



BIOSTATISTICS SEMINARS

- ❖ April 12, 2023 **Venkat Seshan**
MSK
- ❖ April 19, 2023 **Michael Wu**
Fred Hutch
- ❖ April 26, 2023 **Anqi Fu**
MSK
- ❖ May 3, 2023 **Andrea Arfe & Marion Keriou**
MSK
- ❖ May 10, 2023 **Sean Devlin**
MSK
- ❖ May 17, 2023 **Peisong Han**
University of Michigan
- ❖ May 31, 2023 **Li-Xuan Qin**
MSK

COMPUTATIONAL ONCOLOGY SEMINARS

- ❖ April 25, 2023 **Elham Azizi**
Columbia University
- ❖ May 16, 2023 **Raul Rabadan**
Columbia University

MACHINE LEARNING SEMINAR SERIES

- ❖ May 2, 2023 **Dmitry Krotov**
MIT-IBM Watson AI Lab

EPIDEMIOLOGY SERVICE MEETINGS

- ❖ April 10, 2023 **Margaret Du**
MSK
- ❖ April 24, 2023 **Timothy Rebbeck et al.**
Harvard TH Chan School of Public Health & Dana-Farber Cancer Institute
- ❖ May 8, 2023 **Matthew Buas**
MSK
- ❖ May 22, 2023 **Ann Zauberman**
MSK

POPULATION SCIENCES RESEARCH PROGRAM SEMINAR SERIES

- ❖ April 18, 2023 **Carl T. Bergstrom**
University of Washington
- ❖ May 16, 2023 **Joke Bradt**
Drexel University

HEALTH OUTCOMES RESEARCH GROUP SEMINARS

- ❖ May 5, 2023 **Audrey Zhang**
Duke
- ❖ June 2, 2023 **Reshma Ramachandran**
Yale



DEPARTMENT CHAIR - Colin Begg, PhD

EDITORS
Shireen Lewis, MPA
Prusha Patel, MPH
Sonia Persaud, MPH
Hannah Fuchs, MSPH
Richard Koppelaar
Joseph Kanik

LOOKING FORWARD TO THE NEXT PHASE OF QSURE

Over the last 5 years, the Quantitative Sciences Undergraduate Research Experience (QSURE) has expanded the volume of students in our department 4-fold and facilitated the growth of 57 students—nearly a quarter of whom are from racial or ethnic groups underrepresented in biomedical research.



Our program uses a multi-pronged approach integrating research, education, and professional development to help reinforce students' goals and prepare them early in their careers to become strong quantitative scientists dedicated to advancing cancer research. We are especially grateful to every one of our mentors, speakers, and team members who dedicate their time to serve as the backbone of QSURE and are proud these efforts have had lasting impact. 71% of alumni who completed undergraduate degrees have pursued graduate studies and 90% of alumni who have entered the workforce are now in quantitative careers. This includes 2 alumni, **Hannah Fuchs** and **Alli Reiner**, who have returned to the department as Assistant Research Biostatisticians after completing Master's programs. As a testament to the success of our first 5 years, peer-reviewers recently gave our NCI R25 competing renewal application a perfect impact score of 10. While we await the notice of award, we have very high confidence QSURE will be funded for another 5 years, during which we will expand the program to include equity, diversity, and inclusion modules designed in collaboration with our ED&I Committee and other institutional programs. We are thankful to all mentors, speakers, and staff who have made the first cycle of QSURE a success, and we look forward to working with you all to continue to nurture and meaningfully impact students' careers.

GEMS

The Department is excited to introduce its newest training program, The Genomics Experience for Master's Students (GEMS)! GEMS will host its inaugural program this summer beginning May 22nd through August 11th. Program Directors **Kathy Panageas** and **Ronglai Shen** are recruiting between 4-6



currently-enrolled master's level students to participate in the 12 week training program. The mission of GEMS is to fill a gap by training statisticians and data scientists while still in their graduate academic studies, fostering students' interest in cancer genomics, and preparing them for the inter-disciplinary translational science workforce. Each fellow is paired with a faculty mentor. The program is supported by an R25 grant from the National Cancer Institute. Please join us in welcoming the new GEMS fellows when they arrive in May; they will be seated in the Northwest section of floor 3!

