



BIostatistics
SEMINARS

- ❖ May 27, 2026
Colin Begg
MSKCC
- ❖ June 10, 2026
Chen Hu
Johns Hopkins
- ❖ June 17, 2026
Xinjun Wang
MSKCC

HALVORSEN CENTER
FOR
COMPUTATIONAL
ONCOLOGY
SEMINAR SERIES

- ❖ June 5, 2026
Thomas Hofer
DKFZ
- ❖ June 16, 2026
Adam Yala
Berkeley

HEALTH OUTCOMES
RESEARCH GROUP
SEMINARS

- ❖ June 18, 2026
Syed Qasim Hussaini
University of Alabama at
Birmingham

EPIDEMIOLOGY SERVICE
MEETINGS

- ❖ June 8, 2026
Chaya Moskowitz
MSKCC
- ❖ June 15, 2026
Yashu Sampathkumar
MSKCC



Venkat Seshan
Biostatistics



Jonine Bernstein
Epidemiology



Tiffany Trafalgar
Administration



Wesley Tansey
Computational
Oncology



Andrew Vickers
Health
Outcomes

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AARON MITCHELL RECEIVES MSK 2026 BOYER AWARD

We are proud to announce that [Aaron Mitchell](#) has been selected as the recipient of the 2026 Louise and Allston Boyer Young Investigator Award for Clinical Research. This award honors physicians at the Associate level or below who have demonstrated great promise and accomplishment in clinical investigations.

Aaron is an Oncologist and Health Services researcher. He did his clinical training at Duke University Hospital (Residency, Internal Medicine) and at University of North Carolina at Chapel Hill (Fellowship, Medical Oncology). He received an MPH in Epidemiology from University of North Carolina, and completed a postdoctoral research fellowship at UNC's Cecil G. Sheps Center for Health Services Research. His research interests are in understanding the interaction between financial incentives and physician behavior. He seeks to understand how changes to current reimbursement models for Oncology services may be used to achieve better patient outcomes and reduce low-value care.

Aaron is conducting a series of studies under the broad rubric of appropriate health care delivery, including a Department of Defense funded study of the over- and under-use of bone modifying agents in prostate cancer, an NCI R37 grant to pursue his examination of the impact of industry/provider relationships on the quality of cancer care delivery, more general studies that address the extent of guideline consistent care, and studies of the role of industry conflicts of interest that affect prescribing patterns. During 2025, Dr. Mitchell published a study cataloguing the differential use of low value, wasteful services in Medicare Advantage plans versus traditional Medicare. He also published a study addressing the question of whether oncologists prioritize high price drugs over clinical benefit, finding, reassuringly, little empirical evidence of inappropriate care.

Congrats to Aaron on this accomplishment!



2026 CYCLE FOR SURVIVAL UPDATE

Cycle for Survival took place on March 6th, 2026, and our department team, Team Bell Curve, raised \$14,001! This marks our fifth year participating as a department, bringing our total fundraising to \$44,463 over the past five years.

A heartfelt thank you to everyone for supporting the team! Your donations and participation in the fundraising events like Super Bowl Squares, Candy Grams, and Happy Hour, have made a meaningful impact! And a special thank you to our riders for their dedication and energy!



PUBLICATIONS

Talya Salz, Anne Hahn, Sankeerth Jinna, Megan Mills, Maria Klimchuk, Helena Furgberg and colleagues published the paper [Cannabis Use During Immune Checkpoint Inhibitor Therapy Among Patients with Kidney Cancer and Melanoma](#) in *Mary Ann Liebert*, a part of *Sage Journals*. This study surveyed 160 patients with kidney cancer or melanoma receiving immune checkpoint inhibitors and found that 21% used cannabis during treatment, mainly through edibles or smoking. Patients reported using cannabis both recreationally and for symptom relief—especially for mood, sleep, and muscle or joint pain—with most users saying it helped, but the authors emphasize that more research is needed to determine whether cannabis affects the effectiveness of immunotherapy and to guide clinical recommendations.

Jonathan Levine, Benjamin Greenbaum, and others published a paper in *PRX Life* titled, [How different are self and non self?](#) In this theoretical work on immune discrimination, the authors' modeling uncovers that self and nonself peptide distributions are not very different, and the distributions of these peptides are strongly inhomogeneous. The combination of these results means that the immune system benefits by targeting antigens close to those represented in the organism's own proteome. A key finding from this work is that the peptides that are only one or two mutations away from self are more likely to elicit an immune response than those that are further away, which gives new insight into the success of immunotherapies for cancer-derived neoantigens.

