 2010
- Semel Institute of Neuroscience & Human Behavior, University of California Los Angeles, Promotion to Senior Full Professor, 2010
- Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Promotion to Associate Member, 2010
- Department of Statistics, Virginia Tech, Promotion to Associate Professor with tenure, 2011
- Department of Mathematics, Texas State University at San Marcos, Promotion to Associate Professor with tenure, 2011
- Department of Biological Statistics and Computational Biology, Cornell University, Promotion to Associate Professor with tenure, 2011
- Department of Mathematics and Statistics, Georgia State University, Promotion to Associate Professor with tenure, 2012
- Department of Medicine, University of Rochester Medical Center, Promotion to Full Professor, 2012
- Department of Statistics and Applied Probability, University of California, Santa Barbara, Promotion to Professor Step VI, 2012
- Department of Mathematics, Hong Kong Baptist University, Hong Kong, China, Promotion to Associate Professor with tenure, 2012
- Department of Statistics, University of Georgia, Promotion to Full Profession, 2014
- Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Promotion to Full Member, 2014
- Department of Biostatistics, School of Public Health, Indiana University-Purdue University Indianapolis, Promotion to Associate Professor with Tenure, 2015.
- Department of Mathematics and Statistics, Boston University, Promotion to Associate Professor with Tenure, 2015.
- Department of Mathematics, Texas State University, Promotion to Associate Professor with tenure, 2016.
- College of Arts & Science, Georgia State University, Promotion to Associate Professor with tenure, 2018.
- Department of Obstetrics and Gynecology, University of South Florida, Promotion to Associate Professor, 2018
- Department of Public Health Sciences, University of Miami Miller School of Medicine, Promotion to Full Professor, 2019.
- Department of Molecular Biomedical Sciences, College of Veterinary Medicine, North Carolina State University, Tenure promotion, 2019.
- Department of Statistics, Virginia Tech, Full Professor Promotion, 2022.
- Duke University School of Medicine, Promotion to a named professor, 2022.
- Department of Preventive Medicine, College of Medicine, The University of Tennessee Health Science Center, Promotion to Associate Professor with Tenure, 2022.
- School of Public Health and Tropical Medicine, Tulane University, Full Professor Promotion, 2022.
- Nomination of ASA fellow, Dr. Samuel S. Wu, Professor of Biostatistics, University of Florida, FL, 2023
- Nomination of ASA fellow, Dr. Hui Zhang, Professor, Division of Biostatistics, Department of Preventive Medicine, Northwestern University Feinberg School of Medicine, 2023.
- Department of Population Medicine, Harvard Medical School, Promotion to Full Professor, 2023.
- Department of Pediatric, McGovern Medical School, University of Texas Health Science Center at Houston, Promotion to Full Professor and Associate Professor with tenure, 2023.

- Reviewer for advancement to Professor Above Scale in the Department of Statistics and Applied Probability at the University of California Santa Barbara, 2024.

SERVICES FOR ACADEMIC JOURNALS

Associate Editor, *Biometrics*, Journal of the International Biometric Society,
 July 1, 2006-2018.
Associate Editor, BMC Medical Research Methodology
 November, 2011-present
Guest Associate Editor, PLOS Computational Biology
 2014
Editorial Board Member, Infectious Disease Modelling
 2016-present
Editorial Board Member, Statistical Communications in Infectious Diseases
 2016-present
Guest Editor, Special Issue on Big Data, Infectious Disease Modelling, 2020-present
Topic Editor, EHR Data Analytics and Knowledge Discovery, Frontiers in Big Data, 2020-present
Editorial Board Member, Statistics in Biosciences, 2021-present

Referee for the following journals:
Statistical Journals
 Annals of Statistics, 2002, 2022
 Annals of Applied Statistics, 2009, 2021, 2022
 Australian & New Zealand Journal of Statistics, 2003.
 Biometrics, 1998, 2002, 2004, 2006, 2009, 2011, 2011
 Biometrika, 2009, 2009, 2011, 2011
 Biostatistics, 2004, 2005, 2005.
 Communications in Statistics, Theory and Methods, 1996.
 Electronic Journal of Statistics, 2014
 Journal of Agricultural, Biological and Environmental Statistics, 2001.
 Journal of Applied Statistics, 2015
 Journal of the American Statistical Association, 2005, 2007, 2008, 2009, 2009, 2010, 2014, 2018, 2019, 2020, 2022
 Journal of Royal Statistical Society, Series B, 2004, 2004, 2005, 2007, 2009, 2012
 Journal of Statistical Planning and Inference, 1995, 2002.
 Scan. J. Statist., 2005, 2006, 2006.
 Statistical Communications in Infectious Diseases, 2020
 Statistics and Its Interface, 2008.
 Statistics in Medicine, 2000, 2002, 2006, 2006, 2007, 2007, 2008, 2010, 2021

 Biomathematical, Biocomputing, Bioinformatics and Bioengineering Journals
 Automatica, 2008
 Biophysical Journal, 2009
 BMC Bioinformatics, 2016, 2023
 BMC Systems Biology, 2008, 2013
 Bulletin of Mathematical Biology, 2006, 2007
 Computers in Biology and Medicine, 2020
 IEEE Transactions on Biomedical Engineering, 2003, 2006.
 IET Systems Biology, 2007
 Infectious Disease Modelling, 2016, 2017, 2020, 2020, 2020, 2020, 2020, 2021, 2023
 International Journal of Machine Learning and Cybernetics, 2012

Inverse Problem, 2005.
Journal of Computational and Applied Mathematics, 2023
Journal of Computational Biology, 2003.
Journal of Theoretical Biology, 2002, 2003, 2005, 2005, 2006, 2007, 2007
Journal of Mathematical Biology, 2008, 2009
Mathematical Biosciences, 2015
Mathematical Problems in Engineering, 2010
PLoS Computational Biology, 2006, 2011, 2012, 2020

Biomedical Journals
AIDS, 1998.
American Journal of Epidemiology, 2007
American Journal of Infection Control, 2009
Annals of Clinical and Translational Neurology, 2021, 2022
Antiviral Therapy, 2009
BMC Medical Genomics, 2010
Communications Medicine, 2022
Expert Review of Clinical Pharmacology, 2014
F1000Research, 2018
Frontiers in Pharmacology, 2024
HIV Clinical Trials, 2005
Interface of the Royal Society: Physical and Life Sciences, 2005
Journal of AIDS and Human Retrovirology, 1997.
Journal of the American Association of Pharmaceutical Scientists, 2010
JAMA, 2011
Journal of Immunology, 2008
Journal of Infectious Diseases, 2003, 2003, 2004, 2007, 2015
Journal of the Royal Society Interface, 2009, 2011, 2014
Journal of Virology, 2010
Nature Communication, 2017, 2018
Nature Immunology, 2008
PNAS, 2011
Proceedings of the Royal Society B: Biological Sciences, 2005
PLoS ONE, 2010, 2012, 2018, 2021
Science Translational Medicine, 2014
Vaccine, 2010

SERVE AS A REVIEWER FOR RESEARCH GRANTS
- Grant proposal review for the MONTS grant office, Montana State University, 1996
- Grant proposal review for Developmental Grants Program, Center for AIDS Research (CFAR), University of Washington, 2000.
- Grant proposal review for Dutch AIDS Fund, Amsterdam, Netherlands, 2001.
- Grant Reviewer, AIDS and Related Research, Center for Scientific Review, National Institutes of Health (NIH), 2001 and 2002.
- Review Member, Special Emphasis Panel, Center for Scientific Review, National Institutes of Health (NIH), 2001 and 2002.
- Consultant, Endocrinology Study Section, Center for Scientific Review, National Institutes of Health (NIH), 2003.
- Grant reviewer, AIDS Immunology and Pathogenesis Study Section, Center for Scientific Review, National Institutes of Health (NIH), 2003.

- Consultant, the Biocomputational Panel of the Information Technology Research Program, the National Science Foundation (NSF), 2003.
- Center Grant Reviewer, National Institute on Drug Abuse, National Institutes of Health (NIH), 2005.
- Grant proposal review for the section of Drug Discovery and Mechanisms of Antimicrobial Resistance, National Institutes of Health (NIH), 2005.
- Grant reviewer, NIAID Special Emphasis Panel for RFA-AI-05-014 "International Epidemiological Databases to Evaluate AIDS", National Institutes of Health (NIH), 2005.
- Reviewer for Individual Research Grant (IRG) for National Medical Research Council, Singapore, 2006.
- Reviewer, NIAID/NIH Program Project Grant (P01) Application for HIV Transmission, National Institutes of Health (NIH), 2006.
- Reviewer, The Research Award Program, The City University of New York, 2007.
- Ad Hoc Grant Reviewer, Biostatistical Methods and Research Design Study Section (BMRD), NIH, 2007.
- Review Panelist, NSF-DMS/NIH-NIGMS Panel for Biomathematical Program, the National Science Foundation (NSF), 2007.
- Review Panelist, NIAID/NIH PO1 program grant review, 2008.
- Reviewer, Developmental grant proposal for the Center for AIDS Research (CFAR), University of California, San Diego, 2008.
- Reviewer, NSF Electronic Proposal Review, 2008.
- Review Panelist, Methods for Prevention Packages Program (MP3), NIAID/NIH, 2009.
- Selection Committee, the American Medical Association (AMA) Foundation's 2009 Seed Grant Research Program, 2009.
- Challenge Grants Reviewer, NIAID/NIH, 2009.
- Review panelist, Program grants on Interdisciplinary Research on Oral Manifestations of HIV/AIDS in Vulnerable Populations, NIH, 2009.
- Grant Reviewer, Natural Sciences and Engineering Research Council of Canada, 2009.
- Scientific Reviewer, Wound Infection and Healing Panel, US Army Medical Research and Materiel Command (USAMRMC), Department of Defense (DOD), SRA International, Inc., 2010.
- Review Panelist, Methods for Prevention Packages Program (MP3), NIAID/NIH, 2010.
- Review Panelist, Special Emphasis Panel (SEP): Scientific Models to Improve Heath, NIH, 2010.
- Review Panelist, NIAID Special Emphasis Panel for program "International Epidemiological Databases to Evaluate AIDS", National Institutes of Health (NIH), 2011.
- Reviewer, HIV/AIDS clinical trial planning (R34) and implementation (U01) grant applications, NIAID/NIH, 2011.
- Mail Reviewer, the Vaccines Against Microbial Diseases (VMD) Study Section, Center for Scientific Review, NIH, 2011.
- Mail Reviewer, the Biostatistical Methods and Research Design (BMRD) Study Section, Center for Scientific Review, NIH, 2011.
- Review panelist, NIAID Special Emphasis Panel for Centers for AIDS Research (CFAR) and Developmental Centers for AIDS Research (D-CFAR), NIH, 2011.
- Review panelist, National Institute of Dental and Craniofacial Research (NIDCR) Small Research Grants for Data Analysis and Statistical Methodology (R03), NIH, 2011.
- Review panelist, NIH/PEPFAR Collaboration for Implementation Science and Impact Evaluation, NIAID/NIH, 2011.
- Grant Reviewer, Natural Sciences and Engineering Research Council of Canada, 2012.
- Special review panelist: Center for HIV/AIDS Vaccine Immunology and Immunogen Discovery (CHAVI-ID), NIH/NIAID, 2012.
- Mail reviewer, BIGDATA program, the National Science Foundation (NSF), 2012.
- Special emphasis panelist: AIDS and AIDS Related Research (ZRG1 AARR-K), NIH, 2013.
- Special emphasis panelist: ZAI1-BP-A-S1, Leadership Group for a Clinical Research Network on