GRANT SUCCESS

Eduard Reznik and Payam Gammage received an R37 from the NCI for their project titled "Defining the function of Complex I truncating mutations in cancer". Other investigators include **Irina Ostrovskaya**.

Wesley Tansey received an R37 from the NCI for his project titled "Probabilistic Multiscale Modeling of the Tumor Microenvironment". Other investigators include **Sohrab Shah**.

Talya Salz and Fumiko Chino received an MSK Interdisciplinary Population Science Research Award for their project "Patient-centered outcomes of prior authorization for long-acting opioids".

Andrew Vickers and Robert Klein received an MSK Interdisciplinary Population Science Research Award for their project "Germline Variants, Race and the Prediction of Lethal Prostate Cancer".

Sohrab Salehi received a K99 award from the NCI for his project "Causal determinants of drug resistance with multimodal single cell data".

Elizabeth Kantor received an R37 extension for her NCI-funded project "Obesity, chemotherapy dosing, and breast cancer outcomes".

Adam Weiner, Cornell student, in **Sohrab Shah's** lab was awarded an F31 from the NCI for his project "Quantifying replication dynamics to predict clonal evolution and drug sensitivity in cancer cells using single-cell whole genome sequencing".

Wesley Tansey is the Core Director of the Outreach Core, and Co-Core Director of the Shared Resource Core for Christina Leslie and Alexander Rudensky's NCI-funded U54 grant titled "The Center for Tumor Immune Systems Biology at MSKCC".

GRANT SUCCESS CONTINUED

Kay See Tan is the Biostatistics Core PI on Julianne Imperato-McGinley's UL1 renewal titled "Clinical and Translational Science Center". Other investigators include **Yuelin Li**, **Margaret Du**, and **Andrew Vickers**.

Olga Lyudovyk, Cornell student, in **Ben Greenbaum's** lab was awarded a grant from the Center for Experimental Immuno-Oncology (EIO) 2023 Scholars Program for her project titled "Deep Learning model of T-Cell recognition of antigens and its applications in cancer to inform immunotherapy design and predict response".

Marion Keriou received a Francois Wallace Monahan Fellowship from the JLM Benevolent Fund for her project titled "Machine learning methods for innovative basket clinical trial designs".

Andrew McPherson received the 2023 International Myeloma Society and Paula and Rodger Riney Foundation Translational Research Award for his project titled "Improving Prognosis of Progression Risk in Multiple Myeloma Precursors through Single Cell Sequencing-Based Genomic and Immune Microenvironment Profiling".

Francisco Sanchez Vega received a Corning MSK Health Equity Scholarship for his project titled "Deciphering the biological and socioeconomic causes of disproportionately negative outcomes from colorectal cancer in African American patients through integrated clinical and genomic analyses". Other investigators include **Nikolaus Schultz**.

Kathy Panageas and **Ronglai Shen** received an R25 award from the National Cancer Institute for their project titled "Genomics Research Experience for Master's Students (GEMS) Fellowship".

Drs. Alvin Goh & **Sigrid Carlsson** received a grant from MSK Projects in Patient and Family Centered Care for "Development of decision support tools to improve decision-making in patients undergoing radical cystectomy for bladder cancer".

Drs. Jennifer Cracchiolo & **Sigrid Carlsson** received a Pfizer Global Medical Grant for "Optimizing Postoperative Cancer Care Through Personalized Remote Symptom Monitoring".

Drs. Jennifer Ross Majumdar & **Sigrid Carlsson's** "Distress and Telephone Study" received the Leslie B. Tyson Nursing Research Award.

EPI/BIO COMMUNITY BUILDING INITIATIVE

2023 has been filled with fun activities so far!

UPCOMING EVENTS

BOOK CLUB

The next Book Club will be held on Tuesday, June 6th at 4PM. Stay tuned for the title announcement!

MOVIE CLUB

Announcing the departmental Movie Club! This group will meet bi-monthly (opposite month of book club) in the Collaboration Café to have a relaxed, lunchtime discussion of our chosen film. This is designed to be a very laid-back opportunity to meet other movie lovers in the department and enjoy lunch! The first meeting will be Tuesday, May 2nd at 12PM and the movie will be *Interstellar*. Contact **Jeffin Naduparambil** if interested.



