

# 2018 Biostatistics Department Annual Newsletter



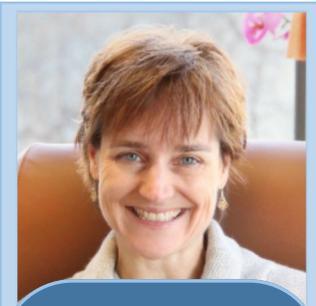
First graduating class of the Master of Science in Applied Biostatistics celebrating their brand new degrees

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I hope everyone had a great summer and came back refreshed and ready for the new academic year!

Many faculty and students enjoyed attending the Joint Statistical Meetings (JSM) in Vancouver this summer. In addition to multiple presentations by students and faculty, we held our first annual Boston University Biostatistics/Statistics reception



LETTER FROM  
THE CHAIR

Josée Dupuis, PhD

at the Vancouver Convention Center on July 30, 2018. It was nice to see some familiar faces and to reconnect with old friends. For photos from the event, check out the School of Public Health Facebook page! Please plan to attend our next Boston University Biostatistics reception scheduled for March 25, 2019, from 7 to 9 p.m. at Strangelove's in Philadelphia, in conjunction with the Eastern North American Region (ENAR) of the International Biometric Society meeting. We will also plan for a repeat Boston University Biostatistics/Statistics reception at JSM 2019 in Denver, Colorado. I hope to see you in Philadelphia and Denver!

In addition to our Biostatistics receptions, we have a number of other events and activities planned for the year. We will hold regular tea times for Biostatistics affiliates (students, faculty, and friends) on the second Tuesday and fourth Thursday of the month from 4:30 to 5:30 p.m. in CT332. Drop by to catch up with your colleagues and enjoy some cookies and tea. Our annual L. Adrienne Cupples Award presentation will be held on April 4,

2019. Please consider nominating a colleague. Nomination information can be found on our website. We have a number of exciting seminar speakers scheduled for the academic year: Alexander (Al) Ozonoff from Boston Children's Hospital; Sunil Rao from the University of Miami; Irini Moustaki from the London School of Economics; Kim-Anh Do from the MD Anderson Center at the University of Texas; Debashis Ghosh from the University of Colorado (Denver) School of Public Health; Yihong Zhao, a new faculty member in the BU Goldman School of Dental Medicine; and Judith Lok, a new faculty member in the BU Mathematics and Statistics Department. There are many seminar series, including, but not limited to, the Statistical Genetics Seminar Series and the Clinical Trial Working Groups. Attending seminars and working group meetings provide great opportunities to learn about other Biostatistics programs, future jobs in academia or industry, and current research trends, and they may even provide ideas for dissertation topics! Please check out the SPH Biostatistics Calendar for details.

This past year, we welcomed one additional post-doctoral fellow in the Biostatistics Department: Tenglong Li. Dr. Li received his PhD in Measurement and Quantitative Methods from the Michigan State University. His major expertise relates to quantitative research in Education and other behavioral science disciplines. He is working with Professors Laura White and Evan Johnson on problems related to tuberculosis transmission and combining genomic data from multiple sources.

We also welcome Michelle Lynch, our new Assistant Director of Administration. Ms. Lynch comes with many years of experience, at Boston University and other institutions. She joined the Biostatistics Department in 2017 as a temporary employee and quickly became a valued member of our staff. I am delighted that Ms. Lynch has accepted our offer for a permanent position in the Department of Biostatistics.

Congratulations to Aya Mitani and Kendra Plourde, Biostatistics PhD candidates, for receiving a National Institute of Health Predoctoral Individual National Research Service Award (F31) to support their doctoral research. These awards are highly competitive, and it is quite an honor to be selected. You can read more about their proposed research in this newsletter. Congratulations are also due to Professor Anita DeStefano, who was appointed Graduate Affairs Faculty Fellow for Diversity and Inclusion for the University. In her new role, Professor DeStefano will work with her BU colleagues to create and implement initiatives to enhance diversity and inclusion in doctoral student recruitment, admissions, and retention, and to build community among underrepresented doctoral students. Professor DeStefano has worked tirelessly to bring more diversity in Biostatistics student recruitment, and it seems like a natural step for her to bring her experience and knowledge to benefit all University Programs. I want to congratulate and thank Professor DeStefano for her willingness and interest to serve in this important role.

We have a great year ahead of us, filled with opportunities. Best wishes for a successful and fun year!

# Biostatistics in the Community



The third annual Celebrate Urban Birds (CUB) event, a joint program between the Boston University School of Public Health (BUSPH) and the Blackstone Community Center (BCC), was held on July 17, 2018. This event was funded by a mini-grant from the Cornell Lab of Ornithology to Ms. Chary (Amparo) Ortiz, Financial Administrator for the Biostatistics Department. Over fifty children, ages 5 to 12, who attend the summer camp program at BCC rotated through up to four bird themed stations focused on citizen science, data, and art. Ms. Ortiz, who is also a member of the Board of Directors for the Blackstone Community Center, worked with Anita DeStefano, PhD, Professor of Biostatistics BUSPH, to develop the stations for the 2018 event. The success of the July program was due in large part to the energy, enthusiasm, and willingness of multiple BU student volunteers and the materials provided by the Cornell Lab of Ornithology.

The first station run by Dr. DeStefano with support from Andrés Amaya, a current BUSPH MPH (Epidemiology and Biostatistics) student, led the campers in being citizen scientists. Using two spotting scopes (generously loaned by Dr. Stephen Hale of Open World Explorers) and six pairs of binoculars funded by the mini-grant, the children learned about the CUB focal species and collected data during a ten minute observation period.

The second station, run by Anastasia Gurinovich and Marzie Rasekh, both Bioinformatics Program doctoral students, focused on data. After viewing the Cornell website, which showed data uploaded in 2016 and 2017 from the BCC, the children drew histograms to visualize how often different species were observed.