HIV/AIDS and HIV-associated Infections in Pediatric and Maternal Populations (UM1), NIAID/NIH, 2013.

- Grant reviewer, Medical Research Council, United Kingdom, 2013.
- Special emphasis panelist: ZGM1 BBCB-5, Models of Infectious Disease Agent Study (MIDAS), National Institute of General Medical Sciences, NIH, 2013.
- Special emphasis panelist: ZRG1 AARR-K, AIDS and AIDS Related Research (AARR), NIH, 2014.
- Grant reviewer, MITACS, a non-profit funding organization, Canada, 2014.
- Grant reviewer, HIV/AIDS Vaccines Study Section, NIH, 2014.
- Grant reviewer, AIDS Research Review Committee, NIAID/NIH, 2014.
- Mail reviewer, NIH Director's Early Independence Award (DP5), NIH, 2014.
- Grant reviewer, Wellcome Trust postdoctoral fellowship grant, Wellcome Trust, UK, 2014.
- Reviewer, INRIA Project-Team Proposal, Institut de Mathematiques de Bordeaux, France, 2014.
- Grant reviewer, Immunity and Host Defense (IHD) Study Section, NIH, 2014.
- Review panelist, NIH/NIAID Special Emphasis Panel for Center for AIDS Research (CFAR), 2014.
- Review panelist, NIH Special Emphasis Panel for the U.S.-China Program for Research Toward a Cure for HIV/AIDS (ZRG1 AAR-M), March 24, 2015.
- Grant reviewer, Action Medical Research, UK, April, 2015.
- NIH NIAID P01 review panel, September 28, 2015.
- NIH ACE Review Section, November 9-10, 2015.
- NIH/NIAID Special Emphasis Panelist, Consortia for Innovative AIDS Research in Nonhuman Primates, December 14-15, 2015.
- NIH IRAP grant review panelist, February 11-12, 2016.
- NSF Statistical Program Grant Review Panelist, February 16-17, 2016.
- Participated in two review sessions as the Standing Committee Member, NIH AIDSRRC Review Section, 2016.
- Review panelist, NIH/NIDDK Kidney Precision Medicine Program (ZDK1 GRB-3 M11), March 14-15, 2017.
- Participated in the review session as the Standing Committee Member, NIH AIDSRRC Review Section, 2017.
- Mail reviewer, Neuroendocrinology, Neuroimmunology, Rhythms and Sleep Study Section, NIH, September, 2017.
- Review Panelist, Special Emphasis Panel, High Impact, Interdisciplinary Science in NIDDK Research Areas (RC2), NIH, March 20, 2018.
- Review Panelist, NIAID Research Education Program (R25), NIH, April 12, 2018
- Participated in one review sessions as the Standing Committee Member, NIH AIDSRRC Review Section, 2018.
- Review panelist, Special Emphasis Panel, MIDAS U24 Coordination Center Review, NIH/NIGMS, October 19, 2018.
- Ad Hoc Reviewer, Population and Public Health Approaches to HIV/AIDS (PPAH) Study Section, NIH, November 8-9, 2018.
- Grant reviewer, Israel Science Foundation, February, 2019.
- Review Panelist, Molecular Atlas of Lung Development Program (LungMAP), NIH/NHLBI, April 3, 2019.
- Grant reviewer, The Chronic Renal Insufficiency Cohort (CRIC) Opportunity Pool Program, September-October, 2019.
- Reviewer, Population and Public Health Approaches to HIV/AIDS (PPAH) Study Section, NIH, November 14-15, 2019.
- Review panelist, Special Emphasis Panel, CEIRR Influenza Data Processing and Communication Center (N01), NIAID/NIH. July, 2020.
- Special Emphasis Panel, NIH/NIAID Emergency Awards: Rapid Investigation of Severe Acute

Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and Coronavirus Disease 2019 (COVID-19), August 26, 2020.

- Special Emphasis Panel, NIH/NIAID Emergency Awards: Rapid Investigation of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and Coronavirus Disease 2019 (COVID-19), October 28, 2020.
- Reviewer, NIH PASC OTA Applications, April 12, 2021.
- Reviewer, NIH/NIAID Special Emphasis Panel (ZAI1 BLG-W), Notice of Special Interest (NOSI) on Pan-Coronavirus Vaccine Development Program Projects, October 6-8, 2021.
- Grant reviewer, Israel Science Foundation, Israel, January, 2022.
- Grant reviewer, Population and Public Health Approaches to HIV/AIDS (PPAH) Study Section, NIH, November 14-15, 2022.
- Grant reviewer, NIH Special Emphasis Panel ZRG1 SCIL-A (03), December 7, 2023.
- Member, NIH/NIAID SBIR Contract, PHS2024-01, Technical Evaluation Committee for Phase I: *Software or Web Services to Automate Metadata Enrichment and Standardization for Data on Infectious and Immune – Mediated Diseases (Topic 135)*. February 21. 2024.
- Reviewer of grant proposals, The Netherlands Organisation for Health Research and Development, The Netherlands, March 20, 2024.
- Reviewer, Texas Biomed IN-TRAC Small Project Pilot Grants, Texas Biomedical Research Institute, August 21, 2024.

RESEARCH GRANTS (As Principal Investigator or Co-Principal Investigator)

1. **Principal Investigator:** NIH Grant R29 AI 43220, "Models and Inferential Tools for HIV-1 Dynamics in Vivo," funded (FIRST Award) with a budget of $350,000 (direct cost) by the National Institute of Allergy and Infectious Diseases/NIH, 1998–2003.

2. **Principal Investigator:** NIH Grant R01 AI 45356, "Modeling Cellular Kinetics in Treated HIV Patients," funded with a budget of $652,605 (direct cost) by the National Institute of Allergy and Infectious Diseases/NIH, 1999–2003.

3. **Principal Investigator:** NIH Grant R01 AI 52765, "Nonparametrical Modeling of Long-Term HIV/Cell Dynamics," funded with a budget of $900,000 (direct cost) by the National Institute of Allergy and Infectious Diseases/NIH, 2002-2006.

4. **Principal Investigator:** NIH Grant R01 AI 055290, "AIDS Clinical Trial Modeling and Simulations," funded with a budget of $1,250,000 (direct cost) by the National Institute of Allergy and Infectious Diseases/NIH, 2003-2008.

5. **Principal Investigator:** NIH Grant N01 AI 50020, "Center for Biodefense Immune Modeling," (Co-PI: Martin Zand, M.D./Ph.D.) funded with a budget of $9,925,674 (total cost) by the National Institute of Allergy and Infectious Diseases/NIH, 2005-2010.

6. **Co-Principal Investigator (Contact-PI):** NIH Grant N01 AI 50020 (HHSN272201000055C), "Center for Biodefense Immune Modeling," (Co-PI: Martin Zand, M.D./Ph.D.) funded with a budget of $11.9 million (total cost) by the National Institute of Allergy and Infectious Diseases/NIH (5-year renewal), 2010-2015.

7. **Co-Principal Investigator:** Novel Methodology CTSI grant, "Development of Objective Gating Methods for High-Dimensional Flow Cytometry Data for Translational Research," (Co-PI: Tim Mosmann, Ph.D.), funded with a budget of $90,000 (direct cost) by the University of Rochester CTSI, 2008-2009.

8. **Principal Investigator:** NIH Subcontract, R21 AI078842, "Analysis of Differential Resistance Emergence Risk for Differential Treatment Applications," (PI at University of Delaware: Ryan M. Zurakowski), funded with a budget of $98,503 (total cost) by NIAID/NIH, 2009-2011.

9. **Principal Investigator:** Multidisciplinary Pilot Award, University of Rochester Developmental Center for

AIDS Research (D-CFAR), "Meta-Population Model of HIV/TB Co-Epidemics in a Cape Town Community," funded with a budget of $20,000 (direct cost) by NIAID/NIH, 2009-2010.

10. **Principal Investigator:** NIH Grant R01 AI087135, "Estimation Methods for Nonlinear ODE Models in AIDS Research," funded with a budget of $1,383,254 (total cost) by NIAID/NIH, 2010-2014.