CHIT CHAT WEDNESDAYS

Please join us for Chit Chat Wednesdays, 12:30pm in the Collaboration Café! It's a great opportunity to have lunch (or a cup of coffee) with your co-workers. Please stay tuned for plans as the weather warms!

EPI-BIO STEPS CHALLENGE

Coming this Spring: another Epi-Bio Steps Challenge! After such a robust turnout in the fall, the Community Building Team will be bringing it back this Spring! If you're interested in joining, please sign up using the link [here](#). Applicants will be randomly divided into different teams the week of 4/10 and receive an e-mail with instructions and a steps log. If you have any questions, please contact **Anne Hahn**.

PAST EVENTS

FALL IN LOVE WITH 633

Thank you to everyone that participated in the "Fall in Love with 633" Scavenger Hunt! We had a tremendous turnout from the department that culminated with some valentine's day sweets in the collaboration café. Special thanks to **Jeffin Naduparambil** for organizing such a fun event – and a pretty challenging set of puzzles!



WORLD CUP BRACKET

Congratulations to Team 5 (**Nicolas Toumbacaris**, **Selcuk Sumer**, **Margaret Du**, **Raymond Lim**, and **David Ma**) for winning the inaugural Epi Bio World Cup Team Challenge with a team average of 188 points and 91.3 percentile! Three members of team 5 accurately selected Argentina as the champion. Individually, **Zoe Guan** led the pack with 260 points. **Aaron Mitchell** and **Teng Fei** came close behind with 250 points. We're looking forward to the next one in 2026!

MSK SORTATHON

A few members of the department's ED&I Group/Community Building Initiative volunteered for MSK's Sortathon on Sunday, 3/12 at the Afya Foundation Warehouse in Yonkers, to support relief efforts in Turkey/Syria. Among the sorters were **Shireen Lewis**, **Elizabeth Kantor** and **Meg Woods**.



PROMOTIONS

Ling Chen promoted to Manager II, Product Management

STAFF FAREWELLS

We bid farewell to **Mike Curry**, a Research Biostatistician II. Mike left for a new opportunity at Tempus Labs as a Senior Biostatistician. At MSK Mike worked with Chaya Moskowitz on childhood survivorship projects, Audrey Mauguen on Pediatric BMT, and health outcomes researchers using SEER-Medicare. We wish Mike great success in his new position!

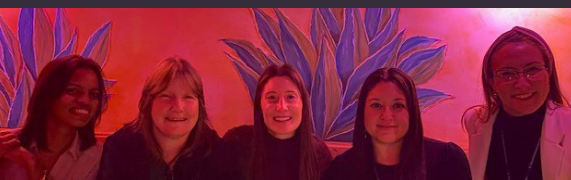
Since the last issue we saw departures from **Lauren Rogak**, **Maribel Hernandez**, **Gabe Ogbennaya** and **Elizabeth Zakszewski**. We wish them all the best!

TRICIA HEADS TO FACILITIES

After 26 years with the Department of Epidemiology and Biostatistics, **Tricia Neary** transferred to the Workplace Transformation (WPX) team in facilities. As the Epi Bio facilities coordinator, Tricia worked with nearly everyone in the department. As the person in charge of new employee floor tours, anyone who joined the department was quickly introduced to Tricia's infectious smile and can-do attitude.



Starting in the department, back when it consisted of about 25-30 staff, she handled the group's first move from Howard 12 at the main campus to 307 E 63rd Street. 307, being an offsite location, meant that many of the facilities issues needed more hands-on attention. Tricia tackled a variety of temperature issues, leaks, floods, black outs, and more than a dozen broken elevators. These responsibilities carried over when the group moved to 485 Lexington Ave, with the exception of the broken elevators, which must have been a sigh of relief for Tricia. With the group now at 633 3rd Ave, Tricia has joined the WPX team who oversees the facility needs of the entire 633 building. Even though she's not directly part of the department, Tricia will still be helping the group.



It's not entirely a farewell, as you might still be able to catch her in the hallways, doing what she does best. Still, she will be missed. Holidays won't be the same without her festive outfits! We wish Tricia good luck in her new role!



