Special Points of Interest:

Greetings from the Chair
Faculty and Staff
Accomplishments and Awards
2022 Seminar Series
2022 Graduates
Contributions and Gifts
In this holiday season, I want to thank our faculty, staff and students for your hard work in the past year. I would also like to thank our alumni and friends for your continued support. Although the COVID pandemic is still lingering around, I am pleased to tell you that our department had another tremendous year. During the past year, the department successfully recruited three new faculty members through the university AI initiative, and we are continuing to recruit four more faculty members in the near future. These new faculty members will strengthen our expertise greatly in biostatistical research, education and service. Currently the department has 26 faculty members, 40 PhD students, and over 60 MS/MPH students. Many of our faculty members are leaders in our research areas, and our graduate programs are also very strong. This is reflected in the honors and recognitions received recently by our faculty and students from different national organizations. For instance, our faculty member Dr. Ji-Hyun Lee was selected as one of the two final candidates for the president of the American Statistical Association. Our department was ranked recently by *US News & World Report* to be #21 among all biostatistics programs in the nation and #11 among all biostatistics programs in public universities.

With regards to our research, the department faculty and students published over 190 research papers in refereed journals last year, many of which appeared in top journals like *Journal of the American Statistical Association, New England Journal of Medicine, Lancet, and Lancet Infectious Diseases*. The department received over $5.7 million in extramural funding to help with our research. Under the leadership of Dr. Sam Wu, our Associate Chair in Research, researchers in our Research Design and Data Coordinating Center received multiple NIH grants in the past year. Recently, Drs. Rhonda Bacher, Subha Guha, Arka Roy and Peihua Qiu all received major NIH/NSF grants. During the current COVID-19 epidemic, our faculty members Drs. Ira Longini and Matt Hitchings continued to play a leadership role in designing vaccine trials and developing statistical models for analyzing infectious disease data.

The quality of our graduate programs continued to be our top priority. Last year the department faculty discussed several times on strategies to improve the quality of courses. Under the leadership of Drs. Qing Lu and Steve Foti, we started our new MS concentrations in "Health Data Science" and "Biostatistics Methods and Practice" in Fall 2022. Additionally, under the leadership of Dr. Steve Foti, our Director of Graduate Studies, we submitted several new course number applications. Several new courses on biostatistical computing and machine learning have been developed recently by Drs. Li Chen, Caleb Huo, Muxuan Liang, Qing Lu and Arka Roy. I am sure that these efforts will greatly improve the graduate programs in our department and the educational programs within the entire UF Health Science Center. In the past summer, we successfully recruited 10 PhD, 6 on-campus MS, and 15 online MS students. In the 2021-2022 academic year, the department graduated 3 PhD, 5 on-campus MS, and 10 online MS students. I would like to take this opportunity to congratulate all recent graduates on their success in the graduate study in our department, and wish them the best in their future career.

Please enjoy reading the newsletter about our recent accomplishments and moments. I look forward to this upcoming year and your continued support.

Thank you, and have a wonderful holiday season!
Faculty

Rhonda Bacher, Jason Brant, Li Chen, Somnath Datta, Susmita Datta, Jonathan Fischer, Steven Foti, Subharup Guha, Matthew Hitchings, Zhiguang Huo, John Kairalla, Ji-Hyun Lee, Zhigang Li, Muxuan Liang, Ira Longini, Xiangyang Lou, Qing Lu, Arlene Naranjo, Robert Parker, Qinglin Pei, Peihua Qiu, Arkaprava Roy, Guogen Shan, Samuel Wu, Feifei Xiao, Wei Xue

Staff

Deana Nance, Melanie Sanders, Malaysia King, Jennifer Kirkland, Mariana Miranda
Introducing new faculty

Dr. Feifei Xiao

Dr. Feifei Xiao joined the Department January 15, 2022, as a tenured Associate Professor with the Artificial Intelligence Initiative. Dr. Xiao received her PhD in Biomathematics and Biostatistics from the University of Texas MD Anderson Cancer Center in 2013. She most recently worked in the Department of Epidemiology and Biostatistics, Arnold School of Public Health at University of South Carolina as a tenured Associate Professor. Dr. Xiao has multiple publications in statistical genetics and bioinformatics, research awards that along with teaching experience will make her a great addition to the department. Dr. Xiao loves yoga, exploring nature and hiking with her dog (Cici).