The art station, run for the third year in a row by Ms. Ortiz' daughter Anjelique Casiano, enabled the children to create bird themed cards using stamps, photos, markers, and other media. This creative activity reinforced what they observed and learned about birds at the other stations. The kids' favorite bird fact was that "Drake" is not only a famous musician but a male duck as well!

The fourth station, led by Sabrina Lopez (BUSPH MPH '18) was dedicated to "greening" the environment. The children filled planters with flowering plants to attract bees and provide a better environment for birds and people. The BCC looked particularly beautiful after this event.

Thunderstorms ended the outside observation station early. Fortunately a backup plan was in place, in which the children learned to identify birds commonly seen around the BCC in an interactive presentation using an audience response system ("clickers"). The slideshow, developed and presented by Dr. DeStefano, also featured information on some common bird behaviors. Ms. Ortiz and Dr. DeStefano look forward to continuing this annual event, holding additional activities around birds and science, and strengthening the ties between BUSPH and BCC.

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# ANNUAL BIOSTATISTICS FALL EVENT

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Biostatistics PhD student Ellie Gurary conquering the climbing wall

Almost there, David Gagnon!

This year's Annual Biostatistics Fall Event 2018 took place at the BU FitRec and Wellness Center on Sunday, September 30. Faculty/student/staff and their families came together for fun, fit activities like soccer and ping pong, as well as great food. We hope more of you can join us for other department activities throughout the year.



# BIostatISTICS STUDENT ASSOCIATION



BSA Annual Apple Picking Event

October 2018

Drew Farms, Westford, MA

## A Word from your BSA President

Dear Faculty and Students,

Welcome back! My name is Taylor Mahoney and I am currently a 4<sup>th</sup> year PhD student, serving as the President of the Biostatistics Student Association for the 2018 – 2019 academic year. The BSA was founded in 2009 by students in the biostatistics department in order to create a sense of community between faculty and students, and has flourished since then. This year we have tons of exciting events (both academic and social) that we hope you all will attend! These events include our monthly student faculty lunchtime seminars, a recent apple picking event, course registration breakfast sessions, and annual alumni career panel, as well as our peer mentoring program for incoming PhD students. Please reach out the BSA if you have any questions or suggestions ([bubsa@bu.edu](mailto:bubsa@bu.edu)). Have a great year!

Best,

Taylor Mahoney

BSA Annual Thanksgiving  
Potluck  
November 2017



## 2018 L. ADRIENNE CUPPLES AWARD WINNER

The 2017 L. Adrienne Cupples Award for Excellence in Teaching, Research and Service in Biostatistics was awarded to **Nicolas P. Jewell**, Professor in Biostatistics and Statistics at the University of California, Berkeley School of Public Health.

Professor Jewell gave a lecture on entitled “A Statistician’s Challenges with Infectious Disease: From HIV to Dengue.”

Dr. Jewell’s work has enriched the fields of both biostatistics and public health. He has taught introductory biostatistics to an astounding 3000 students around the world. Notes from his courses have resulted in the publication of two major biostatistics textbooks. Professor Jewell has served on the editorial boards of thirteen statistical and biostatistical journals, has been elected to the National Academy of Medicine, and has elected fellowships in the American Statistical Association, the Institute of Mathematical Statistics, and the American Association for the Advancement of Science.

The annual Cupples Award recognizes a biostatistician whose academic achievements reflect the contributions to



biostatistics exemplified by L. Adrienne Cupples, the award’s first recipient. Professor Cupples came to SPH in 1981 and served as the founding chair of the Department of Biostatistics and co-executive director of the Graduate Program in Biostatistics. During her time at SPH, she has advanced the field of biostatistics through extensive publications in major journals, book chapters on collaborative and methodological research, development and implementation of effective teaching in a wide range of biostatistics courses, and mentorship of numerous graduate students and faculty.

## 2018 KAYNE PRIZE WINNER

The Herbert Kayne Prize for 2017 was awarded to **Penlong Wang**. The Kayne Award is presented each year to a graduating Master of Public Health concentrator who has achieved high academic standing and has shown a strong interest in biostatistics and public health in general. This award is named for Dr. Herb Kayne, a former long-time faculty member in the Department of Epidemiology and Biostatistics, who taught biostatistics to most, if not all, of the MPH students in the School of Public Health from its founding until his retirement in 1999.

Penlong Wang was highly recommended by both Michael LaValley and Chunyu Liu for the Kayne Award. He graduated with an epidemiology-biostatistics concentration having taken an incredible 30 credits of biostatistics courses, and achieving a final GPA of 3.98.

Mike LaValley has had Penlong in two of his courses, and according to him, Penlong has really set the standard for

an MPH student, performing at a level expected of a biostatistics PhD student, rather than an MPH. In Professor LaValley’s own words, “He is a really pleasant person to talk to, is very attentive in class, and detail-oriented in the exams and homework. I can’t think of an MPH student who I would place before him.”

Chunyu Liu expressed, “I was impressed by Penglong for several reasons. First, Penglong pointed out inadequate instructions from a couple of homework assignments when the rest of class followed these instructions without any questions. Second, Penglong always raised critical questions in class. He grasped some difficult concepts very quickly. I sometimes asked him to explain a few concepts to the whole class. Third, Penglong received the highest score for my class.” In addition to having taught Penlong, Professor Liu has also worked with him on a research project, expressing that he has high potential in the field of statistical genetics.

## BUSPH Biostatistics Academic Excellence Award

Established in 2018, the BUSPH Biostatistics Academic Excellence Award is presented annually by the Department of Biostatistics to a graduating MA/MS student who has shown exemplary academic performance. The winner demonstrates the highest level of achievement in their coursework to fulfill the requirements for a master's degree in biostatistics. The award was presented at the SPH Awards Ceremony on May 18, 2018.

