



BIostatISTICS SEMINARS

Streaming online

- ❖ May 25, 2022 Irina Ostrovnyaya
MSK
- ❖ June 1, 2022 Andriy Derkach
MSK
- ❖ June 8, 2022 Zhigang Zhang
MSK
- ❖ June 15, 2022 Pr. Ronghui (Lily) Xu
University of California
San Diego

COMPUTATIONAL ONCOLOGY SEMINARS

Streaming online

- ❖ May 17, 2022 Barbara Engelhardt
Princeton
- ❖ June 21, 2022 David Van Valen
Caltech

EPIDEMIOLOGY SERVICE MEETINGS

Streaming online

- ❖ June 13, 2022 Elizabeth Kantor,
Jenna Bhimani,
Kelli O'Connell,
Sara Tabatabai
MSK

POPULATION SCIENCES RESEARCH PROGRAM SEMINAR SERIES

Streaming online

- ❖ May 13, 2022 Susan M. Domchek
Perelman School of
Medicine UPENN
- ❖ June 21, 2022 Tim A. Ahles
MSK

HEALTH OUTCOMES RESEARCH GROUP SEMINARS

Streaming online

- ❖ May 13, 2022 Ann Geiger
NCI
- ❖ June 10, 2022 Ishani Ganguli
Harvard

EDI COMMITTEE JOURNAL CLUB

Streaming online

- ❖ June 16, 2022 TBD

If you are interested in presenting at any future Journal Clubs, please contact Anisha Luthra.

EPI BIO BOOKCLUB

Streaming online

Email [Richard Koppenaar](mailto:koppenar@mskcc.org) to join the Epi Bio Bookclub list.

- ❖ June 7, 2022 Purple Hibiscus
Chimamanda Ngozi Adichie



DEPARTMENT CHAIR - Colin Begg, PhD

EDITORS

Prusha Patel, MPH
Lauren Rogak, MA
Amethyst Saldia
Richard Koppenaar
Shireen Lewis, MPA
Julianna Reitz, MPA
Joseph Kanik

STAFF ACCOMPLISHMENTS: KEVIN BOEHM

In March 2022, [Kevin Boehm](#) matched to the [MSK Radiation Oncology Residency and Transitional Year Internship](#) programs, which he will begin after graduating in May 2022. The combined training will last five years and includes protected postdoctoral research time, during which Kevin will further his research agenda to harness multimodal clinical imaging data to advance our understanding and management of cancer.

Kevin began his training in 2015 as a medical student at Weill Cornell Medicine, where he served as class president. He subsequently applied to affiliate with the Weill Cornell/Rockefeller/Sloan Kettering Tri-Institutional MD-PhD Program in 2018. For his PhD training at Gerstner Sloan Kettering Graduate School of Biomedical Sciences, he joined Sohrab Shah's research lab in Computational Oncology, where he developed multimodal data integration techniques to stratify patients with high-grade serous ovarian cancer using radiologic, histopathologic, genomic, and clinical data. To support this work, he was awarded a Ruth L. Kirchstein F30 Research Fellowship from the National Cancer Institute and the Grayer Fellowship from MSK. Together with Sohrab Shah, JJ Gao, Rami Vanguri, and Pegah Khosravi, he published a perspective paper on "[Harnessing multimodal data integration to advance precision oncology](#)" in *Nature Reviews Cancer*. In summer 2021, he defended his PhD to the examination committee comprised of Sohrab Shah, Ingo Mellingerhoff, Samuel Bakhoun, Christine Iacobuzio-Donahue, Olaf Andersen, and Florian Markowitz. He next completed a sub-internship in the Department of Medicine and an elective in Radiation Oncology, both at Memorial Hospital.



Following the completion of his residency, Kevin plans for a career as a physician-scientist in the NYC area. Congratulations, Kevin!

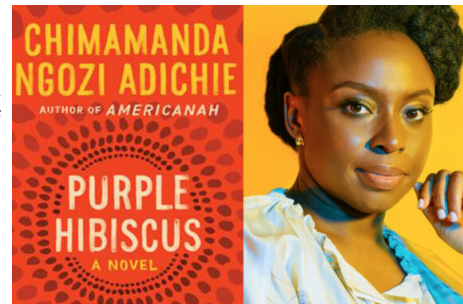
EPI/BIO COMMUNITY BUILDING INITIATIVE

As we welcome spring - and each other - back to the office, we invite all departmental members to take advantage of several initiatives to build community and reconnect with colleagues. In this issue of BEACH, we are pleased to share the following opportunities in which Epi/Bio members may be involved. We look forward to seeing you!