Sarah Samorodnitsky and colleagues recently published the paper [Detecting clinically relevant topological structures in multiplexed spatial proteomics using TopKAT](#) in *Patterns*. In the paper they developed TopKAT, a method that uses topological data analysis to identify clinically relevant spatial cell organization patterns in multiplexed proteomics data that are associated with outcomes such as survival and treatment response.

Sarah Samorodnitsky contributed to two textbook chapters in the recently published edition of *Handbook of Statistics in Clinical Oncology*:

Little, A., Ling, W., Plantinga, A. M., Samorodnitsky, S., Wu, M. C., & Zhao, N. (2026). Statistical Analysis of -Omics Data. In *Handbook of Statistics in Clinical Oncology* (pp. 443–470). Chapman and Hall/CRC.

Moon, J., LeBlanc, M., Wu, M., Liu, P. Y., & Samorodnitsky, S. Phase II Selection Designs. In *Handbook of Statistics in Clinical Oncology* (pp. 89–99). Chapman and Hall/CRC.

Sonia Boscenco, Minsoo Kim, Ed Reznik, and others recently identified a class of highly recurrent mutations in mitochondrial ribosomal RNA genes. Published in *Nature Genetics*, [Functionally dominant hotspot mutations of mitochondrial RNA genes in cancer](#) is a collaborative effort with Payam Gammage of the Beatson Institute where mitochondrial genome editing of an exemplar mt-rRNA hotspot demonstrated phenotypic effects at low mutational doses in two distinct cancer cell lines.

In a recent perspective titled [Viral Mimicry by Repeats Mediates Evolutionary Trade-offs in Cancer-Immune Co-Evolution](#), Siyu Sun and Benjamin Greenbaum propose that repeat-derived viral mimicry can represent a predictable evolutionary checkpoint in cancer, driving a transition from acute innate immune engagement to adaptive immunity and ultimately a tolerated tumor-immune equilibrium. By framing tumor evolution as a series of trade-offs between immunogenicity and fitness, this work provides a conceptual and quantitative foundation for targeting repeat-mediated tumorigenesis and immune evasion.

AACR

Kevin Boehm presented [Multimodal modeling of detailed cancer subtypes and molecular features from >60,000 patients with co-registered H&E images and clinical tumor sequencing](#).

Alexia Iasonos presented [Utilizing randomization, backfill and expansion cohorts to gain greater understanding of dose- and exposure-response relationships](#).

Ed Reznik presented [A health-system-scale, episode-resolved multimodal atlas of cancer cachexia](#), the largest retrospective analysis of cancer cachexia to date, describing a health system scale, episode resolved multimodal atlas that links longitudinal weight loss trajectories with laboratory data, imaging, treatment exposure, and clinical outcomes.

Jierui (Jerry) Xu presented [Whole-genome duplication predicts metastasis risk and timing across human cancers](#).

Jian Carrot-Zhang presented [Understand germline determinants of cancer progression using multi-ancestral real-world data](#).



PROMOTIONS

- ❖ Patrick Augello was promoted to Research Biostatistician.
- ❖ Maria Bromberg was promoted to Research Biostatistician.
- ❖ Yufei Deng was promoted to Research Biostatistician.
- ❖ Andriy Derkach was promoted to Associate Attending.
- ❖ Grace Gallagher was promoted to Research Biostatistician.
- ❖ Caroline Kostrzewa was promoted to Research Biostatistician II.
- ❖ Andrew McPherson was promoted to Associate Attending.
- ❖ Eliyahu Havasov was promoted to Bioinformatics Software Engineer III.
- ❖ Evan Seffar was promoted to Computational Biologist II.
- ❖ Xiang Shu was promoted to Associate Attending.
- ❖ Danielle Vaithilingam was promoted to Research Biostatistician.
- ❖ Xinjun Wang was promoted to Assistant Attending.
- ❖ Matt Zatzman was promoted to Sr. Computational Biologist II.

GRANT SUCCESS

[Kathy Panageas](#), [Jessica Lavery](#) and [Yufei Deng](#) were awarded a grant from The Stuart Center for Adolescent and Young Adult Cancers for the project titled "The GEN-AYA Initiative: Harnessing Clinico-Genomic Data to Transform Outcomes in Adolescent and Young Adult Cancers." Other collaborators include [Niki Schultz](#), [Justin Jee](#) and [Brooke Mastrogiacono](#).

[Ronglai Shen](#) received an R01 from the National Cancer Institute for her project titled "Identifying spatial tumor microenvironment signatures for risk stratification in primary melanoma."

