July 2024 | VOLUME 16, ISSUE 2

BIOSTATISTICS SEMINARS

None until fall - enjoy your summer!

COMPUTATIONAL ONCOLOGY SEMINARS

None until fall - enjoy your summer!

EPIDEMIOLOGY SERVICE MEETINGS

None until fall - enjoy your summer!

POPULATION SCIENCES RESEARCH PROGRAM SEMINAR SERIES

None until fall - enjoy your summer!

HEALTH OUTCOMES RESEARCH GROUP SEMINARS

None until fall - enjoy your summer!

PROMOTIONS

Samantha Brown promoted to Research Biostatistician II

Aimee Calder promoted to Senior Project Manager

Tiffary Trafalgar promoted to Senior Administrative Assistant

Helena Furberg promoted to Attending

I-Hsin Lin promoted to Senior Principal Biostatistician

Kay See Tan promoted to Associate Attending

STAFF ACHIEVEMENTS

PhD student David Hoyos, advised by Ben Greenbaum, received the prestigious Hertz Fellowship award.

STAFF FAREWELL

After two years in Epi Bio, Sonia Persaud will be leaving to start a PhD program in Health Services Research and Policy at the University of Pittsburgh this Fall. Best of luck to you, Sonia!









DEPARTMENT CHAIR - Colin Begg, PhD

THE HALVORSEN CENTER FOR COMPUTATIONAL ONCOLOGY

Thanks to a generous gift of \$25 million from the Halvorsen Family Foundation, MSK will establish The <u>Halvorsen Center for</u> <u>Computational Oncology</u>. The new Center aims to develop novel tools and methods for the collection, analysis, and interpretation of cancer biology and clinical data from patients. Acting as Scientific Director will be Sohrab Shah, PhD, Nicholls-Biondi Chair and Chief of Computational Oncology in the Department of Epidemiology and Biostatistics. Cynthia Berry will serve as administrative director.



SUMMER STUDENTS AT EPI BIO

This is the first year of the Bridge to Biostats Summer Program! We will host 4 high school students who will be in person from July 1st through August 9th. Students will participate in lessons on fundamental statistics, R coding labs, SAT preparation, and will explore more advanced statistical topics through interactive "statistical thinking sessions." Their educational experience will culminate in a data analysis project and presentation using publicly available data. The Bridge to Biostats Summer Program is directed by Esther Drill and Stephanie Lobaugh, along with assistance from the Bridge to Biostats Committee.

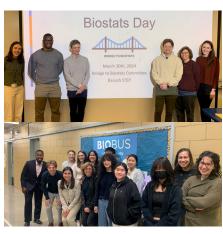
After a very successful first year, the GEMS program welcomed another cohort of masters students to the department in May. The GEMS fellows will spend 12 weeks working on a genomics related project led by a faculty mentor. Final presentations for the GEMS program will take place on Thursday, August 8th. If you're interested in attending, please send an email to Richard Koppenaal.

Of course, an Epi Bio summer wouldn't be complete without the QSURE program! This year, we have 11 QSURE students working on a wide range of projects with mentors from every service in the department. QSURE is proud to continue its partnership with MSK's Patient and Family Advisory Council for Quality (PFACQ). The two programs recently hosted a panel discussion later this summer, in which PFACQ members will lend insight into the experiences of patients and caregivers at MSK. QSURE will culminate with a two-part symposium on August 7th and 8th – please reach out to Richard Koppenaal if you'd like to attend.

Thank you to everyone in the department for welcoming our summer students!

BIOSTATS DAY

The Bridge to Biostats Committee hosted four Biostats Days this spring with partner organizations Baruch STEP Academy, BioBus, HYPOTHEkids, and Bioforce. The goal of the Biostats day events is to introduce students from backgrounds currently underrepresented in STEM to the field of biostatistics. Each event features an introduction to biostatistics, "statistical thinking" activities, a featured Biostatistician, and a closeout with information on resources and next steps if they are interested in learning more about biostatistics. The "F Count" measurement error activity entails counting the number of times the letter "f" appears in a paragraph. In the estimation error activity, "Guessing Ages", students work in teams and are asked to guess the ages of the individuals in six photos. For



both activities, the students submit their answers and are shown data visualizations in real time. Guest speakers included Adrian Harris, a Biostatistician at the NYU School of Global Public Health, and Steven Lawrence, a PhD student in Biostatistics at NYU. Post-event feedback from students was positive, typically with more than half interested in learning more about biostatistics.

