



Publications of the Week

Eliciting a Single Amino Acid Change by Vaccination Generates Antibody Protection Against Group 1 and Group 2 Influenza A Viruses

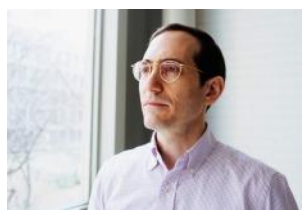
First Authors: Rashmi Ray, Faez Amokrane Nait Mohamed, Daniel Maurer, and Jiachen Huang | Senior Authors: Daniel Lingwood, Aaron Schmidt, and Facundo Batista (*pictured*)
Immunity | MIT, Harvard University, and the Ragon Institute



Broadly neutralizing antibodies (bnAbs) targeting the hemagglutinin stem of influenza A viruses tend to be effective against either group 1 or group 2 viral diversity. Researchers applied germline-engaging nanoparticle immunogens to elicit a class of cross-group bnAbs from physiological precursor frequency within a humanized mouse model. [Abstract](#) | [Press Release](#)

Disease Related Changes in ATAC-Seq of iPSC-Derived Motor Neuron Lines from ALS Patients and Controls

First Author: Stanislav Tsitkov | Senior Author: Ernest Fraenkel (*pictured*)
Nature Communications | MIT



Amotrophic Lateral Sclerosis (ALS) is highly heritable, but with only a small fraction of cases explained by monogenic disease alleles. To better understand sporadic ALS, researchers report epigenomic profiles, as measured by ATAC-seq, of motor neuron cultures derived from a diverse group of 380 ALS patients and 80 healthy controls. [Abstract](#) | [Press Release](#)

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Awards

Dr. Celia Schiffer Elected to National Academy of Sciences

UMass Chan Medical School



Leading UMass Chan Medical School scientist Dr. Celia Schiffer (*pictured*) was elected to the National Academy of Sciences for her distinguished and continuing achievements in original biomedical research. Dr. Schiffer is one of 120 newly elected members. The Schiffer lab primarily studies the molecular basis for drug resistance in viruses. [Read More](#)

Complex Questions, Innovative Approaches

The Harvard Gazette



Seven creative, cutting-edge projects in disciplines ranging from chemistry to health equity are winners of the 2024 Star-Friedman Challenge for Promising Scientific Research. This year's winners are (*pictured, clockwise from top left*) Drs. Joonho Lee, Rita Hamad, Fei Chen, Miaki Ishii, Jarad Mason, Stephanie Pierce, Suyang Xu, and Jeeyun Chung. [Read More](#)

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Local News

BRD7 Research Points to Alternative Insulin Signaling Pathway

Boston Children's Hospital



Bromodomain-containing protein 7 (BRD7) has been shown to have a role in multiple cellular processes, including the remodeling of chromosomes and cell cycle progression. Boston Children's Division of Endocrinology researchers have discovered another purpose for BRD7 — it seems to be involved in an alternative insulin signaling pathway, the existence of which had been speculated about for decades. [Read More](#)

What Is Consciousness?

McGovern Institute



In the Fiete lab, Adam Eisen (*pictured*) leverages computational methods to compare the brain's electrical signals in an awake, conscious state to those in an unconscious state via anesthesia — which dampens communication between neurons so people feel no pain or become unconscious. Their work builds a better intuition for what underlies consciousness. [Read More](#)

New Findings Activate a Better Understanding of Rett Syndrome's Causes

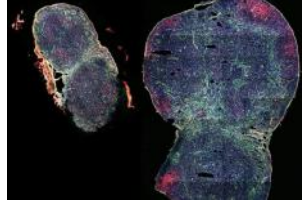
Wyss Institute



Rett syndrome, a rare neurodevelopmental disorder for which there is currently no cure or good therapy, is caused by mutations to the gene *MECP2*, which is highly expressed in the brain and appears to play important roles in maintaining healthy neurons. Researchers have been studying *MECP2* for decades, and yet many basic facts about the gene remained unknown. [Read More](#)

Expanding a Lymph Node, Boosting a Vaccine

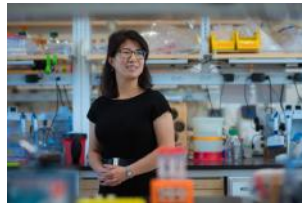
Wyss Institute



Many of us have experienced some of our lymph nodes to temporarily swelling during infections with viruses or other pathogens. For the first time, researchers from the Wyss Institute have found a way to enhance and extend lymph node expansion and study how this phenomenon affects both the immune system and efficacy of vaccinations against tumors. [Read More](#)

Q&A: Whitehead Institute Member Pulin Li on Recreating Development in the Lab

Whitehead Institute



The Li Lab at the Whitehead Institute is focused on understanding the rules of cell-to-cell communication in spatially organized tissues. In this Q&A, Dr. Pulin Li (*pictured*) discusses how her lab ventures beyond mere observation to actually engineer developmental events in the Petri dish, and why this approach is vital for understanding health and disease more broadly. [Read More](#)

Mice Don't Menstruate: Reimagining Women's Health Using Organ Chips with Dr. Donald Ingber

wyss Institute



In this episode of Innovate and Elevate, host Sharon Kedar, Co-Founder of Northpond Ventures, is joined by Dr. Donald Ingber (*pictured*), Founding Director at Wyss Institute for Biologically Inspired Engineering at Harvard University. Dr. Ingber's commitment to following his passion has led him to countless medical and technological breakthroughs, including Organ Chip technology. [Read More](#)

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Upcoming Events in Boston

- May 14 6:00 PM **Biotech Networks Scientific Speed Networking**
Lord Hobo Boston
- May 22 - 24 8:00 AM **Mutational Scanning Symposium 2024**
Broad Institute
- June 8 9:00 AM **Consortium for Health Innovation Partnerships**
MGH Institute of Health Professions
- June 10 8:30 AM **Lighting Up Neurobiology with Antibodies**
Marshall A. Wolf Conference Center
- June 10 - 11 12:30 PM **Generative AI in Medical Research & Drug Development: Hype or Reality?**
Northeastern University

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Science Jobs in Boston

- Senior Research Coordinator**
Tufts University
- Senior Principal Scientist, Biotherapeutics, R&D**
Johnson & Johnson
- Deputy Director of Science and Technology**
MIT
- Research Associate II, Molecular Biology**
Aera Therapeutics
- Scientist II, Brain Targeting Program**
Wyss Institute

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