11. **Principal Investigator:** Novel Methodology CTSI grant, "Development of Statistical Methods and Bioinformatics Tools for Modeling Dynamic Gene Regulatory Networks for Translational Research – A Systems Biology Approach," funded with a budget of $52,445 (total cost) for two years by the University of Rochester CTSI, 2010-2012.

12. **Co-Principal Investigator:** NIH Institutional Research Training Grant, 5T32 AI083206, "Training in Biostatistics for HIV/AIDS," (Co-PI: Hua Liang, Ph.D.), funded with a total budget $1,496,205 for 5 years, 2010-2015.

13. **Principal Investigator:** Administrative Supplements (for U.S. - China Biomedical Collaborative Research on Cancer, Allergy, Immunology, and Infectious Diseases including HIV/AIDS and its Co-morbidities) to the NIH Grant RO1 AI087135, "Estimation Methods for Nonlinear ODE Models in AIDS Research," funded with a budget of $78,152 (total cost) by NIAID/NIH, 2011-2012.

14. **Principal Investigator:** NIH Subcontract, R21 AI110288, "HIV 2LTR Dynamics and Cryptic Viremia," (PI at University of Delaware: Ryan M. Zurakowski), funded with a budget of $32,340 (total cost) by NIAID/NIH, 2014-2016.

15. **Principal Investigator:** NIH Grant 2 R01 AI087135-05 (renewed), "Statistical Methods for ODE Models in AIDS Research," funded with a budget of $1,718,851 (total cost) by NIAID/NIH, 5/08/2015-04/30/2020.

16. **Contact Co-PI:** NIH D-CFAR Supplement Award, **"**Integrated Data Science and Implementation Science Participatory Planning to End the HIV Epidemic," funded by a budget of $327,742 (total cost) by NIAID/NIH, 2022-2024 (including one year no-cost extension).

17. **Principal Investigator** (transferred from Dr. Hongjian Zhu in Oct, 2022): NSF 2014951, "Semiparametric Adaptive Designs and Statistical Inference for Both the Mean and the Quantiles," funded with a total budget of $100,000 (total cost) by NSF, 09/01/2020-08/31/2023.

18. **Multiple-PIs** (with Jennifer Kawi from Cizik School of Nursing and Jane Bolin from Texas A&M University): NIH/NCCIH UG3/UH3 AT012728, "Personalized Auricular Point Acupressure for Chronic Pain Self-Management in Rural Populations" with a total budget of $6,837,970 for 09/04/2024-08/31/2029.

RESEARCH GRANTS (As Core Director for Center or Program Grants)

1. **Co-Director,** NIH Grant UL1 RR024160, "The Biomedical Informatics (BI) Key Function, the University of Rochester's Clinical and Translational Science Institute (CTSI)," (Co-Directors: Drs. David Krusch and Dongwen Wang), the BI Key Function is funded with a budget of $1,482,520 (direct cost) by the NIH/NCRR, 2006-2011.

2. **Director,** the Biomathematics/Biostatistics/Bioinformatics Core and the Steering Committee Member, P30AI078498, "Developmental-Center for AIDS Research (D-CFAR)", (Co-PIs: Drs. Stephen Dewhurst and Michael Keefer), funded by the National Institute of Allergy and Infectious Diseases/NIH, 2008–2013.

3. **Director,** Data Management, Biostatistics and Bioinformatics (DMBB) Core, HHSN266200700008C, "the New York Influenza Center of Excellence (NYICE)", Co-PIs: Drs. John Treanor and David Topham, funded by NIAID/NIH, 2007-2015.

4. **Director,** Biostatistics and Modeling Core, NIH Program Grant 3PO1 MH64570, "Novel Adjunctive Therapies for NeuroAIDS," (PI: Harris A. Gelbard, M.D./Ph.D.), funded by NIH, 2010-2015.

5. **Director,** Biostatistics and Data Management Core, NIH Program Grant 1 PO1 AI078907, "B Cells in

Health and Disease," (PI: Ignacio Sanz, MD), funded by NIAID/NIH, 2010-2015.

6. **Director,** Data Management and Computational Biology Core, HHSN27220201200005C, "Respiratory Pathogens Research Center (RPRC)," (PI: David Topham, Co-PI, Ann Falsey), funded by NIAID/NIH, 2011-2015.

7. **Director,** the Biostatistics, Bioinformatics and Computational Biology Core and the Steering Committee Member, P30AI078498, "Center for AIDS Research (CFAR)," (Co-PIs: Drs. Stephen Dewhurst and Michael Keefer), funded by the National Institute of Allergy and Infectious Diseases/NIH, 2013–2015.

8. **Co-Leader,** Biostatistics Section, CPRIT PR170668, "Data Science and Informatics Core for Cancer Research", (PI: Dr. Wenjin J. Zheng), funded by CPRIT, 2017-2022.

9. **Co-Director (Subcontract PI),** Clinical and Biostatistics Core, P30AI161943-01, "Texas Developmental Center for AIDS Research (D-CFAR)," (PI: Thomas Peter Giordano), funded by NIH/NIAID, 2021-2026.

RESEARCH GRANTS (As Co-Investigator or Statistician)

1. My Role: Senior Statistician and Section Head, NIH Grant U01 AI38855, "Adult ACTG-Statistical Analysis and Data Management Center," (PI: Victor De Gruttola and Michael Hughes), a contract project funded by the National Institute of Allergy and Infectious Diseases/NIH, 1996–2003.

2. My Role: Senior Statistician, NIH Grant P01 AI56356, "HSV-1 Amplicon Vectors for HIV Vaccine Delivery," (PI: Michael C. Keefer), a program project funded by the National Institute of Allergy and Infectious Diseases/NIH, 2003–2008.

3. My Role: Senior Statistician, NIH Grant R01 HL079511, "Images of a Healthy Worksite," (PI: Isabel Diana Fernandez), funded by NHLBI/NIH, 2004–2008.

4. My Role: Statistician, ATPM Grant, "Baby-Friendly's Impact on Duration and Exclusivity," (PI: Ann Marie Dozier), funded by ATPM, 2004-2005.

5. My Role: Co-Investigator and Statistician, URMC CTSI Novel Methodology Grant, "Using Heavy Water in vivo Labeling to Measure Human Proliferation and Die-Away Kinetics- Development of the Core Facility at the University of Rochester," (PI: Frances Eun-Hyung Lee, MD), funded by URMC CTSI, 2007-2008.

6. My Role: Co-Investigator and Senior Statistician, NIH Grant R01 DC009395, "Hearing Impairment in HIV/AIDS," (PI: Amneris E. Luque), funded by NIAID/NIH, 2009-2014.

7. My Role: Senior Statistician, CDC Grant 3 U48 DP001910-01S1, "The Rochester Prevention Research Center," (PI: Tom Pearson), funded by CDC, 2009-2014.

8. My Role: Senior Statistician and Co-Investigator, NIH Grant R01 MH099921, "Does Chronic Exposure to cART Predispose Older HIV infected individuals to CNS Injury?", (PI: Giovanni Schifitto), funded by NIH, 2013-2015.

9. My Role: Statistician, NIH/NHLBI U01 HL122700-01, "Biorepository for Investigation of Neonatal Diseases of the Lung (BRINDL)," (PI: Gloria Pryhuber), funded by NIH, 2014-2015.

10. My Role: Co-Investigator, NIH SBIR grant "An Integrated Biomedical Dataset Discovery System for Immunological Research Databases (BIRD)", (Co-PI: Canglin Wu and Hua Xu), funded by NIAID/NIH, 2017-2018.

11. My Role: Sub-Contract PI and Co-Investigator, NIH/NIAID D-CFAR/ARC Supplement Implementation Research Award, "Using Project ECHO in the Implementation of Prompt Initiation of Antiretroviral Therapy across five Ryan White Part A Clinics in Houston/Harris County." (PI: Shital M. Patel), funded by NIH/NIAID, 2021-2022.

12. My Role: Co-Investigator, TEA 0017499, "Early Childhood School Readiness Program," (PI: April Crawford), funded by Texas Education Agency (TEA), 2021-2024.

13. My Role: Co-Investigator, NIH R01AG056587-05, "Management of Chronic Low Back Pain in Older Adults Using Auricular Point Acupressure," (PI: CH Yeh), funded by NIH, 05/01/2022-04/30/2024.

14. My Role: Co-Investigator, NIH R01CA245054-03, "Auricular Point Acupressure to Manage Chemotherapy Induced Neuropathy," (PI: CH Yeh, C Johnson), funded by NIH, 06/01/2022-05/31/2025.

15. My Role: Co-Investigator, NIH R01DK126042, "Metabolic impact of FGF-21 in adipose tissue and liver of PLWH," (PI: Jordan Lake), funded by NIH, 09/10/2022-06/30/2025.

16. My Role: Co-Investigator/Statistician, NIH R01 DA059394, "Wastewater Sampling: A New Tool to Accelerate Ending the HIV Epidemic," (PI: GIORDANO, THOMAS P), funded by NIH, 9/15/2023-7/31/2028.

17. My Role: Co-Investigator, ACF/DHHS, "Continuous Quality Improvement: Mechanisms for Strengthening ECE Program Quality and Workforce Competency," (PI: April Crawford), funded by ACF/DHHS, 2023-2024.

18. My Role: Co-Investigator, NIH 1R01HL163549-01, "Von Willebrand Factor Hyperactivity, Angiogenesis and LVAD-Induced Bleeding," (PI: Nascimbene, A.), funded by NIH/NHLBI, 04/10/2023 – 03/31/2028.

19. My Role: Co-Investigator, 023-105, "Modeling Neuroinflammation of White Matter Injury after Neonatal Intraventricular Hemorrhage," (PI: B. A. Miller), funded by Mission Connect–TIRR Foundation. 08/31/2023 – 08/30/2025.