The committee is also happy to share that their manuscript describing the virtual iteration of Biostats Day, Virtual Biostats Day: An interactive online Biostatistics outreach program directed at high school students in groups historically underrepresented in STEM careers, was recently published in The Journal of Statistics and Data Science Education.

EPI BIO COMMUNITY BUILDING INITIATIVE

2024 has been filled with fun activities so far!

PAST EVENTS

EPI BIO HAPPY HOUR

On a warm Wednesday this June 12th the Epi Bio department gathered for a happy hour at Bierhaus NYC. The festive restaurant is decorated both inside and out to look like its namesake, a German Beer House. This was a wonderful opportunity for everyone to meet and mingle with their co-workers in a fun environment outside the office. There was an excellent turnout from the department and everyone had an great time. Thank you to the Epi/Bio Community Building Team for continuing to plan engaging events. Please let the Community Building Team know if you'd like them to schedule another happy hour in the near future. Cheers (Prost or Şerefe)!



UPCOMING EVENTS

STEPS CHALLENGE

Please join our department's team-based walking challenge titled "Step Up to the Challenge: MSK to Paris!"

Challenge Details:

- Duration: June 25th to August 11th
- ❖ Objective: Accumulate steps as a team towards the distance from MSK to Paris



This is an excellent opportunity for us to come together, stay active, and have some fun in the spirit of friendly competition. Whether you prefer brisk walks during lunch breaks or evening strolls, every step counts towards our collective goal.

Teams will be formed based on sign-ups, and additional details will follow once registration closes. Let's embrace this chance to foster camaraderie and wellness within our department. Together, let's Step Up to the Challenge!

BOOK CLUB

Please join us on July 23rd at 4pm for the upcoming Epi Bio Book Club where we'll discuss The Bluest Eye by Toni Morrison. We hope to see you there!



CYCLE FOR SURVIVAL 2024

Thanks to everyone who donated to Team Bell Curve fundraisers over the past few months. The team had so much fun cycling at the event on March 8. With your help and support, they raised over \$7,200 this fundraising season, bringing the total amount raised by Team Bell Curve to more than \$20,000 since 2022.



CELEBRATING COLLEAGUES



The Biostats group held a special celebration for Kay See Tan's promotion to Associate Attending. Looking forward to seeing everyone for other milestones in the department!



The Epidemiology & Health Outcomes faculty had a special dinner to celebrate colleagues at the Kings Carriage House on May 28th.

PUBLICATIONS

Helena Furberg Barnes and colleagues published a paper in the May issue of the Journal of Cachexia, Sarcopenia and Muscle entitled, "Skeletal muscle and visceral adipose radiodensities may be pre-surgical, non-invasive markers of aggressive kidney cancer" using data from her NCI-funded RO1 study. Their analysis evaluated how body composition features derived from pre-surgical CT scans were associated with tumor stage and grade at presentation among 1239 clear cell renal cell cancer patients and found that the quality but not the quantity of skeletal muscle and visceral adipose tissue were associated with advanced stage and higher grade. Both radiodensity measurements are markers of lipid infiltration in those tissues. Patients who presented with fat infiltrated skeletal muscle or fat depleted visceral adipose tissues were more likely to harbor advanced tumor features. These findings suggest that characterizing body composition from CT scans in patients with ccRCC may be a non-invasive way to identify higher risk ccRCC patients.

