

Publications of the Week

Genome-Wide Screening Reveals Producer-Cell Modifications That Improve Virus-Like Particle Production and Delivery Potency

First Author: Diana Ly | Senior Author: Aditya Raguram *(pictured)*
Nature Communications | Whitehead Institute and Broad Institute



Engineered virus-like particles (eVLPs) are promising vehicles for transient delivery of gene editing agents. While extensive particle engineering has yielded efficient eVLPs, it remains underexplored whether engineering the cells used to produce eVLPs could further improve eVLP properties. The authors report an unbiased genome-wide screening approach to systematically investigate how genetic perturbations in producer cells influence eVLP production. [Abstract](#) | [Press Release](#)

Early Differential Impact of MeCP2 Mutations on Functional Networks in Rett Syndrome Patient-Derived Human Cortical Organoids

First Author: Tatsuya Osaki *(pictured)* | Senior Author: Mriganka Sur
Nature Communications | Picower Institute, Whitehead Institute, Harvard University, Boston Children's Hospital, and MIT



Mutations in the X-linked methyl-CpG binding protein 2 (MECP2) gene are associated with Rett syndrome, and disease severity varies depending on the location and type of mutation. Here, the authors focused on neuronal activity in Rett syndrome patient-derived organoids, analyzing two types of MECP2 mutations using calcium imaging with three-photon microscopy. [Abstract](#) | [Press Release](#)

Age Distinguishes Selection From Causation in Cancer Genomes

First Author: David Cheek | Senior Author: Kamila Naxerova *(pictured)*
Nature Genetics | Massachusetts General Hospital and Harvard University



Cancer-causing mutations have been identified primarily from positive selection signals in cancer genomes. However, positive selection is also a ubiquitous feature of normal tissue aging. Here, the authors develop a statistical framework to disentangle selection in normal tissue and causation of carcinogenesis. By comparing cancer and normal tissue genomes, they estimate the effects of mutations on cancer risk in the blood, esophagus, and colon. [Abstract](#) | [Press Release](#)

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Awards

Dana-Farber Faculty Elected as Members of the American Academy of Arts & Sciences

Dana-Farber Cancer Institute



Drs. Alan D'Andrea and Judy Garber *(pictured)* both of Dana-Farber Cancer Institute, have been elected as Members of The American Academy of Arts & Sciences. The Academy is one of the nation's oldest and most prestigious honorary societies. Drs. D'Andrea and Garber are among more than 250 leaders in academia, the arts, science industry, journalism, philanthropy, policy, and research chosen for membership this year. [Read More](#)

Three From MIT Named 2026 Goldwater Scholars

MIT News



Three MIT rising seniors have been selected to receive a 2026 Barry Goldwater Scholarship, including Deeksha Kumaresh, Anna Liu, and Charlotte Myersin *(pictured, left to right)*. The Goldwater Scholarships have been conferred since 1989 by the Barry Goldwater Scholarship and Excellence in Education Foundation. These scholarships have supported undergraduates who go on to become leading scientists, engineers, and mathematicians in their respective fields. [Read More](#)

MCB Honors 2026 Mentorship Awardees for Building a Culture of Support Across All Levels

Harvard University Department of Molecular and Cellular Biology (MCB)



The Department of Molecular and Cellular Biology has named its 2026 Mentorship Award recipients, recognizing a group of scientists whose approaches to guidance, collaboration, and community-building span career stages—from postdoctoral fellows to department leadership. This year's honorees include Siddharth Jayakumar, Rachelle Gaudet, and Gaby Paniccia *(pictured, left to right)*. [Read More](#)

Whitehead AI Fellow Dr. Na Sun Receives a National Institutes of Health Director's Early Independence Award

Whitehead Institute



Whitehead Institute AI Fellow Dr. Na Sun *(pictured)* has received a 2026 NIH Director's Early Independence Award, which will support her research using artificial intelligence to study how cells communicate across tissues and organs in health and disease. Sun develops advanced computational methods to analyze large-scale biological datasets and decode how cells interact in living tissues. [Read More](#)