The inaugural BUSPH Biostatistics Academic Excellence Award was awarded to Katya Zelevinsky, an MA student in Biostatistics. According to Howard Cabral who presented her with the award, "Katya is a highly talented MA student who has dealt with some very difficult personal circumstances in her life. She had to take an extended leave of absence from the program and still achieved a perfect 4.0 GPA and passed her qualifying exams with stellar scores... Katya is most deserving of this award!!"

## BUSPH Biostatistics Excellence in Research Award

Established in 2018, the BUSPH Biostatistics Excellence in Research Award is presented annually by the Department of Biostatistics to a graduating MA/MS student who has shown excellence in their research activities. The recipient of this award demonstrates outstanding performance and dedication to research in the field of biostatistics. The award was presented at the SPH Awards Ceremony on May 18, 2018.

The inaugural BUSPH Biostatistics Excellence in Research Award was awarded to Zeyuan Song, one of the first graduating students of the Master of Science in Applied Biostatistics program. Out of a very talented and competitive group of students, Zeyuan had the highest GPA, a commendable 4.0. He was nominated by both MS program co-chair Paola Sebastiani and by Gina Peloso. In Dr. Sebastiani's own words, "I had opportunities to interact with him through three research projects that he conducted for BS806, BS852, and BS849. In all three projects Zeyuan showed great ability to work independently and to master several biostatistical techniques. I was also impressed by his "healthy skepticisms" of statistical results and his ability to critically evaluate methods and results that exceed expectation."

## BUSPH Biostatistics Doctoral Applied Research Paper Award

Established in 2018, BUSPH Biostatistics Doctoral Applied Research Paper Award is presented annually by the Department of Biostatistics to a graduating PhD student in Biostatistics who has completed an outstanding applied research paper. The winner of this award must have written a high-impact paper that has been submitted or has been accepted for publication in a peer-reviewed academic journal. The Award was presented at the SPH Awards Ceremony on May 18, 2019, by Dr. Howard Cabral.

The BUSPH Biostatistics Doctoral Applied Research Paper Award was awarded to Virginia Fisher. Virginia has published many papers — including four in which she was first or joint-first author — requiring her to perform innovative analyses in statistical genetics. Her joint-first author publications were published in prestigious scientific journals, *Nature Genetics* and *Nature Communications*. In Dr. Cabral's words, "Virginia has been an exemplary student in the Biostatistics Doctoral Program, someone in whom we will take tremendous pride as an alumna of our program ."

## 2018 BIOSTATISTICS PROGRAM GRADUATES

### PhD

Chen, Yuning

*Evaluation of marker density for population stratification adjustment and of a family-informed phenotype imputation method for single variant and variants-set tests of association*

Deng, Xuan

*Multiple testing problems in classical clinical trial and adaptive designs*

Fisher, Virginia

*Integrating Genome-Wide Association Studies and Functional Annotation*

Gerlovin, Hanna

*Effective exposure lag-parametered exponential models for exposure risk*

Ghosh, Pranab

*Design of Adaptive Multiarm Multistage Clinical Trials*

Lent, Samantha

*Multi-site and multi-tissue methods for DNA methylation*

Yao, Baiyun

*Bayesian approaches to address the issue of high placebo response in clinical trials using sequential parallel comparison design*

### MA

Elder, Kenneth

Li, Yijing

### MS

Cao, Yiming

Chen, Ye

Cui, Qingchao

Jin, Feng

Jung, Lindsey

Koshy, Allen

Lu, Tse-an

Mascary, Sadchla

Sang, Tian

Shen, Ningjun

Singh, Bhupinder

Song, Zeyuan

Underwood, Ellen

Zeng, Yiyuan

Zhou, Teresa

Zhu, Jianing

### MPH

Achilike, Confidence

Alvarez, Crystal

Ashe, Erin

Auwarter, Emily

Behling, Michael

Bernstein, Ryan

Cheng, Jonathan

Cintron, Chelsie

Dauphin, Ashley

Denofrio, Angelo

Garrity, Brigid

Glowienka, Emily

Healey, Bridget

Huebner, Rachael

Javalikar, Sumedha

John, Carolyn

Kamineni, Phanisyam

Kebede, Nehmiah

Kennedy, Samantha

Kileel, Emma

King, Julie

Knoll, Susan

Kumar, Anjali

Lin, Pei-Rong

Magnavita, Emily

Massaro, Marisa

Mcgillivran, Rachael

Menard, Samantha

Nash, Dina

Newton, Breanna

Nezolosky, Michelle

Omotola, Ayomide

Pacis, Scarlett

Pan, Li-Chen

Paulino Cenit, Ilkania

Pettitette, Adrienne

Pierre, Franz

Pradhan, Gayatri

Rajendran, Iniya

Rohs, Carly

Rosenberg, Jessica

Roth, Alexander

Salian, Prerna

Salvi, Devashri

Sharma, Sonali

Song, Shuang

Sun, Ying

Tucker, Carly

Wang Penlong

Wang, Tanran

Williams, Stephanie

Wong, Qing Wai

Wright, Courtney

Yugar Carlos

Zhang, Chunyi

### CONGRATS!

Our recent graduates are going on to employment with the following organizations:

- ◆ AbbVie Genomics Research Center
- ◆ Alkermes
- ◆ AstraZeneca
- ◆ Bayer
- ◆ Boston Medical Center
- ◆ Boston University School of Public Health
- ◆ Brigham and Women's Hospital
- ◆ Cytel
- ◆ Dana-Farber Cancer Institute
- ◆ Framingham Heart Study
- ◆ GNS Healthcare
- ◆ LLX Solutions
- ◆ Massachusetts Department of Public Health
- ◆ Medical University of South Carolina
- ◆ Merck
- ◆ Pfizer
- ◆ Precision Xtract
- ◆ Prometrika
- ◆ Sanofi Genzyme
- ◆ Slone Epidemiology Center
- ◆ Tufts Medical Center

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# FACULTY NEWS

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Professor **Paola Sebastiani** was awarded a five-year R01 grant to study a protein signature associated with genotypes of the APOE gene, and to try to derive biomarkers of neuroprotection. She is also PI with Thomas Perls on one of the Longevity Consortium projects, a multi-center grant aimed at discovering risk factors associated with aging and extreme longevity. In addition, Paola was awarded the 2018 SPH Faculty Award for Excellence in Research & Scholarship.