20. My Role: Co-Investigator (Statistician), UG3/UH3 NS139014, "An innovative device for management of neuropathic pain after spinal cord injury," (PI: Sheng Li), funded with a total budget of $4,400,912 by NIH/NINDS, 09/19/2024-08/31/2029.

21. My Role: Statistician, CDC, IMPAACT 2046, "Understanding Parental Lactation and Infant Feeding decisions Tailored to people with HIV (UPLIFT Study)," (PI: Lisa Abuogi, University of Colorado, Denver), funded by CDC, 9/30/2024-8/31/2029.

PUBLICATIONS (Books)
- Wai-Yuan Tan and Hulin Wu (2005), *Deterministic and Stochastic Model of AIDS Epidemics and HIV Infections with Intervention*, World Scientific, Singapore.

- Hulin Wu and Jinting Zhang (2006), *Nonparametric Regression Methods for Longitudinal Data Analysis: Mixed-Effects Modeling Approaches*, John Wiley & Sons, Inc., New York.
- Wu, H., Yamal, J.M., Yaseen, Y., Maroufy, V. (2021), *Statistics and Machine Learning Methods for EHR Data: From Data Extraction to Data Analytics (Edited)*, New York: CRC Press.

PUBLICATIONS (Peer-Reviewed Journals, *the corresponding author, +pre-doctoral or postdoctoral trainees)
1. **Wu, H**.* and Huffer, F.W. (1997), "Modelling the Distribution of Plant Species Using Autologistic Regression Model," *Environmental and Ecological Statistics*, Vol. 4, No.1, 49-64. (First Prize, Student Paper Awards by Section on Statistics and the Environment of ASA)

2. George, E.O. and **Wu, H.** (1997), "Testing for Treatment Related Trend with Partially Exchangeable Clustered Data," *Biometrics*, 53, 479-487.

3. Huffer, F.W. and **Wu, H.*** (1998), "Markov Chain Monte Carlo in Spatial Binary Data Models with Application to the Distribution of Plant Species," *Biometrics*, 54, 509-524.

4. Tan, W.Y. and **Wu, H.*** (1998), "Stochastic Modeling the Dynamics of CD4$^+$ T Cell Infection by HIV with Monte Carlo Studies," *Mathematical Biosciences*, 147, 173-205.

5. **Wu, H.***, Ding, A. and DeGruttola. V. (1998), "Estimation of HIV Dynamic Parameters," *Statistics in Medicine*, 17, 2463-2485.

6. **Wu, H.*** and Ding, A. (1999), "Population HIV-1 Dynamics in Vivo: Applicable Models and Inferential Tools for Virological Data from AIDS Clinical Trials," *Biometrics*, 55, 410-418.

7. **Wu, H.*,** Kuritzkes, D.R., and McClernon, D.R. et al. (1999), "Characterization of Viral Dynamics in Human Immunodeficiency Virus Type 1-Infected Patients Treated with Combination Antiretroviral Therapy: Relationships to Host Factors, Cellular Restoration and Virological Endpoints," *Journal of Infectious Diseases*, 179(4):799-807.

8. Luzuriaga, K., **Wu, H.,** and McManus, M. et al. (1999), "Dynamics of HIV-1 Replication in Vertically-Infected Infants," *Journal of Virology*, 73, 362-367.

9. **Wu, H.*,** Ding, A. and DeGruttola, V. (1999), "Why are the decay rates in plasma HIV-1 different for different treatments and in different patient populations?" *AIDS*, 13 (3): 429-430.

10. **Wu, H.*** (1999), "How Frequently Should Viral Load be Monitored to Evaluate Antiretroviral Therapies in AIDS Clinical Trials?" *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology*, 20, 97-99.

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134. Jia, S., Zhang, C. and **Wu, H.** (2019), Efficient Semi-parametric Regression for Longitudinal Data with Regularized Estimation of Error Covariance Function, *Journal of Nonparametric Statistics*, 31 (4), 867-886.

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137. George Williams, Vahed Maroufy, Laila Rasmy, Derek Brown, Duo Yu+, Hai Zhu, Yashar Talebi+, Xueying Wang+, Emy Thomas, Gen Zhu+, Ashraf Yaseen, Hongyu Miao, Luis Leon Novelo, Degui Zhi, Stacia DeSantis, Hongjian Zhu, Jose-Miguel Yamal*, David Aguilar*, **Hulin Wu*** (2020), Vasopressor Treatment and Mortality Following Non-Traumatic Subarachnoid Hemorrhage: A Nationwide EHR Analysis, *Neurosurgical Focus,* 48(5):E4, May 2020.

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139. Braja Gopal Patra+, Kirk Roberts* and **Hulin Wu*** (2020), A Content-Based Dataset Recommendation System for Researchers - A Case Study on Gene Expression Omnibus (GEO) Repository, *DATABASE*-The Journal of Biological Databases and Curation*,* 2020: baaa064. Published online 2020 Nov 12. doi: 10.1093/database/baaa064. PMID: 33002137

140. Braja Gopal Patra+, Babak Soltanalizadeh+, Nan Deng+. Leqing Wu, Vahed Maroufy, Canglin Wu, Wenjin Jim Zheng, Kirk Roberts, **Hulin Wu*,** Ashraf Yaseen* (2020), An Informatics Research Platform to Make Public Gene Expression Time Course Datasets Reusable for More Scientific Discoveries, *DATABASE*-The Journal of Biological Databases and Curation, 2020: baaa074, doi: 10.1093/database/baaa074. PMID: 33247935.

141. Duo Yu+, George W. Williams, David Aguilar, José-Miguel Yamal, Vahed Maroufy, Xueying Wang+, Chenguang Zhang+, Yuefan Huang+, Yuxuan Gu+, Yashar Talebi+, **Hulin Wu*** (2020), Machine Learning Prediction of the Adverse Outcome for Nontraumatic Subarachnoid Hemorrhage Patients, *Annals of Clinical and Translational Neurology*, 7(11), 2178-2185.

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of Real-World EMR Data to Rapidly Evaluate Treatment Effects of Existing Drugs for Emerging Infectious Diseases: Remdesivir for COVID-19 Treatment as an Example, *Statistics in Biosciences*, in press. https://doi.org/10.1007/s12561-023-09411-8.

171. **Hulin Wu*** (2024), Statistics Evolution and Revolution to Meet Data Science Challenges, *Statistics in Bioscience*, in press.

172. Jingru Zhou+, David A. Lee, Yashar Talebi+, Gloria Wu, **Hulin Wu** (2024), The Impact of Oral Hypoglycemic Medications on Diabetic Retinopathy Progression Among Type 2 Diabetes Patients. Submitted to *Ophthalmology*.

173. Yu-Min Cho, Chao Hsing Yeh, **Huilin Wu**, Xinran Huang, Wanqi Chen, Thomas J. Murphy, Jennifer Kawi, Sustainability of a Non-pharmacological, Self-Managed Intervention for Chronic Musculoskeletal Pain: 3-group Randomized Controlled Pilot Trial, submitted to *Journal of Integrative Medicine.*

174. Mohsen; Liu, Lili; Maroufy, Vahed; Talebi, Yashar; Zhang, Guo-Qiang; **Wu, Hulin*** (2024), Hypothesis tests for comparing two independent population proportions with censored data: Applications to real-world EHR data to identify potential adverse effects of COVID-19 vaccines. Submitted to *Statistics in Medicine*.

PUBLICATIONS (Thesis, Proceedings and Book Chapters)

1. **Wu, H.*** (1994), "Regression Models for Spatial Binary Data with Application to the Distribution of Plant Species," Ph.D. dissertation, Department of Statistics, Florida State University.

2. **Wu, H.*** and Tan, W.Y (1996), "Modeling and Monitoring the Progression of HIV Infection Using Nonlinear Kalman Filter," ASA 1996 Proceedings of the Biometrics Section, 372-377.

3. Tan, W.Y. and **Wu, H.** (1997), "A Stochastic Model of the Pathogenesis of HIV at the Cellular Level and Some Monte Carlo Studies," *Simulation in the Medical Sciences*, Edited by Anderson, J.G. and Katzper, M., The Society for Computer Simulation International, the 1997 SCS Western Multiconference, 78-86.

4. Ding, A. and **Wu, H.*** (1997), "Modeling HIV Dynamics with Treatment of Reverse Transcriptase Inhibitor Drugs," ASA 1997 Proceedings of the Epidemiology Section, 52-57.

5. **Wu, H.*** and Ding A.A. (1999), "Assessing Anti-HIV Therapies Using Viral Dynamics: An Overview," *Concepts and Applications of Systemics, Cybernetics and Informatics,* Edited by Torres, M., Sanchez, B., and Wills, E., Proceedings of 3rd World Multi-conference on Systemics, Cybernetics and Informatics, Vol. 8, 490-497.

6. **Wu, H.*,** Zhang, B., and Spritzler, J. (1999), "Modeling and Analyzing Cellular Kinetics for HIV-infected Patients Treated with Potent Antiviral Therapies in AIDS Clinical Trials," ASA 1999 Proceedings of the Biometrics Section, 123-128.

7. Ding, A. and **Wu, H.*** (1999), "Statistical Tests in Nonlinear Mixed-Effect Models with Application to Potency Comparison of Anti-HIV Therapies," ASA 1999 Proceedings of Biopharmaceutical Statistics Section, 58-63.

8. **Wu, H.*** and Zhao, S. (2002), "Chapter 17. Models for Infectious Diseases,"*Advanced Medical Statistics*, Fang, J.Q. and Lu, Y. (editors). World Sciences Publisher, Singapore.

9. Huang, Y. and **Wu, H.*** (2004), "Mechanistic PK/PD Modeling of Antiretroviral Therapies in AIDS Clinical Trials," *Advanced Methods of Pharmacokinetic & Pharmacodynamic Systems Analysis, Volume III*, edited by David Z. D'Argenio. New York: Kluwer Academical Publishers, Page 221-237.