[Aaron Mitchell](#) received an award from the National Institute for Health Care Management Research and Educational Foundation for his project titled "Quantifying Growth in Provider Billing Margins on Cancer Drugs."

[Aaron Mitchell](#) received a Research Scholar Grant from the American Cancer Society for his project titled "Real World Outcomes and Financial Cost of Radionuclide Therapy for Prostate Cancer."

[Sohrab Shah](#) and [Alexia Iasonos](#) are the Core Leads for the Computational Biology and Biostatistics Core on the newly awarded renewal of the P01 "Targets for Therapy for Carcinomas of the Lung" led by Drs. Piro Lito and Alexander Drilon.

[Ben Greenbaum](#) received a Kleberg Foundation award titled "Structure-guided TCR specification and design for precision immunotherapy."

[Kevin Boehm](#), along with [Sohrab Shah](#), [Niki Schultz](#) and [Francisco Sanchez-Vega](#), received an aiTDF award titled "Mosaic."

[Francisco Sanchez-Vega](#) along with [Pedram Razavi](#) and [Sarat Chandarlapaty](#) established a collaboration with AstraZeneca titled "ABACO-DIRECTOR Study — Multimodal predictors of outcomes to 1st line CDK4/6 inhibitors plus endocrine therapy using real-world data from HR+/HER2– breast cancer patients."

[Niki Schultz](#) received a federal R37 subaward titled "Etiologic Heterogeneity Between Molecular Subtypes of Prostate Cancer."

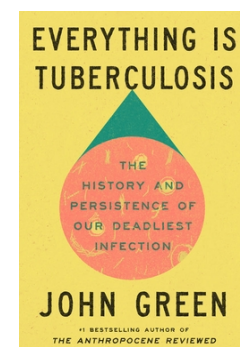
[Sohrab Shah](#) along with MPI [Karuna Ganesh](#) received a federal R01 titled "Emergence of tumor regenerative states during neoadjuvant therapy in locally advanced rectal cancer: selection or adaptation."

COMMUNITY BUILDING

Our Community Building team has hosted multiple fun events in recent months. There was the "March Madness" challenge for the men's and women's NCAA basketball tournaments and the "Taxed and Relaxed" happy hour at Dos Caminos on April 15th. On April 28th, the Community Building Team organized an outing to see the Mets play (and shockingly defeat) the Washington Nationals! Thank you to everyone that braved the cold to attend. Please let us know if you have any interest in attending another game this season — hopefully in warmer weather!



In the meantime — everyone is welcome to join Book Club on June 9th at 4pm. We will be reading *Everything is Tuberculosis: History and Persistence of Our Deadliest Infection* by John Green. Email [Elizabeth Kantor](#) for more information.

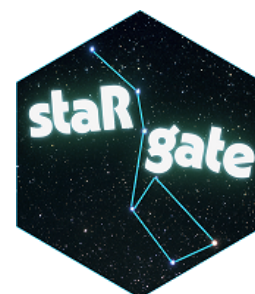


STAFF ACHIEVEMENTS

- ❖ **Karissa Whiting** was recently appointed Associate Editor of *The R Journal*.
- ❖ **Jessica White** from the **Tansey** Lab just received the PhRMA Drug Discovery Predoctoral Fellowship.
- ❖ **Elana Sverdlík** from the **Tansey** Lab won an AACR-Fornasiero Scholar-In-Training Award.
- ❖ **Zhencun Cao** of the **Soldatov** lab was awarded the Dorris J. Hutchison Graduate Fellowship.
- ❖ **Marc Williams** of the **Shah** lab received the Postdoctoral Research Award.
- ❖ **Olga Lyudovik** of the **Greenbaum** lab received her PhD at the MSK commencement. Her thesis was, *A Structure Is Worth a Thousand Sequences: Predicting T Cell Specificity from Sequence and Structure*.

staRgate

Jasme Lee's R package *staRgate* has been accepted for inclusion in the Spring 2026 Bioconductor release. Developed under the guidance of **Drs. Panageas** and **Shen** through ongoing immune-oncology collaborations, the package represents the culmination of the team's multi-year efforts to streamline and automate the processing of flow cytometry data generated by the Immune Monitoring Facility/Core.



DATA THROUGH DESIGN

Karissa Whiting recently had a project included in the *Data Through Design* Exhibition at BRIC, a NYC Open Data week event that features artworks that analyze and interpret public data from New York City's Open Data portal. She worked with artist Elizabeth Costa to create a fortune telling machine that writes prophecies based on extracted seasonal patterns in NYC data (e.g. 311 calls, water quality data, transportation data and more).