Professor **Anita DeStefano** was appointed Graduate Affairs Fellow for Increasing Diversity. In addition, she has been rewarded an NIH/NIA U01 grant seeking to identify new genomic variants contributing to increased risk for and protection from Alzheimer's Disease in multi-ethnic populations, and to identify new pathways for disease treatment and prevention.



Research Associate Professor **Chunyu Liu** has received an R01 grant as principal investigator from NIA/NIH for Mitochondrial DNA Copy Number and Sequence Variation in Relation to Age, Alzheimer's Disease Related Phenotypes, and Age-related Metabolic Traits, as well as an R21 grant as principal investigator from NIH/NHLBI for Analysis of Heteroplasmic mtDNA Mutations in Whole Genome Sequencing: Methods and Application to Cardiometabolic Disease Traits. Her R21 grant was scored and received first percentile.



Associate Professor **Laura White** applied for and was awarded a diversity supplement for her R01 (Methods to estimate the transmission and incidence of tuberculosis) to fund Epidemiology doctoral student Carly Rodriguez. Carly will be working to understand the prevalence of superspreading events in tuberculosis.

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# BIOSTATS RECOGNITION

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This past May, our first graduating class of the MS in Applied Biostatistics walked at commencement. All sixteen full-time students completed their coursework and research rotations, and started their ten-week internships before they officially graduated from the program in September.



Several students enrolled in the Master of Science in Applied Biostatistics were accepted for an eleven-week internship at Pfizer in Cambridge, MA. The internship program was designed by Vince Amoruccio, MPH, and BU alumni Sandeep Menon, PhD. After a training in May, the students were matched to statistical mentors and worked in teams to learn various steps of data management and data cleaning for Phase I clinical trials. Toward the end of the internship, the students were presented with some data challenges and the opportunities to propose their own original solutions. Several of the students were offered full time positions after the completion of the internship. Pfizer statistical mentors enjoyed the internship program and are eager to get started with the new wave of students in 2019.

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# BIOSTATS RECOGNITION

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Assistant Professor **Ludovic Trinquart** has been busy at work. He was selected for funding by the American Heart Association to be part of their Strategically Focused Atrial Fibrillation Research Network as the Principal Investigator of a Population Science Project with the goal of developing and validating a prediction model for lifetime risk of atrial fibrillation based on genetic and clinical risk factors, describing the lifetime risk of heart failure and stroke in individuals with AF in relation to risk factors, and estimating the probability of progressing between atrial fibrillation, heart failure, and stroke. Also involved in this research network are Emelia Benjamin as center director, Kathryn Lunetta and Patrick Ellinor of the Broad Institute as PIs of a Basic Science project, and Steve Lubitz and Chris Andersen of MGH as PIs of a Clinical Science project.

cal Science project.

In addition, Ludovic worked with Michael LaValley in creating two short courses for the PHX Summer Institute: [Systematic Reviews for Public Health and Biomedical Research](#) and [Meta-Analysis for Public Health and Biomedical Research Using R](#).

Ludovic was also involved in organizing a session at the Joint Statistical Meeting this summer in Vancouver, entitled [Advances in Statistical Methods for Meta-Analysis](#), as well as a short course, [Meta-Analysis for Biopharmaceutical and Public Health Research Using SAS](#).

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# WELCOME NEW BIostatISTICS POST-DOC

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## **Tenglong Li, PhD in Measurement & Quantitative Methods**

I guess my background is a little bit wild for Biostatistics & Genetics: my undergraduate major was marketing and my graduate major was statistics. I finished my PhD in Measurement & Quantitative Methods at Michigan State University in January 2018. My PhD program focused on developing statistical methods for social science research and my dissertation is about the robustness indices of causal inferences.

I am currently working as a postdoctoral research associate in biostatistics & computational biomedicine, under the supervision of Dr. Laura White and Dr. Evan Johnson. My research area includes developing a Bayesian algorithm based on random digraphs for household contact study in tuberculosis. Another project I am working on is addressing the exaggerated significance problem in batch effect adjustment using regression and the empirical Bayes model. In the future, I am planning to initiate a project on the latency of tuberculosis, which purposes developing innovative modeling approaches.

In my spare time, I love reading new books and papers on data science, and learning new cutting-edge approaches and tools. In addition, I love sports, especially basketball and soccer, both as a participant and as a spectator. I look forward to talking with the faculty and students in our department and I am thrilled to be a part of it!

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# WELCOME NEW BIostatISTICS STAFF

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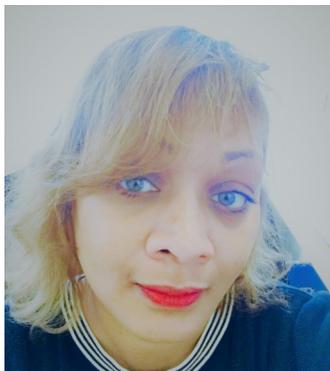
**Kelly Connors, Academic Program Administrator, Biostatistics**

As Academic Program Administrator, I work as a liaison and facilitator, on behalf of Biostatistics students and faculty, with SPH Central Administration Offices. I am the primary staff contact for the:

- MA and PhD programs in Biostatistics
- MPH Certificate in Epidemiology and Biostatistics
- MPH Certificate in Design and Conduct of Public Health Research
- Graduate Certificate in Statistical Genetics
- Graduate Certificate in Modern Biostatistics in Clinical Trials
- Summer Institute for Research Education in Biostatistics (SIBS)

Previously, I worked at BU's Office of the Provost on the Charles River Campus, where my main projects were university-wide initiatives such as [Program Learning Outcomes Assessment](#), the undergraduate academic [Advising Network](#), and [Faculty Teaching Awards](#).

