

BIOSTAT BULLETIN

UCLA Department of Biostatistics Quarterly Newsletter

Prepared by Emilie Campos, Caesar Li, and Ami Sheth on behalf of the Biostatistics Student Association



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

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SUMMER 2020 INTERNSHIPS

There are many ways to get an internship and our students are experts at finding interesting opportunities! Derek Lee (MPH), Jane Pan (PhD), Yihao Li (PhD), Leiwen Gao (PhD), and Di Xiong (PhD) share their experiences.

Where you did you intern?

Lee: Genentech

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 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.

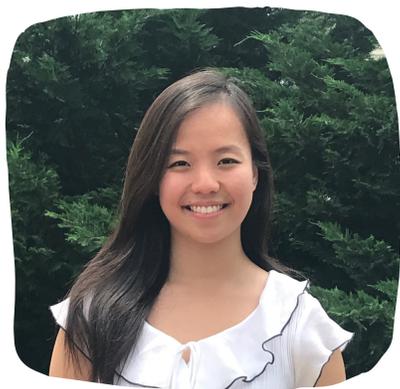
What do you wish you knew before/what advice would you give to someone looking for an internship?

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



Jane Pan, PhD Student

Where did you intern

Pan: FDA

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

Pan: I was a 4th year PhD student during the time I applied

How did you hear about the internship?

Pan: I came across an ASA email with a newsletter link that included a list of internship opportunities for the summer of 2020. This occurred not too long after attending JSM in August 2019. I knew I wanted an internship the following summer and kept a few places in mind to apply to later in December. I can no longer locate the email itself but I believe this website contains the same information: <https://stattrak.amstat.org/2019/12/01/2020-internship-listings/>

What about the position interested you?

Pan: I wanted firsthand exposure to clinical trial studies and get a glimpse on the standard procedures that go into drug evaluations from an agency that is reputable for this type of work. I was also pleased to see that my skills aligned with their criteria and that their job description aligned with my career aspirations, so I had a good feeling about this position prior to applying. There was also the added bonus of the office being close to home back in Maryland.

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

Pan: 3

Was this your first internship?

Pan: First internship in grad school, yes

What was the application process like?

Pan: They required applicants to submit a CV and a cover letter to a specified email address. Interviews occurred around 3-4 weeks later. I will say the most time-consuming (and quite frankly a bit aggravating) part of this entire process was the background checks that took place after accepting the offer.

What were your primary responsibilities and/or roles?

Pan: The basis of my project focused on signal detection, where they were interested in developing an improved method that can accurately identify the true adverse events associated with the drug that is undergoing evaluation. The tricky part of it all is identifying whether the adverse events being picked up are actually signals or if they are in fact just noise. I spent the summer evaluating various published signal detection methods within the Center for Disease Evaluation Research (CDER) division in the hopes of facilitating Phase 3 clinical safety trials. We were actually able to identify major drawbacks of a well-established Bayesian hierarchical mixture model and were able to propose modifications to it with promising results.



What was a normal day like?

Pan: I started in late May and worked remotely from home the entire summer. The first few weeks of the program was really just getting myself familiar with the material, e.g. reading reference papers and reviewing code written up by the previous intern the summer before. The later parts of my summer gradually evolved to just coding and attending Webex meetings (either mandatory or optional seminars/workshops) throughout the day. I would also have weekly hour-long meetings with both my advisers on separate days of the week and then another meeting on Fridays where all 3 of us got on a call to discuss project updates and future steps.

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

Pan: Try to update your CV regularly and not when you actually need it, else it becomes too difficult to recall things you've done in the past that are worth mentioning. It's also never too early to start searching for internship opportunities so be sure to reach out and ask around (e.g. peers, advisers) to see if they can offer any insight.



SUMMER 2020 INTERNSHIPS



Yihao Li, PhD Student

Where did you intern

Li: Genentech

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

Li: I was a third-year phd at the time I applied.

How did you hear about the internship?

Li: Email from department

What about the position interested you?

Li: An opportunity to learn about the real-world application of statistical analysis tools and the role of a statistician in biopharmaceutical companies.

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

Li: 2

Was this your first internship?

Li: Yes

What was the application process like?

Li: Submit a CV and cover letter online and fill out some candidacy information.

What were your primary responsibilities and/or roles?

Li: Developing a clinical endpoint that is suitable for the analysis of early phase clinical trail data. Evaluating the performance of several clinical endpoints through simulation studies and find out a statistical model/test that have the highest power.