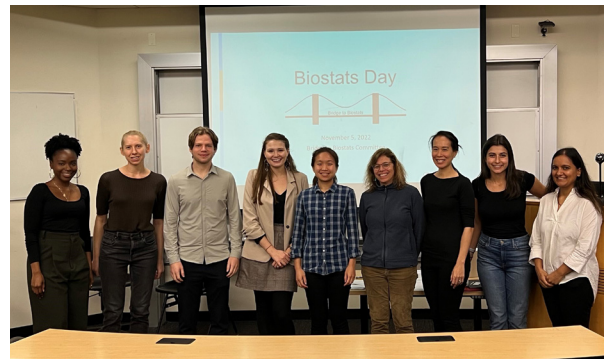
PUBLICATIONS

Sigrid Carlsson, along with collaborators from several Swedish hospitals as well as Oslo University Hospital-Radiumhospitalet, published "[Prostate Cancer Screening with PSA and MRI Followed by Targeted Biopsy Only](#)" in the New England Journal of Medicine. About 20,000 Swedish men between 50 to 60 years with elevated PSA levels (3 ng/ml) completed an MRI of the prostate to identify suspicious lesions. The study group was then randomized to either the reference group (systemic biopsy regardless of MRI findings) or the experimental group (biopsy only on men with observed suspicious lesion). Results suggest that implementing MRI-targeted biopsy of prostate lesions lowers overdiagnosis of clinically insignificant prostate cancer, but some clinically significant cases may not be found.

Ann Zauber, and other collaborators including our very own **Irene Orlow**, **Anne Hahn**, **Stephanie Lobaugh**, **Sharon Bayuga-Miller** and **Kelli O'Connell**, published "[Randomized Trial of Facilitated Adherence to Screening-Colonoscopy Versus Sequential Fecal-Based Blood Test](#)" in Gastroenterology. Colorectal cancer (CRC) screening guidelines include screening-colonoscopy and sequential high sensitivity fecal occult blood testing (HSgFOBT), with expectation of similar effectiveness based on the assumption of similar high adherence. However, adherence to screening-colonoscopy compared to sequential HSgFOBT has not been reported. The paper covers a randomized clinical trial, where they assessed adherence and pathology findings for a single screening-colonoscopy versus sequential and non-sequential HSgFOBT.

B2B NOVEMBER 5 BIOSTATS DAY

On Saturday November 5, the Bridge to Biostats (B2B) Committee held its first ever in-person Biostats Day for students from Baruch STEP (Science and Technology Entry Program) Academy. Baruch STEP Academy is a pre-college program for middle and high school students interested in STEM-related careers, funded by the New York State Education Department. Thirty-six students from grades 9-12 attended the Biostats Day session, only 2 (5.6%) of which reported previously hearing about biostatistics before signing up for the workshop. On the post-event survey, 86% of the students expressed any future interest in Biostatistics, with 22% interested in Biostats as a college major and/or a career choice!



Esther Drill kicked off the event by introducing the field of biostatistics, describing examples of the projects that biostatisticians work on, highlighting job perks, and describing a day in the life of a Biostatistician. The workshop centered on two interactive statistical thinking activities, which introduced students to the concepts of measurement error and estimation error. These two activities, "F Test (Counting F's)" and "Guessing Ages," were led by presenters **Stephanie Lobaugh** and **Zoe Guan**, respectively. The students showed a strong interest in these game-like activities and were very motivated to come up with the correct answers. B2B Committee members **Akriti Mishra** and **Sammi Brown** assisted with handing out papers and collecting student responses, while **David Nemirovsky** and **Lily Boe** completed the data entry in real-time to produce figures that summarized results. **Kay See Tan** assisted with the discussion following the activities and fielded many of the student questions, which included asking how we produced the graph of results so quickly and if one student's interest in maps could translate to a career in statistics. The workshop also featured a "Meet the Biostatistician" presentation from **Celine Bien-Aime**, a data coordinator and analyst for the Childhood Research in Obesity Prevention team at Columbia University. Celine described her journey to biostatistics, which began with AP Statistics in high school and eventually led completing a Master of Science degree in Biostatistics at Columbia.

The committee is looking forward to hosting more in-person Biostats Day events in the spring. To stay up to date on the Bridge to Biostats committee's activities and future Biostats Days, follow [@Bridge2Biostats](#) on Twitter!