BOOK CLUB

Please join us for the next meeting of the Epi/Bio Book Club on Tuesday, June 7th from 4-5 PM! The topic of our discussion will be *Purple Hibiscus*, the acclaimed novel by Chimamanda Ngozi Adichie. If you are interested in joining Book Club, please send an email to Richard Koppenaar (koppenar@mskcc.org).



Epi/Bio Community Building Initiative presents

Warm Weather Wednesdays
STARTING IN MAY!

WARM WEATHER WEDNESDAYS

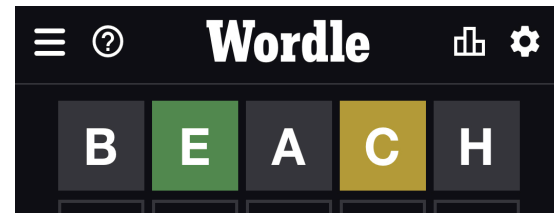
We welcome everyone to join us for Warm Weather Wednesdays starting in May! Every Wednesday, colleagues will meet on the steps across the street from 485 Lexington at 1 PM. Feel free to bring lunch, a snack, a beverage, or just yourself!



WORDLE TEAM CHALLENGE

A HUGE congratulations to our first-round winners: [Sharon Bayuga](#), [Anne Hahn](#), [Sankeerth Jinna](#), [Lauren Rogak](#) and [Emily Vertosick](#) – they blew their colleagues out of the park and officially get the BEACH bragging rights and special gifts!

Since the first round of the Wordle competition was such a success, we launched a second round which wrapped up on April 29! Stay tuned for round 2 results! We hope the success of these first 2 rounds will lead to rounds 3, 4 and more!



Do you have feedback of how to run these challenges? Did you miss your chance at joining? Reach out to Margaret Du with all your burning WORDLE questions!

HACKATHON

Members of the Department of Epidemiology & Biostatistics participated in a hackathon organized by MSK's Strategy & Innovation Department on April 7-8. The 18 participants of [Team Belle Curves](#) included [Melissa Assel](#), [Sammi Brown](#), [Joanne Chou](#), [Mike Curry](#), [Esther Drill](#), [Teng Fei](#), [Jessica Flynn](#), [Meier Hsu](#), [Caroline Kostrzewa](#), [Jasme Lee](#), [Sabrina Lin](#), [Stephanie Lobaugh](#), [Akriti Mishra](#), [Emily Vertosick](#), [Karissa Whiting](#), [Christine Zhou](#), and team captains [Dan Sjoberg](#) and [Jessica Lavery](#).



Team Belle Curves was incredibly productive, working on several departmental and public-facing packages over the course of the two-day event. The [{gnomeR}](#) package to wrangle and visualize genomic data in R received new features including a function to create a table summary of genomic data and function to perform pathway analysis, in addition to vignette, documentation and unit testing updates. Utility functions related to GitHub were added to [{biostatR}](#), the set of packages that work together to report analytic results with output tailored for members of our department.

Project templates are R functions in the [{bstfun}](#) package that allow a user to easily initialize a new project, including setting up a folder structure, R Project, and git repository. The project templates are now streamlined and include functionality for adding the required PHI tag to repositories that may contain PHI. Additionally, the [tbl_likert\(\)](#) function in the [{bstfun}](#) package was updated and documentation was reviewed. The [{gtsummary}](#) website now includes an updated [table gallery](#) vignette with a linked FAQ section, as well as a tutorial for utilizing [{gtsummary}](#) for summarizing standardized mean differences in propensity score analyses. [Departmental computing guides](#) were updated to incorporate recent Git/GitHub trainings, which were also [shared publicly](#). Other work included publishing the [{genieBPC}](#) package to RUniverse, creating a website for slides and videos from the [Biostatistics Seminar Series](#), adding a landing page to the [MSK Epi-Bio GitHub Organization](#), and adding risk tables to cumulative incidence figures created with the [{tidycmprsk}](#) package. The next hackathon will be this fall.

STAFF CONGRATULATIONS



Aaron Mitchell and partner Grace welcomed Lily Alvera Chen-Mitchell on December 16th. She and her big sister Vivian get along fine, except when there is pie on the line.



Ray Baser and his wife Irina welcomed baby Mira on April 18th. She has been doing great, while the rest of the family is still adjusting.



On March 3rd, Wesley Tansey and family welcomed Dorian Olivander Tansey. He is solidly 10lbs now and 97th percentile in length! He's going to be a tall one!