I-Hsin Lin and colleagues from MSK's Pulmonary Service published a paper in ERJ Open Research, entitled "The Incremental Contribution of Mobile Cone-Beam CT to Tool-Lesion Relationship during Shape Sensing Robotic-Assisted Bronchoscopy." This is the first study to demonstrate a significant qualitative and quantitative improvement in achieving tool-in-lesion (TIL) status through the incorporation of shape sensing robotic-assisted bronchoscopy (ssRAB) with mobile cone-beam CT (mCBCT). The authors concluded that the potential positive impact of volumetric intra-operative imaging on the diagnostic sampling was implied in lesions in the extreme low range of the diameter spectrum.

I-Hsin Lin and colleagues from MSK's Endocrinology Service published a paper in Pituitary, entitled "Different Patient Versus Provider Perspectives on Living with Cushing's Disease (CD)." The authors concluded that CD patients experience long term symptoms and impaired QoL which may in part be due to a perception of lack of effective treatment options and little hope for improvement. Communicating experiences and care goals may improve long term outcomes for CD patients.

Aaron Mitchell, Sonia Persaud, and colleagues published a paper entitled "Industry Payments to Physicians Endorsing Drugs and Devices on a Social Media Platform" in JAMA. This paper investigated a new form of peer-to-peer promotion on social media and its adherence to industry and professional standards. Of the 28 physician endorsers in 2022 on X (previously Twitter), 21 (75%) specialized in urology, medical oncology, or radiation oncology. The conflict of interest between the manufacturer and endorsing physician may not be apparent to the general social media audience. These connections were not consistently disclosed in posts. This emerging form of social media promotion needs self-regulation from medical professionals to uphold industry and professional standards.

SCT 2024

Several members of the department attended the Society for Clinical Trials (SCT) conference in Boston this May. We want to highlight a few of their accomplishments:

- I-Hsin Lin was appointed Chair of the SCT Communications Committee for 2024-2025!
- Kathy Panageas, Audrey Mauguen, and Jessica Lavery co-organized the session: Assessing the Quality of Real-World Data for Regulatory Purposes in the Rare Disease Setting.
- Alexia lasonos moderated the roundtable: Recent Developments and Challenges in Early Phase Trial Design in Oncology.
- Hannah Kalvin and Mithat Gonen presented their poster entitled: Real-world evidence following a clinical trial: An application in biliary tract cancer.
- Colin Begg, SCT's Editor-in-Chief, helped Clinical Trials journal achieve its highest Impact Factor of 2.7!



DIGESTIVE DISEASE WEEK 2024:

Dr. Ann Zauber and **Anne Hahn** attended this year's Digestive Disease Week (DDW) which was held from May 18-21 in Washington, DC. Anne Hahn presented a poster entitled "Differential Progression Of Subtypes Of Intestinal Metaplasia And Dysplasia To Gastric Cancer: A Systematic Review And Meta-Analyses" based on the collaborative work with Dr. Monika Laszkowska from the Department of Gastroenterology, Hepatology, and Nutrition Service here at MSKCC. The findings of this work concluded that incomplete-type intestinal metaplasia has a markedly higher risk of progression compared to complete intestinal metaplasia. Moreover, low-grade and high-grade dysplasia conveyed high rates of progression to gastric cancer, which was most notably observed in high-grade dysplasia. In addition to this poster, Dr. Zauber's CISNET-Colon group had a cost-effectiveness of colorectal cancer screening session at DDW on Monday, May 20. This work featured many of the recent modeling studies the group has been working on, such as the cost-effectiveness of novel blood-based biomarker colorectal cancer screening tests, cost-effectiveness of a ride-share program for follow-up colonoscopy, modeling the optimal stopping ages for colorectal



cancer screening, and finally the population impact of the recent BMJ screening recommendations in Switzerland. Congrats to all on this phenomenal work!

In addition to the above, Dr. Zauber hosted her 20th Annual "NOMA" Dinner during DDW on Sunday, May 19. The NOMA (short for adenoma) dinner brings together many of Dr. Zauber's colleagues and friends in the realm of colorectal cancer screening and surveillance. What started as an annual dinner of only around 6 and Dr. Sidney Winawer, has now expanded to double-digits, this year reaching 50 guests! In addition, more than 40(!) coveted poundcakes were baked and transported from New Jersey to Washington, DC! Thank you, Ann, for planning this wonderful dinner for all!