MACKLOWE MOVE

The computational oncology program has finally moved into their permanent home at the Computational Oncology Research Campus. In 2020 during the high of Covid, **Dr. Shah**, **Papaemmanuil**, **Schultz**, **Berger**, **Cynthia Berry** and the MSK design team would meet every Friday for 3 hours to design every square inch of the building. The goal for the building was to foster a culture of scientific innovation, research discovery, and create an environment for continuous learning. The building's collection of artwork was provided by Transmitter an artist and curator run gallery in Brooklyn, New York. The artwork follows MSK's goal to expand its art collection to feature both emerging and diverse artists from BIPOC and LGBTQ communities. We are so thrilled to finally call this our home.



NEW STAFF

Aimee Cowan, Project Portfolio Manager

Aimee joined the Computational Oncology team in December of 2022, she was previously a translational research project manager for the Brain Tumor Center and Cancer Biology and Genetics. Prior to joining SKI, she was a breast medicine RSA and neurosurgery CRC managing clinical trials and biospecimen collections. She completed her MS and BS degrees in Chemical Engineering, from Villanova University and Manhattan College respectively. She will support all of the Computational Oncology faculty in pre and post award, reporting directly to Cynthia Berry.



Jay Herrera, Clinical Research Coordinator

Jay joins the department of epidemiology as a Clinical Research Coordinator. They work primarily with Dr. Margaret Du in managing the Pancreatic Tumor Registry and any ancillary projects that leverage the data/samples from the registry. Prior to becoming a CRC in Epi/Bio Jay had worked as a Care Coordinator for four years in the STGI department at MSK's 53rd Street. They are interested in learning more about protocol design as well as projects focusing on health disparities.



Mobina Kazemi, Computational Biologist

Mobina is a woman from Iran who has recently joined the Sohrab Shah Lab as a computational biologist. Her research focuses on analyzing single cell sequencing data and studying cell-cell communication by identifying ligand-receptor interactions from scRNA-seq data. She has graduated from the University of Calgary with a master's degree in Biochemistry and Molecular Biology. During her graduate studies, she worked on non-equilibrium molecular evolution caused by fitness shift and drift using dN/dS method. Although her BSc background is in Electrical Engineering and Computer Science, she found her true research interest in cancer biology as it can significantly affect the global rate of death, and thus even a small progress is likely to be extremely important. Mobina cares about the well-being of people everywhere. She is a firm-believer in the abilities of women in driving fascinating projects and tries to support the women (and men) of Iran with their recent movements with the clear message of woman, life, freedom.



Jared Klug, Data Analyst

Jared joins the Epidemiology and Biostatistics Department as a Data Analyst to support the Health Outcomes Research Group. He recently completed his master's degree in biostatistics from Columbia University. Prior to MSK, Jared worked at Weill Cornell Medicine as a Computational Research Assistant in the Microbiology and Immunology Department where he looked into the link between the gut microbiota and chronic diseases. Jared now aims to apply the skills he developed in computational research, statistics, and programming to support better outcomes for patients.



Mikael Moise, Data Analyst

Mikael joins MSK as a Data Analyst on Andrew Vickers team in the Health Outcomes Research Group. He recently graduated from Smith College with a bachelor's degree in computer science. During his time at Smith, he minored in Data Science and contributed to the Spatial Epidemiology R package. In this role, Mikael is excited to contribute to MSK's ongoing mission in changing the lives of cancer patients.



EPI BIO SUGGESTION BOX

The EPI/BIO Suggestions and Comments Box is a webpage to provide comments or suggestions regarding professional life in our department. [Click here](#) to access it. Information inserted in this web form will be monitored on a monthly schedule by [Andrea Arfe](#). The web page does not record MSK login information such as emails and usernames, but please note it records an associated time stamp (date and hour). Additionally, although department leadership ([Colin](#), [Mithat](#), [Sohrab](#), and [Shireen](#)) will receive a summary of inserted messages to evaluate potential changes, these will be treated as anonymous. We are interested in learning what is working well and what you think can be improved in our department. If you have any question or comment, please don't hesitate to contact [Andrea](#).

ACHIEVEMENTS

[Hannah Fuchs](#) won the October Employee Blood Donor Raffle and the prize was bookends.

[Sigrid Carlsson](#) became a guideline panel member for the Prostate Cancer Foundation's Multidisciplinary Expert Panel for Prostate Cancer in Black Men in the U.S.

[Sigrid Carlsson](#) was appointed Director of MSK's Summer Clinical Oncology Research Experience (SCORE) Program to engage undergraduates from diverse backgrounds in cancer research, after Dr. Laura Liberman's retirement.