10. Huang, Y. and **Wu, H.*** (2005), "Bayesian Estimation of Individual Parameters in an HIV Dynamic Model Using Long-Term Viral Load Data," *Deterministic and Stochastic Models of AIDS Epidemics and HIV Infections with Intervention*, edited by W.Y. Tan and H. Wu. Singapore: World Scientific.

11. Ma, J., Mosmann, T., **Wu, H.** (2005), "Design considerations for a web-based database system of ELISpot assay in immunological research," AMIA Annu Symp Proc. 2005:1039.

12. Huang, Y. and **Wu, H.*** (2008), "HIV Dynamics Modeling and Prediction of Clinical Outcomes in AIDS Clinical Research," *Statistical Advances in the Biomedical Sciences: Clinical Trials, Epidemiology, Survival Analysis, and Bioinformatics*, edited by Atanu Biswas, Sujay Datta, Jason P. Fine, and Mark R. Segal. New York, Wiley InterScience.

13. **Wu, H*,** Miao, H., Warnes, G.R., Wu, C., LeBlanc, A., Dykes, C., Demeter, L.M. (2008), "DEDiscover: A Computation and Simulation Tool for HIV Viral Fitness Research,"   2008 International Conference on BioMedical Engineering and Informatics proceeding, http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=4548758&userType=inst&tag=1.

14. Wu, S., Liu, Z.P., Qiu, X., **Wu, H.*** (2013), High-Dimensional Ordinary Differential Equation Models for Reconstructing Genome-Wide Dynamic Regulatory Networks, Topics in Applied Statistics, Proceeding of 2012 Symposium of the International Chinese Statistical Association. Page 173-191.

15. **Wu, H,** (2017), Book review on "Exposure-Response Modeling: Methods and Practical Implementation" by Jixian Wang, *Journal of the American Statistical Association*, 112(517), 458.

16. Patra, B.G.+, Kar, R., Roberts, K., and **H. Wu*** (2020), Mental Health Severity Detection from Psychological Forum Data using Domain-Specific Unlabeled Data. *AMIA 2020 Informatics Summit*, Houston, TX, USA, pp. 487-496. (Best CRI Paper).

17. Jie Zhu, Braja Patra+, **Hulin W**u, Ashraf Yaseen (2021), Recommender system of scholarly papers using public datasets, AMIA Jt Summits Transl Sci Proc. 2021 May 17;2021:672-679. PMID: 34457183; PMCID: PMC8378599.

18. Jie Zhu, **Hulin Wu**, Ashraf Yaseen (2022), Sensitivity Analysis of a BERT-based scholarly recommendation system, FLAIRS Conference Proceedings, 35. 2022.

19. Wang, X. **Wu, H.,** Tang, S., (2022), Assessing Age-Specific Vaccination Strategies and Post-Vaccination Reopening Policies for COVID-19 Control Using SEIR Modeling Approach, medRxiv-ID: ppmedrxiv-21251981. **DOI:** https://doi.org/10.1101/2021.02.18.21251981

20. Yan Huang, Xiaojin Li, **Hulin Wu**, Guo-Qiang Zhang (2023), A Data Mining Pipeline for COVID-19 Vaccine Safety Analysis Based on Large Electronic Health Record. *AMIA 2023 Informatics Summit*.

21. Tru Cao, Weilu Zhao, **Hulin Wu**, et al. (2024), A New Approach to Discovering HIV Symptom and Patient Clusters Using CNICS Data and Topic Modeling, Accepted by the *2024 IEEE-EMBS International Conference on Biomedical and Health Informatics* (IEEE BHI'2024).

CONFERENCE ORGANIZING SERVICES

- Session organizer/chair, ICSA 2004 Applied Statistics Symposium, International Chinese Statistical Association, San Diego, California, USA. June 6-9, 2004.
- Session chair, International Conference on Statistics in Health Sciences, Nantes, France. June 23-25, 2004.
- Session organizer, The Sixth ICSA International Conference, International Chinese Statistical Association, Singapore. July 21-24, 2004.
- Chaired an invited session, the Joint Meeting of CSPS/IMS, Beijing, China, July 9-12, 2005.
- Session Organizer, the ICSA 2006 Applied Statistics Symposium, University of Connecticut, Storrs, Connecticut, June 14-17, 2006.
- Organizer/Host, the First Biodefense Immune Modeling Symposium, Rochester, New York, June 22-23, 2006.
- Organizer, the Later-Breaking Session, the 2006 Joint Statistical Meetings, Seattle, Washington, August

6-10, 2006.
- Invited session organizer, IMS-China International Conference on Statistics and Probability 2008, Hangzhou, China, June 11-13, 2008.
- Invited Session Chair and Organizer, the 2008 Joint Statistical Meetings, Denver, Colorado, August 2-7, 2008.
- Invited session organizer, 2009 Joint Statistical Meetings, Washington DC, August 1-6, 2009.
- Co-Chair of the organization committee, 2012 Summer School on Computational Immunology, University of Rochester, Rochester, NY, June 10-14, 2012.
- Co-Chair of the organization committee, 2012 Symposium on Modeling Immune Responses from Complex Data, University of Rochester, Rochester, NY, June 14-15, 2012.
- Session chair, 1st Workshop on Virus Dynamics, Frankfurt, Germany, July 15-16, 2013.
- Session chair, 29th European Meeting of Statisticians, Budapest, Hungary, July 20-15, 2013.
- Co-Chair of the organization committee, 2015 Summer School on Computational Immunology, University of Rochester, Rochester, NY, June 1-4, 2015.
- Co-Chair of the organization committee, 2015 Symposium on Immune Modeling in the Big Data Era, University of Rochester, Rochester, NY, June 4-5, 2015.
- Organizing committee member, NIH/NIAID Workshop on Infectious Diseases Research: Quantitative Methods and Models in the Era of Big Data, Bethesda, MD, November 9-10, 2015.
- Organizing committee member, The 10th ICSA International Conference on Global Growth of Modern Statistics in the 21st Century, Shanghai, China, December 19-22, 2016.
- Co-Organizer, Conference on Big Data and Information Analytics, The Fields Institute, Toronto, Canada, September 18-22, 2017.
- Chair, Organizing Committee, 4th International Conference on Big Data and Information Analytics, Houston, Texas, USA, December 17-19, 2018.
- Program Committee Member, ICSA 2019 China Conference, Tianjin, China, July 1-4, 2019.
- Chair, Executive Committee, ICSA2020 Applied Statistics Symposium (Virtual), Houston, TX, USA, December 13-16, 2020.
- Member and Strategic Advisor, Executive Committee, ICSA2021 Applied Statistics Symposium (Virtual), Washington DC, USA, September 12-15, 2021.
- Executive Committee member, ICSA2023 Applied Statistics Symposium, Ann Arbor, Michigan, USA, June 11-14, 2023.
- Executive Committee member, ICSA 2023 China Conference, Chengdu, Sichuan, China, June 30-July 3, 2023.

INVITED TALKS AND PEER-REVIEWED PRESENTATIONS

1. Invited talk, Department of Biostatistics, St. Jude Children's Research Hospital, Memphis, Tennessee, May, 1996.
2. Invited to present two papers at the viral dynamic meeting in the AIDS Clinical Trials Group (ACTG) Leadership Retreat, San Diego, California, March, 1997.
3. Invited talk, the International Workshop on HIV Drug Resistance, Treatment Strategies and Eradication, St. Petersburg, Florida, June, 1997.
4. Invited speaker, the 23rd AIDS Clinical Trials Group Meeting, Washington, DC, July, 1997.
5. Guest speaker, the Scientific Think Tank Meeting, the Women and Infants Transmission Study (WITS), NIH/NIAID, Rockville, Maryland, September, 1997.
6. Invited speaker, the 5th Annual HIV Dynamics & Evolution Conference, Santa Fe, New Mexico, April, 1998.
7. Invited speaker, the AIDS Clinical Trials Group (ACTG) Leadership Retreat, San Diego, California, April, 1998.
8. Peer-reviewed poster presentation, the 2nd International Workshop on HIV Drug Resistance & Treatment Strategies (won Young Scientist Scholarship Fund Award), Lake Maggiore, Italy, June, 1998.
9. Peer-reviewed oral presentation, the 12th World AIDS Conference, Geneva, Switzerland, June 28-July 3,

1998.