GRANT SUCCESS

Jian Carrot Zhang was awarded an R01 for "Understanding lung cancer genomics in patients of African ancestry."

Ed Reznik received a DoD for "The NF-I/A Transcription Factor Regulates an HIF-independent Fatty Acid Metabolism Program in Kidney Cancer."

Francisco Sanchez Vega obtained an ICI for "Inferring actionable biomarkers from routine hematoxylin and eosin-stained tissue."

Francisco Sanchez Vega received a SPORE CEP for "Multimodal analysis of the interplay between genomic instability and immune evasion in breast cancer."

Francisco Sanchez Vega was awarded an AACR Breast CDA for "Race-aware multimodal data integration for outcome models in breast cancer."

Benjamin Greenbaum received an award from the Center for Experimental Therapeutics for "mRNA Neoantigen Vaccines for Pancreatic Cancer."

Gordon Watt, along with Co-PIs including **Jonine Bernstein**, received an NCI R01 grant for the project "Quantitative background parenchymal enhancement, measured on contrast-enhanced mammogram, as a novel marker of breast cancer risk." The grant was selected for conversion to R37 MERIT award due to the high percentile ranking, giving 2 additional years of support.

COMPUTATIONAL ONCOLOGY RETREAT

On Friday, April 12th, the Computational Oncology group held their first ever retreat at the EnVue Autograph Collection Hotel in Weehawken, New Jersey. Organized by the Epi Bio admin team and program chair, Ed Reznik, the event was a success in having the entire group come together to one place and collaborate. The event included presentations from Hussein Mohsen, Kanika Arora, Jeffrey Quinn, Venise Jan Castillon, Matthew Myers, Thinh Ngoc Tran, John Nguyen, Georgios Asimomitis, Louis Faure, Siyu Sun, and Sohrab Salehi.



POPULATION SCIENCES RESEARCH PROGRAM RETREAT

On Friday, June 7th, the Population Sciences Research Program (PSRP) held their 2nd retreat in 2024 at The Cornell Club. Following a welcome message from Drs. Selwyn Vickers and Charlie Rudin, presentations proceeded with focus on two themes — cancer care delivery research and screening across the continuum of cancer risk. Speakers from Epi Bio included Aaron Mitchell, Kathy Panageas, Allison Lipitz-Snyderman and Margaret Du as well as Sigrid Carlsson and Behfar Ehdaie. Co-chairs included Aaron Mitchell, Sigrid Carlsson, Victoria Blinder, Jada Hamilton and Sofia Stadler. Special thanks to Jonine Bernstein, Maria Andrade Aray, Joey Kanik and Shireen Lewis for organizing.



SUMMER STUDENTS

Special thanks to all of the summer students in Epi Bio, their mentors, and all of those who helped coordinate their visit!

Below are all of those visiting Epi Bio this summer.



B2BSP

- ❖Diego Lucas
- ❖Jayden Sin-Cuevas
- Kai Anthony Gasparini
- Renisha Alexander

GEMS

- ❖Ihsan Buker
- ❖ Katherine Tian
- ❖ Liancheng Lu
- Victoria Zinsmeyer
 - **❖**Yiwei Gong

QSURE

- **❖**Akua Owusu
 - **❖**Amber Hu
- **❖**Bridget Lin
- ❖Helen Keetley
- ❖Helen Reetley
 ❖Julia Vitale
- ❖Maja Palmroos
- ❖Nora Brant
- Thanh Doan
- ❖Will Asinger
- ❖Yiming Song
- ❖Yvonne Wang

<u>CBSP</u>

- Camille Rotemberg
 - Cynthia Shao
- ❖Jose Meza Llamosas
 - **❖**Kevin Yu
 - ❖Luke Nguyen
 - ❖Noa Kalfus
- ❖ Rohan Subramanian