PYTHON WORKSHOP SERIES AT NYU

Dani Vaithilingam, **Patrick Augello**, and **Yufei Deng** recently completed the Introduction to Python Workshop at the Department of Biostatistics at New York University. The 4-session workshop series provided a hands-on introduction to Python programming for biostatistics and data science research applications, where students were guided through reproducible workflow tools, data structure and data manipulation, object-oriented programming, and machine learning packages.



CRAN ACCEPTANCE OF THE rCISSVAE PACKAGE

We're excited to share that **rCISSVAE** has been accepted to CRAN. The package implements the clustering-informed shared-structure variational autoencoder (CISS-VAE), a modern deep learning approach designed to address missing data in complex healthcare datasets (**Khadem Charvadeh** et al., 2025). By clustering observations based on their missingness patterns and learning shared representations across subpopulations, rCISSVAE enables robust imputation under all standard missing data mechanisms, including MNAR. The package offers a full workflow, from exploratory analysis of missingness patterns to automated hyperparameter tuning and model evaluation, while combining the ease of R with the computational power of PyTorch through a reticulate interface.

Reference: **Y. Khadem Charvadeh**, **K. Seier**, **K. S. Panageas**, **D. Vaithilingam**, **M. Gönen**, and **Y. Chen**, "Clustering-Informed Shared-Structure Variational Autoencoder for Missing Data Imputation in Large-Scale Healthcare Data," *Statistics in Medicine* 44, no. 28–30 (2025): e70335. <https://doi.org/10.1002/sim.70335>

JESSICA SCOTT FEATURED IN NPR

Dr. Jessica Scott is an exercise physiology researcher, director of MSK's Exercise Oncology Program and a member of PSRP who collaborates with [Helena Furberg](#). She was featured in the NPR article, ["In tight quarters, Artemis II astronauts stay fit with the flywheel"](#) which discusses the Artemis II space mission and an innovative exercise machine with the scientists who developed it.



In NPR's telling, space travel is not just a story of rockets and horizons, but of bodies confined in a metal shell, quietly fighting gravity's absence. At the center of this challenge Dr. Scott's mission was to help astronauts keep their muscles strong and bones resilient in a place where the body begins to unmake itself. Enter the flywheel — a compact machine with an almost poetic simplicity. Instead of weights clanking under Earth's pull, it uses the momentum of a spinning wheel to create resistance, giving astronauts a way to strain, pull, and push against something even in weightlessness. The flywheel is more than a piece of equipment; it is a symbol of adaptation, a small but powerful answer to the vast problem of living beyond Earth. Through Scott's work, NPR shows how survival in space may depend not only on grand technologies, but on clever, quiet inventions that help the human body endure the journey.

Learn more here:
<https://www.mskcc.org/research-advantage/meet-researchers/nasa-msk-work-exercise-physiologist-jessica-scott>

PERSONAL MILESTONES



Congratulations to [Farheen](#) and [Vinny Madonia](#) on welcoming the newest member of their family, Layla! She's pictured here with her proud big brother, Malik.



On March 7, 2026, [Jessica Kretli](#) from [Irene Orlow's](#) lab got married in a small ceremony and reception in Saint Davids, PA. The celebration was attended by [Irene](#) as well as lab mates [Anya Steinhart](#) and [Brittany Small](#). Congratulations to the happy couple!

STAFF FAREWELLS

[Noah Peeri](#) recently left the department and had the following to share: "I joined MSK in June 2022 working with [Margaret Du](#) as a postdoctoral research fellow, and I'm so thankful for the opportunity and her incredible mentorship. I will be joining the faculty at MD Anderson Cancer Center in the Department of Health Disparities Research as an Assistant Professor (Tenure Track) on May 1st, and I am looking forward to this exciting opportunity. I would like to thank [Colin](#) and the administrative team for their assistance as I make this transition, as well as the faculty here in the Department. It has been a privilege to work with you all."

[Dr. Siyu Sun](#) joined MSK in December 2020 as a postdoctoral fellow in [Dr. Benjamin Greenbaum's](#) lab, where she made important scientific contributions to understanding how repetitive elements influence tumor evolution and immune responses, while becoming a cherished member of the Epi Bio/CompOnc community. In June 2026, she will begin her independent research program as a faculty member at the University of Rochester Medical Center's Department of Microbiology and Immunology, with joint appointments at the Wilmot Cancer Center and the Institute for Immunological Sciences. She is deeply grateful for the mentorship, collaboration, and supportive environment at MSK — especially the guidance of Dr. Greenbaum and the camaraderie of her Computational Oncology peers. Though her departure is bittersweet, the department is immensely proud of her achievements and excited to see her thrive in this next chapter.

