

# BIOSTAT BULLETIN

UCLA Department of Biostatistics Quarterly Newsletter



## TABLE OF CONTENTS

**Summer 2020 Internships**

**Faculty Updates**

**BSA Updates**

**Awards and Grants**

**Recent Publications**

## MESSAGE FROM THE CHAIRS

Dear students,

It is our pleasure to welcome you to the 2020-2021 academic year. Needless to say, we have been living through turbulent times. We feel privileged to work in a field that has contributions to make to the prevention and treatment of epidemic diseases, and we also feel fortunate that we have been able to continue to work productively despite needing to remain socially distanced from one another in line with public-health imperatives.

Our engagement with students is central to our identity. Indeed, as we reflect on our own experiences of navigating the COVID-19 era, our continuing opportunities to connect with students have been enormously meaningful. The initiative of the Biostatistics Student Association has been especially helpful in strengthening the connective tissue of the Department of Biostatistics and in making the whole greater than the sum of the parts.

In particular, we appreciate the correspondence we received from BSA representatives over the summer in the wake of distressing injustices calling attention to the broader context of racial and ethnic disparities that motivates so much of our work. We are also deeply concerned about the issues regarding visas and permits affecting our international students. Incoming students should know that we are committed to being exemplars of social justice in our Department, and we would be pleased to share with new students the letter we sent over the summer to continuing students.

As the BSA launches this inaugural newsletter issue, we want to express sincere thanks, ongoing encouragement, and best wishes going forward on the positive-sum energy you are bringing to the UCLA Department of Biostatistics. And in closing, please know that as always, we are here for you.

Best regards,  
Sudipto Banerjee, Chair  
Tom Belin, Vice Chair

# SUMMER 2020 INTERNSHIPS

There are many ways to get an internship and our students are experts at finding interesting opportunities! We interviewed one Derek Lee about his experiences.

## Year in the program and degree track at the time of internship application

*Lee:* I'm currently a second year MPH and at the time I applied to my internship I was still in the first quarter of my first year in 2018. I'm coming back from a leave of absence because my internship was a year-long internship. Please reach out to be study buddies and just buddies in general, would love to meet new faces.

## How did you hear about the internship?

*Lee:* I found the posting online, I think it was on Indeed.com or I may have found it by browsing the company's website. Again, it's been one heck of a year so I've tossed that out of my short-term memory.

## What about the position interested you?

*Lee:* I really liked the focus on application of machine learning to clinical trial operations. I felt that it would be a great way to take what I've learned in the 1st year Biostats 200 courses and Biostat 406 and see how I could utilize it in the biopharma industry. I will say the Biostat 203B course was super helpful in the sense that I learned how to use Git and got introduced to the concepts of cloud computing. Of course, I highly recommend Biostat 203A as well to get your foundation in R and SAS down.

## How many internships did you apply to (including this one)?

*Lee:* I can't fully remember, but likely around 20.

## Was this your first internship?

*Lee:* No, not my first internship but my first technical internship and in the private sector.

## What was the application process like?

*Lee:* Application was just an online form to submit your resume and fill out the basic candidacy information. I believe it was through Workday.

## What was the application process like?

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## What were your primary responsibilities and/or roles?

*Lee:* Developing a model for clinical trial metrics, working with members of our informatics group and what eventually became the cloud engineering group to build out tools to help our stakeholders find the appropriate information regarding their trials. Because I sat in the Business Operations department, I sort of was seen as the technical/business guy and helped bridge those relationships between our data engineers, software engineers, and analysts with our business analysts/managers.

## What was a normal day like?

*Lee:* Pre-pandemic, I would arrive at the pick up point for our company shuttles by 8 am for a commute of nearly 1.5 hours to the office which was about 30 miles away from where I lived. I would start my morning with some coffee at the cafeteria and then head over to my building. During most of the day, I actually would be doing a mix of coding and reading papers on methods. On days with meetings, we usually held most meetings either in late morning or early afternoon, which consisted of strategy planning and/or updates around the team or for a given project. Some mornings, I'd take an earlier bus so I could get a workout in at our beautiful gym and you can see Salesforce Tower/downtown San Francisco from inside the gym.

During COVID, things really changed a lot. Working from home meant way fewer interactions with coworkers, no more ability to come to campus and take walks along the beautiful San Francisco Bay Trail. I really missed being able to stalk meeting rooms to see if there would be leftover food I could grab when the meeting participants left the room. The ability to take breaks and find food or go for a walk was really beneficial to my productivity, which certainly took a hit during the pandemic. Happy to talk more about it, just reach out to me.