In my personal life, I enjoy crafts such as woodworking, sewing, and other decorative arts. I've taken extensive continuing education coursework at the [North Bennet Street School](#). I also enjoy running, cycling, and swimming, and have completed many sprint-distance triathlons and half-marathons, in addition to the Olympic distance [Nation's Triathlon](#) and the [New York City Marathon](#).



**Michelle Lynch, Grants Manager**

I have a budget and reporting background, which includes working with the monthly review and analysis of foreign governments (South Africa and the Caribbean). I worked with Federal and non-Federal grants, as well as donor financial reports with philanthropic donations. I am currently working as a Grants Manager in the Biostatistics department, supervised by Virginia Quinn. As a Grants Manager my responsibilities include managing preparation of grant and contract proposals, determining and communicating current requirements, preparation of budget, budget justification, required forms and formatting, and all non-scientific aspects.

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[Read about our PhD program here](#)

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**Rachel Ehrbar** I am a first-year PhD student doing my Research Assistantship with Vanessa Xanthakis working on the Framingham Heart Study. I received my BA in Mathematics from the College of the Holy Cross, and after a few years of working as an administrative assistive at Beth Israel Deaconess Medical Center, I received my MA in Biostatistics from BU. After graduating, I worked for the Veterans Affairs as part of MAV-ERIC (Massachusetts Veteran Epidemiology Research and Information Center) as senior data analyst. During my time at the VA, I aided in data analysis and research for the Million Veteran Program, which involved recruiting Veterans, analyzing their survey responses, and creating a phenotype algorithm for PTSD — which is currently being used for GWAS.



**Sophia Gunn** Hi everyone! I was born and raised in New York City, and recently graduated from Carleton College in Minnesota with a BA in Math/Statistics. As much as I loved the Midwest, I am happy to return to the East Coast and very excited to be at BU! Outside of class I enjoy cooking and spending time outdoors.



**Wenqing Jiang** Hello everyone! I am originally from China, but spent the past four years in Boston. I earned a BS in Mathematics from Sun Yat-sen University and an MS in Biostatistics from Harvard University. After that, I worked at Massachusetts General Hospital for two years and now I'm here at BU, back to school! My research interests lie in early detection of cancers as well as identification and development of therapies for patients on a more personalized level. Outside biostatistics, I enjoy spending time outdoors – although not in the winter, for sure!



My name is **Jingyi Lin**, and I am a first-year PhD student in the Department of Biostatistics. My research interests include clinical trial design, as well as statistical computation. Before BU, I obtained my BS in Computational Mathematics from Xiamen University, and my Master's degree in Biostatistics from Duke University. In my spare time, I enjoy swimming and scuba diving.

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# WELCOME NEW PHD STUDENTS

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**Patricia Miller** I grew up in Rochester, New York, where I earned a BS in Applied Mathematics from the Rochester Institute of Technology. Following my undergraduate studies, I taught middle school math for a few years before returning to graduate school and earning a MS in Applied Statistics from the University of Southern Maine. While in graduate school I worked as an institutional researcher for Southern Maine Community College, where I was also an adjunct instructor in Mathematics and Statistics. For the past six years I have been working as a biostatistician at Boston Children's Hospital in the department of orthopedic surgery. When I'm not stuck in front of a computer screen I'm usually doing something fall-related with my family.



**Xiaoyu Tang** I did my undergraduate study at BU, majoring in Math and Economics, and obtained my Master's degree at Yale majoring in Statistics. I did statistical genetics before but I am open to other research areas in the future. In my spare time, I like watching movies, shopping, and trying different kinds of food.



**Ruiqi Wang** Hi everyone! I was born in China and earned my BS in applied mathematics at Xiamen university. After graduation, I came to Washington DC and earned my MS in Biostatistics at Georgetown University. Prior to joining Boston University, I worked as an intern at the Innovation Center for Biomedical Informatics at Georgetown University doing research on Clip-seq data. In my spare time, I enjoy travelling, cooking, and playing video games!



**Qingyan Xiang** I am from China. I got my BS degree in Zhejiang University major in Food Science. Then I earned my MS degree in Statistics at the University of Illinois at Champaign-Urbana. I am really into music. I have been playing guitar for years and played in several bands back in China. I hope to get involved in the local Boston music scene and craft some interesting sounds.

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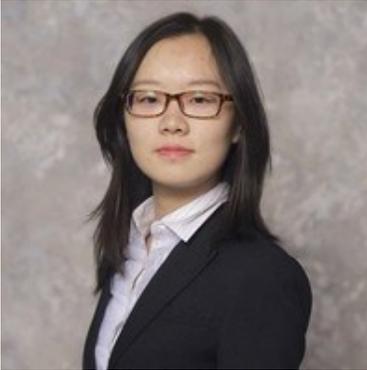
# WELCOME NEW PHD STUDENTS

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# WELCOME NEW PHD STUDENTS

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**Hanfei Xu** Hi everyone, I have been at the BU Biostatistics Department for two years working as data analyst and am excited about switching my role to PhD student. Before joining BU, I received a BS in Math from Fudan University and earned my MS in Biostatistics from Georgetown University. In my free time, I like to watch movies and explore the city.