What was a normal day like?

Li: I started mid June, 2020 so the entire

internship was remote. Hence the communication with supervisors and team members are all through online meetings. My work mainly involves reading papers, clinical trial protocols and coding. On average I had about 3 meetings per week to update the progress or get feedback from clinical scientists. We also have 1 hour on Tuesday afternoon just for casual chat with our group members.

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

Li: Don't hesitate to ask questions about the company or team/people you'll be working with. The more you know about the people you'll be working with/project you'll be working on, the easier for you to make decisions.



Leiwen Gao, PhD Student

Where did you intern

Gao: Genentech

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

Gao: I was a second year PhD at the time of application

How did you hear about the internship?

Gao: Email from department as well as the ASA list.

What about the position interested you?

Gao: I was interested in the opportunity to work with real-world problems in industry, especially knowledge of the role of biostatistics in biotech companies. I would also like to obtain work experience and plan for my future career.

Was this your first internship?

Gao: Yes

What was the application process like?

Gao: An online form to submit a CV and cover letter, and fill out the basic candidacy information.

What were your primary responsibilities and/or roles?

Gao: Constructed the spatial architecture in tumor digital images for stage IV Non-Small Cell Lung Cancer (NSCLC). Implemented a deep learning algorithm for large imaging data sets based on the spatial metrics developed and predicted progression-free survival (PFS) after treatment in Phase III clinical trial study. Evaluated the prognostic values through survival analysis.

What was a normal day like?

Gao: I started in mid June, 2020 and worked virtually during the entire internship. My work started with reading papers and getting familiar with datasets as well as materials for the project in the first few weeks. Genentech also provided several online quantitative training, workshops and forums to introduce the practice of drug development. Then my work mainly focused on coding to manipulate data and implement algorithms. I always met with one of my mentors for specific technical questions separately every week and had regular weekly hour-long meetings with 3 mentors in the project team together to discuss the updates and next steps. I also attended the biostatistics team meetings biweekly and learned about the regular work they were working on.

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

Gao: Search for internship opportunities early and don't wait until the last minute for application. Update your CV in terms of the job description for each position you are looking for specifically. It's important to emphasize the skills that match the position.

SUMMER 2020 INTERNSHIPS



Di Xiong, PhD Student

Where did you intern

Xiong: Google

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

Xiong: I was a third-year doctoral student.

How did you hear about the internship?

Xiong: On-campus event.

What about the position interested you?

Xiong: I was interested in the opportunity to explore how data-driven strategies have been developed using the statistical tools in the industry, especially for some products that I use daily.

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

Xiong: 3

Was this your first internship?

Xiong: First one in grad school.

What was the application process like?

Xiong: An online application with resume, unofficial transcript, and optional cover letter. It will ask for more candidacy information later in 1-2 weeks.

What were your primary responsibilities and/or roles?

Xiong: My project aims to develop a novel approach for a specific type of problems. I implemented the proposed algorithm through an R-package to enable other analysts to utilize the method for real data applications easier internally with sufficient documentations and demos. I also presented the models within the team and to the whole data scientist ladder.

What was a normal day like?

Xiong: Since it was a remote internship, I tried to split my room into three areas for working, relaxing, and living. During the weekdays, I began with an online fitness class in the morning and then had my daily standup

message around 9 am to my host and co-host. I normally had a plan for the day ahead with focus on literature review, methodology development, documentation, and coding. I have a semi-weekly meeting with my host and co-host for the project, and another weekly meeting with my mentor for career development. I sometimes have a couple of seminars, team meetings, coffee chats, and other social events with the team also throughout the week.

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

Xiong: Don't hesitate to reach out to more people in different fields to learn how they are doing as a statistician / biostatistician. You will be surprised that a lot of people here are willing to share their stories. It will be helpful to explore your true interest and check whether there are some skills (both soft and technical skills) you need to improve ahead. Meanwhile, it will be great to update the resume and CV every half year at least and ask other people for advice. The career center is really helpful also. For a remote situation, I would suggest learning and practice more for an online interview and presentation.



Stay connected in the Slack channels:
 #internships-mph
 #jobs-gsr
 #jobs-post-grad

CONGRATULATIONS

We want to congratulate Dr. Hilary Aralis on her promotion from adjunct to in-residence assistant professor! We asked her to explain the difference between the two positions for students interested in pursuing a career in academia.