Dr. Muxuan Liang

Dr. Muxuan Liang joined the Department on May 6, 2022, as a tenure-track Assistant Professor with the Artificial Intelligence Initiative. Dr. Liang received his Ph.D. in Statistics from the University of Wisconsin-Madison in 2018. After graduation, he briefly worked at Google as a data scientist in 2019. He then worked in the Public Health Sciences Division at Fred Hutchinson Cancer Research Center as a post-doctoral research fellow. Dr. Liang’s research interest focuses on treatment recommendations based on patient-level information, identifying signals from high-dimensional data, and other novel machine learning techniques with applications to biomarker identification, cancer surveillance, and digital health. Besides research, Dr. Liang likes tennis, hiking, and enjoying outdoor activities with his dog (Oreo).

Dr. Li Chen

Dr. Li Chen joined the department on October 2, 2022 as an Associate Professor under the Artificial Intelligence Initiative. Dr. Chen received his Ph.D. in Computer Science from the Emory University in 2017, and two MS in both Computer Science and Biostatistics from Johns Hopkins University. Before joining UF, he worked as a tenure-track Assistant Professor in Department of Biostatistics and Health Data Science at Indiana University School of Medicine. Dr. Chen’s research interest focuses on developing deep learning and statistical methods and software for analyzing large-scale multi-omics data, including but not limited to genetics, single-cell genomics and metagenomics. He is interested in applying the methods developed to study aging and cancer, disseminating software developed for public health researchers to use, and integrating multi-omics data with imaging and EHR data.
Melanie Sanders joined the department as an Administrative Support Assistant III on March 9, 2022. Melanie comes to UF from the federal court system. Melanie graduated from the University of North Florida with her bachelor’s degree in elementary education.

For fun, Melanie enjoys traveling with her husband, spending time with her family, playing with her English bulldog and going to the beach.

Malaysia King joined the Department Of Biostatistics as an Academic Program Assistant I on June 27, 2022. While Malaysia is new to the department, she is not new to UF. Malaysia graduated from the University of Florida with her bachelor’s degree. Upon graduation she transitioned into an academic role where she works with graduate students daily.

Malaysia loves to spend time with her daughter and their new puppy. Traveling, spending time with family and engaging in photography are some of Malaysia’s hobbies.

Mariana Miranda joined the Department Of Biostatistics as an Administrative Support Assistant II on July 8, 2022. Mariana has worked in a variety of fields such as entertainment and finance.

Mariana enjoys spending time with her husband and two children baking and gardening. Walking trails as a family with their 11 year old Chihuahua is a favorite hobby of Mariana’s.

Jennifer Kirkland joined the Department Of Biostatistics as a Fiscal Assistant III on September 12, 2022. She has been with UF for five years. Jennifer has a master’s degree in health administration.

In her spare time, Jennifer enjoys spending time with her husband and three children traveling and watching football!
Center for Disease Control Grant Award

Dr. Peihua Qiu (PI), Professor and Founding Chair for the department, along with Drs. Yang Yang (PI), Ira Longini (Co-I) and Song Liang (Co-I) recently submitted a grant proposal titled “Building mathematical modeling workforce capacity to support infectious disease and healthcare research.” The collaborative effort was well received, and the team awarded a U01 grant from Center for Disease Control. This three-year project aims to train three predoctoral students on infectious disease modeling.