My name is **Kristina Yamkovoy**, and I grew up in Acton, Massachusetts. I received my Bachelor's degree in Mathematics with concentrations in Applied Mathematics and Statistics from the University of Massachusetts Amherst in May 2018. While at UMass, I was a teaching assistant for Calculus for Life and Social Sciences, a peer advisor in the Math Department, as well as an officer for the Undergraduate Researchers Interested in Data Organization. When I am not studying, I enjoy visiting farmer's markets and cooking.



**Xiaoyu Zhang** I am from Yunnan, a warm southern province of China. I got a BS in Biomedical Science and Chinese Medicine from Hong Kong Baptist University, and an MS in Statistics from Rutgers University before joining BU. My current research interests lie in statistical genetics and personalized medicine. In my spare time, I love running, swimming, and occasionally taking on adventurous activities. Running the Boston Marathon could be my next challenge. Come and join me!



My name is **Yuanchao Zheng**, and I am a first-year PhD student in the Department of Biostatistics. I received my master's degree in Biostatistics at Brown University and Bachelor's Degree in Statistics at the University of Science and Technology of China. Before I came to BU, I worked for a few years at Stanford University School of Medicine. I enjoy statistics, programming, and tackling healthcare questions, as well as food, plants, pets, music, and sports.

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# WELCOME NEW MA STUDENTS

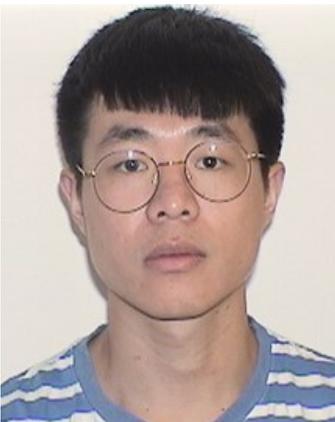
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**Danielle Cook** My name is Danielle Cook, and I'm from New Albany, IN. I just graduated from Ball State University where I majored in Applied Mathematics. While at Ball State, I loved teaching fitness classes and was heavily involved in a community service organization called Circle K International.



**Ross Goldberg** Originally from Durham, NC, I am a graduate of Skidmore College, where I studied Sociology and Math. I currently work at Boston Scientific as a data manager for medical device clinical trials. In my free time I enjoy playing ultimate frisbee and spending time with my wife and son, who was just born this summer.



I am **Yuankai Zhang**, a first year MA student in the Department of Biostatistics. As an undergraduate major in Pharmaceutical Science in Fudan University, I discovered the application of statistics to medicine through research. The experience made me decide to pursue my graduate studies in biostatistics. I want to explore more information hidden in public health data to reduce the risk of disease.

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[Read about our MA program here](#)

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# WELCOME MS STUDENTS

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**Arjun Chopra**

Hi everyone! I just finished my undergraduate degree in Biomedical Engineering at Stony Brook University in New York. I grew up in Princeton, New Jersey, my entire life and I have only been to Boston once before.

I can't wait to explore Boston and see what it has to offer. In my free time, I love to watch and play sports, hang out with friends, and go to the gym. I am very excited to start the next chapter of my life and I hope to have an unforgettable experience at BUSPH.



**Teresa Gully**

My name is Teresa and I am originally from Dallas, Texas. I have a Bachelor's Degree in Nutrition from the University of Texas at Austin, and I am a registered dietitian. For the past three years I have worked in pharmaceutical research for an organization called PPD in Austin, Texas, where I was a study coordinator for phase I clinical trials. After graduating with my MS in Applied Biostatistics, I hope to continue work in clinical trials as a biostatistician, ideally with a pharmaceutical company. In my free time I enjoy traveling, exercising, and exploring the city with my awesome dog.

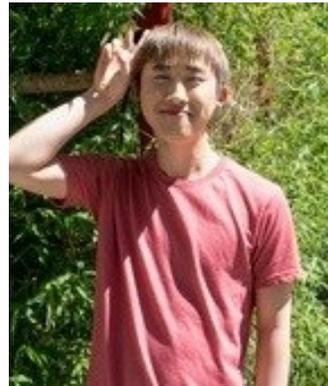


**Shivangi Kataria**

I grew up in India and received my bachelor's in Engineering from IIT before moving to Boston a year ago. This city has given me ten new names

already; I don't think it's that hard to say, haha :)

I simply love the Biostatistics MS program and the community I work with. Aside from academics, I have been a part-time aerobics/dance fitness trainer and I also captained my institute's badminton team. I am a sweet wine person who is also a big-time foodie and fond of travelling around the world.



**Jimmy Kiely**

My name is Jimmy and I'm a new student in the MS in Applied Biostatistics program. I recently graduated from Northeastern University with a BS in Biology and Mathematics and a minor in Computer Science.

I am interested in clinical trials research, and hope to gain experience analyzing data in the pharmaceutical industry. In my spare time, I like to cook, play video games, and spend time with my friends and cat. I am having a great time in the program, and am looking forward to the rest of the year.

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[Read about our MS program here](#)

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# WELCOME MS STUDENTS

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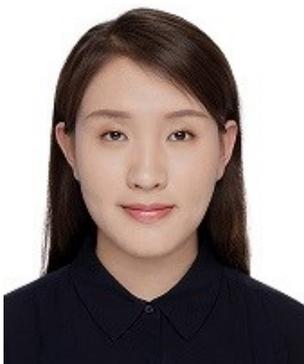


**Po Ying Lai**

Before I joined the Biostatistics program, I worked in environmental research for a few years. My previous labs worked on antibiotics and heavy metals in the environment, dry deposition

of air pollutants, and urban thermal comfort (in a very hot, humid, and dense city). I also volunteered in a public health service program in rural China on water resources, as well as research projects on mental health of the elderly and the roles of social media in spreading health messages. Data can tell lots of stories and I want to know what these buddies are saying to us. I hope to learn and experience as much as I can within this year.

This is my first time in Boston. I love the fall foliage so much and look forward to seeing the snow!