HOPP SEP

- ❖Abel Tom
- ❖ David Calliste
- ❖Jessica Gyamfi
 - ❖Jinha Yoo
- ❖Nathan Bauman
- ❖Samuel Rodriguez
- ❖Sandzhi Kegiarikov
 - Yingsel Dewa

Tri-I CBM PhD

Kasey Cervantes

<u>CSIP</u>

- **❖**Jae Kim
- ❖Neelraj Patil
- ❖Yiwei Gong

Medical Student

Anneliese Markus

MSK Bench Research Internship

- ❖ Nicole Karnoub
 - ❖Sion Park

<u>N/A</u>

- Aasiya Islam
- Alexandra Archipenko
 - Helen Xie
 - Jake Weiser
 - ❖ Kyle Xu
 - Lauren Afran
 - Lizelle Ocfemia
 - ❖ Mariam Amin
 - Maya NittaNatalie Small
- ❖ Opalina Vetrichelvan
 - Sophia Davis
 - Warren Fu
- Yi Jing (Calvin) Liu

B.E.A.C.H.

NEW STAFF

Sharafudeen Abubakar, Postdoctoral Research Fellow

Sharafudeen joins the computational oncology service as a postdoctoral researcher with Dr Francisco Sanchez-Vega. Their research focuses on disparities in outcomes and tumor evolution of colorectal cancer. He has broad wet lab experience and is excited to fully embrace computational oncology. Sharafudeen received his PhD in molecular pathology from Tokyo University of Science, Japan.



Areej Alsaafin, Postdoctoral Research Fellow

Areej has joined the Department of Epidemiology and Biostatistics as a joint postdoctoral research fellow with Sohrab Shah and Nikolaus Schultz. Her research focuses on multimodal data fusion using machine learning for advancing personalized medicine. Previously, she was a research scholar at the Department of AI & Informatics at Mayo Clinic working on computational pathology for image search and retrieval. She received her PhD in Systems Design Engineering from the University of Waterloo, Canada.



Emilie Childs, Senior Administrative Assistant

Emilie joins the Department of Epidemiology and Biostatistics as the new Senior Administrative Assistant supporting the Epidemiology faculty. She joined MSK in 2018 as an Office Coordinator in the Leukemia Service and transitioned into the Infectious Disease Service in 2020 as a Senior Office Coordinator. In addition to supporting ID, she also began assisting the newly established Allergy and Immunology Service in 2022. She is excited to continue her MSK journey in Epi-Bio and looks forward to growing within the department.



Yufei Deng, Assistant Research Biostatistician

Yufei has recently joined the Department of Epidemiology and Biostatistics following her completion of an M.S. in Biostatistics at Yale University. She currently works with Dr. Li-Xuan Qin and Dr. Mithat Gönen on developing models and tools that integrate high-dimensional genomic and radiologic data to predict survival outcomes for patients with colorectal cancer and soft tissue sarcoma. Also a former intern in the very first GEMS program at the department, Yufei is excited to return and contribute to the department's groundbreaking work.



Michelle Dongel, Administrative Assistant

Michelle Dongel has joined EpiBio as an administrative assistant to the department. Previously Michelle worked as an office coordinator, supporting a handful of departments for the last 5 years. Michelle is enthusiastic about her career change and is grateful to work within MSK. In her free time she enjoys traveling, frequenting new restaurants and socializing with friends and family. A native to Brooklyn, New York she is proud of her hometown roots and all that the city has to offer.



Charlotte Malling, Senior Project Manager

Charlotte Malling has joined the Department of Epidemiology and Biostatistics as a Senior Project Manager with Dr. Kathy Panageas, managing the MATCHES Telehealth Research Center. She is very excited to work on healthcare delivery research amid the rapidly shifting digital health landscape. Before this, she worked on the Behavioral Science service at MSK managing a large multicenter trial investigating a provider-level intervention to improve patient reported outcomes. Outside of work she is an avid sailor, surfer and total bookworm.



