

Publications of the Week

In Vivo CRISPR Screens Identify Modifiers of CAR T Cell Function in Myeloma

First Authors: Nelson Knudsen, Giulia Escobar, and Felix Korell | Senior Authors: Robert Manguso and Marcela Maus (pictured)
Nature | Massachusetts General Hospital, Harvard Medical School, Broad Institute, and MIT



Chimeric antigen receptor (CAR) T cells are highly effective in hematological malignancies. However, progressive loss of CAR T cells contributes to relapse in many patients. Here researchers performed *in vivo* loss-of-function CRISPR screens in CAR T cells targeting B cell maturation antigen to investigate genes that influence CAR T cell persistence and function in a human multiple myeloma model. [Abstract](#) | [Press Release](#)

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Awards

Drs. Sien Verschave and Alain Viel Honored With Anya Bernstein Bassett Award for Excellence in Teaching

Harvard University Department of Molecular and Cellular Biology



Two dedicated educators from Harvard's Department of Molecular and Cellular Biology have been recognized with the Anya Bernstein Bassett Award for Excellence in Teaching, a prestigious honor that celebrates outstanding non-ladder faculty who are primarily focused on teaching. The 2025 award was given to Drs. Sien Verschave (pictured, left) and Alain Viel (right). [Read More](#)

PhD Candidate Jessica Peura Studies Pancreatic Cancer; Honors Mother Through Grant-Funded Research

UMass Chan Medical School



PhD candidate Jessica Peura (pictured) has earned a Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship from the National Cancer Institute to advance her research. Peura is studying pancreatic cancer in the lab of Dr. Jason Pitarresi at UMass Chan Medical School to prevent families like her own from experiencing cancer-related loss. [Read More](#)

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Local News

Kwon Lab Study Links Gut Immune Cell Metabolism to Barrier Damage in HIV

Ragon Institute



A new study led by Drs. Douglas Kwon (pictured, left), Upasana Das Adhikari (right), and collaborators shows how energy use by gut immune cells can weaken the intestinal lining in people living with HIV, even when the virus is controlled by treatment. The work identifies a metabolic switch inside these cells as a promising target to help protect the gut and reduce inflammation. [Read More](#)

K. Lisa Yang Brain Body Center Launches at Harvard Medical School

Harvard Medical School



At Harvard Medical School, researchers have been working to decode how brain-body communication works and the ways it can go awry. Now, a \$30 million gift to Harvard University from philanthropist Lisa Yang is propelling these efforts by establishing the K. Lisa Yang Brain Body Center. The center will bring together experts from diverse disciplines to illuminate the mysteries of brain-body signaling. [Read More](#)

Cheese Fungi Help Unlock Secrets of Evolution

Tufts Now



Many scientific discoveries are serendipitous—the result of chance. Seeing evolution in action in a cheese cave turned out to be exactly that for Dr. Benjamin Wolfe from Tufts University. "Microbes evolve. We know that from antibiotic resistance evolution, we know that from pathogen evolution, but we don't usually see it happening at a specific place over time in a natural setting," said Dr. Wolfe. [Read More](#)

UMass Chan Licenses Monoclonal Antibody for Seasonal Prevention of Lyme Disease to Tonix Pharmaceuticals

UMass Chan Medical School



UMass Chan Medical School has licensed worldwide rights to a long-lasting human monoclonal antibody, designated TNX-4800, that prevents Lyme disease to Chatham, N.J.-based Tonix Pharmaceuticals Holding Corp. Dr. Mark Klempner (pictured) led the research team that discovered and developed the preventive medicine. [Read More](#)

Technology Originating at MIT Leads to Approved Bladder Cancer Treatment

MIT News



The U.S. Food and Drug Administration approved a system for treating an aggressive form of bladder cancer. More than a decade ago, the system started as an idea in the lab of MIT Professor Dr. Michael Cima (pictured) at the Koch Institute for Integrative Cancer Research, enabled by funding from the National Institutes of Health and MIT's Deshpande Center. [Read More](#)

Dr. Namita Sarraf on Using DNA as a Building Block

Wyss Institute



Dr. Namita Sarraf (pictured) is a postdoctoral fellow pursuing interests in both technology and business development. At the Wyss Institute, she is working on numerous projects including a therapeutics-focused project that utilizes techniques from DNA nanotechnology and synthetic biology to identify new drugs against therapeutic targets using novel sequencing technology. [Read More](#)

Dana-Farber Research Points to Potential Gene Therapy Improvements

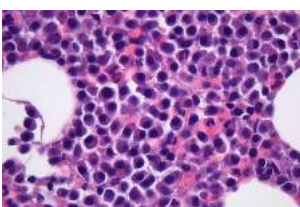
Dana-Farber Cancer Institute



New research by Dr. Parmit Singh (pictured), a Dana-Farber scientist working in the Cancer Immunology and Virology lab of Dr. Alan Engelman, has revealed mechanistic details of how a virus called Prototype Foamy Virus integrates into a host cell's DNA. This study uncovers possible ways to tune both when and where a virus integrates into an infected cell's genome. [Read More](#)

New AI System Could Accelerate Clinical Research

MIT News



Annotating regions of interest in medical images, a process known as segmentation, is often one of the first steps clinical researchers take when running a new study involving biomedical images. To streamline the process, MIT researchers developed an AI-based system that enables a researcher to rapidly segment new biomedical imaging datasets by clicking, scribbling, and drawing boxes on the images. [Read More](#)

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Upcoming Events in Boston

October 4 8:00 AM	STEMPeers 2025 Boston Metcalf Trustee Center
October 7 8:00 AM	2025 Align Summit Boston Marriott Copley Place
October 9 - 10 7:00 AM	ADA Forsyth Dentech 2025 ADA Forsyth Institute
October 18 12:00 PM	BioFestival Harvard Northwest Science Building
October 21 - 23 8:00 AM	The 7th Annual Gene Therapy Analytical Development Summit Hilton Boston Logan Airport

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