10. Invited talk, Department of Mathematics, Tamkang University, Tamkang, Taiwan, Nov 10, 1998.
11. Invited talk, Department of Biostatistics, University of Michigan, Ann Arbor, Michigan, January, 1999.
12. Invited talk, Division of Biostatistics, University of Minnesota, Minneapolis, Minnesota, January, 1999.
13. Invited talk, Department of Biostatistics, Harvard University, Boston, Massachusetts, January, 1999.
14. Guest speaker, Pediatric AIDS Clinical Trials Group (ACTG) Pharmacology Retreat Minneapolis, Minnesota, March 6-7, 1999.
15. Invited talk, Pharmacology Committee Meetings, Adult AIDS Clinical Trials Group (ACTG) Leadership Retreat, San Diego, California, April 8-10, 1999.
16. Invited talk, 3rd World Multiconference on Systemics, Cybernetics and Informatics (SCI'99) and 5th International Conference on Information Systems Analysis and Synthesis (ISAS'99), Orlando, Florida, July 31-August 4, 1999.
17. Invited talk, Department of Mathematics and Statistics, University of Massachusetts at Amherst, Amherst, Massachusetts, November 29, 1999.
18. Peer-reviewed poster presentation, the 7th Conference on Retroviruses and Opportunistic Infections, San Francisco, California, January 30-February 3, 2000.
19. Invited speaker, 40th Anniversary Celebration, Department of Statistics, The Florida State University, Tallahassee, Florida, April 21-22, 2000.
20. Invited guest speaker, 5th Beijing-Tianjin Young Statistician Meetings, Beijing, China, May 13, 2000.
21. Invited talks, Institute of Systems Science, Chinese Academy of Sciences, Beijing, China, May 17-18, 2000.
22. Invited talk, Department of Mathematics, University of North Carolina at Charlotte, Charlotte, March 29, 2001.
23. Peer-reviewed poster presentation, 9th Conference on Retroviruses and Opportunistic Infections, Seattle, WA, Feb. 24-28, 2002.
24. Invited talk, 2002 Applied Statistics Symposium, International Chinese Statistical Association, Plymouth Meeting, Pennsylvania, June 6-8, 2002.
25. Invited talk, International Conference on Current Advances and Trends in Nonparametric Statistics, Crete, Greece, July 15-19, 2002.
26. Invited talk, Los Alamos National Laboratory, Los Alamos, NM, September 30, 2002.
27. Peer-reviewed poster presentation, the 10th Conference on Retroviruses and Opportunistic Infections, Boston, Massachusetts, February 10-14, 2003.
28. Peer-reviewed poster presentation, the HIV Dynamics & Evolution 10th International Workshop, UCLA Conference Center, Lake Arrowhead, California, April 13-16, 2003.
29. Invited talk, Conference on New Directions in Experimental Design, DAE 2003 Chicago, May 15-17, 2003.
30. Invited speaker, the 10th Workshop on Advanced Methods of Pharmacokinetic and Pharmacodynamic Systems Analysis, Los Angeles, California, June 20-21, 2003.
31. Invited colloquium speaker, Department of Biostatistics, Columbia University, New City, New York, February 26, 2004.
32. Invited speaker, 32nd Annual Meeting of the Statistical Society of Canada, Montreal, Canada. May 30-June 2, 2004.
33. Invited talk, ICSA 2004 Applied Statistics Symposium, International Chinese Statistical Association, San Diego, California, USA. June 6-9, 2004.
34. Invited speaker, International Conference on Statistics in Health Sciences, Nantes, France. June 23-25, 2004.
35. Invited speaker, The Sixth ICSA International Conference, International Chinese Statistical Association, Singapore. July 21-24, 2004.
36. Invited speaker, Chinese Center for Disease Control and Prevention, Beijing, P.R. China. August 3, 2004.
37. Invited speaker, 2004 Joint Statistical Meetings, Toronto, Canada. August 8-12, 2004.
38. Invited speaker, the 2nd Workshop on Monte Carlo Methods, Harvard University, Cambridge, Massachusetts, USA. August 27-28, 2004.
39. Invited speaker, Workshop of Computational Biology of Infectious Disease, Statistical and Applied Mathematical Sciences Institute (SAMSI), Research Triangle Park, North Carolina, USA, September 19-22,

2004.

40. Invited speaker, Lectureship Series, Center for Statistical Sciences, Brown University, Providence, RI, USA, October 18, 2004.

41. Peer-reviewed oral presentation, the 12th Conference on Retroviruses and Opportunistic Infections, Boston, Massachusetts, February 22-26, 2005.

42. Invited speaker, Workshop on Biomarkers in HIV and Cancer Research, Mathematical Biosciences Institute, Columbus, Ohio, April 18-22, 2005.

43. Invited speaker, International Conference on Design of Experiments: Theory and Applications, Memphis, TN, May 13-15, 2005.

44. Guest speaker, the Workshop on Modeling the Rapid Evolution of Infectious Diseases: Epidemiology and Treatment Strategies, the University of Western Ontario, London, Ontario, Canada, May 14-17, 2005.

45. Invited speaker, the 2005 WNAR/IMS Spring Meeting, Fairbanks, Alaska, June 21-24, 2005.

46. Speaker at a special contributed session, the Joint Meeting of CSPS/IMS, Beijing, China, July 9-12, 2005.

47. Invited speaker, Department of Biostatistics, State University of New York at Buffalo, Buffalo, NY, October 6, 2005.

48. Invited speaker, Department of Mathematics, University of Michigan, Ann Arbor, MI, October 11, 2005.

49. Colloquium speaker, Department of Statistics, Texas A&M University, College Station, Texas, December 8, 2005.

50. Invited Speaker, Department of Mathematics, Tamkang University, Tamkang, Taiwan, December 27, 2005.

51. Invited Speaker, National Institutes of Health of Taiwan, Taiwan, December 30, 2005.

52. Peer-reviewed poster presentation, the 13th Conference on Retroviruses and Opportunistic Infections, Denver, Colorado, February 5-8, 2006.

53. Invited talk, Department of Preventive Medicine and Biometrics, University of Colorado Health Science Center, Denver, Colorado, February 9, 2006.

54. Colloquium speaker, Department of Epidemiology and Biostatistics College of Public Health, University of South Florida, Tampa, Florida, March 22, 2006.

55. Invited Speaker, the ICSA 2006 Applied Statistics Symposium, University of Connecticut, Storrs, Connecticut, June 14-17, 2006.

56. Invited Speaker, the First Biodefense Immune Modeling Symposium, Rochester, New York, June 22-23, 2006.

57. Invited talk, Department of Life Science and Engineering, Bioengineering Research Center, Harbin Institute of Technology, Harbin, China, July 6, 2006.

58. Invited Speaker, International Conference on Frontiers in Statistics, Biostatistics and Bioinformatics, Changchun, China, July 7-8, 2006.

59. Invited Speaker, the Minisymposium at the 2006 SIAM Annual Meeting, Boston, MA, July 10-14, 2006.

60. Invited talk, the Topic Contributed Session, the XXIII International Biometric Conference, Montreal, Quebec, Canada, July 16-21, 2006.

61. Invited Speaker, the Minisymposium at the Joint SIAM-SMB Conference on the Life Sciences, Raleigh, NC, July 31-August 4, 2006.

62. Speaker, the Later-Breaking Session, the 2006 Joint Statistical Meetings, Seattle, Washington, August 6-10, 2006.

63. Colloquium Speaker, Department of Statistics, University of British Columbia, Vancouver, Canada, August 10, 2006.

64. Invited Speaker, Workshop on Statistical Methods in HIV/AIDS and Its Practical Application, NIAID/NIH, Bethesda, MD, October 10, 2006.

65. Invited seminar speaker, Department of Statistics and Statistical Laboratory, Iowa State University, Ames, Iowa, November 15, 2006.

66. Invited colloquium speaker, Department of Biostatistics, Columbia University, New York City, New York, November 30, 2006.

67. Invited colloquium speaker, Division of Biostatistics, Yale School of Public Health, New Haven, Connecticut, January 23, 2007.

68. Invited colloquium speaker, Biostatistics and Biomathematics, Fred Hutchinson Cancer Research Center, Seattle, WA, February 7, 2007.
69. Invited speaker, ICSA 2007 Applied Statistics Symposium, International Chinese Statistical Association, Raleigh, North Carolina, June 3-6, 2007.
70. Invited speaker, Symposium on Emerging Science of Emerging Pathogens: From Atoms to the World, New York City, June 7, 2007.
71. Invited speaker, 2007 Biodefense Immune Modeling Summer School, Carnegie Mellon University and University of Pittsburgh, Pittsburgh, PA, June 17-22, 2007.
72. Invited speaker, Workshop on Statistical Methods for Modeling Dynamic Systems, University of Montreal, Montreal, Canada, July 9-13, 2007.
73. Invited speaker, Minisymposium at the 6th International Congress on Industrial and Applied Mathematics, Zurich, Switzerland, July 16-20, 2007.
74. Invited speaker, Topic-contributed session, 2007 Joint Statistical Meetings, Salt Lake City, Utah, July 29-August 2, 2007.
75. Invited speaker, 7th International Workshop on Pharmacodynamics of AntiCancer Agents, Guanacaste, Costa Rica, September 16-20, 2007.
76. Invited speaker, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, USA, October 12-14, 2007.
77. Invited colloquium speaker, Department of Mathematics and Statistics, York University, Toronto, Canada, October 19, 2007.
78. Seminar Speaker, Department of Biostatistics, The University of Kansas Medical Center, Kansas City, KS, USA, November 20, 2007.
79. Invited speaker for a Special Emphasis Panel organized by the NIAID/NIH Project officer, 2008 ENAR Spring Meetings, Arlington, VA, March 16-19, 2008.
80. Invited speaker, Atlantic Coast Symposium on the Mathematical Sciences in Biology and Biomedicine, North Carolina State University, Raleigh, NC, April 24-26, 2008.
81. Invited talks, Academy of Mathematics and Systems Sciences, Chinese Academy of Sciences, Beijing, China, May 26, 2008.
82. Invited speaker, Computational & Systems Immunology Symposium, Duke University, Durham, June 25-26, 2008.
83. Invited talk, the XXIVth International Biometric Conference, Dublin, Ireland, July 13-18, 2008.
84. Invited Lecturer for the Introductory Overview Lecture (IOL), the 2008 Joint Statistical Meetings, Denver, Colorado, August 2-7, 2008.
85. Invited seminar speaker, Center for Computational Biology & Bioinformatics, Indiana University School of Medicine, Indianapolis, October 13, 2008.
86. Invited guest speaker, Biostatistics Research Branch, NIAID/NIH, Bethesda, Maryland, December 2, 2008.
87. Invited speaker, the 50th Anniversary Celebration of FSU's Statistics Department, Tallahassee, Florida, April 17-18, 2009.
88. Invited speaker, Workshop on Statistical Methods for Dynamic System Models, Vancouver, Canada, June 4-6, 2009.
89. Invited speaker and round table discussion leader, ICSA 2009 Applied Statistics Symposium, San Francisco, CA, June 21-23, 2009.
90. Invited speaker, Symposium on Multi-Scale Modeling of Host/Pathogen Interactions, University of Pittsburgh, Pittsburgh, PA, June 23-25, 2009.
91. Invited speaker, 2009 International Conference on Financial Statistics and Financial Econometrics, Chengdu, China, July 8-10, 2009.
92. Invited speaker, 2009 Joint Statistical Meetings, Washington DC, August 1-6, 2009.
93. Invited speaker, 57th Session of the International Statistical Institute, Durban, South Africa, August 16-22, 2009.
94. Invited speaker, 22nd Workshop on Health and Complex Systems, Lyon, France, November 28-December 2, 2009.