GRANTS

[Sohrab Shah](#) was awarded a Komen Leadership Grant from Susan G Komen for his project entitled "Structural variation and clonal evolution in breast cancer."

[Chaya Moskowitz](#) and Tara Henderson from the University of Chicago were awarded an R01 from the National Cancer Institute for their project "International Study of Subsequent Colorectal Cancer Among Survivors of Childhood, Adolescent, and Young Adult Cancers (I-SCRY)."

Carol Aghajanian (MSK Lead), [Sohrab Shah](#), Britta Weigelt, Samuel Bakhom, Kara Long Roche, Martin Weiser, [Alexia Iasonos](#), and Michael Herman Chui were awarded a multi-institutional award from Break Through Cancer for the project "Understanding, assessing, and intercepting ovarian carcinogenesis". MSK is one of five Participating Institutions receiving funding for this project, which includes researchers and clinicians from Dana-Farber Cancer Institute, The University of Texas MD Anderson Cancer Center, MIT's Koch Institute for Integrative Cancer Research, and Johns Hopkins Medical Institutions.

Carol Aghajanian (MSK Lead), Michael Herman Chui, Rachel Grisham, [Sohrab Shah](#), Britta Weigelt, and Dmitry Zamarin were awarded a multi-institutional award from Break Through Cancer for the project "Targeting Ovarian Cancer Minimal Residual Disease (MRD) Using Immune and DNA Repair Directed Therapies." MSK is one of five Participating Institutions receiving funding for this project, which includes researchers and clinicians from Dana-Farber Cancer Institute, The University of Texas MD Anderson Cancer Center, MIT's Koch Institute for Integrative Cancer Research, and Johns Hopkins Medical Institutions.

PROMOTIONS

Joanne Chou promoted to Senior Research Biostatistician

Elizabeth Kantor promoted to Associate Attending

Yuelin Li promoted to Member

Aaron Mitchell promoted to Assistant Attending

Samantha Vasquez promoted to Administrative Supervisor

STAFF FAREWELLS

After 5 years, we bid farewell to **Geula Cunin**, Data Analyst II and a talented designer in the Health Outcomes Group. Geula will be pursuing her passion as a designer fulltime. We wish her the best of luck in all her future endeavors.

We say farewell and good luck to our colleague **JJ Gao**, who is leaving MSK after nearly 11 years. JJ started his career at MSK as a postdoctoral fellow with Chris Sander in 2011. He switched to a staff scientist role when the Center for Molecular Oncology was founded in 2014 and was later promoted to an Assistant Attending in 2018. Over the years, he has been instrumental in the successful development of the cBioPortal and OncoKB platforms. In 2020, JJ partnered with Sohrab Shah in leading the engineering team for MSK MIND. JJ has accepted a new position with Caris Life Sciences where he will be a Vice President leading Translational Informatics. We wish him the best of luck in his new endeavors!

After nearly 15 years in the department, **Meier Hsu** will be leaving to pursue the next stage of her career as a Senior Statistician at Gore Medical. While at MSK, Meier was a vital member of the Biostatistics Service and a highly sought-after collaborative biostatistician. Most recently, she was instrumental in the team science programs stemming from thoracic surgery and interventional radiology. We are grateful for Meier's dedication and hard work. We will miss Meier greatly and wish her all the best!

We bid farewell to **Talia Piretra**, data analyst in the Health Outcomes Group. Talia will be leaving for a new opportunity at Aetion. We wish her great success in this new position and know it will offer the opportunities to further develop her potential.

After 4 ½ years we bid farewell to **Keimya Sadeghi**, though she will continue to be part of the MSK family with Dr. Marcel van den Brink's team as a Data Engineer. Keimya made significant contributions to our research programs through hands-on sample processing and testing, data management, and analyses. We thank Keimya for all her hard work and wish her much success!

STAFF ACHIEVEMENTS

Alexia Iasonos has been elected a fellow of the Society for Clinical Trials.

Elizabeth Kantor is being awarded a Geoffrey Beene Junior Faculty Chair.

Cynthia Berry has been chosen as the Lead of Events Planning for the [Working Parents ERN](#).

