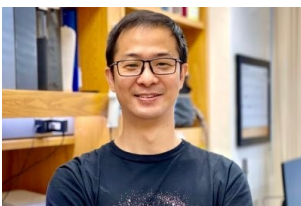




Publications of the Week

Regulation of Inflammatory Responses by pH-Dependent Transcriptional Condensates

First Author: Zhongyang Wu (*pictured*) and Scott Pope | Senior Author: Xu Zhou Cell | Broad Institute, Boston Children's Hospital, Harvard Medical School, and Massachusetts General Hospital



Inflammation is an essential defense response but operates at the cost of normal tissue functions. Acidification of the tissue microenvironment is associated with inflammation. Here, researchers investigated whether macrophages sense tissue acidification to adjust inflammatory responses. Researchers found that acidic pH restructured the inflammatory response of macrophages in a gene-specific manner. [Abstract](#) | [Press Release](#)

Selective HLA Knockdown and PD-L1 Expression Prevent Allogeneic CAR-NK Cell Rejection and Enhance Safety and Anti-Tumor Responses in Xenograft Mice

First Author: Fuguo Liu (*pictured*) | Senior Author: Jianzhu Chen Nature Communications | Koch Institute, Dana-Farber Cancer Institute, Harvard Medical School, and MIT



Allogeneic cellular immunotherapy exhibits promising efficacy for cancer treatment, but donor cell rejection remains a major barrier. Here, researchers systematically evaluate human leukocyte antigens (HLA) and immune checkpoints PD-L1, HLA-E, and CD47 in the rejection of allogeneic NK cells and identify CD8⁺ T cells as the dominant cell type mediating allorejection. [Abstract](#) | [Press Release](#)

[View All Publications](#) ➔

Awards

Logan Lab Receives Three R01 Grants for Studies Targeting Opioid Use Disorder, Relapse Vulnerability

UMass Chan Medical School



Multiple research projects examining the underlying biology of opioid use disorder and the role of sleep and circadian rhythms in relapse vulnerability are underway at UMass Chan Medical School in the lab of Dr. Ryan Logan (*pictured*). Dr. Logan is a Principal Investigator on three recently funded National Institutes of Health grants, totaling nearly \$10 million in research support. [Read More](#)

Dana-Farber/Harvard Cancer Center Awarded \$12 Million NCI SPORE Grant to Advance Breast Cancer Research

Dana-Farber Cancer Institute



The Dana-Farber/Harvard Cancer Center has been awarded a highly competitive, federal grant of \$12 million over five years from the National Cancer Institute (NCI) to continue its Specialized Program of Research Excellence (SPORE) in Breast Cancer. SPORE is led by Drs. Geoffrey Shapiro, Leif Ellisen, Kornelia Polyak, and Nancy Lin (*pictured, left to right*). [Read More](#)

Boston University Names Seven Junior Faculty Career Development Professors

Boston University Chobanian & Avedisian School of Medicine



Dr. Travis Rotterman (*pictured*), a Chobanian & Avedisian School of Medicine Assistant Professor, has been named one of this year's Boston University Career Development Professors. Dr. Rotterman uses cutting-edge genetic and other methods to study the implications of neurological damage for sensory and motor functions. [Read More](#)

[View All Awards](#) ➔

Local News

Study Finds Key Role for Non-Neural Brain Cells in Processing Vision

MIT News



Cells called astrocytes are about as abundant in the brain as neurons, but scientists have spent much less time figuring out how they contribute to brain functions. A novel study led by Dr. Mriganka Sur (*pictured*) shows that one function appears to be maintaining the chemical conditions necessary for groups of neurons to team up to encode information. [Read More](#)

Ghebremichael Lab Study Offers a Fairer Way to Judge Medical Tests, Helping Spot Reliable Biomarkers

Ragon Institute



A new paper by biostatisticians in Dr. Musie Ghebremichael's (*pictured*) lab introduces and tests a flexible way to grade medical tests like blood-based biomarkers so scientists can more confidently tell which ones truly separate "sick" from "healthy." That clearer yardstick matters for immunology, where research teams must decide which candidate markers deserve scarce time and funding. [Read More](#)

Testing a New Approach to Solving the Opioid Epidemic

The Brink



"Clinically used opioids are a double-edged sword—although they are some of the most powerful tools to mitigate pain, they also come with the risk of misuse that has propelled the ongoing opioid epidemic," says Dr. Mikel Garcia-Marcos (*pictured*). His lab is testing whether it's possible to control how individual proteins in cells react to opioids. [Read More](#)

AI Distinguishes Glioblastoma from Look-Alike Cancers During Surgery

Harvard Medical School



A Harvard Medical School–led research team has developed an AI tool that can reliably tell apart two look-alike cancers found in the brain but with different origins, behaviors, and treatments. The tool, called PICTURE (Pathology Image Characterization Tool with Uncertainty-aware Rapid Evaluations), has been developed by Dr. Kun-Hsing Yu (*pictured*) and his team. [Read More](#)

RNA Structure Beyond Canonical Base Pairs Guided by Evolution

Harvard University Department of Molecular and Cellular Biology



In a recent *Nature Methods* article, Drs. Aayush Karan (*pictured, right*) and Elena Rivas (*left*) present a computational method that predicts both secondary structure and 3D motifs in RNA crystal structures. This method helps mitigate many of the mentioned difficulties inherent to full structure prediction of RNAs. The new method is called CaCoFold-R3D. [Read More](#)

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

📅 Upcoming Events in Boston

- | | |
|----------------------------|--|
| 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 |
| October 21
9:30 AM | The Picower Institute Fall 2025 Symposium: “Circuits of Survival and Homeostasis”
Singleton Auditorium |
| October 23
5:00 PM | 2025 Oktoberfest Mixer
MassBioHub |
| October 28 - 30
8:00 AM | The 7th Gene Therapy for CNS Summit
Hilton Boston Logan Airport |

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

📁 Science Jobs in Boston

- Research Assistant II**
Harvard University
- Research Assistant, Supportive Oncology**
Dana-Farber Cancer Institute
- Clinical Research Coordinator I**
Brigham and Women's Hospital
- Research Assistant II, The Andzelm Lab**
Boston Children's Hospital
- Research Associate III, Center for the Development of Therapeutics**
Broad Institute

[View 68 Other Science Jobs](#) ➔ | [Submit a Job](#) ➔

Free On-Demand Training:
Expansion of hPSCs in 3D Suspension Culture


[REGISTER NOW ➔](#)

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](#)