

Publications of the Week

Durable Alveolar Engraftment of Pluripotent Stem Cell-Derived Lung Epithelial Cells into Immunocompetent Mice

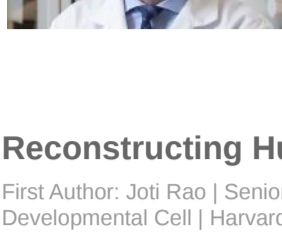
First Author: Michael Herges (*pictured, middle row, fourth from right*) | Senior Author: Darrell Kotton (*front row, right*)
Cell Stem Cell | Boston University



Durable reconstitution of the distal lung epithelium with pluripotent stem cell derivatives, if realized, would represent a promising therapy for diseases that result from alveolar damage. This study demonstrates the feasibility of engrafting functional engineered stem cells into syngeneic recipient lungs without the need of immunosuppression. [Profile](#) | [Abstract](#)

Circular RNAs in the Human Brain Are Tailored to Neuron Identity and Neuropsychiatric Disease

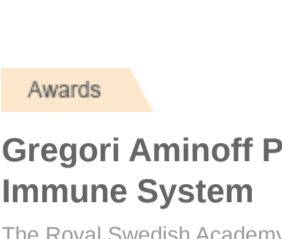
First Author: Xianjun Dong | Senior Author: Clemens Scherzer (*pictured*)
Nature Communications | Harvard Medical School and Brigham & Women's Hospital



Little is known about circular RNAs (circRNAs) in specific brain cells and human neuropsychiatric disease. Here, researchers systematically identify circRNAs expressed in vulnerable dopamine and pyramidal neurons using ultra-deep, total RNA sequencing. This study shows that circRNAs in the human brain are tailored to neuron identity and implicate circRNA-regulated synaptic specialization in neuropsychiatric diseases. [Abstract](#) | [Press Release](#)

Reconstructing Human Brown Fat Developmental Trajectory *In Vitro*

First Author: Joti Rao | Senior Author: Olivier Pourquié (*pictured*)
Developmental Cell | Harvard Medical School and Brigham & Women's Hospital



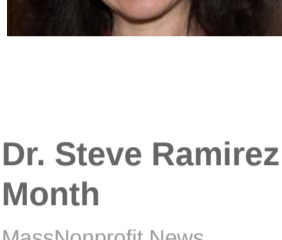
Brown adipocytes (BAs) represent a specialized cell type that is able to uncouple nutrient catabolism from ATP generation to dissipate energy as heat. Here, researchers used single-cell RNA sequencing to characterize the development of interscapular brown fat in mice. They show that recapitulating the sequence of signaling cues identified in mice can lead to efficient differentiation of BAs *in vitro* from human pluripotent stem cells. [Abstract](#)

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Awards

Gregori Aminoff Prize Laureate Has Provided New Knowledge About the Immune System

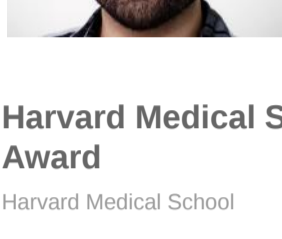
The Royal Swedish Academy of Sciences



The Royal Swedish Academy of Sciences has awarded the Gregori Aminoff Prize in crystallography 2024 to Professor Hao Wu (*pictured*) of Boston Children's Hospital and Harvard Medical School. She receives the prize for her ground-breaking studies of complex protein structures in the innate immune system. Her research has led to an entirely new and improved understanding of how the innate immune system functions. [Read More](#)

Dr. Steve Ramirez Honored by Amplify LatinX to Kick off Hispanic Heritage Month

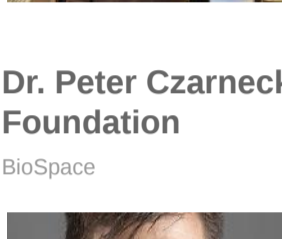
MassNonprofit News



Dr. Steve Ramirez (*pictured*), an Assistant Professor from Boston University's Center for Systems Neuroscience, Psychological & Brain Sciences, is honoured as an ALX100 Amplifier. Amplify LatinX announced its 2023 slate of ALX100 Amplifiers in honor of Hispanic Heritage Month during its inaugural ALX100 award reception to celebrate 100 leaders from across the Commonwealth. [Read More](#)

Harvard Medical School Microbiome Researcher Receives Top Science Award

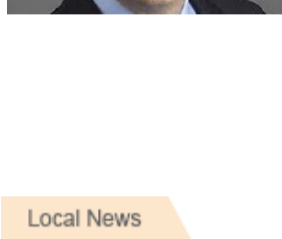
Harvard Medical School



Harvard Medical School researcher Dr. Dennis Kasper (*pictured*) has been named the recipient of the 2024 Paul Ehrlich and Ludwig Darmstaedter Prize, Germany's most prestigious medical award. This award honors scientists who have made critical contributions in the fields of immunology, cancer research, hematology, microbiology, and chemotherapy. [Read More](#)

Dr. Peter Czarnecki Among This Year's Grantees from the Brain Aneurysm Foundation

