



Publications of the Week

High-Throughput Evaluation of Genetic Variants with Prime Editing Sensor Libraries

First Author: Samuel Gould | Senior Author: Francisco Sánchez Rivera *(pictured)*
Nature Biotechnology | Koch Institute, MIT, Broad Institute, and Harvard University



Tumor genomes often harbor a complex spectrum of single nucleotide alterations and chromosomal rearrangements that can perturb protein function. Here, researchers present a high-throughput prime editing sensor strategy that couples prime editing guide RNAs with synthetic versions of their cognate target sites to assess the functional impact of endogenous genetic variants. [Abstract](#) | [Press Release](#)

Single Nuclei Transcriptomics in Human and Non-Human Primate Striatum in Opioid Use Disorder

First Author: BaDoi Phan | Senior Author: Andreas Pfennig and Ryan Logan *(pictured)*
Nature Communications | Boston University, Harvard Medical School, and UMass Chan Medical School



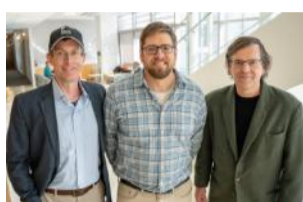
In the brain, the striatum is a heterogenous region involved in reward and goal-directed behaviors. Striatal dysfunction is linked to psychiatric disorders, including opioid use disorder (OUD). Using single nuclei RNA-sequencing, researchers describe different cell types in human dorsal striatum and identify cell type-specific alterations in OUD. [Abstract](#) | [Press Release](#)

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Awards

UMass Chan Scientists Receive \$2.3 Million from Rett Syndrome Research Trust for New Research

UMass Chan Medical School



A new collaborative effort is expected to help advance genome editing approaches for Rett syndrome, a neurological disease caused by mutations in a gene called *MECP2*, which is a master regulator of gene expression in the brain. Drs. Scot Wolfe *(pictured, left)*, Jonathan Watts *(middle)*, and Erik Sontheimer *(right)* were awarded \$2.3 million in new funding to correct mutations in *MECP2*. [Read More](#)

Professor Haim Sompolinsky Receives the Brain Prize

Harvard University Department of Molecular and Cellular Biology (MCB)



MCB Professor-in-Residence and Professor of Physics Dr. Haim Sompolinsky *(pictured)* has been awarded the Brain Prize, the world's largest brain research prize. This prize is given to researchers who have had a ground-breaking impact on brain research. Dr. Sompolinsky's work has significantly advanced our understanding of neural circuit dynamics and functions. [Read More](#)

School of Science Announces 2024 Infinite Expansion Awards

MIT News



The MIT School of Science has announced nine postdocs and research scientists as recipients of the 2024 Infinite Expansion Award, which highlights extraordinary members of the MIT community. Among the nine recipients is Dr. Michal Fux *(pictured)*, a research scientist in the Department of Brain and Cognitive Sciences, who was nominated by Professor Pawan Sinha. [Read More](#)

Dr. Meg Younger Receives 2024 Sloan Research Fellowship

Boston University



Three Boston University researchers have been named 2024 Sloan Research Fellows, a competitive award given annually to early-career researchers across a range of scientific disciplines. Among one of the three recipients is neurobiologist Dr. Meg Younger *(pictured)* in the Biology Department. Dr. Younger's research focuses on *Aedes aegypti*, mosquitoes that spread numerous diseases. [Read More](#)

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Local News

In Brief: Preventing Beta Cell Dysfunction

Joslin Diabetes Center



Diabetes results from failure of beta cells in pancreatic islets to release sufficient insulin to regulate blood sugar in the body. Researchers led by Dr. Abigail Cheruiyot *(pictured)* revealed that the chronically high sugar levels that occur early during the development of diabetes further undermine the ability of beta cells to produce insulin by reducing translation of specific mRNAs that contain the cell's genetic instructions for making and secreting insulin. [Read More](#)

CARB-X Funds 100th Project — A Milestone for Boston University-Based Nonprofit Leading Antimicrobial-Resistance Fightback

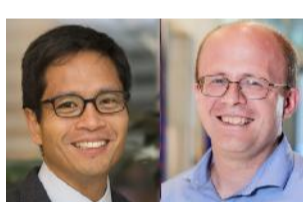
The Brink



Every year, millions of people around the world die from infections linked to bacteria that don't respond to any drug treatments. CARB-X directs funding and expertise to companies and researchers around the world to spur innovative antibiotics, vaccines, and rapid diagnostics. And it just funded its 100th project, a promising effort to optimize new molecules that might be able to stop potentially deadly bacteria in their tracks. [Read More](#)

Cancer Grand Challenges Selects Five New Global, Interdisciplinary Teams to Take On Four Challenges

National Cancer Institute



Cancer Grand Challenges has selected five new global research teams that will address the following challenges in cancer: reducing cancer inequities, understanding the mechanisms of early-onset cancers, developing drugs for solid tumors in children, and broadening our knowledge about how T cells recognize cancer cells. Of the five teams, two are led by Boston-based researchers: Drs. Andrew Chan *(pictured, left)* and Michael Birnbaum *(right)*. [Read More](#)

Preliminary Clinical Trial Results Show 'Dramatic and Rapid' Regression of Glioblastoma After Next Generation CAR-T Therapy

Massachusetts General Hospital



A collaborative project to bring the promise of cell therapy to patients with a deadly form of brain cancer has shown dramatic results among the first patients to receive the novel treatment. The project includes members of the Mass General Cancer Center INCIPIENT team *(pictured from left to right)*: Drs. Elizabeth Gerstner, William Curry, Marcela Maus, Bryan Choi, Kathleen Gallagher, and Matthew Frigault. [Read More](#)

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Interesting Articles

Ragon Institute Introduces Catherine Othieno Sempa Memorial Post Baccalaureate Scholars Program

Ragon Institute



The Ragon Institute has launched the Catherine Othieno Sempa Memorial Post Baccalaureate Scholars Program to engage talented college graduates from Historically Black Colleges and Universities and Puerto Rican universities in a comprehensive and immersive two-year program in immunology research. The program is designed to diversify the field of academic research. [Read More](#)

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Upcoming Events in Boston

- March 19 - 21 8:00 AM **6th CKD Drug Development Summit 2024**
Hilton Boston Back Bay
- March 19 9:00 AM **Variant to Function Symposium**
Broad Institute
- March 20 12:00 PM **Closing Out Your Research: Managing Data Transfer Between Collaborators**
Online
- March 28 6:00 PM **NOVA Science Trivia Night**
Boston Public Library
- April 3 12:00 PM **Careers in Biotech at Intellia Therapeutics**
Intellia Therapeutics

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Science Jobs in Boston

- Scientific Liaison, Infectious Disease, Hung Lab**
Broad Institute
- Senior Manager, Clinical Data**
TScan Therapeutics
- Staff Scientist, Applied Molecular Biology**
New England Biolabs
- Senior Scientist, Global Drug Discovery**
Novo Nordisk
- Purification Scientist**
Global Pharma

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