



Publications of the Week

Gene Syntax Defines Supercoiling-Mediated Transcriptional Feedback

First Author: Christopher Johnstone | Senior Author: Kate Galloway (pictured)
Science | Ragon Institute and MIT



Transcription reshapes DNA folding within living cells, driving patterns of gene expression. However, this process remains poorly understood, which limits the effectiveness of gene circuits for therapeutic applications. Here, researchers investigated how transcription generates DNA supercoiling (changes in DNA twist) and how these emergent structures tune the expression of adjacent genes.

[Abstract](#) | [Press Release](#)

A Conserved Hormonal Signalling–H2A.Z Axis Rapidly Reorganizes 3D Chromatin Interactions in Adipocyte Thermogenesis

First Authors: Yang Zhang and Rongbin Zheng | Senior Author: Yu-Hua Tseng (pictured)
Nature Metabolism | Joslin Diabetes Center, Harvard University, Massachusetts General Hospital, Broad Institute, and Dana-Farber Cancer Institute



Three-dimensional genome organization underlies gene regulation, yet how acute hormonal signalling reshapes chromatin structure to control metabolism remains unclear. β 3-adrenergic receptor hormonal signalling drives adipocyte thermogenesis. Here, researchers show three-dimensional genome maps of mouse and primary human brown adipocytes during thermogenesis using Micro-C.

[Abstract](#) | [Press Release](#)

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Awards

UMass Chan Scientist Marcus Ruscetti Receives 2026 Pershing Square Sohn Cancer Prize

UMass Chan Medical School



Dr. Marcus Ruscetti (pictured) is one of 13 investigators to receive the prestigious 2026 Pershing Square Sohn Cancer Prize from the Pershing Square Sohn Cancer Research Alliance. The three-year, \$750,000 prize will be used by Dr. Ruscetti to understand how cells in the liver experiencing senescence create an immune-suppressive environment that enables pancreatic cancer metastasis. [Read More](#)

Multidisciplinary Wyss Team Receives 2026 Lush Prize Science Award

The Wyss Institute



The Wyss Institute's Biosensing, Microfluidics, and Microsystems team has received the 2026 Lush Science Prize. The prize recognizes their work developing next-generation, sensor-integrated human Organ Chips to advance biomedical and women's health research. Wyss Research Scholar Dr. Zohreh Izadifar (pictured) received the award on behalf of the Wyss teams during the Lush Prize award ceremony. [Read More](#)

Dr. Stefan Isaac Receives Maximizing Investigators' Research Award

Boston University Chobanian & Avedisian School of Medicine



Dr. Stefan Isaac (pictured), Assistant Professor of Biochemistry and Cell Biology at Boston University, has received a \$2.1M Maximizing Investigators' Research Award from the National Institute of General Medical Sciences to fund his five-year project that will investigate the regulation of mitochondrial DNA packaging and gene expression. [Read More](#)

Dr. Eviatar Yemini Receives Research Innovation Award for Second Straight Year

UMass Chan Medical School



For the second consecutive year, Dr. Eviatar Yemini (pictured), Assistant Professor of Neurobiology at UMass Chan Medical School, has received a Scialog Collaborative Innovation Award for a cross-disciplinary project advancing fundamental understanding of how neural systems adapt to today's rapidly changing environment. The award is part of the three-year Scialog: Neurobiology and Changing Ecosystems initiative. [Read More](#)

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Local News

Ragon Institute Welcomes Carlos Casquero as Ramón Areces Foundation Research Fellow

The Ragon Institute



The Ragon Institute has announced Carlos Casquero (pictured) as the latest recipient of the Ramón Areces Foundation Research Fellowship at the Ragon Institute. The fellowship supports researchers with ties to Spain in pursuing immunology research at the Ragon. Casquero's research focuses on HIV, including the cellular and immune dynamics that shape how the virus persists in people on antiretroviral therapy. [Read More](#)

A New Approach to Cancer Vaccination Yields More Powerful T Cells

MIT News



MIT engineers have developed a new way to amplify the T-cell response to mRNA vaccines. This advance could lead to much more powerful cancer vaccines and stronger protection against infectious diseases. Drs. Daniel Anderson (pictured) and Christopher Garriss are the senior authors of the study, which appears in *Nature Biotechnology*. [Read More](#)

Harvard University Expands Multifaceted Research Alliance with Northpond Labs to Advance Solutions in Healthcare

The Wyss Institute



Harvard University has expanded a research alliance agreement with Northpond Labs, the research and development-focused affiliate of Northpond Ventures, dedicated to advancing innovations with strong translational potential to improve medical care. This expanded collaboration builds on a previous alliance in 2020, which resulted in the creation of the Lab for Bioengineering Research and Innovation at the Wyss Institute. [Read More](#)

MIT Welcomes Astellas to the Bioconvergence Cancer Alliance

The Koch Institute



The Koch Institute has announced that Astellas Pharma has joined the BioConvergence Cancer Alliance. The BioConvergence Cancer Alliance fosters relationships between academic cancer researchers and biotechnology companies to accelerate the translation of discoveries into tools and treatments that improve patient survival and quality of life. [Read More](#)

Measles, Cholera, and Mpox: BU-Based Outbreak Tracker Monitors World's Most Dangerous Infectious Diseases

The Brink



In its first year, Biothreats Emergence, Analysis, and Communications Network (BEACON) has tracked 181 pathogens in 169 countries and territories, providing crucial updates on each outbreak's progress. Boston University researchers Dr. Britta Lassmann (pictured, left) and Nahid Bhadelia (right) are both infectious disease experts and part of the BEACON leadership team. [Read More](#)

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📅 Upcoming Events in Boston

May 28
7:00 PM

AI and the Future of Cancer Treatments

Museum of Science

June 3
8:30 AM

Better Together: A Pharma & Biotech EHS Forum

Museum of Science

June 9
9:00 AM

RareNet 2026: Accelerating Discovery to Treatment in Rare Brain Disorders

Singleton Auditorium

June 16
4:00 PM

2026 Edward M. Scolnick Prize Lecture in Neuroscience with Liquan Luo

Singleton Auditorium

June 18
9:00 AM

Koch Institute Symposium 2026

Huntington Hall

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📁 Science Jobs in Boston

Senior Customer Success Consultant

STEMCELL Technologies

Research Assistant I

Boston Children's Hospital

Research Assistant I

Beth Israel Deaconess Medical Center

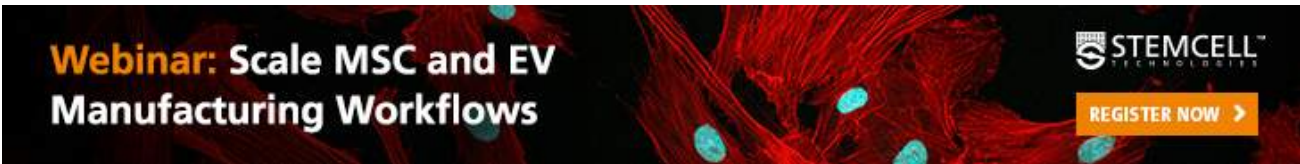
Research Technician

Dana-Farber Cancer Institute

Scientist, Analytical Development, Regeneron Cell Medicines

Regeneron

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