PUBLICATIONS

I-Hsin Lin and colleagues from MSK's Gastroenterology Service and Colorectal Surgery Service published a paper in the *Gastrointestinal Endoscopy* entitled "[Technical Feasibility of Salvage Endoscopic Submucosal Dissection after Chemoradiation for Locally Advanced Rectal Adenocarcinoma](#)." The standard treatment of locally advanced rectal cancer is chemoradiation followed by proctectomy and adjuvant chemotherapy. However, there is an emerging role for nonsurgical management after chemoradiotherapy (CRT) or total neoadjuvant therapy (TNT). Endoscopic submucosal dissection (ESD) after CRT or TNT for rectal cancer, termed "salvage ESD," may be a viable nonsurgical option for carefully selected patients. Results suggested that salvage ESD for locally advanced rectal cancer is technically feasible and with low adverse event rates. There may be a diagnostic role in salvage ESD in assessing pathological response to CRT, as well as a possibly therapeutic role in resection of residual lesions with the potential to avoid surgery.

Mia Austria, Andrew Vickers, Sigrid Carlsson and their MSK colleagues co-authored a paper in *The Journal of Sexual Medicine*, "[Sexual and Gender Minority Persons' Perception of the Female Sexual Function Index](#)." The authors observed that patient-reported outcome (PRO) instruments assume patients are heterosexual and have a single partner. Noting this limitation, they sought to learn more about the insights and experiences of sexual and gender minority persons through cognitive interviews which included explorative sexual activity comprehension questions, review and discussion of the Female Sexual Function Index (FSFI), and open-ended debriefing questions focused on FSFI perceptions and suggested improvements. Overall, respondents found the measure to be narrow and reflected a heteronormative perspective. The authors concluded that these questionnaires should account for non-male, non-heteronormative sexual activity to better support the greater population.

Lauren Rogak and her U01 Moonshot colleagues, including **Ethan Basch**, recently published a paper in *Quality of Life Research*, entitled "[Missing data strategies for the Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events \(PRO-CTCAE\) in Alliance A091105 and COMET-2](#)." With so many research studies in their portfolio, the co-authors were interested in learning more about missing PRO-CTCAE scores as they complicate the analysis of these data and there may be a systematic difference between patients with missing scores and without. In both trials, mixed modeling and multiple imputation provided the most similar estimates of the average treatment effects. Including CTCAE grades in the imputation model did not consistently narrow confidence intervals of the average treatment effects because correlations for the same PRO-CTCAE item between different cycles were generally stronger than correlations between each PRO-CTCAE item and its corresponding CTCAE grade at the same cycle. For between-arm comparisons, mixed modeling and multiple imputation are informative techniques for handling missing PRO-CTCAE scores. CTCAE grades do not provide added benefit for informing missing PRO-CTCAE scores. In future work, these co-authors are exploring how best to show these data graphically.

Nikolaus Schultz, Bastien Nguyen, Christopher Fong, Anisha Luthra, Shaleigh Smith, Subhiksa Nandakumar, Henry Walch, Walid Chatila, Ramyasree Madupuri, Ritika Kundra, Brooke Mastrogiacomo, Ed Reznik, Mithat Gonen, Sohrab Shah, Jianjiong Gao, Francisco Sanchez-Vega, with their MSK and external colleagues co-authored the paper, "[Genomic characterization of metastatic patterns from prospective clinical sequencing of 25,000 patients](#)" in the journal *Cell*. In this study, authors assembled MSK-MET, a pan-cancer cohort of over 25,000 patients with metastatic diseases. By analyzing genomic and clinical data from this cohort, they identified associations between genomic alterations and patterns of metastatic dissemination across 50 tumor types. They found that chromosomal instability is strongly correlated with metastatic burden in some tumor types, including prostate adenocarcinoma, lung adenocarcinoma, and HR+/HER2+ breast ductal carcinoma, but not in others, including colorectal cancer and high-grade serous ovarian cancer, where copy-number alteration patterns may be established early in tumor development. They also identified somatic alterations associated with metastatic burden and specific target organs. The data offers a valuable resource for the investigation of the biological basis for metastatic spread and highlight the complex role of chromosomal instability in cancer progression.

Motivated by the rising demand for flexible learning environments, **Kay See Tan, Richard Koppelaar, Shireen Lewis, Colin Begg** and **Margaret Du** recently reported their experience adapting the QSURE summer internship to an entirely virtual format in Summer 2021 and 2022. Students used Web-conferencing and remote computing to complete research projects with dedicated faculty mentors and attend a host of scientific and skills-building seminars and workshops. Students reported high satisfaction and improved competencies comparable to the in-person program, although students noted challenges in building camaraderie online. We showed that with adequate resources, Web-based technology can be leveraged as an effective format for hands-on quantitative research training. This framework can be tailored to an institution's needs, particularly those for which available resources better align with a virtual research program. Reference: "[Adapting an Undergraduate Summer Internship to a Virtual Format: Implementing a Mentored Cancer Research Experience to Meet Rising Demand for Flexible Learning Environments](#)" in the *Journal of Cancer Education*.