## What do you wish you knew before/what advice would you give to someone looking for an internship?

*Lee:* Apply early. Don't wait for your resume to be 100% perfect before sending it in. Absolutely network with people and reach out to learn about their role and industries not to get a job or internship, but to understand company culture and how they fit in within the company. I was lucky enough to have gotten my foot in the door without networking, but I think the more info you know about a company and a potential team you'd like to work for, the more prepared/informed you will be to make sure that the projects the team may have you work on will actually fit your skillset.



Derek Lee, MPH Student

# SUMMER 2020 INTERNSHIPS

We also interviewed Jane Pan, a PhD student in the department, about her summer internship.

**Year in the program and degree track at the time of internship application**

*Pan:*

**How did you hear about the internship?**

*Pan:*

**What about the position interested you?**

*Pan:*

**How many internships did you apply to (including this one)?**

*Pan:*

**Was this your first internship?**

*Pan:*

**What was the application process like?**

*Pan:*

**What were your primary responsibilities/roles?**

*Pan:*

**What was a normal day like?**

*Pan:*

**What do you wish you knew before/what advice would you give to someone looking for an internship?**

*Pan:*





# NEW IN TOWN

We want to welcome all of the new and promoted faces in the Department of Biostatistics!



## Dr. Hilary Aralis

Assistant Professor-In-Residence

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## Dr. Zhe Fei

Assistant Professor-In-Residence

Dr. Zhe Fei received his doctoral degree in Biostatistics from University of Michigan, Ann Arbor, before joining UCLA in 2019. His research has been focusing on theory and methods in High Dimensional Statistics. Specific contribution areas include high dimensional inference, statistical methodology for high dimensional data and survival analysis, with applications in nephrology, cancer genomics, epigenetics and aging, and mental health. Dr. Fei also has particular interests in statistical computing and machine learning theories and algorithms. He has been exploring CPU/GPU computing, cloud computing, etc for faster and more efficient solutions to the challenges faced in analyzing big data problems. He is teaching a doctoral level machine learning course in the Spring quarters that focuses on both the algorithmic and the statistical aspects of various learning methods. In his leisure time, he enjoys spending time with his family, hiking, traveling (unfortunately hard to do right now) and watching sports.



## Dr. Andrew Holbrook

Assistant Professor

Dr. Andrew J. Holbrook is Assistant Professor at the UCLA Department of Biostatistics and has research interests in scalable Bayesian inference for applications in neural decoding and viral epidemiology. Andrew graduated from UC Berkeley in 2009 with a B.A. in German and Classical Languages. In 2018, he received his Ph.D. in Statistics from UC Irvine, where he completed his dissertation, "Geometric Bayes", an investigation into the intersections of differential geometry and applied Bayesian inference. For this work, Andrew won honorable mention for the 2019 Leonard J. Savage Award in Theory and Methods, awarded by the International Society for Bayesian Analysis. Most recently Andrew received an NIH (K) Career Development Award for developing high-performance computing methods to model the global spread of viruses in a Big Data context. A true "k-21" product of the California public education system, Andrew is a believer in accessible education in the Golden State.

# BSA UPDATES

Welcome and welcome back, fellow biostat students! We are so excited for the start of this school year and have enjoyed meeting the new cohort. As we all know, this year is going to look very different than what we're used to; but we also know that our students are determined, resilient, and capable of anything. BSA's first priority this summer was coming up with creative ways to maintain UCLA Biostat's special sense of community during this time of physical distancing. The result is a calendar packed with virtual activities to help us all reconnect and spend some time together! BSA has plenty more up our sleeves, so stay tuned to the department slack for announcements and updates! We hope to see you IRL soon, so wash your hands and wear a mask!

Emilie Campos and Crystal Shaw, BSA Co-Presidents

## 2020-2021 BSA Board



Emilie Campos and  
Crystal Shaw, Co-Presidents



Doug Morrison, VP of  
Financial Affairs



John Shamshoian, Social Chair



Ian Frankenburg, Chair of  
Doctoral Student Affairs



Ami Sheth and Tina  
Arputhasamy, Co-Chairs of  
Masters Student Affairs



Caesar Li, Chair of Outreach  
and Communications



Jane Pan, Historian



## Upcoming Events

To keep up-to-date with all of our events, please visit our website and subscribe to our Google Calendar: <https://ucla-bsa.netlify.app/>

### Week 0:

10/2 -- Slack Workshop, 1st Years Mixer:  
Breakout Bonanza!

### Week 1:

10/7 -- FSPH Student Org Fair  
10/9 -- All Students Mixer: Breakout Bonanza!