Dr. Hilary Aralis

Assistant Professor-In-Residence

My journey at UCLA has taken me from doctoral student to Adjunct Assistant Professor (January 2017) to In-Residence Assistant Professor (July 2019). After more than a decade spent within the UC system, I am embarrassed to admit the “In-Residence” title is something I’m still learning about, in particular where it fits relative to other academic series. To share a bit of what I have learned, there are numerous professorial series (tracks or paths) at UCLA but the three most common are: Regular, In-Residence, and Adjunct. You are hired into one of them and the expectation is that you progress through Steps within a given series as you gain experience which can be measured in terms of time and/or merit. While progressing from one Step to the next is relatively straightforward, switching tracks

is tantamount to applying for an entirely new position. Although the Academic Personnel Office produces mountains of detailed information regarding the distinction between series, in my experience there are a few key takeaways:

- **Tenure:** The Regular series is the only series eligible for tenure. Assistant professors in this track are typically tenure-track and Associate or Full professors are typically tenured.
- **Academic Senate:** Professors in the Regular and In-Residence series are members of the Academic Senate. The Academic Senate is somewhat unique to UC campuses. It is an organization through which faculty participate in shared governance of the university. Academic Senate members cast votes to influence actions such as the establishment of academic programs and degree requirements.
- **Adjunct:** While professors in all three series strive to excel across four primary domains (teaching, research, professional activity, and service), the Adjunct series is well-suited for individuals who may have a stronger emphasis on one or a subset of these domains. This makes the Adjunct series a useful instrument for hiring faculty who may have an expertise in teaching or extensive professional experience.

In our Department, we are lucky to have brilliant and dedicated faculty hired in all three series. We also boast many joint appointments which strengthen and diversify the expertise our faculty bring to their teaching and research.

My Research Interests. My applied research interests are largely driven by my work within the Department of Psychiatry’s Division of Population Behavioral Health (DPBH). In my role, I support large scale behavioral health preventive intervention efforts to enhance the mental and physical well-being of at-risk individuals and families. What I enjoy most about my work with DPBH is the opportunity to meet and engage with individuals who are passionate about the people they serve. My collaborators include child psychiatrists, LAUSD school social workers, administrators from Los Angeles County Department of Mental Health, early childhood education experts, and psychologists working with homeless families, youth affiliated with the juvenile justice system, and trauma-exposed veterans. I am also involved in ongoing research with investigators from other departments in FSPH. This research includes applications in the fields of HIV/AIDS, substance use, and prenatal environmental exposures. My methodological interests are broadly characterized by the modeling of disease trajectories over time in the presence of incompletely observed data. Specifically, I have developed inferential techniques for intermittently-observed multistate models with back transitions.

NEW IN TOWN

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

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 -- Coffee with Faculty

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:

11/16 -- MS/MPH Town Hall
11/17 -- Coffee with the Chairs
11/20 -- PhD Town Hall

Week 8:

Fall Break

Week 9:

12/4 -- 1st Years Mixer: Breakout Bonanza!

Week 10:

12/11 -- Ugly Sweater Party

Cheers

TO THE NEW YEAR

AWARDS & HONORS

Congrats to ...



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



Emilie Campos -- Graduate Research Mentorship Fellowship

Dr. Senturk encouraged me to apply for the GRM. The application required me to submit a proposal which was very easy since I had already written a draft for my dissertation project. I also submitted a CV, copy of my transcript, and a letter of recommendation from Dr. Senturk. I would definitely recommend that students keep up with deadlines for financial opportunities on <https://grad.ucla.edu/funding/financial-aid/> since this was a very painless experience and really *paid* off!

GRANTS

And to ...



Andrew Holbrook -- NIH K25 Career Development Award

Award provides research support and career development for investigators with quantitative scientific and engineering backgrounds outside of biology or medicine

OLDIES, BUT GOODIES

Kirk Wolter, Diana Jergovic, Whitney Moore, Joe Murphy, Colm O’Muircheartaigh (2003), “Reliability of the Uncertified Ballots in the 2000 Presidential Election in Florida,” *The American Statistician*, 57(1): 1-14

A study evaluating the pivotal results of the 2000 presidential election in Florida that supported answers to an array of questions regarding standards for what should count as a vote by characterizing individual ballots based on their observed features and considering various alternative standards rather than adopting a fixed standard.