95. Peer-reviewed oral presentation, 2nd International Conference on Infectious Disease Dynamics, Athens, Greece, December 2-4, 2009.

96. Invited seminar speaker, Department of Electrical and Computer Engineering, University of Delaware, Newark, DE 19716, February 19, 2010.

97. Keynote Speaker, Modeling Dynamic Systems Workshop, University of California, Davis, CA 95616, March 13, 2010.

98. Invited speaker, ENAR 2010 Spring Meeting, New Orleans, Louisiana, March 21-24, 2010.

99. Invited speaker, Lectureship Series, Center for Statistical Sciences, Brown University, Providence, RI, USA, April 19, 2010.

100. Invited speaker, the 2010 WNAR/IMS Spring Meeting, Seattle, WA, June 20-23, 2010.

101. Invited speaker, The First Joint Biostatistics Symposium, Beijing, China, July 17-18, 2010.

102. Invited speaker, the 2010 Joint Statistical Meetings, Vancouver, Canada, August 1-5, 2010.

103. Invited colloquium speaker, The Center for Nonlinear Studies (CNLS), Los Alamos National Laboratory, October 25, 2010.

104. Invited speaker, Interface Functional & Longitudinal Data Analysis Workshop, the Statistical and Applied Mathematical Sciences Institute (SAMSI), RTP, North Carolina, November 8-10.2010.

105. Invited speaker, Molecular Basis of Disease Distinguished Lecture Series, Georgia State University, December 2, 2010.

106. Invited colloquium speaker, Department of Mathematics and Statistics, Georgia State University, December 2, 2010.

107. Invited speaker, Dynamics of Networks Workshop, SAMSI, RTP, North Carolina, January 12, 2011.

108. Invited colloquium speaker, Department of Biostatistics, UNC Gillings School of Global Public Health, Chapel Hill, North Carolina, January 12, 2011.

109. Invited speaker, Undergraduate Workshop on Analysis of Object Data at the Statistical and Applied Mathematical Sciences Institute (SAMSI), RTP, North Carolina, February 25, 2011.

110. Invited speaker, 2011 SIAM Great Lakes Conference on Modeling and Numerical PDEs in Mathematical Biology and Applications, Oakland University, Rochester, Michigan, April 16, 2011.

111. Oral presentation, 5th Annual CEIRS Network Meeting, Atlanta, Georgia, April 18-20, 2011.

112. Invited speaker, Applied Inverse Problems Conference, Texas A&M University, College Station, TX, May 23-27, 2011.

113. Invited speaker, AOOD Transition Workshop, SAMSI, RTP, North Carolina, June 9-11, 2011.

114. Invited Speaker, IMS-China International Conference on Statistics and Probability 2011, Xi'an, China, July 8-11, 2011.

115. Invited Seminar speaker, Department of Applied Mathematics, Xi'an Jiaotong University, Xi'an, China, July 9-10, 2011.

116. Invited Seminar speaker, Institute of Computational Mathematics and Scientific/Engineering Computing, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, Beijing, China, July 17, 2011.

117. Invited talk, Office of Biostatistics and Epidemiology, Center for Biologics Evaluation and Research, U.S. Food and Drug Administration (FDA), August 8, 2011.

118. Invited talk, Department of Statistics, Texas A&M University, College Station, TX, October 3, 2011.

119. Invited panel speaker on Non-Human Model Systems for Testing the Effectiveness of Medical Countermeasures, Biosecurity Meeting, Center for Science, Technology, and Security Policy, American Association for the Advancement of Science (AAAS), Washington DC, October 19, 2011.

120. Invited seminar speaker, School of mathematical Sciences, Rochester Institute of Technology, Rochester, NY. October 21, 2011.

121. Invited speaker, Workshop: Recent Advances in Statistical Inference for Mathematical Biology, Mathematical Biosciences Institute, The Ohio State University. February 20-24, 2012.

122. Invited speaker, ENAR 2012 Spring Meeting, Washington, DC, April 1-4, 2012.

123. Invited speaker, Interdisciplinary Workshop between Mathematics and Biology, Center for Optimization and Its Applications, Academy of Mathematics and Systems Science, Chinese Academy of Sciences,

Beijing, China, May 7-8, 2012.

124. Invited seminar speaker, School of Mathematics and Information Science, Shaanxi Normal University, Xi'an, China**,** May 10, 2012.

125. Invited seminar speaker, Department of Applied Mathematics, Xi'an Jiaotong University, Xi'an, China, May 11, 2012.

126. Invited seminar speaker, BGI, Shenzhen, China, May 16, 2012.

127. Invited seminar speaker, Shanghai Medical College, Fudan University, Shanghai, China, May 18, 2012.

128. Peer-reviewed talk, The 6th International Conference on Bioinformatics and Biomedical Engineering (iCBBE2012), Shanghai, China, May 17-20, 2012.

129. Invited seminar speaker, Institut Pasteur of Shanghai, Chinese Academy of Sciences, Shanghai, China, May 21, 2012.

130. Invited seminar speaker, Mathematics and Science College, Shanghai Normal University, Shanghai, China, May 21, 2012.

131. Invited seminar speaker, Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, China, May 25, 2012.

132. Lecturer, 2012 Summer School on Computational Immunology, University of Rochester, Rochester, NY, June 10-14, 2012.

133. Invited speaker, 2012 Symposium on Modeling Immune Responses from Complex Data, University of Rochester, Rochester, NY, June 14-15, 2012.

134. Invited talk, 8th International Purdue Symposium on Statistics, Purdue University, West Lafayette, Indiana, June 20-24, 2012.

135. Invited talk, the 21st Applied Statistics Symposium, Boston, MA, June 23-26, 2012.

136. Invited speaker, ENAR 2013 Spring Meeting, Orlando, FL, March 10-13, 2013.

137. Invited talk, Department of Statistical Sciences, University of Toronto, Canada. March 28, 2013.

138. Invited talk, The ASA Buffalo Chapter and Department of Mathematics and Statistics, Canisius College, Buffalo, New York. April 29, 2013.

139. Keynote speaker, 1st Workshop on Virus Dynamics, Frankfurt, Germany, July 15-16, 2013.

140. Invited talk of a contributed session, 29th European Meeting of Statisticians, Budapest, Hungary, July 20-15, 2013.

141. Invited seminar talk, Academy of Mathematics and Systems Science, Chinese Academy of Sciences, Beijing, China, September 9, 2013.

142. Invited talk, The 9th International Conference on Numerical Optimization and Numerical Algebra, Changchun, Jilin, China, Sept 12-15, 2013.

143. Invited seminar talk, College of Computer and Informatics Sciences, Southwest University, Chongqing, China, September 18, 2013.

144. Invited talk, 2013 Fall Central Section Meeting, American Mathematical Society, Washington University, St. Louis, MO, October 20, 2013.

145. Invited seminar speaker, Department of Mathematics and Statistics, York University, Toronto, Canada, March 21, 2014.

146. Keynote speaker, 2014 Biomathematics Summer School, Xi'an Jiaotong University, Xi'an, Shaanxi, P.R. China, July 21-August 15, 2014.

147. Invited speaker, Workshop on Statistics and Nonlinear Dynamics in Biology and Medicine, the Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Canada, July 27-August 1, 2014.

148. Invited talk, SIAM Conference on the Life Sciences, Charlotte, North Carolina, August 4-7, 2014.

149. Invited to lead one-day FDA training workshop, Computational Modeling of Biological Systems to Quantitatively Understand and Efficiently Evaluate Therapeutic Intervention Strategies for Complex Diseases, 2014 FDA OBE Training Workshop Series, Office of Biostatistics and Epidemiology, Center for Biologics Evaluation and Research, FDA, Silver Spring, MD, Sept 2, 2014.

150. Invited talk, Zhejiang University Medical School, Hangzhou, China, Nov. 27, 2014.

151. Invited colloquium speaker, Department of Basic Sciences, College of Veterinary Medicine, Mississippi

State University, Mississippi State, MS. March 2, 2015.

152. Invited Colloquium speaker, Department of Statistics, Florida State University, Tallahassee, FL, April 3, 2015.

153. Lecturer, 2015 Summer School on Computational Immunology, University of Rochester, Rochester, NY, June 1-4, 2015.

154. Invited speaker, 2015 Symposium on Immune Modeling in the Big Data Era, University of Rochester, Rochester, NY, June 4-5, 2015.

155. Keynote speaker, 2015 Biomathematics Summer School, Xi'an Jiaotong University, Xi'an, Shaanxi, P.R. China, July 14-18, 2015.

156. Invited talk, School of Life Sciences, Fudan University, Shanghai, P.R. China, July 20, 2015.

157. Invited talk, Key Lab of Systems Biology, Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, P.R. China, July 21, 2015

158. Invited talk, Institute of Computational Mathematics and Scientific/Engineering Computing, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, Beijing, China, July 27, 2015.

159. Invited Colloquium speaker, Department of Biological Statistics and Computational Biology, and Department of Statistical Science, Cornell University, Ithaca, NY, September 23, 2015.

160. Invited seminar speaker, College of Statistics and Management, Shanghai University of Finance and Economics, Shanghai, China, November 2, 2015.

161. Invited speaker, NIH/NIAID Workshop on Infectious Diseases Research: Quantitative Methods and Models in the Era of Big Data, Bethesda, MD, November 9-10, 2015.