### Week 2:

10/13 -- Coffee with the Chairs  
10/16 -- BSA Social: Trivia with a Twist

### Week 3:

10/23 -- 1st Years Mixer: Breakout Bonanza!

### Week 4:

10/30 -- Halloween Costume Contest

### Week 5:

11/6 -- 1st Years Mixer: Breakout Bonanza!

### Week 6:

11/13 -- All Students Mixer: Breakout Bonanza!

### Week 7:

11/17 -- Coffee with the Chairs  
11/20 -- Stat/Biostat Social

### Week 8:

11/27 -- 1st Years Mixer: Breakout Bonanza!

### Week 9:

12/4 -- All Students Mixer: Breakout Bonanza!

### Week 10:

12/11 -- 1st Years Mixer

*Cheers*

TO THE NEW YEAR



Some newsletters are created as money-making ventures and sold directly to subscribers. Sending newsletters to customers and prospects is a common marketing strategy, which can have benefits and drawbacks. Public organisations emit newsletters in order to improve or maintain their reputation in the society. General attributes of newsletters include news and upcoming events of the related organisation, as well as contact information. According to Wikipedia, a newsletter is a regularly distributed publication.

## AWARDS AND HONORS

Emilie Campos -- Graduate Research Mentorship Fellowship

Rob Weiss -- Elected Fellow of the International Society for Bayesian Analysis 2020, Elected Fellow of the Institute of the Mathematical Statistics 2020

Andrew Holbrook -- NIH K25 Career Development Award



## GRANTS

According to Wikipedia, a newsletter is a regularly distributed publication that is generally about one main topic of interest to its subscribers. Newspapers and leaflets are types of newsletters.

For example, newsletters are distributed at schools to inform parents about things that happen in that school. Newsletters are published by clubs, churches, societies, associations, and businesses.



# RECENT PUBLICATIONS

This is just a sample of the great work put out by our department since June 2020

Bae, S. S., Chang, L. C., Merkin, S. S., **Elashoff, D.**, Ishigami, J., Matsushita, K., & Charles-Schoeman, C. (2020). Major Lipids and Future Risk of Pneumonia: 20-Year Observation of the Atherosclerosis Risk in Communities (ARIC) Study Cohort. *The American journal of medicine*, S0002-9343(20)30698-7. Advance online publication. <https://doi.org/10.1016/j.amjmed.2020.07.022>

Corlier FW, **Shaw C**, Hayes-Larson E, Mungas D, Tomaszewski Farias S, Glymour MM, Whitmer RA, Mayeda ER. Association Between Cognitive Test Performance and Subjective Cognitive Decline in a Diverse Cohort of Older Adults. *Alzheimer Disease & Associated Disorders*. 2020; 34(3):198-205. doi: 10.1097/WAD.0000000000000383

**Crespi, C. M.**, Gao, S., Payne, A., Nobari, T. Z., Avila, A., Nau, C., Whaley, S. E., & Wang, M. C. (2020). Longitudinal trajectories of adiposity-related measures from age 2-5 years in a population of low-income Hispanic children. *Pediatric research*, 10.1038/s41390-020-1099-8. Advance online publication. <https://doi.org/10.1038/s41390-020-1099-8>

de Gainza, A., Morales, E., Salazar Vega, D. C., Mohammadzadeh, V., **Yu, F., Afifi, A.**, Nouri-Mahdavi, K., & Caprioli, J. (2020). The Trajectory of Glaucoma Progression in 2-Dimensional Structural-Functional Space. *Ophthalmology. Glaucoma*, S2589-4196(20)30161-7. Advance online publication. <https://doi.org/10.1016/j.ogla.2020.06.003>

Elmore, J. G., Wang, P. C., Kerr, K. F., Schriger, D. L., **Morrison, D. E., Brookmeyer, R.**, Pfeffer, M. A., Payne, T. H., & Currier, J. S. (2020). Excess Patient Visits for Cough and Pulmonary Disease at a Large US Health System in the Months Prior to the COVID-19 Pandemic: Time-Series Analysis. *Journal of medical Internet research*, 22(9), e21562. <https://doi.org/10.2196/21562>

Glenn, B. A., Nonzee, N. J., Hamilton, A. S., Tieu, L., Maxwell, A. E., **Crespi, C. M.**, Chang, L. C., Deapen, D., & Bastani, R. (2020). Cancer surveillance and preventive services in a diverse sample of breast and colorectal cancer survivors. *Journal of cancer survivorship : research and practice*, 10.1007/s11764-020-00925-4. Advance online publication. <https://doi.org/10.1007/s11764-020-00925-4>