National Cancer Institute Grant Award

Dr. Subharup Guha, an Associate Professor of Biostatistics, recently submitted, as a primary investigator, an MPI R01 proposal. The grant, entitled “Detecting Racial Disparities in Cancer Survival by Integrating Multiple High-Dimensional Observational Studies,” was reviewed by the Biostatistical Methods and Research Design (BMRD) study section of the National Institutes of Health and selected by the National Cancer Institute for funding. The research team was awarded approximately $250,000 per year, beginning September 2022 through August 2026, for a total of approximately $1,000,000 in funding. The team will leverage information-rich databases such as the Boston Lung Cancer Survival Cohort and International Lung Cancer Consortium to develop strategies and frameworks for effectively integrating multiple observational studies. The research will accurately identify racial disparities in cancer outcomes while accounting for social determinants, environmental forces, and genetic factors, and generate statistical findings generalizable to a realistic and inclusive natural population. The other team members include researchers from the University of Michigan and Harvard TH Chan School of Public Health.

National Science Foundation Grant Award

Dr. Roy, an Assistant Professor of Biostatistics and primary investigator, along with other collaborators, authored a grant proposal entitled “Novel modeling and Bayesian analysis of high-dimensional time series.” The proposal was reviewed and funded by the National Science Foundation. Dr. Roy was awarded $110,000.00 beginning September 2022 along with separate awards to the other two PIs, Dr. Anindya Roy and Dr. Subhashis Ghosal. The aim of this research is to develop novel interpretable models for intrinsic relations among components of multidimensional time series, and related computational techniques.
**National Institute of Health Grant Award**

Dr. Somnath Datta, professor, along with his colleagues Drs. Gaskins of University of Louisville, and Levy from University of Iowa, has been awarded a research grant by the National Institutes of Health (NIH). He is the overall Principal Investigator (P.I.) on the project entitled “Longitudinal Analysis of Iowa Fluoride Study Data, Including Age Twenty-three”. This is Dr. Datta’s third P.I. level research grant which has been awarded since he arrived at the University of Florida Department of Biostatistics as a pre-eminent hire in 2015.

According to Dr. Datta, first and foremost, this work will enrich biostatistics methodological research in statistical regression models for longitudinal count and ordinal data. These novel methods will be applied to integrate multiyear caries and fluorsis data, including at age twenty-three, to uncover new insights that are undetectable using the simpler and statistically less efficient approaches previously undertaken for analyzing various parts of the Iowa Fluoride Study data. Our research will have measurable impact on improving oral and dental health.

**National Institute of Health Grant Award**

Dr. Rhonda Bacher (Assistant Professor of Biostatistics) was awarded an R35 grant from the National Institute of General Medical Sciences (NIGMS) for her project “Resolving single-cell analysis challenges via data-driven decision frameworks and novel statistical methods”. NIGMS is a division of the National Institutes of Health (NIH). The award of $1.86M over five years will fund her research program to address the significant limitations encountered by researchers analyzing single-cell omics data. Specifically, Dr. Bacher and her team will design data-driven decision frameworks to improve single-cell data analysis and develop statistical methods that accommodate experimental complexity while retaining interpretability. The long-term goals of Dr. Bacher’s research program are to develop robust, efficient, and scalable statistical methods disseminated as highly accessible statistical software that will enable richer analyses of high-throughput genomics data, while improving reproducibility and reliability of scientific results.

**Dr. Sam Wu, Recipient of Inaugural Mark C. K. Yang Mentor Award**

The Mark C. K. Yang Mentor Award is a distinguished annual award presented to a faculty member of the Biostatistics or Statistics department, alternating annually between these departments, in recognition excellence as a mentor of graduate students and/or junior faculty members. Nominated recipients were reviewed closely by the department Awards Committee and selected because they embody characteristics of Mark such as mentorship through guidance, advice, role modelling in their technical skills and professional development.