162. Invited speaker, ENAR 2016 Spring Meeting, Austin, TX, March 6-9, 2016.

163. Invited speaker, Big Data & Data Analytics Conference, Texas Fresh Air, San Antonio, TX, March 30-31, 2016.

164. Invited seminar speaker, Department of Applied Mathematics, Xi'an Jiaotong University, Xi'an, China, June 3, 2016.

165. Invited seminar speaker, School of Mathematics and Information Science, Shaanxi Normal University, Xi'an, China, June 3, 2016.

166. Invited talk, 2016 ICSA Applied Statistics Symposium, Atlanta, GA, June 12-15, 2016.

167. Invited talk, XXVIIIth International Biometric Conference (IBC2016), Victoria, Canada, July 10-15, 2016.

168. Keynote talk, Tutorial Workshop on Parameter Estimation for Biological Models, NC State University, Raleigh, NC, USA, July 28-31, 2016.

169. Invited speaker, the 2016 Joint Statistical Meetings, Chicago, IL, USA, July 30- August 4, 2016.

170. Invited seminar speaker, Department of Molecular and Computational Biology, University of Southern California, CA, USA, September 8, 2016.

171. Invited talk, 2016 International Conference on Big Data and Information Analytics, Changsha, China, October 20-23, 2016,

172. Invited seminar talk, Institute of Computational Mathematics and Scientific/Engineering Computing, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, Beijing, China, October 26, 2016.

173. Invited talk, CMStatistics 2016, 9th International Conference of the ERCIM Working Group on Computational and Methodological Statistics, Seville, Spain, December 9-11, 2016.

174. Invited speaker, The 10th ICSA International Conference on Global Growth of Modern Statistics in the 21st Century, Shanghai, China, December 19-22, 2016.

175. Invited seminar speaker, Mathematics and Science College, Shanghai Normal University, Shanghai, China, December 20, 2016.

176. Invited speaker, Mathematics and Statistics in Medical Imaging Applications and Big Data Integration Workshop, Tsinghua Sanya International Mathematics Forum, Sanya, China, December 26-30, 2016.

177. Invited seminar talk, College of Science and Engineering, University of Houston-Clear Lake, January 27, 2017.

178. Invited plenary talk, Workshop on Parameter Estimation and Uncertainty Quantification for Dynamic Systems, University of Pittsburg, Pittsburgh, March 5-6, 2017.

179. Invited seminar talk, Department of Statistics & Actuarial Science, Simon Fraser University, Vancouver, Canada, April 7, 2017.
180. Invited talk, 2017 SIAM Conference on Applications of Dynamic Systems, Snowbird, Utah, USA, May 21-25, 2017.
181. Invited talk, Department of Computer Science and Technology, Tsinghua University, Beijing, China, June 22, 2017.
182. Invited talk, Institute of Computational Mathematics and Scientific/Engineering Computing, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, Beijing, China, June 23, 2017.
183. Invited talk, School of Mathematics and Information Science, Shaanxi Normal University, Xi'an, China, July 28, 2017.
184. Invited talk, College of Mathematics and Statistics, Xidian University, Xi'an, China, June 29, 2017.
185. Invited talk, Department of Applied Mathematics, Xi'an Jiaotong University, Xi'an, China, June 30, 2017.
186. Invited talk, 2017 ICSA China Conference with the Focus on Lifetime Data Science, Jilin, China, July 2-5, 2017.
187. Plenary speaker, Conference on Big Data and Information Analytics, The Fields Institute, Toronto, Canada, September 18-22, 2017.
188. Invited seminar talk, Department of Mathematics, University of Houston, Houston, TX, USA, October 6, 2017.
189. Invited speaker, Brown's Statistics Seminar and Distinguished Lecture Series, Department of Biostatistics, Brown University of School of Public Health, Providence, RI, USA. November 13, 2017.
190. Seminar talk, Department of Molecular Virology and Microbiology, Baylor College of Medicine, Houston, TX, USA, December 13, 2017.
191. Invited speaker, Healthcare Big Data Conference, Taizhou, Jiangsu, China, December 20, 2017.
192. Invited speaker, The 6th Workshop on Biostatistics and Bioinformatics, Atlanta, GA, USA, May 4-6, 2018.
193. Invited speaker, 2018 International Workshop on Modern Optimization and Applications, Beijing, China, June 16-18, 2018.
194. Invited talk, The First Hospital of Jilin University, Changchun, Jilin, China, June 19, 2018.
195. Invited talk, The Second Hospital of Jilin University, Changchun, Jilin, China, June 20, 2018.
196. Invited talk, China-Japan Union Hospital of Jilin University, Changchun, Jilin, China, June 21, 2018.
197. Invited talk, School of Mathematics, Jilin University, Changchun, Jilin, China, June 22, 2018.
198. Invited keynote speaker, 2018 Workshop on Innovation and Collaboration in Life Science and Big Health, Medical Diagnosis Engineering Chapter, Biomedical Engineering Association of China, Beijing, China, June 25, 2018.
199. Invited speaker, Workshop on Big Data and Data Science, School of Mathematics and Information Science, Shaanxi Normal University, Xi'an, China, June 28-29, 2018.
200. Invited talk, 2018 ICSA China Conference, Qingdao, China, July 2-5, 2018.
201. Invited talk, School of Statistics, East China Normal University, Shanghai, China, July 6, 2018.
202. Invited talk, School of Statistics and Management, Shanghai University of Finance and Economics, Shanghai, China, July 6, 2018.
203. Invited talk, Academy of Mathematics and System Sciences, Chinese Academy of Sciences, Beijing, China, July 8, 2018.
204. Invite seminar talk, Department of Industrial Engineering, University of Houston, Houston, TX, USA, September 21, 2018.
205. Invited speaker, 4th International Conference on Big Data and Information Analytics, Houston, Texas, USA, December 17-19, 2018.
206. Distinguished lecturer, Department of Mathematics and Statistics, Georgia State University, Feb 15, 2019.
207. Seminar Speaker, Biomedical Research Institute, Division of Research, Florida Atlantic University, Boca Raton, FL. March 14, 2019.
208. Invited Talk, Workshop on Statistics, the Impact of Big Data, Department of Statistics, Florida Stater University, Tallahassee, FL, April 12-13, 2019.
209. Keynote talk, Workshop on Vaccine Dynamics Modelling and Immunization Program Optimization,

Toronto, Ontario, Canada, May 21-23, 2019.
210. Invited talk, ICSA2019 Applied Statistics Symposium, Raleigh, NC, USA, June 9-12, 2019.
211. Keynote lecture, Workshop on Bioinformatics and Data Analysis, Tianyuan Mathematical Center in Northwest China, Xi'an Jiaotong University, Xi'an, China, June 14-17, 2019.
212. Invited seminar talk, Department of Applied Mathematics, Xi'an Jiaotong University, Xi'an, China, June 18, 2019.
213. Invited seminar talk, School of Mathematics and Information Science, Shaanxi Normal University, Xi'an, China, June 19, 2019.
214. Keynote lecture, The 3rd Complex Data Analysis Forum, Northwestern Polytechnical University，Xi'an, China, June 20-23, 2019.
215. Invited talk, ICSA 2019 China Conference, Tianjin, China, July 1-4, 2019.
216. Invited seminar talk, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Canada, October 3, 2019.
217. Short course instructor, ICSA2020 Applied Statistics Symposium (Virtual), Houston, TX, USA, December 13-16, 2020.
218. Invited seminar talk (online), H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, GA. May 4, 2021.
219. Invited keynote talk, American Statistical Association Houston Chapter (HACASA) Spring Workshop on Communications, Consulting, and Leadership in Statistics and Data Science. May 7, 2021
220. Invited Panelist, Panel Discussion on Leadership and Communication, ICSA2021 Applied Statistics Symposium (Virtual), September 12-15, 2021.
221. Invited talk (virtual), 5th International Conference on Econometrics and Statistics (EcoSta 2022), Hybrid Conference, Ryukoku University, Kyoto, Japan, June 4-6, 2022.
222. Invited talk, 2022 ICSA Applied Statistics Symposium, Gainesville, FL, June 19-22, 2022.
223. Invited talk, 2023 ICSA China Conference, Chengdu, China, June 30-July 3, 2023.
224. Invited talk, 2023 ICSA International Conference, Hong Kong, China, July 6-9, 2023.
225. Invited talk, JSM 2023, Toronto, Canada, August 5-10, 2023.
226. Invited panelist, Statistics and AI—A Fireside Conversation, Stats UP AI Alliance and ICSA, March 17, 2024.
227. Invited Keynote Speaker, 2024 Annual ASA Florida Chapter (FLASA) Meeting, Tallahassee, FL, USA, March 29-30, 2024.
228. Invited speaker, 2024 CANS (American Academy of Nursing) Conference, Washington DC, June 13-15, 2024.
229. Invited speaker, 2024 ICSA Applied Statistics Symposium, Nashville, TN, June 16-19, 2024.
230. Invited talk, ICSA 2024 China Conference, Wuhan, Hubei, China. June 27-30, 2024.
231. Invited talk, the 2024 Hangzhou International Conference on Frontiers of Data Science, July 8-10, 2024, Hangzhou, China.
232. Short course instructor, JSM 2024, Portland, Oregon, USA. August 3-8, 2024.

PROFESSIONAL AFFILIATIONS

- Institute of Mathematical Statistics: Permanent member
- International Chinese Statistical Association (ICSA):
  - Permanent member
  - Chair, Program Committee, 2021- 2022
  - Member, Program Committee, 2022-2024
- American Statistical Association (ASA): Member and Fellow (2008)
- Biometric Society, Eastern North American Region: Member and Journal Editorial Board
- Society for Mathematical Biology: Member
- Society for Industrial and Applied Mathematics: Permanent member
- American Medical Informatics Association: Member

- American Society for Microbiology: Member

REFERENCES: available upon request