**Shuang Li**

I'm Shuang Li, an Applied Biostatistics student in the Fall 2018 cohort.



**Dylan McLoone**

I am an MS student in the Biostatistics department. I am from Westchester, NY. This past May, I graduated from Providence College with a degree in Mathematics. In my spare time I love to bake.



**Talia Menzin**

I was born and raised in Boston. I graduated from George Washington University with a Bachelor's Degree in Statistics in 2015. For the past few years, I have been doing drug safety research for the FDA. I am interested in epidemiology and clinical trials.

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[Read about our MS program here](#)

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# WELCOME MS STUDENTS

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**Kevin Roopcharan**

I am a Massachusetts native, and I did my undergraduate degree in Biochemistry. After graduating, I worked as a medical assistant for two years. I look forward to contributing to medical research as a data scientist.



**Tyler Schenck**

My name is Tyler Schenck. I graduated from IUPUI with a BS in Applied Mathematics. I am originally from central Indiana, about 40 minutes north of Indianapolis. My future career plans are hopefully either working for a hospital as a biostatistician (preferably a pediatric hospital) or a pharmaceutical company working on clinical trials.



**Nicole Roth**

Having always been curious about the interplay between psychology and physiology, I pursued a degree in Psychology and Public Health at Muhlenberg College. During my bachelor's, I conducted several research studies including behavioral interventions related to psychological resiliency and a pharmacoepidemiological review on ADHD stimulant medication effectiveness. More recently, I have had the opportunity to work in population healthcare analytics, managing EMR data and evaluating interventions for patients with high rates of comorbidity. I am excited to learn more about the various ways we can empirically address the multi-causal patterns of illness and health. Outside of school, I am looking forward to trying new food and going on hikes in the New England area.



**Blake Smith**

I am originally from Maryland, and I received my BA in Mathematics with minors in both Statistics and Computer Science at Misericordia University. I discovered my interest in biostatistics while interning with the toxicology group at AstraZeneca/MedImmune. My main areas of interest are in infectious diseases as well as psychological health. Aside from science, I enjoy traveling and exploring different places along with playing different sports.

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[Read about our MS program here](#)

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# WELCOME MS STUDENTS

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**Michaela Taylor**

I graduated in 2017 from the University of Colorado with a Bachelor's Degree in Mathematics and minor in Political Science! I chose to pursue a Master's Degree in Biostatistics because I am passionate about being able to quantitatively influence healthier lifestyles and

choices in the world around us. I believe my generation is capable of contributing amazing new ideas and innovations to the world of public health, so it feels extremely rewarding to be a part of that! My main interests include cancer research, heart disease studies, and child/maternal health. Being from my home state of Colorado, hiking, running, and yoga have become big hobbies of mine. I love my mountains, but I am a city girl at heart, so living in Boston is truly a dream come true!



**Allison van den Hout**

I am from the San Francisco Bay Area and received my undergraduate degree in Environmental Studies from University of California Santa Cruz. For the past five years, I have been working on the central coast of Cali-

ifornia in the agricultural industry. There, I worked in an R&D group doing plant physiology and breeding research for berry crops. I am interested in experimental design and genetic data, which motivated me to return to school for my master's degree. Outside of school, my hobbies include painting, reading, hiking, and backpacking.



**Diezhang Wu**

I have always been interested in the area of public health and finished my BS in Food Science with a concentration on Food Safety. Before coming to BU, I worked in Georgia for

over 4 years as R&D Assistant Manager at Calpis America, a probiotic manufacturer with its headquarters in Japan. My interest in statistical analysis of microbiome and genetic data was developed then as well.

Boston is the city I felt in love with at the first sight. I am so excited about the chance of living and studying here. Being in the MS program for two months now, I felt so satisfied at seeing myself learning and growing. It is one of the best decisions I have ever made and I am sure I will continue enjoying the rest of my study.

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[Read about our MS program here](#)

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Sam Lent, Virginia Fisher, Hanna Gerlovin, Yijing Li, Yuning Chen (back), and Xuan Deng at their graduation.

## STUDENT AWARDS

- ◆ Qiang Zhao, Yuyin Liu, and Yuning Chen won the Fall 2018 student paper competition.
- ◆ Aya Mitani was selected as one of two winners of the New England Statistics Symposium student paper competition for her work developing a statistical model to analyze periodontal disease outcomes. Her award-winning paper is entitled “Marginal Analysis of Ordinal Clustered Longitudinal Data with Informative Cluster Size.”
- ◆ Kendra Plourde and Aya Mitani have received F-31 grants.
- ◆ Virginia Fisher was selected as the winner from North America for the International Biometric Conference 2018 Young Statistician Showcase Competition. She was invited to present her paper in the Young Statisticians Showcase Session on July 10 in Barcelona.
- ◆ Shuo Li won best poster award at CHARGE Meeting. The subject of his poster was “Genome-Wide Association Study of 11,785 Individuals Identifies 7 Loci Associated with Brain-Derived Neurotrophic Factor (BDNF).”
- ◆ Erin Ashe won the Leonard H. Glantz Award for Academic Excellence.

# SPOTLIGHT ON STUDENTS

## ALUMNI UPDATES

**Caitlyn McCarthy (MPH '17)** started working as a statistician at the Center for Biostatistics in AIDS Research at the Harvard School of Public Health, alongside alumni of the PhD program Carlee Moser and Jeremiah Perez!

**Vidhya Parameswaran (MPH '15)** has received the Junior Professionals Scholarship at PharmaSUG 2018. She also received best paper award in the "Real-World Evidence" section at the very same conference for her paper, "Triangulating Multiple Sources of Contradictory Prescription Data—a Real-World Case Study." In addition, she has been selected to serve on the academic committee of PharmaSUG 2019. Her manuscript, "Real-World Scenario Improvements in Serum Phosphorus Levels and Pill Burden in Peritoneal Dialysis Patients Treated with Sucroferric Oxyhydroxide" has been published in the American Journal of Nephrology.