BioSpace



The Brain Aneurysm Foundation announced the recipients of its 2023 research grants, which provides support to academic researchers studying the underlying biology of aneurysms or developing new treatment methods. Among the recipients is Dr. Peter Czarnecki (*pictured*) of Beth Israel Deaconess Medical Center for his work in polycystic kidney disease gene variants in brain aneurysm development. [Read More](#)

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Local News

New Machine Learning Techniques Boost Predictions for Virtual Drug Screening with Less Data

Broad Institute



In a new paper published in *Nature Communications*, researchers led by Dr. Caroline Uhler (*pictured*) at the Eric and Wendy Schmidt Center at the Broad Institute of MIT and Harvard have developed a new way of using kernel methods, a type of machine learning algorithm. This new application could make them more useful for a wider range of applications, such as virtual drug screening. [Read More](#)

AI-Driven Tool Makes It Easy to Personalize 3D-Printable Models

MIT News



MIT researchers are increasing accessibility for those that need medical and assistive devices with the development of a generative-AI-driven tool that circumvents common issues stemming from the use of complex and expensive computer-aided design programs. With this tool, makers can rapidly customize models of 3D-printable objects, such as assistive devices, without hampering their functionality. [Read More](#)

Dana-Farber Leads Adaptive, Efficient Multi-Arm Phase 2 Clinical Trial for Glioblastoma

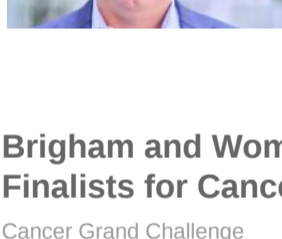
Dana-Farber Cancer Institute



An innovative phase 2 clinical trial, led by Dana-Farber Cancer Institute in collaboration with 10 major brain tumor centers around the country and designed to find new potential treatments for glioblastoma, has reported initial results in the *Journal of Clinical Oncology*. This research is led by Dr. Patrick Wen (*pictured*), Dr. Rifaquat Rahman, and Dr. Keith Ligon from Dana-Farber. [Read More](#)

Future Science at the Molecular Level

MIT News



Innovating at the intersection of chemistry, biology, and engineering, Professor Brad Pentelute (*pictured*) and the Pentelute Lab at MIT invent new chemistry, platforms, and techniques that might revolutionize therapeutics. This work compels the anthrax delivery system to deliver antibody and peptide variants into cells to treat cancer. [Read More](#)

Disc Medicine Receives FDA Fast Track Designation for MWTX-003 for the Treatment of Polycythemia Vera

Globe Newswire




Disc Medicine, Inc., a clinical-stage biopharmaceutical company, is led by Dr. John Quisel (*pictured*) and focused on the discovery, development, and commercialization of novel treatments for patients suffering from serious hematologic diseases. They have announced that the FDA has granted Fast Track Designation to MWTX-003 for the treatment of patients with polycythemia vera. [Read More](#)

Brigham and Women's Hospital-Harvard Medical School Team Selected as Finalists for Cancer Research UK Grand Cancer Challenge

Cancer Grand Challenge



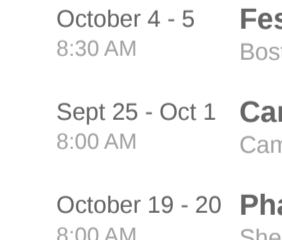
Team COMBAT (Conquering Cancer in Obesity through Metabolism, Behaviour And Therapy) have been selected as finalists for the Grand Cancer Challenge. The team is led by Dr. Lydia Lynch (*pictured, center*) from Harvard University, alongside Dr. Marcia Haigis (*right*) and Dr. Arlene Sharpe (*left*). Team COMBAT aims to explore obesity-related cancer risk and mechanisms to reduce this risk through the metabolic lens. [Read More](#)

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Interesting Articles

U.S. Cancels Program Aimed at Identifying Potential Pandemic Viruses

Science



In what many see as fallout from the concern that researchers studying bat viruses may have triggered the COVID-19 pandemic, the U.S. Agency for International Development has prematurely ended a \$125 million program aimed at identifying viruses in animals that might harm humans. Researchers appear split on this decision and many wonder what the knock on effects will be for similar projects. [Read More](#)

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Upcoming Events in Boston

Sept 27 - 30 **AACR Special Conference in Cancer Research: Pancreatic Cancer**
6:00 AM Westin Copley Place

September 27 **Biomedical Informatics Entrepreneurs Salon**
1:30 PM Online

October 4 - 5 **Festival of Genomics**
8:30 AM Boston Convention and Exhibition Center

Sept 25 - Oct 1 **Cambridge Science Festival**
8:00 AM Cambridge

October 19 - 20 **Pharma Partnering Summit**
8:00 AM Sheraton Boston Needham Hotel

[View All Events](#) 

Other Science Jobs in Boston


Cell & Gene Therapy Specialist, North America
STEMCELL Technologies

Research Associate/Senior Research Associate, Biology
Tessel Bio

Research Technician
Tufts University

Research Coordinator, Global Health Equity
Brigham and Women's Hospital

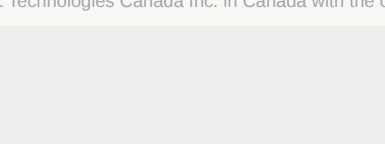
Clinical Research Specialist I, Developmental Neuroscience
Boston Children's Hospital

[View 60 Other Science Jobs](#) 



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