Mark, a statistician, was a professor in the UF Statistics Department. During his tenure he taught, mentored, and provided leadership to students and colleagues alike. Dr. Wu, a close friend and colleague of the late Mark C. K. Yang, was the recipient of the inaugural namesake, mentor award. The award ceremony was held December 10 at the HPNP auditorium following several speeches and presentations by a host of colleagues, including former chairs of the Department of Statistics, students, friends, and family of both Dr. Wu and the late Dr. Mark C. K. Yang.
Dr. Peihua Qiu, Elected as Fellow of the American Society for Quality

Dr. Peihua Qiu, Professor and Chair of the Department of Biostatistics was recently elected as Fellow of the American Society for Quality (ASQ), for fundamental methodological research in quality control and management, for contribution in quality-related education, training, and consulting, and for service to the profession as editor and associate editor of quality-related professional journals. The Fellow induction ceremony was held in May of this year at the 2022 World Conference on Quality and Improvement in Anaheim, California, where Dr. Qiu was formally recognized for his achievements.

Nomination: President American Statistical Association

Dr. Ji-Hyun Lee was selected as one of the two final candidates for the president of the American Statistical Association (ASA), which boasts more than 16,000 members in more than 90 countries. Dr. Lee is a professor of Biostatistics and serves as the director of the Division of Quantitative Sciences at the UF Health Cancer Center. With more than 20 years experience in the field of cancer research and having authored over 160 peer-reviewed articles, in addition to serving on the board of ASA’s directors for three years, Dr. Lee is an excellent candidate for ASA’s presidency.

The election will take place next spring. If Dr. Lee is elected she will bring many firsts to the association’s presidency; such as being the first Korean American Statistician, the first woman statistician from Florida, and the first cancer center applied biostatistician in the history of ASA’s presidency.

Dr. Susmita Datta, honored as a Plenary Speaker

Dr. Susmita Datta was invited by the Mathematics Department of West Virginia’s Marshall University to give a plenary presentation. The talk was given on October 14, 2022, at the 4th International Conference on Statistical Distributions and Applications. The title of Dr. Datta’s talk was *Statistical Analysis of single cell RNA sequencing (ScRNA-seq) data.*
Accomplishments and Awards

Publication

UF PHHP Biostatistics Assistant Professor Matt Hitchings was involved in work demonstrating the benefit of four COVID-19 vaccines in individuals who have previously recovered from the virus. Dr. Hitchings has been studying the effectiveness of COVID-19 vaccines in São Paulo State for the last year, as part of the VEBRA COVID-19 consortium of researchers. For this research, they joined with another group of researchers, using a nationwide Brazilian database to examine the Pfizer, Johnson & Johnson, Oxford-AstraZeneca, and CoronaVac vaccines. The research, published in The Lancet Infectious Diseases (https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00140-2/fulltext) and reported in several news outlets including The Guardian and Nature News, should give confidence to people who caught COVID-19 and have questions about the usefulness of getting vaccinated, as well as evidence for governments to recommend or require vaccination for these people.

Publication

This fall, Dr. Ira Longini was part of a group of infectious disease scientists who shared information published in The Lancet, regarding intervention strategies related to public health measures that should be taken to curb the impact of monkeypox within the human population. The article in its entirety can be reached through this link: https://phhp.ufl.edu/2022/09/22/greater-public-health-response-needed-to-limit-monkeypoxs-evolution-experts-say/

Retiring Professor, Dr. Babette Brumback, Awarded Emerita Status

Dr. Babette Brumback retired on June 30, 2022, following a long and distinguished career of 18 years with UF and the Department. She joined UF as an Associate Professor in 2004, was awarded tenure in 2009, and has served in many vital roles lending her expertise, experience and outstanding instruction and leadership, including serving as our Associate Chair for Education from 2013-2021.

In recognition of Dr. Brumback’s distinguished and meritorious service to the University and upon recommendation by the department and approval by the President, Dr. Brumback was given the designation of Professor Emerita. Thank you for your years of service and many contributions, Dr. Brumback.

