



Publications of the Week

Genetic Variation Reveals a Homeotic Long Noncoding RNA That Modulates Human Hematopoietic Stem Cells

First Author: Peng Lyu (*pictured*) | Senior Author: Vijay Sankaran
Cell | Boston Children's Hospital, Harvard Medical School, Harvard Stem Cell Institute, Howard Hughes Medical Institute, and Broad Institute



The *HOXA* gene locus coordinates body patterning, hematopoiesis, and differentiation. While studying blood phenotype-associated variation within the *HOXA* locus, researchers identified a genetic variant, rs17437411, associated with globally reduced blood counts, protection from blood cancers, and variation in anthropometric phenotypes. [Abstract](#)

Astrocyte Glucocorticoid Receptor Signalling Restricts Neuronal Plasticity

First Author: Bruno Gegenhuber (*pictured*) | Senior Author: Michael Greenberg
Nature | Boston Children's Hospital and Harvard Medical School



Sensory experience refines neural circuits during critical periods of postnatal development. Currently, the environmental cues that restrain developmental plasticity as animals mature are unclear. Here, researchers examine the experience-dependent maturation of the mouse primary visual cortex across postnatal development using paired single-cell transcriptomic and chromatin accessibility sequencing. [Abstract](#) | [Press Release](#)

Human Inflammatory Bowel Disease-on-a-Chip for Modelling Disease Progression, Cancer Initiation, and Sex-Specific Effects

First Author: Alican Özkan (*pictured*) | Senior Author: Donald Ingber
Nature Biomedical Engineering | Wyss Institute, Massachusetts General Hospital, Boston Children's Hospital, and Harvard Medical School



Patients affected by inflammatory bowel disease (IBD) exhibit compromised intestinal barrier function and decreased mucus accumulation. Here, researchers replicate these IBD hallmarks in human-derived organ-on-a-chip devices lined by colon epithelial cells from individuals with IBD when interfaced with matched fibroblasts, cultured under flow, exposed to peristalsis-like motions, and perfused with circulating immune cells. [Abstract](#) | [Press Release](#)

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Awards

Dr. Takato Honda Receives MIT Infinite Expansion Award

The Picower Institute



Dr. Takato Honda (*pictured*), a research scientist in the Picower Institute for Learning and Memory, has received the Infinite Expansion Award. The award honors academic staff in the school who have gone above and beyond their required duties, highlighting the dedication, skill, and effort that support the mission of their research groups and the school. [Read More](#)

Ragon Scientific Director Dr. Facundo Batista Elected Fellow of the Royal Society

Ragon Institute



Dr. Facundo Batista (*pictured*), Scientific and Associate Director of the Ragon Institute, has been elected a Fellow of the Royal Society, the United Kingdom's national academy of sciences and one of the world's oldest and most prestigious scientific institutions. Dr. Batista joins a 2026 cohort of more than 90 researchers from across the globe elected to the Fellowship. [Read More](#)

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Local News

Dr. Myriam Heiman Named the Director of the Picower Institute for Learning and Memory

The Picower Institute



Dr. Myriam Heiman (*pictured*), the John and Dorothy Wilson Professor of Neuroscience, will become the Director of the Picower Institute for Learning and Memory, effective July 1, 2026. She succeeds Picower Professor Li-Huei Tsai who is stepping down after leading the Institute for 16 years. Dr. Heiman, a molecular neurobiologist and geneticist, studies the neurodegenerative diseases of the brain's basal ganglia. [Read More](#)

The Rules Neurons Follow to Make Sense of What We See

MIT News



Even in the primary visual cortex, not every neuron ends up answering the call to process properties of visual input. Maybe that's because each neuron receives a wide variety of inputs via thousands of circuit connections and has to opt to respond to the visual information versus something else. In a new study in mice, Drs. Kyle Jenks (*pictured*) and Mriganka Sur reveal how neurons that perform visual processing bring order to this input to get the job done. [Read More](#)

A New Sensor Could Enable Earlier Detection of Bladder Cancer

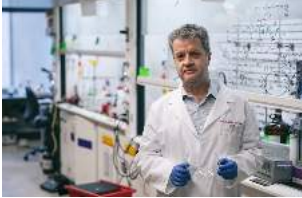
MIT News



Every year, about 85,000 Americans are diagnosed with bladder cancer. Using a catheter coated with specialized nanosensors, a MIT team showed that they could detect very low levels of a protein produced by bladder cancer cells and image their location in tissue. "It's like a camera for molecules instead of light," says Dr. Michael Strano (*pictured*). [Read More](#)

Nanoparticle Drug Combo Treats Venous Malformations

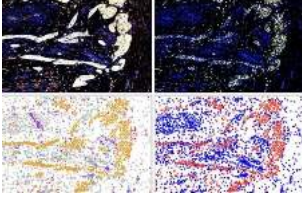
Boston Children's Hospital



Venous malformations are abnormally shaped veins that develop when the cells lining the blood vessels grow too fast when they aren't supposed to. Drs. Weimin Tang, Kathleen Cullion, and Daniel Kohane (*pictured*) recently developed nanoparticles that deliver drug treatment directly to venous malformations to help shrink them. [Read More](#)

From Discovery to Patient Care: Vitamin D Analog Shuts Down Pancreatic Cancer's Shield in Clinical Trial

Dana-Farber Cancer Institute



A small clinical trial led by Dana-Farber Cancer Institute researchers put a Salk Institute idea to the test in patients: that activating the vitamin D receptor can help reshape the protective environment surrounding pancreatic tumors. This could make the notoriously difficult-to-treat cancer more vulnerable to therapeutic treatments. [Read More](#)

Researchers Identify Shared Molecular Signatures of Aging Across Mammals

Harvard Medical School



A new study shows that different tissues in humans and three other mammalian species share common gene expression changes as they age. The research, published by Drs. Alexander Tyshkovskiy (*pictured, left*) and Vadim Gladyshev (*right*), reveals conserved signatures of aging and health decline and introduces new computational tools dubbed "transcriptomic clocks" that could be used in the laboratory to measure an organism's age. [Read More](#)

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📅 Upcoming Events in Boston

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

October 6
9:00 AM

FASI 10: Catalyst for a Cure – The Food Allergy Science Innovation Summit
Broad Institute

October 18 - 21
8:00 AM

The Medtech Conference 2026
Boston Convention and Exhibition Center

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📁 Science Jobs in Boston

Scientific Inside Sales Representative, Immunology
STEMCELL Technologies

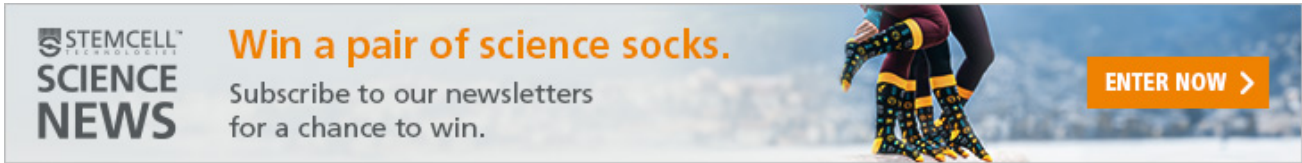
Research Technologist, Daley/Schlaeger Lab
Boston Children's Hospital

Quality Control Technician, Microbiology
CRISPR Therapeutics

Lead Research Technician, Treon Lab
Dana Farber Cancer Institute

Associate, QC Analytical, B2 Shift, Cell Therapy
Bristol Myers Squibb

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