



Publications of the Week

A Viral ORFeome Library for Systems-Level Genetic Dissection of Host-Pathogen Interactions

First Authors: Eric Fujimura and Colin O'Leary | Senior Author: Stephen Elledge (*pictured*)
Cell | Brigham and Women's Hospital, Harvard University, and Howard Hughes Medical Institute



Virological research has traditionally focused on individual viruses or viral families. Advances in DNA synthesis now allow large-scale construction of individual gene products, enabling systematic exploration of the virome. Here, researchers developed a barcoded library of ~12,000 viral open reading frames from 513 viral species, which they leveraged to identify hundreds of viral regulators of cellular proliferation. [Abstract](#) | [Press Release](#)

Arrayed Single-Genes Perturbations Identify Drivers of Human Anterior Neural Tube Closure

First Author: Roya Huang (*pictured*) | Senior Author: Sharad Ramanathan
eLife | Harvard University



Human pluripotent stem cell (hPSC)-derived organoids provide a powerful alternative for the study of embryonic morphogenesis. Here, researchers developed a platform that integrates reproducible organoid morphogenesis with uniform single-gene perturbations, enabling high-throughput arrayed CRISPR interference screening in hPSC-derived organoids. [Abstract](#) | [Press Release](#)

[View All Publications](#)

Awards

Broad-Led Consortium Receives ARPA-H Award to Advance Gene Editing for Rare Pediatric Epilepsy

Broad Institute



A consortium of twelve organizations, led by the Broad Institute, has been selected to receive funding from the Advanced Research Projects Agency for Health (ARPA-H) under its THRIVE program. The award, for up to \$34.5 million, will fund the Pediatric Epilepsies and Rare CNS Gene Editing Platform. THRIVE is led by ARPA-H Program Manager Dr. Daria Feddyukina (*pictured*). [Read More](#)

MCO PhD Candidate Arshia Mostoufi Receives Prestigious Canadian Doctoral Fellowship

Harvard University Department of Molecular and Cellular Biology



Arshia Mostoufi (*pictured*), a Molecules, Cells, and Organisms (MCO) PhD candidate in the lab of Dr. Ya-Chieh Hsu, has received a prestigious doctoral fellowship from the Canadian Institutes of Health Research. The competitive fellowship supports Canadian doctoral students conducting outstanding research in Canada and abroad. [Read More](#)

Naomi Fettig Receives Canadian Institutes of Health Research Award for Multiple Sclerosis Research

UMass Chan Medical School



Postdoctoral fellow Dr. Naomi Fettig (*pictured*) is the recipient of a Canada Postdoctoral Research Award from the Canadian Institutes of Health Research. The award funds Dr. Fettig's research studying demyelination of neurons in multiple sclerosis, when T cells in the immune system damage and break down the myelin covering that insulates and protects neurons. [Read More](#)

[View All Awards](#)

Local News

Electric Fields Help Guide Neural Activity, Even From Moment to Moment

The Picower Institute



It's a fact of life that the electrical activity of neurons will vary during repetitions of the same task, even when the ultimate outcome is the same. A new study led by Dr. Earl Miller (*pictured*) shows that a lot of ongoing fluctuations in the brain's activity could be explained by the influence local electric fields exerted on the neurons, a phenomenon called "ephaptic coupling." [Read More](#)

The Brain's Internal Ruler

MIT News



For many animals, feeling out a space comes more naturally. Dr. Fan Wang (*pictured*) has discovered how neurons in a mouse's brainstem use signals from the animal's touch-sensitive whiskers to estimate an object's distance from the face. Her team's findings unlock key circuitry the brain uses to represent the space immediately surrounding the body. [Read More](#)

Low-Cost Genome Sequencing Approach Is Powering Genetics Research on Mental Illness and Many Other Studies

Broad Institute



Scientists at the Broad Institute have a new approach for whole-genome sequencing called the Blended Genome Exome (BGE). That lowers the cost of sequencing by 75%. "In this study, we've shown that the BGE technology works and it works at scale, and now the entire field can benefit from the method," said co-senior author Dr. Alicia Martin (*pictured*). [Read More](#)

Three-Drug Treatment Shows Promise for Patients with Rare Blood Cancer BPDN

Dana-Farber Cancer Institute



A three-drug treatment combination led to high remission rates in patients with blastic plasmacytoid dendritic cell neoplasm (BPDN), a rare and aggressive blood cancer, in a phase II clinical trial led by researchers at Dana-Farber Cancer Institute. "BPDN is a very challenging disease, and patients need better options," said Dr. Andrew Lane (*pictured*). [Read More](#)

Unlocking AI's Mysteries Using Insights from Brain Research

MIT Alumni



Quilee Simeon (*pictured*) is using machine learning and AI to simulate the nervous system of small model organisms as part of his doctoral research at MIT's McGovern Institute for Brain Research. The goal is to use those simulations as a window into understanding how an animal's nervous system executes other tasks, such as processing information or controlling the body. [Read More](#)

What *All of Us* Means for the Future of Biobanks and Precision Medicine

Broad Institute



Genomics pioneer Stacey Gabriel describes how the Broad Institute helped enable the latest *All of Us* data release and shares the vision for an expanded national biobank. The project recently released genetic, health, lifestyle, and other anonymized data from more than 747,000 participants spanning 98% of US zip codes, making *All of Us* the largest data resource of its kind in the world. [Read More](#)

[View All Local News](#) | [Submit an Article](#)

Upcoming Events in Boston

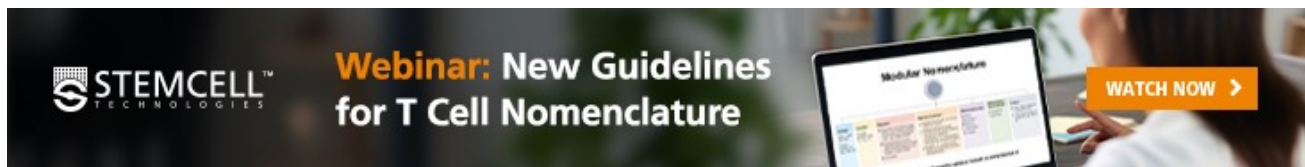
July 23 8:00 AM	MALSI Day 2026 The Engine
August 13 7:00 PM	Poetry Night – Where Science Speaks in Verse Museum of Science
August 17 9:00 AM	Exploring Cell Types with the Allen Institute McGovern Institute for Brain Research at MIT
October 6 - 7 9:00 AM	FASI 10: Catalyst for a Cure – The Food Allergy Science Innovation Summit Broad Institute
October 18 - 21 8:00 AM	The Medtech Conference 2026 Boston Convention and Exhibition Center

[View All Events](#) | [Submit an Event](#)

Science Jobs in Boston

- Research Assistant I**
Beth Israel Deaconess Medical Center
- Research Scientist, Bioanalytics**
Novartis
- Research Associate II, CRISPR-X, LNP**
CRISPR Therapeutics
- Research Technician**
Dana-Farber Cancer Institute
- Research Technician**
Mass General Brigham

[View 88 Other Science Jobs](#) | [Submit a Job](#)



Submit your articles and events by reaching out to us at info@scienceinboston.com.

BROUGHT TO YOU BY



STEMCELL Technologies

Products | Services

STEMCELL Science News

Free Weekly Updates on Your Field

The Stem Cell Podcast

Interviews and Updates
on Stem Cell Science