Hayati Rezvan, P., Tomlinson, M., Christodoulou, J., Almirol, E., Stewart, J., Gordon, S., **Belin, T. R.**, & Rotheram-Borus, M. J. (2020). Intimate Partner Violence and Food Insecurity Predict Early Behavior Problems Among South African Children over 5-years Post-Birth. *Child psychiatry and human development*, 10.1007/s10578-020-01025-1. Advance online publication. <https://doi.org/10.1007/s10578-020-01025-1>

# RECENT PUBLICATIONS (CONT'D)

This is just a sample of the great work put out by our department since June 2020

Le, S. Q., Nestrasil, I., Kan, S. H., Egeland, M., Cooper, J. D., **Elashoff, D.**, Guo, R., Tolar, J., Yee, J. K., & Dickson, P. I. (2020). Myelin and Lipid Composition of the Corpus Callosum in Mucopolysaccharidosis Type I Mice. *Lipids*, 10.1002/lipd.12261. Advance online publication. <https://doi.org/10.1002/lipd.12261>

Maxwell, A. E., **Sundin, P.**, & **Crespi, C. M.** (2020). Disparities in cancer mortality in Los Angeles County, 1999-2013: an analysis comparing trends in under-resourced and affluent regions. *Cancer causes & control : CCC*, 10.1007/s10552-020-01346-5. Advance online publication. <https://doi.org/10.1007/s10552-020-01346-5>

Nariai, H., Hussain, S. A., Bernardo, D., Motoi, H., Sonoda, M., Kuroda, N., Asano, E., Nguyen, J. C., **Elashoff, D.**, Sankar, R., Bragin, A., Staba, R. J., & Wu, J. Y. (2020). Scalp EEG interictal high frequency oscillations as an objective biomarker of infantile spasms. *Clinical neurophysiology : official journal of the International Federation of Clinical Neurophysiology*, 131(11), 2527-2536. Advance online publication. <https://doi.org/10.1016/j.clinph.2020.08.013>

Pratt, G. C., Stenzel, M. R., Kwok, R. K., Groth, C. P., **Banerjee, S.**, Arnold, S. F., Engel, L. S., Sandler, D. P., & Stewart, P. A. (2020). Modeled Air Pollution from In Situ Burning and Flaring of Oil and Gas Released Following the Deepwater Horizon Disaster. *Annals of work exposures and health*, wxaa084. Advance online publication. <https://doi.org/10.1093/annweh/wxaa084>

Rabiolo A, Morales E, Kim JH, **Afifi AA, Yu F**, Nouri-Mahdavi K, Caprioli J. Predictors of Long-Term Visual Field Fluctuation in Glaucoma Patients. *Ophthalmology*. 2020 Jun;127(6):739-747. doi: 10.1016/j.optha.2019.11.021. Epub 2019 Dec 5. PMID: 31952885.

Salazar, D., Morales, E., Rabiolo, A., Capistrano, V., Lin, M., **Afifi, A. A., Yu, F.**, Nouri-Mahdavi, K., & Caprioli, J. (2020). Pointwise Methods to Measure Long-term Visual Field Progression in Glaucoma. *JAMA ophthalmology*, 138(5), 536-543. <https://doi.org/10.1001/jamaophthalmol.2020.0647>

Singh, P., **Cumberland, W. G.**, Ugarte, D., Bruckner, T. A., & Young, S. D. (2020). Association Between Generalized Anxiety Disorder Scores and Online Activity Among US Adults During the COVID-19 Pandemic: Cross-Sectional Analysis. *Journal of medical Internet research*, 22(9), e21490. <https://doi.org/10.2196/21490>

Tran, L. D., Rice, T. H., Ong, P. M., **Banerjee, S.**, Liou, J., & Ponce, N. A. (2020). Impact of gentrification on adult mental health. *Health services research*, 55(3), 432-444. <https://doi.org/10.1111/1475-6773.13264>

Williams, J. R., Kim, H. W., & **Crespi, C. M.** (2020). Modeling observations with a detection limit using a truncated normal distribution with censoring. *BMC medical research methodology*, 20(1), 170. <https://doi.org/10.1186/s12874-020-01032-9>

Yan, K. L., **Li, S.**, Tseng, C. H., Kim, J., Nguyen, D. T., Dawood, N. B., Livhits, M. J., Yeh, M. W., & Leung, A. M. (2020). Rising Incidence and Incidence-Based Mortality of Thyroid Cancer in California, 2000-2017. *The Journal of clinical endocrinology and metabolism*, 105(6), dgaa121. <https://doi.org/10.1210/clinem/dgaa121>



# RECENT PUBLICATIONS (CONT'D)

This is just a sample of the great work put out by our department since June 2020

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