

Publications of the Week

Loss of Function of *ALDH3B2* Transdifferentiates Human Pancreatic Duct Cells Into β -Like Cells

First Author: Jian Li | Senior Author: Peng Yi (*pictured*)
Science Translational Medicine | Joslin Diabetes Center and Harvard Medical School,



β cell regeneration is achieved predominantly by self-replication. Using a genome-wide clustered regularly interspaced short palindromic repeats (CRISPR) screen, researchers found that the loss of function of aldehyde dehydrogenase family 3 member B2 (*ALDH3B2*) was sufficient to transdifferentiate cell line-based and human pancreatic duct cells into functional β -like cells. [Abstract](#)

Cyclin E-CDK2 Regulates Cancer Cell Transcriptional Program and Response to Immunotherapy Through BRD4

First Authors: Chen Chu (*pictured*), Shanshan Zheng, and Ning Mitchell | Senior Author: Piotr Sicinski
Molecular Cell | Dana-Farber Cancer Institute, Harvard Medical School, Beth Israel Deaconess Medical Center, and Brigham and Women's Hospital



The cyclin E-cyclin-dependent kinase 2 (CDK2) complex is a component of mammalian cell-cycle machinery that drives cell division. Hyperactivation of cyclin E-CDK2 is frequent in human cancers. This study revealed an additional function of cyclin E-CDK2 in tumorigenesis and identified inhibition of CDK2 with clinically available compounds as a strategy for enhancing immune checkpoint blockade. [Abstract](#) | [Press Release](#)

[View All Publications](#)

Awards

ARPA-H Funds HMS-Led Pilot Project to Develop New Class of RNA Medicines

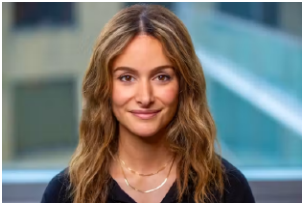
Harvard Medical School (HMS)



A team led by Dr. Silvi Rouskin (*pictured*) is exploring the possibility of creating an entire new class of medicines, with up to \$4.4 million in federal funding from the Advanced Research Projects Agency for Health (ARPA-H) under its PROPEL project. The award supports a one-year, multi-institution pilot project to accelerate the development of RNA medications that would use riboswitches to regulate genes within the human body. [Read More](#)

Wyss Awarded ARPA-H Contract to End the Guesswork in Fetal Distress

Wyss Institute



Awarded a contract for up to \$12M from the Advanced Research Projects Agency for Health (ARPA-H), Drs. Sandy Elmeirath (*pictured*) and Peter Nguyen have joined forces to address a critical unmet need in maternal and women's health: clinicians' inadequate ability to monitor oxygen support of fetuses during labor (intrapartum). This project is called the the FEMOX project (Fetal Extracellular Vesicle Monitoring of Oxygenation). [Read More](#)

Harvard, Yale Researchers Awarded \$46 Million Grant to Study Autism, Brain Development

Harvard Medical School



A \$46 million grant from a new autism research initiative, Aligning Research to Impact Autism (ARIA), is turbocharging efforts at Harvard and Yale to understand human brain development and provide insight into the roots of profound autism. The new grant establishes the Human Developmental Neurobiology Hub, to be co-led by Drs. Paola Arlotta (*pictured*) and Nenad Sestan. [Read More](#)

Six Distinguished Faculty Named to Endowed Chairs

UMass Chan Medical School



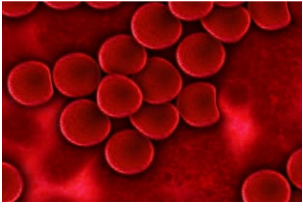
The University of Massachusetts Board of Trustees voted to approve the establishment of four new endowed chairs and the appointment of highly accomplished faculty to six chairs. These six appointments include Drs. Jennifer Wang (*pictured*), Samir Malkani, Johanna Seddon, Edwin Boudreaux, David Michael Dosa, and Andrew Tapper. UMass Chan Medical School now has 86 endowed chairs and professorships. [Read More](#)

[View All Awards](#)

Local News

Rethinking Platelet Transfusions in Newborns

Boston Children's Hospital



At Boston Children's Hospital, work led by Drs. Martha Sola-Visner and Patricia Davenport may be reshaping how clinicians think about platelet transfusions in newborns entirely. "What we've been finding is really something counterintuitive," says Dr. Sola-Visner. "That this treatment designed to protect vulnerable infants might, in some cases, be causing harm." [Read More](#)

PhD Candidate Emily Blackburn Seeks Early Interventions for Cancer Patients

UMass Chan Medical School



Emily Blackburn, a PhD candidate at UMass Chan Medical School, is researching a DNA replication and repair protein found in some cancers with funding from the National Cancer Institute. Blackburn received a Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship to research proliferating cell nuclear antigen (PCNA). PCNA encircles DNA and recruits the proteins essential for replication and repair. [Read More](#)

How a Pig-Kidney Xenotransplant Served as a Successful Bridge to Human Transplant for Patient With End-Stage Kidney Disease

Mass General Brigham



A new paper, published in *The Lancet*, details how xenotransplantation could bridge the gap between end-stage kidney failure and a human transplant, allowing a patient to forgo dialysis in the meantime. "The organ shortage is the greatest crisis we have right now in transplantation," said lead author Dr. Leonardo Riella (*pictured*) at Mass General Brigham. [Read More](#)

Going Anti-Viral: A Team Fights HPV

Tufts Now



Dr. Karl Munger (*pictured*) is helping to lead an effort at Tufts University that brings research scientists together with clinicians to save lives through improved HPV care and research. Their work is shedding light not just on how the virus works—which could open the door to potential treatments—but also how we can boost vaccination rates, improve screenings, and even eliminate some cancers. [Read More](#)

AI Model Decodes the Language Cells Use To Communicate

Whitehead Institute



For researchers, being able to retrace the sequence of instructions a cell has received would offer a powerful way to understand how tissues develop and how these processes go awry in disease. A new study led by Dr. Pulin Li (*pictured*) has discovered that each signaling pathway leaves behind a unique "fingerprint", a distinctive pattern of gene activity that reflects the particular signals the cell has encountered. [Read More](#)

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

Upcoming Events in Boston

October 2 8:30 AM	2nd Annual AI-Powered Innovation in Protein and Antibody Therapeutics Le Meridien Cambridge
October 6 - 7 9:00 AM	FASI 10: Catalyst for a Cure – The Food Allergy Science Innovation Summit Broad Institute
October 18 - 21 9:00 AM	The Medtech Conference 2026 Boston Convention and Exhibition Center
November 4 9:00 AM	Comparative Neuroscience: Lessons from Biodiversity Singleton Auditorium
November 19 - 20 8:00 AM	Pharma Partnering US Summit Hilton Boston Logan Airport

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

Science Jobs in Boston

- Research Assistant I**
Boston Children's Hospital
- Lab Manager**
Dana-Farber Cancer Institute
- Project Coordinator II, Center for Human Brain Variation**
Broad Institute of MIT & Harvard
- Research Associate I/II, Bioprocess Development**
Flagship Pioneering
- Data Manager for the Laboratory of Systems Pharmacology**
Harvard University

[View 97 Other Science Jobs](#) | [Submit a Job](#)

Commercializing a Cutting-Edge Cell Therapy:
An Interview with ExCellThera

[READ 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 Regular Updates on Your Field

The Stem Cell Podcast
Interviews and Updates on Stem Cell Science

(!\$organization.Address)
Unsubscribe [here](#)