RECENT PUBLICATIONS

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

Asarnow, J. R., Bai, S., Babeva, K. N., Adrian, M., Berk, M. S., Asarnow, L. D., **Senturk, D.**, Linehan, M. M., & McCauley, E. (2020). Sleep in youth with repeated self-harm and high suicidality: Does sleep predict self-harm risk?. *Suicide & life-threatening behavior*, 10.1111/sltb.12658. Advance online publication. <https://doi.org/10.1111/sltb.12658>

Asarnow, J. R., Tompson, M. C., **Klomhaus, A. M.**, Babeva, K., Langer, D. A., & **Sugar, C. A.** (2020). Randomized controlled trial of family-focused treatment for child depression compared to individual psychotherapy: one-year outcomes. *Journal of child psychology and psychiatry, and allied disciplines*, 61(6), 662-671. <https://doi.org/10.1111/jcpp.13162>

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>

Baum, M. M., **Ramirez, C. M.**, Moss, J. A., Gunawardana, M., Bobardt, M., & Gallay, P. A. (2020). Highly synergistic drug combination prevents vaginal HIV infection in humanized mice. *Scientific reports*, 10(1), 12995. <https://doi.org/10.1038/s41598-020-69937-5>

Bigdeli, T. B., Nuechterlein, K. H., **Sugar, C. A.**, Subotnik, K. L., Kubarych, T., Neale, M. C., Kendler, K. S., & Asarnow, R. F. (2020). Evidence of shared familial factors influencing neurocognitive endophenotypes in adult- and childhood-onset schizophrenia. *Psychological medicine*, 50(10), 1672-1679. <https://doi.org/10.1017/S0033291719001715>

Brooks, R. A., Landrian, A., Lazalde, G., Galvan, F. H., **Liu, H.**, & Chen, Y. T. (2020). Predictors of Awareness, Accessibility and Acceptability of Pre-exposure Prophylaxis (PrEP) Among English- and Spanish-Speaking Latino Men Who have Sex with Men in Los Angeles, California. *Journal of immigrant and minority health*, 22(4), 708-716. <https://doi.org/10.1007/s10903-019-00955-w>

Chu, B. B., Keys, K. L., **German, C. A.**, **Zhou, H.**, Zhou, J. J., Sobel, E. M., **Sinsheimer, J. S.**, & Lange, K. (2020). Iterative hard thresholding in genome-wide association studies: Generalized linear models, prior weights, and double sparsity. *GigaScience*, 9(6), giaa044. <https://doi.org/10.1093/gigascience/giaa044>

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

Crandall, C. J., Diamant, A. L., Maglione, M., Thurston, R. C., & **Sinsheimer, J.** (2020). Genetic variation and hot flashes: A systematic review. *The Journal of clinical endocrinology and metabolism*, dgaa536. Advance online publication. <https://doi.org/10.1210/clinem/dgaa536>

Colicino, E., Marioni, R., Ward-Caviness, C., Gondalia, R., Guan, W., Chen, B., Tsai, P. C., Huan, T., Xu, G., Golareh, A., Schwartz, J., Vokonas, P., Just, A., Starr, J. M., McRae, A. F., Wray, N. R., Visscher, P. M., Bressler, J., Zhang, W., Tanaka, T., ... **Horvath, S.** ... Baccarelli, A. (2020). Blood DNA methylation sites predict death risk in a longitudinal study of 12, 300 individuals. *Aging*, 12(14), 14092-14124. <https://doi.org/10.18632/aging.103408>

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>

RECENT PUBLICATIONS

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

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>

Düx, A., Lequime, S., Patrono, L. V., Vrancken, B., Boral, S., Gogarten, J. F., Hilbig, A., Horst, D., Merkel, K., Prepoint, B., Santibanez, S., Schlotterbeck, J., **Suchard, M. A.**, Ulrich, M., Widulin, N., Mankertz, A., Leendertz, F. H., Harper, K., Schnalke, T., Lemey, P., ... Calvignac-Spencer, S. (2020). Measles virus and rinderpest virus divergence dated to the sixth century BCE. *Science (New York, N.Y.)*, 368(6497), 1367-1370. <https://doi.org/10.1126/science.aba9411>

Edwards, G. G., Reback, C. J., Cunningham, W. E., Hilliard, C. L., McWells, C., Mukherjee, S., **Weiss, R. E.**, & Harawa, N. T. (2020). Mobile-Enhanced Prevention Support Study for Men Who Have Sex With Men and Transgender Women Leaving Jail: Protocol for a Randomized Controlled Trial. *JMIR research protocols*, 9(9), e18106. <https://doi.org/10.2196/18106>

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>

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