PERSONAL MILESTONES



[Sankeerth Jinna](#) proposed to his girlfriend Manasi in the scenic city of Annecy, France. He asked and she said yes!



On February 7th, [Sarah Bober](#) gave birth to Benjamin Vincent Bober weighing 9lb7oz. They are both doing well.



[Caroline Kostrzewa](#) gave birth to Hudson Todd Kostrzewa was born on February 18 at 7 lbs and 20 inches. Family Kostrzewa is doing well, soaking up all this special time and snuggles with the baby.

ED&I COMMITTEE

The Epidemiology/Biostatistics Dept Equity, Diversity, and Inclusion (ED&I) Committee has been working towards promoting its mission of fostering an inclusive and equitable environment for staff within the department.



Noteworthy items completed over the past few months:

- In February, the ED&I Committee hosted a 'Disability and Equity at MSK' forum with [Sonia Persaud](#) as monitor and guest speakers, Arielle Rausin, MPH, Kathryn Romanchuk, MPH (who was also a former intern in our Biostats service!), Simone Hutchinson (a former administrative research secretary for Epi Bio!), MSK Able ERN co-leader, and Christine Watts, ED&I Specialist in MSK HR. With over 60 people attending across MSK, we thank those who joined in-person and remotely! For those who missed the event- the recording is available [here](#).
- Created an MSK Yammer page which contains real-time updates with resources on seminars, workshops, articles (news and research), and events that address equity, diversity, and inclusion within health services. We encourage anyone who is interested to participate and share anything they find informative and engaging! Click here to access [this link](#) & join the group!

Upcoming items include:

- A new initiative in the department by aligning data collection and study design with the principles of ED&I. For those interested, please reach out to [Gordon Watt](#) for further information.
- A OneMSK page is under construction- stay tuned for more info!

Snapshot of recommended reads and resources for anyone who is interested in reading more on health disparities:

- [Disparities in the Inclusion of Racial and Ethnic Minority Groups and Older Adults in Prostate Cancer Clinical Trials: A Meta-analysis](#) (Bin Riaz et al., 2023). Researchers find that in prostate cancer clinical trials that reported race, Black and Hispanic men are underrepresented.
- NIH Minority Health social determinants assessment toolkit (referenced by PSRP speaker Dr. Chanita Hughes when discussing standardized tools to access social determinants of health): [PhenX Social Determinants of Health \(SDOH\) Assessments Collection](#)

CALL FOR CO-CHAR!

The ED&I committee is looking for a second co-chair! For anyone interested in becoming a co-chair, getting more involved, or learning more about the ED&I committee, please contact ED&I co-chair [Gordon Watt](#).

CYCLE FOR SURVIVAL 2023

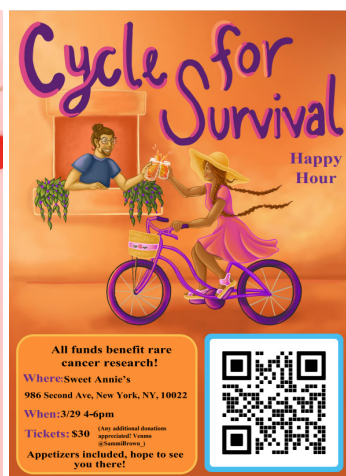
Cycle for Survival is closing in as the Epi/Bio department's, Team Bell Curve, is set to ride on Saturday, April 29th from 1:00PM to 5:00PM.

Rare cancer research is drastically underfunded, which is why Cycle for Survival fights back with 100% of every dollar raised. Money is being raised for innovative research and lifesaving clinical trials at Memorial Sloan Kettering Cancer Center to help bring new and better treatment options to people with a rare cancer worldwide. Every donation makes a difference. Please consider making a tax-deductible gift today.



[Click here to access the Team Bell Curve page to donate!](#)

In addition to traditional methods, the group has also put together some fun ways to fundraise such as a happy hour event, Valentine's day candy grams and their latest event, a raffle! The raffle closes at 5PM on 4/24 so don't forget to enter!



JOIN THE BEACH NEWSLETTER COMMITTEE!

The Newsletter Committee is always looking for new members. If you're interested in helping work on the newsletter, feel free to contact [Joey Kanik](#)!