Tara Mohan, Biostatistics Program Assistant

Tara joins the department as the Program Assistant for Dr. Mithat Gonen, Dr. Katherine Panageas and Dr. Alexia Iasonos in Biostatistics. While earning a bachelor's degree in health science at Pace University, Tara interned at MSK and was offered a full time position in outpatient care coordination upon graduation in 2020. Tara has a little boy, Dylan, who is turning 8 at the end of the month and they are both utterly obsessed with the NY Rangers, Knicks, and Mets. Tara hopes to earn her master's degree in the coming years and continue advancing in her career at MSK!



Elnaz Naderi, Research Scholar

Elnaz has joined the Department of Epidemiology and Biostatistics at MSKCC as a postdoctoral research scholar, working with Dr. Matt Buas and Dr. Jonine Bernstein. She earned her PhD in genetic-bioinformatics from the University of Medical Center Groningen, the Netherlands, in February 2022. She then joined Columbia University Medical Center as a postdoctoral researcher. Elnaz's research focuses on functional genomics, multi-omics data, and personalized medicine in cancer treatment using genetic risk scores. She aims to make "cancer" a less scary word.



Antony Pellegrino, Research Fellow in Urology (Vickers Team)

Antony has recently completed a clinical fellowship at la Pitié Salpêtrière Hospital in Paris and previously trained at UIC in Chicago. He studied Medicine at Università Vita-Salute San Raffaele in Milan, where he is currently a resident in Urology (PGY-4). He is passionate about advancing minimally invasive and robotic surgery, with a focus on uro-oncology diagnosis and treatment. Originally from Italy, Antony loves pasta and pizza, as one might imagine. He is excited to join our team and contribute to our cutting-edge research and patient care.



Yashasvini Sampathkumar, Postdoctoral Research Fellow

Yashu joins the Department of Epidemiology and Biostatistics as an OPTICS postdoctoral research fellow with Dr. Katherine Panageas. She received her MD from Virginia Commonwealth University and was previously a general surgery resident at Rutgers University in Newark, NJ. She is interested in breast surgical oncology and disparities research.



Brittany Small, Research Assistant

Brittany has joined the Department of Epidemiology and Biostatistics as a Research Assistant with Dr. Orlow in May 2024. She graduated with a B.S in Biology from the University of Tampa, in May of 2021. Before joining our department, she worked as a Laboratory Scientist in Tampa, Florida developing/validating biomarker assays for different phases of drug development. Brittany will contribute to collaborative multidisciplinary research is excited to join the MSK team.



Ziad Zakaria, Data Analyst

Ziad joins the Department of Epidemiology and Biostatistics as a Data Analyst, working primarily with Drs. Elizabeth Kantor, Margaret Du, and Aaron Mitchell. Prior to becoming a Data Analyst, Ziad earned a Master of Public Health degree in Epidemiology from University of California Los Angeles. Ziad is grateful for the opportunity to work at MSK and contribute to various ground-breaking cancer research projects and learn from some of the brightest minds in the field.



Epi Bio on Vacation E



Joe - Las Vegas, NV Liz and I renewed our vows in Vegas with Elvis



Jonine - Naoshima, Japan Definitely worth visiting for a night or two



Cynthia - Cabo, Mexico With Christopher, Caleb, Caden and Sheldon



Katherine - Orlando, FL First Cheung Family trip to Disney World



Irene - Kyoto,Japan With Bruce, Mati, IO, Nick and friends



Tiffany - Vík, Iceland Honeymoon with Ryan at Katla Ice Cave



Mohammad - Lyndon, VT Following the Solar Eclipse on 4/8/24



Sonia - Seoul, Korea Gyeongbokgung Palace



Joanne - Hakone, Japan
One of the unforgettable experiences
was taking the Hakone Ropeway



Tara - Sedona, AZ Hike to Cathedral Rock Vortex



Megan - Kyoto, Japan loved the historical sites, such as Kiyomizu-dera



Anne - Shimizu, Japan Traditional matcha tea ceremony with her new bestie, the Tea Master



Joey - Osaka, Japan Better food than Eleven Madison Park