Outstanding Alumni: Dr. Kai Yang

Kai Yang, Ph.D., a PHHP Biostatistics ‘21 was nominated and voted as the 2022 Outstanding Alumni. Dr. Yang is currently an Assistant Professor in the Division of Biostatistics at Medical College of Wisconsin Health Research Center in Milwaukee, Wisconsin.
Department Hosts International Chinese Statistical Association Symposium

The Department of Biostatistics, in conjunction with the College, hosted the annual international symposium for the International Chinese Statistical Association (ICSA) here on the University’s main campus from June 19 -22, 2022. This year’s theme was Statistical Innovation in the Era of Artificial Intelligence and Data Science. There were over 400 attendees, including world renowned statisticians and researchers, local, domestic, and international faculty, as well as students from UF and across the nation! The four-day event included a mixer at the Hilton, a poster session featuring student research, and daily courses at the HPNP building. The culmination of almost two years in the making, the planning came to fruition and the event was deemed a huge success by the attendees! The opportunity to showcase our Gator pride and hospitality made a lasting impression on our guests.

International Chinese Statistical Association Appointment

Dr. Zhigang Li was recently appointed as the new Chair of the Awards Committee for the International Chinese Statistical Association. Dr. Li’s tenure for this new appointment began on September 21, 2022.

Biostatistics Award Winners for 2022

The department recognized the hard work of faculty, students, and staff at the spring picnic held at Lake Wauburg in May of this year. The 2022 award winners are:

2022 MS Outstanding Student: - Yutao Zhang
2022 Online MS Outstanding Student: - Ryan Widner
2022 PhD Preliminary Exam (spring) - Man Chong Leong
2022 PhD Preliminary Exam (fall) - Shoumi Sarkar
2022 Outstanding Dissertation Research - Xiulin Xie
2022 Outstanding Teacher - Dr. Qing Lu
2022 Outstanding Student Support - Dr. Zhigang Li
February

Dr. Yichuan Zhao  
Professor of Mathematics & Statistics, Georgia State University  
- Title: *Bayesian Jackknife Empirical Likelihood*

March

Dr. Russell Shinohara  
Associate Professor of Biostatistics, University of Pennsylvania  
- Title: *Harmonization Methods for Neuroimaging Data*

April

Dr. Sudipto Banerjee  
Professor and Chair, UCLA Fielding School of Public Health  
- Title: *On Massively Scalable Spatial Process Models for High-Resolution Actigraph Data*

Dr. Li Chen  
AI Faculty Candidate  
- Title: *Novel deep learning approaches for analyzing genetic variants by integrating genotype and multi-omics data*

June

Dr. Yushu Shi  
Assistant Professor of Statistics, University of Missouri Columbia  
- Title: *Bayesian Knockoff Generators for Complex Data Structure*

August

Dr. Juan Diego Hernandez Jarquin  
Assistant Professor, Department of Agronomy, University of Florida  
- Title: *Genomic Prediction Models Including Interactions Between Multiple-Omics with Potential Applications in Personalized Medicine*

October

Dr. Ian McKeague  
Professor of Biostatistics, Columbia University  
- Title: *Empirical Likelihood Based Inference for Functional Means with Application to Wearable Device Data*

Dr. Marina Vannucci  
Noah Harding Professor, Department of Statistics, Rice University  
- Title: *A Bayesian Joint Model for Mediation Effect Selection in Compositional Microbiome Data*

November

Dr. Indranil Mukhopadyay  
Professor of Statistics, Indian Statistical Institute, India  
- Title: *Pseudotime Reconstruction and Downstream Analysis Based on Single Cell RNA-seq Data*

December

Dr. Jong-Min Kim  
Professor of Statistics, University of Minnesota at Morris  
- Title: *Copula and It’s Applications*
**Postdoc**

Dr. Mingjin Liu joined the department in July 2022 as a Post Doc Associate to Dr. Ira Longini. Dr. Liu was awarded a Ph.D. degree from University of Florida in May 2022. His dissertation was titled: Analytic Methods for Infectious Diseases Transmission Dynamics Based on Surveillance Data and Genetic Data.