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Local News

Hearing Restoration From Gene Therapy for Inherited Deafness Lasts Years, New Trial Results Show

Harvard Medical School



An experimental gene therapy for a rare form of genetic deafness has successfully restored hearing in children and adults, with improvements lasting for at least 2.5 years. The study, co-led by Dr. Zheng-Yi Chen *(pictured)*, corrected mutations in the OTOF gene, one of about 200 genes whose mutations are known to cause deafness from birth. [Read More](#)

An Interview With Caroline Sokol, the Neuroimmune Allergy Researcher Joining the Ragon Faculty

Ragon Institute



The Ragon Institute is pleased to welcome Dr. Caroline Sokol *(pictured)* as their newest faculty member. A physician-scientist specializing in allergy and immunology, Dr. Sokol studies how the immune system recognizes and responds to allergens, with a particular focus on the neuroimmune circuits that underlie allergic disease. [Read More](#)

Single-Molecule Tracker Illuminates Workings of Cancer-Related Proteins

Broad Institute



Using a powerful single-molecule imaging method they developed, a Broad Institute research team has unveiled a dynamic view of how some cancer-related proteins interact in living cells. The researchers used their method to observe, for the first time, individual receptors as they move around the cell membrane, attaching to and then letting go of other receptors to alter signaling within the cell. [Read More](#)

RAS(ON) Inhibitor Daraxonrasib Shows Promising Results in Advanced Pancreatic Cancer Phase 1/2 Study

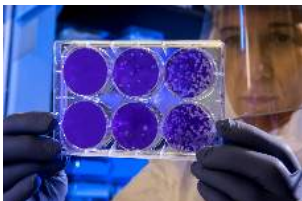
Dana-Farber Cancer Institute



The targeted RAS inhibitor daraxonrasib was found to be safe and showed signs of efficacy in a phase 1/2 first-in-human trial in patients with previously treated, RAS-mutant, metastatic pancreatic cancer, according to a clinical trial led at Dana-Farber Cancer Institute and across the country. Dr. Brian Wolpin *(pictured)*, Director of the Hale Family Center for Pancreatic Cancer Research at Dana-Farber Cancer Institute, is a lead investigator on the study. [Read More](#)

Tufts Launchpad | BioLabs Thrives on Scientific Community

Tufts Now



Eight years since its founding, the successes of Tufts Launchpad | BioLabs are apparent no matter which metric you use. It has contributed to a thriving research community, facilitated the exchange of scientific insights among companies working on pressing challenges, and expanded networks of knowledge throughout the greater Boston area. [Read More](#)

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📅 Upcoming Events in Boston

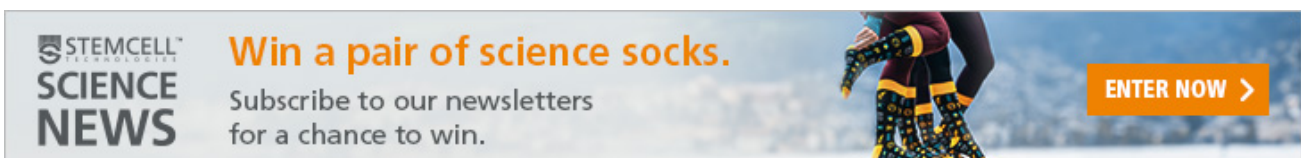
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| May 13
2:30 p.m. | 2026 Connors-MGB Research Collaborative Symposium
Marshall A. Wolf Conference Center |
| May 18
8:30 a.m. | HCMPPH Center Annual Symposium
Harvard T.H. Chan School of Public Health |
| May 21
8:45 a.m. | 2026 Yang ICoN Center Symposium: Self-Organization and Emergence in Development
Singleton Auditorium |
| May 28
7:00 p.m. | AI and the Future of Cancer Treatments
Museum of Science |
| June 3
8:30 a.m. | Better Together: A Pharma & Biotech EHS Forum
Museum of Science |

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📁 Science Jobs in Boston

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