



Publications of the Week

### BCAA-Nitrogen Flux in Brown Fat Controls Metabolic Health Independent of Thermogenesis

First Authors: Anthony Verkerke (*pictured*) and Dandan Wang | Senior Author: Shingo Kajimura  
Cell | Beth Israel Deaconess Medical Center, Harvard Medical School, Dana-Farber Cancer Institute, and Howard Hughes Medical Institute



Brown adipose tissue (BAT) is best known for thermogenesis. Rodent studies demonstrated that enhanced BAT thermogenesis is tightly associated with increased energy expenditure, reduced body weight, and improved glucose homeostasis. This work uncovers a metabolite-mediated pathway through which BAT controls metabolic health beyond thermogenesis. [Abstract](#)

### An Esophagus Cell Atlas Reveals Dynamic Rewiring During Active Eosinophilic Esophagitis and Remission

First Authors: Jiarui Ding and John Garber | Senior Authors: Aviv Regev and Ramnik Xavier (*pictured*)  
Nature Communications | Broad Institute, Massachusetts General Hospital, and Harvard Medical School



Coordinated cell interactions within the esophagus maintain homeostasis, and disruption can lead to eosinophilic esophagitis (EoE), a chronic inflammatory disease with poorly understood pathogenesis. Researchers uncover cellular alterations in EoE and remission advance the understanding of eosinophilic inflammation and opportunities for therapeutic intervention. [Abstract](#)

### Autonomous Circadian Rhythms in the Human Hepatocyte Regulate Hepatic Drug Metabolism and Inflammatory Responses

First Author: Sandra March | Senior Author: Sangeeta Bhatia (*pictured*)  
Science Advances | MIT, Koch Institute, Broad Institute, and Wyss Institute



Critical aspects of physiology and cell function exhibit self-sustained ~24-hour variations termed circadian rhythms. These findings emphasize that the phase of the circadian cycle has a robust impact on the efficacy and toxicity of drugs. Researchers provide a test bed to study the timing and magnitude of inflammatory responses over the course of infection in human liver. [Abstract](#) | [Press Release](#)

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Awards

### Mary Munson and Craig Peterson Named American Association for the Advancement of Science Fellows

UMass Chan Medical School



Dr. Mary Munson (*pictured, left*), Professor of Biochemistry and Molecular Biotechnology and Vice Chair of Diversity, and Dr. Craig Peterson (*right*), Professor and Vice Chair of Molecular Medicine, have been elected as fellows of the American Association for the Advancement of Science (AAAS). Drs. Munson and Peterson join 14 UMass Chan faculty members elected as AAAS fellows. [Read More](#)

### Dr. Mara Murray Horwitz Receives \$150K March of Dimes Research Grant

Boston University Chobanian & Avedisian School of Medicine



Dr. Mara Murray Horwitz (*pictured*), Assistant Professor of Medicine and a primary care clinician at Boston Medical Center, is one of two recipients of a \$150,000 Basil O'Connor Starter Scholar Research Award from the March of Dimes. The Basil O'Connor grant is the organization's signature grant for up-and-coming scientists embarking on lifelong research paths. [Read More](#)

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Local News

### How to Realize the Immense Promise of Gene Editing

Harvard Medical School



The world stands on the edge of an era when gene editing can address many serious ills plaguing humankind, according to Dr. Jennifer Doudna (*pictured*), whose work on the gene editing technique known as CRISPR-Cas9 earned her the 2020 Nobel Prize in chemistry. But first there is a problem to solve: ensuring that as these technologies become approved to treat and even cure certain human diseases, they reach everyone who needs them. [Read More](#)

### Scientists Uncover 95 Regions of the Genome Linked to PTSD

Broad Institute



In post-traumatic stress disorder (PTSD), intrusive thoughts, changes in mood, and other symptoms after exposure to trauma can greatly impact a person's quality of life. Now, a new genetic study led by Dr. Karestan Koenen (*pictured*) of more than 1.2 million people has pinpointed 95 loci that are associated with risk of developing PTSD, including 80 that had not been previously identified. [Read More](#)

### Dana-Farber Chief Scientific Officer Dr. Kevin Haigis Elected As Fellow of the American Association for the Advancement of Science

Dana-Farber Cancer Institute



Dr. Kevin Haigis (*pictured*), Chief Scientific Officer at Dana-Farber Cancer Institute, has been named Fellow of the American Association for the Advancement of Science. Dr. Haigis is recognized for his distinguished contributions to understanding the complex diversity of cellular dysregulation by different variants of RAS mutations and their consequences in pathophysiology and treatment. [Read More](#)

### New Program Helps High School Students Explore Careers in Cardiology

Massachusetts General Hospital



Massachusetts General Hospital has launched a new mentorship and career exploration program to inspire diverse students to consider careers in heart health. "You Belong in Cardiology" will introduce minority high school students to cardiology and allied fields. The program aims to inspire students, cultivate an interest in cardiology, foster long-term mentorship relationships, and develop the pipeline of future cardiologists. [Read More](#)

### Plastic Degradation Company, Breaking, Emerges from Stealth with Naturally-Derived Solution to Degrade Multiple Plastics with \$10.5M in Seed Funding

Wyss Institute



Breaking, a plastic degradation and synthetic biology company, gestated at Colossal Biosciences based on a core discovery out of the Wyss Institute for Biologically Inspired Engineering at Harvard University, announced their discovery, X-32, which they will develop to address the global plastics crisis. The two co-founders are Vaskar Gnyawali (*pictured, left*) and Dr. Sukanya Punthambaker (*right*). [Read More](#)

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### Upcoming Events in Boston

- April 29 5:30 PM **Martinos Center Women in Science Networking Event**  
Martinos CNY Building
- May 14 6:00 PM **Biotech Networks Scientific Speed Networking**  
Lord Hobo Boston
- May 22 8:00 AM **Mutational Scanning Symposium 2024**  
Broad Institute
- June 8 9:00 AM **Consortium for Health Innovation Partnerships**  
MGH Institute of Health Professions
- June 10 8:30 AM **Lighting Up Neurobiology with Antibodies**  
Marshall A. Wolf Conference Center

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### Science Jobs in Boston

- Scientist/Senior Scientist, Pluripotent Stem Cells**  
Garuda Therapeutics
- Senior Research Associate, Bioinformatics and Data Science**  
Gritstone Bio
- Postdoctoral Associate**  
Broad Institute
- Research Associate/Senior Research Associate, Oligonucleotides**  
Apex Systems
- Scientist Molecular Biology**  
ReNAGade Therapeutics

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