NEW STAFF

Mirella Altoe, Postdoctoral Research Fellow

Mirella has joined our department as a postdoctoral research fellow with Nikolaus Schultz. Her research focuses on the association between genomic alterations and treatment sensitivity in cancer. Previously, she was a postdoctoral research scientist at NYU's Biomedical Engineering Department working on breast cancer imaging biomarkers. She received her PhD in Biomedical Engineering from Columbia University.



Pranita Atri, Postdoctoral Research Fellow

Pranita has joined Nikolaus Schultz's group as a postdoctoral research fellow. Prior to this, she completed her PhD in Biochemistry and Molecular Biology at the University of Nebraska Medical Center. Her doctoral research dealt with using computational tools and techniques to identify new therapeutics and biomarkers for gastrointestinal cancers.



Seongmin Choi, Bioinformatics Software Engineer

Seongmin joined Sohrab Shah's Lab and is working primarily with Andrew McPherson. His research focuses on whole exome sequencing pipeline construction for cancer and rare disease patient genomes. His previous research was mainly done in Seoul National University (SNU) Hospital of South Korea. He received his MS in Biological Sciences and his MD from SNU.



Michelle Garcia, Research Regulatory Associate

Michelle joins our department as a research regulatory associate. She returns to MSK after working at Hackensack University Medical Center's Pathology Department where she collaborated with the John Theurer Cancer Center coordinators to ensure patients met eligibility for recommended protocols. In her previous role at MSK, she was a clinical research coordinator for the Thoracic Oncology Service and also has experience as a clinical research associate. She looks forward to working with the Epi/Bio team.



Gbemisola (Liz) Ilelaboye, Senior Research Technician

Gbemisola "Liz" Ilelaboye joins Irene Orlow's lab as a senior research technician. She recently graduated with a master's degree from Seton Hall University and is currently finishing her thesis which focuses on *Drosophila melanogaster* as a model for ethanol toxicity. Before joining Epi/Bio, she worked as a clinical lab technician in Genesis Laboratory and at Seton Hall University as a teaching assistant, where she taught general biology lab and genetics lab to undergraduates. In her new position, Liz will contribute to collaborative multidisciplinary research including a study designed to evaluate the effect of inherited genetics and exposure to nicotine in vulnerable breast cancer patients experiencing cognitive changes post-treatment. She will also participate in interMEL, a large pathoepidemiologic study of melanoma survival that utilizes multi-omic platforms.



David Ma, Senior Computational Biologist I

David joins our department as a senior computational biologist in Jian Carrot-Zhang's lab. He is a recent graduate from Columbia University with a Master's in Biomedical Engineering. Originally from Toronto, David is a big fan of Canadian music. In his free time, he enjoys bouldering, learning a new language (working on Spanish right now!) and exploring the city.



Sonia Persaud, Data Assistant

Sonia joins Epi/Bio as a data assistant to help support departmental research needs. Before joining MSK, Sonia was a research intern for NYU Langone's Section for Health Equity in the Center for the Study of Asian American Health, and she was also a care coordinator at Healthquarters. Sonia graduated with a Bachelor's in Healthcare Administration from Stony Brook University and is finishing the last semester of her MPH program with a concentration in Health Policy and Management at The CUNY School of Public Health. Sonia looks forward to learning and understanding research implications for policy reform.



Tomin Perea-Chamblee, Bioinformatics Software Engineer I

Tomin has joined Computational Oncology as a software engineer under Jian Carrot-Zhang to support her research on characterizing the ancestral effects on cancer genomes and understanding germline-somatic interactions in multi-ethnic populations. Previously, he was a data manager at Columbia University Irving Medical Center where he administered the cloud computing infrastructure and maintained and streamlined computational pipelines and tools. He received his Bachelor's in Computer Engineering from the Fu Foundation School of Engineering and Applied Science of Columbia University.



Negar Safinianaini, Graduate Research Assistant

Negar has joined the Shah Lab as a graduate research assistant. Her research focuses on single cell copy number analysis and probabilistic machine learning. She is expected to defend her PhD thesis in the following months at The Royal Institute of Technology (KTH) in Sweden.



Matthew Zatzman, Senior Computational Biologist I

Matthew has joined our department as a senior computational biologist in Sohrab Shah's lab. Matthew received his PhD in Laboratory Medicine and Pathobiology from The University of Toronto. Matthew's PhD work was focused on developing computational methods to understand global hyper transcription in cancers. Matthew is very excited to be joining the MSK community of researchers.