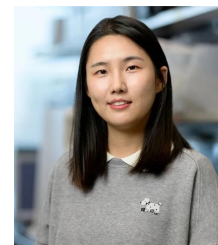
[Genesis Pineda](#) joined Memorial Sloan Kettering Cancer Center in September 2021 as an Administrative Assistant, supporting [Dr. Elli Papaemmanuil](#) and [Dr. Jian Carrot-Zhang](#). She later transitioned into the role of Project Coordinator for the Halvorsen Center for Computational Oncology, where she supported a wide range of initiatives and center-wide efforts. Genesis also had the opportunity to support faculty in the Department of Epidemiology and Biostatistics, and she is grateful for the experience and perspective gained through that work.

In May 2026, Genesis will transition to a new role within MSK, joining the Office of the Chief Physician Executive as a Project Manager. Genesis is deeply grateful for her time within Computational Oncology and for the opportunity to work alongside such a dedicated and collaborative team. She would especially like to thank [Cynthia](#) and [Sohrab](#) for their exceptional leadership, mentorship, and support over the past four and a half years. Their guidance has played a meaningful role in her professional growth, and she is truly appreciative of the opportunity to contribute to such an impactful and innovative Service.

NEW STAFF

Yue Huang, Postdoctoral Research Scholar

Yue Huang is a Postdoctoral Research Scholar working with Benjamin Greenbaum and Omar Abdel-Wahab. Her research focuses on computational immunology and tumor biology, with an emphasis on integrating single-cell and spatial transcriptomic analyses to study immune cell states and their spatial organization within the tumor microenvironment. Outside of research, she enjoys exploring New York City with her dog.



Eucharist Kun, Research Scholar

Eucharist has joined the Epidemiology and Biostatistics Department as a postdoctoral research scholar with Jian Carrot-Zhang and Jake Lee. His primary research interest is to understand how germline genetic variation plays a role in cancer progression and treatment response. He received his PhD from the University of Texas at Austin where he combined AI-driven image phenotyping and large-scale human genomics to examine the human skeleton, evolution, and aging. Prior to computational research, Eucharist worked on mouse and cell models for ovarian cancer at MD Anderson. As a survivor of childhood acute lymphoblastic leukemia, Eucharist is excited and grateful for the opportunity to return to his passion of pursuing cancer research with the MSK team.



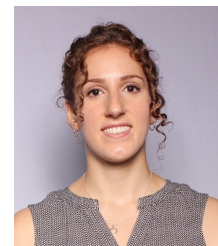
Fernanda Martins Rodrigues, Computational Biologist II

Originally from Brazil, Fernanda recently joined the Department of Epidemiology and Biostatistics as a Computational Biologist II, working with Dr. Andrew McPherson and Dr. Jovana Pavisic. Before joining MSK, she was a postdoctoral research scientist at Washington University in St. Louis, where she also earned her PhD in Molecular Genetics and Genomics. Her research has focused on analyzing large-scale multi-omic datasets from major cancer genomics consortia, including TCGA, HTAN, CPTAC, PE-CGS, MMRF, and GDAN, to identify and characterize functionally relevant mutations across cancer types and better understand cancer predisposition, development, and progression. Outside of work, Fernanda enjoys exploring the city and salsa dancing. Fernanda is excited to be a part of MSKCC!



Rachel Saxe, Postdoctoral Research Scholar

Rachel joined the Department of Epidemiology and Biostatistics as a postdoctoral research scholar mentored by Dr. Ed Reznik. Her research focuses on applying single cell and spatial technologies to advance molecular characterization of cancer, particularly in the context of tumors harboring mitochondrial DNA mutations. She received her PhD in Molecular and Systems Biology at Dartmouth College where she developed a single cell lineage tracing method to study the evolution of drug resistance in leukemia. She is excited for the opportunity to be a part of MSK's scientific community. Outside of lab, Rachel is an artist and a passionate NY Giants fan.



Frank Shih, Postdoctoral Research Scholar

Frank has joined the Department of Epidemiology and Biostatistics as a postdoctoral research scholar working with Dr. Teng Fei. His research focuses on high-dimensional survival analysis, stochastic gradient MCMC algorithms, and uncertainty quantification for modern deep learning models. He earned his PhD in Statistics from Purdue University, where his doctoral research centered on uncertainty quantification in reinforcement learning and physics-informed neural networks.