---

**Visiting Scholars**

**THE DEPARTMENT ESTABLISHED A VISITING RESEARCH SCHOLAR PROGRAM IN 2015.**

The department looks forward to the return of visiting scholars beginning January 2023.

---

**The Biostatistics Student Organization**

President – Chijioke Samuel Anyaso-Samuel  
Vice President - Peter Chang  
Secretary - Natalie DelRocco  
Student Faculty Liaison - Meilin Jiang

You can visit the Biostatistics Student Organization at:  
[https://www.facebook.com/groups/1635589846470110](https://www.facebook.com/groups/1635589846470110).
2022 graduates

Doctor of Philosophy

Amy Crisp, Ph.D. - Mentor: Natalie Dean, Ph.D.
   Thesis Dissertation Title: Statistical Methods for a Cluster Randomized Trial to Prevent Arboviral Diseases

Haibul Hasan, Ph.D. - Mentor: Yang Yang, Ph.D.
   Thesis Dissertation Title: Bayesian Inference for Continuous-Time Transmission Processes of Infectious Diseases in Close Contact Groups

Mingjin Liu, Ph.D. - Mentor: Yang Yang, Ph.D.
   Thesis Dissertation Title: Analytic Methods for Infectious Diseases Transmission Dynamics Based on Surveillance Data and Genetic Data

Archie Sachdeva, Ph.D. - Mentor: Subharup Guha, Ph.D.
   Thesis Dissertation Title: Novel Statistical Approaches for High-Dimensional Microbiome Data and Integrative Analysis of Single-Arm Clinical Studies and Real-World Data

Master of Science

Shuqian Chen, M.S. - Mentor: Xiangyang Lou, Ph.D.
Madison Moore, M.S. - Mentor: Arkaprava Roy, Ph.D.
Yutao Zhang, M.S. - Mentor: Arkaprava Roy, Ph.D.
Sara Nutley, M.S. - Mentor: Babette Brumback, Ph.D.

Master of Science Online

Hannah Glenn, M.S. - Mentor: Jonathan Fischer, Ph.D.
Wanru Guo, M.S. - Mentor: Susmita Datta, Ph.D.
Tara Hashemian, M.S. - Mentor: Subharup Guha, Ph.D.
Sabrina Khuntia, M.S. - Mentor: Xiangyang Lou, Ph.D.
John Leary, M.S. - Mentor: Arlene Naranjo, Ph.D.
Heather Leifeld, M.S. - Mentor: Robert L. Parker, Ph.D.
Jake Cofferen, M.S. - Mentor: Arlene Naranjo, Ph.D.
Zachary Thompson, M.S.—Mentor: Zhigang Li, Ph.D.

Congratulations! We are very proud of these new gator graduates!
THANK YOU to the following supporters who made gifts to the department in 2022!

$0 - $250
Jason Brant  
Jonathan Fischer  
Tom Goodwin  
John Kairalla  
Yang Li  
Wei Lu  
Jill Pease  
Shu Wang  
Kimberly Zelaya
Babette Brumback  
David Cape  
Ying He  
Ji-Hyun Lee  
Xiang Yang Lou  
Deana Nance  
Jonathan Pollio  
Richard Shuster  
Elizabeth Zipper

$250 - $500
Zhulin He  
Qing Lu  
Guogen Shan
Zhiguang Huo  
Ying Li

$500 - $1,000
James Bolognese  
Zhigang Li
Sigrid Corcoran  
Sam Wu

Greater than $1,000
Somnath Datta  
Peihua Qiu  
Chenguang Wang
Novartis  
Deng-Shan Shiau

Thank you so much for your generous gifts!
If you’d like to join this list of generous donors, or if you’d like to make another gift, please click here to talk with our Director of Advancement, Kimberly Zelaya!

We invite you to visit our department website at: http://biostat.ufl.edu

Department of Biostatistics . (352) 294-5770 . Clinical Translational Research Building (CTRB) 5th Floor, 2004 Mowry Road, Post Office Box 117450, Gainesville, Florida 32610-3010