## SUMMER INSTITUTE IN BIOSTATISTICS

In 2003, the NIH initiated the [Summer Institute for Training in Biostatistics \(SIBS\)](#) program to help to overcome a national shortage of biostatisticians. One of the original recipients of the NIH grant, the Biostatistics Department at BUSPH has continued to run the program every year since its inception.

2018 was another successful year for SIBS at BUSPH, with 20 students participating in the six-week intensive summer program, complete with hands-on training in SAS and R, and a final presentation analyzing data from NHANES, Genetic Analysis Workshop 19, or Digitalis Clinical Trial data sets.

Learn more about SIBS on our website or here: ["Undergraduate Program Builds Pipeline of Biostatisticians"](#)



Prof. Jacqueline Milton and Anita DeStefano, directors of the BUSPH SIBS program

**Solaiappan Manimaran (PhD '16)** joined Acceleron Pharma just this past September as a Senior Manager of Biostatistics.

**Maria Emilia Montez Rath (PhD '08)** published a paper using heatmaps to create a visual representation of facility stay patterns and death during transition period to initiation of dialysis in patients with end stage renal disease (ESRD). Her first author publication can be found here: [Hospitalizations and Nursing Facility Stays During the Transition from CKD to ESRD on Dialysis: An Observational Study](#)

**Avery McIntosh (PhD '16)** published a paper on Tuberculosis with Laura White and Helen Jenkins in *Statistics in Medicine*. This work was a multi-year collaboration with the Boston University School of Medicine Section of Infectious Disease. His first author publication can be found here: [Using routinely collected laboratory data to identify high rifampicin-resistant tuberculosis burden communities in the Western Cape Province, South Africa: A retrospective spatiotemporal study.](#)

## Graduate Certificate in Modern Biostatistics in Clinical Trials

The national concern regarding the rising costs of health care and the abundance of medical clinical trials being conducted worldwide underscores the need for biostatisticians trained in the design and analysis of efficient clinical trials. This 16-credit certificate program is designed for students and professionals who want to become familiar with a variety of types of clinical trial designs and data, including traditional, Bayesian, and adaptive designs, as well as FDA regulations, ethics analysis, and reporting for clinical trials. The certificate includes both coursework and research. Current students and alumni are welcome to apply.

**Curriculum:** 16 credits

**Estimated time to completion:** 18–24 months (part-time)

For more information, please visit our [website](#) or contact Professor Gheorge Doros at [doros@bu.edu](mailto:doros@bu.edu).



# OPPORTUNITIES IN BIOSTATISTICS

*These professional development and continuing education opportunities may be of interest to both current students and alumni*

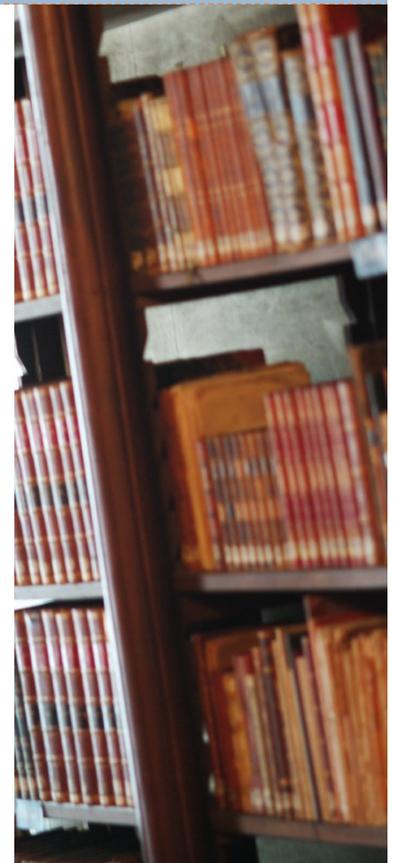
## Graduate Certificate in Statistical Genetics

Statistical genetics is a rapidly growing specialty area within the field of biostatistics, which requires knowledge of genetics, the technology used to study variability of genes and gene expression in human populations, and specific statistical approaches used to study these data. The 16-credit Graduate Certificate in Statistical Genetics will provide students with specialized training and acquisition of skills in the analysis of genetic data. Individuals completing the program will be familiar with a variety of types of genetic data (genotyping, expression, sequence data) as well as statistical methods for data summary and analysis, with an emphasis on analysis relating genetic information to human health outcomes. Current students and alumni are welcome to apply.

**Curriculum:** 16 credits

**Estimated time to completion:** 18–24 months (part-time)

For more information, please visit our [website](#) or contact Professor Anita DeStefano at [adestef@bu.edu](mailto:adestef@bu.edu).



# CONTACT INFORMATION

## STAY CONNECTED

Faculty, staff, students,  
alumni, and friends:  
we want to hear your updates!

Please stay in touch!

[biostat@bu.edu](mailto:biostat@bu.edu)

(617) 638-5172

801 Massachusetts Ave

Crosstown Building

3rd floor

Boston, MA 02118

## SPECIAL EVENTS & CONFERENCES

### [Biostatistics Department and SPH Events Calendar](#)

#### [APHA Annual Meeting & Expo](#)

November 10–14, 2018 | San Diego, CA

#### [ENAR Spring Meeting](#)

March 24–27, 2019 | Philadelphia, PA

#### [Think. Teach. Do. Philadelphia—ENAR 2019](#)

#### [Alumni/Faculty/Student Reunion](#)

March 25, 2019 | 7:00–9:00pm | Strangelove's | Philadelphia, PA

#### [SCT Annual Meeting](#)

May 19–22, 2019 | New Orleans, LA

#### [JSM 2019](#)

July 27–August 1, 2019 | Denver, CO

#### [Annual IGES Conference](#)

October 12–14, 2019 | Houston, TX