



Publications of the Week

Nuclear Release of eIF1 Restricts Start-Codon Selection During Mitosis

First Author: Jimmy Ly | Senior Author: Iain Cheeseman *(pictured)*
Nature | Whitehead Institute, Howard Hughes Medical Institute, and MIT



Regulated start-codon selection has the potential to reshape the proteome. However, conditions under which start codon selection is altered remain poorly defined. Here, using transcriptome-wide translation-initiation-site profiling, researchers reveal a global increase in the stringency of start-codon selection during mammalian mitosis. [Abstract](#) | [Press Release](#)

SARS-CoV-2 XBB.1.5 mRNA Booster Vaccination Elicits Limited Mucosal Immunity

First Author: Ninaad Lasrado | Senior Author: Dan Barouch *(pictured)*
Science Translational Medicine | Beth Israel Deaconess Medical Center and Harvard Medical School



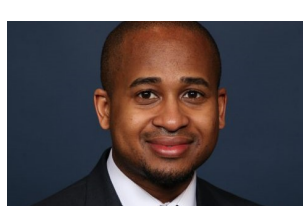
Intramuscularly administered COVID-19 vaccines induce robust serum neutralizing antibodies, but their ability to boost mucosal immune responses remains to be determined. In this study, researchers show that the XBB.1.5 messenger RNA boosters result in increased serum neutralization to multiple SARS-CoV-2 variants in humans, including the dominant circulating variant JN.1. [Abstract](#)

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Awards

Dr. Dennis Jones Named Cancer Moonshot Scholar

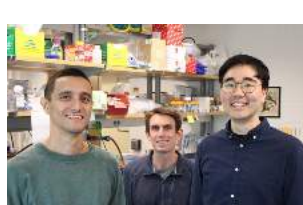
Boston University Chobanian & Avedisian School of Medicine



Dr. Dennis Jones *(pictured)*, Assistant Professor of Pathology & Laboratory Medicine, has received the National Cancer Institute's Cancer Moonshot Scholar Award. Jones was one of eleven researchers nationally who will collectively receive more than \$6 million in the first year of their research. The award was developed to help the White House Cancer Moonshot Initiative achieve the goal of inspiring and supporting world-class scientists from diverse background. [Read More](#)

MCB Researchers Awarded Prestigious NSF Fellowships

Harvard University Department of Molecular and Cellular Biology (MCB)



Postdoctoral researchers Drs. Jaime Martinez Grundman *(pictured, left)* and Colin Kim *(right)* from Dr. Ryan Nett's *(center)* lab have been awarded prestigious National Science Foundation (NSF) Postdoctoral Research Fellowships in Biology. These three-year fellowships recognize their innovative research in plant biochemistry and provide them with the resources to further their groundbreaking work. [Read More](#)

Awards & Recognitions: October 2024

Harvard Medical School



Harvard Medical School (HMS) has announced all of the honors received by HMS faculty, postdocs, staff, and students. Among the numerous winners for the month of October 2024 are Drs. Christophe Benoit *(pictured)* and Diane Mathis who received the 2024 William B. Coley Award for Distinguished Research in Basic and Tumor Immunology from the Cancer Research Institute. [Read More](#)

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Local News

Researchers Map Communities of Single Cells in Metastatic Breast Cancers

Broad Institute



A single biopsy from a metastatic breast cancer tumor contains hundreds of thousands of cells. A team of researchers including Dr. Nikhil Wagle *(pictured)* has shown that state-of-the-art methods that analyze cells individually or within intact tissue can reveal new insight into the diversity of cells that make up metastatic breast cancers. [Read More](#)

BU's Leading Home for Infectious Diseases Research to Get Major Upgrade with NIH Grant

The Brink



At Boston University's (BU) National Emerging Infectious Diseases Laboratories, researchers are searching for ways to fight back against pernicious pathogens and diseases. One of just two National Biocontainment Laboratories in the United States, it's just been given a \$7.5 million grant from the National Institutes of Health (NIH) to modernize its facilities and help broaden its impact. [Read More](#)

Breaking New Ground in Cerebral Cavernous Malformation Research

Boston Children's Hospital



Children with cavernous malformations face unique treatment challenges due to factors such as the malformation's location, size, risk of bleeding, and the complexities of pediatric tissue development. Dr. Ed Smith *(pictured, right)* and his team are developing comprehensive guidelines for managing these abnormal blood vessel clusters in the brain and spinal cord. [Read More](#)

"Wearable" Devices for Cells

MIT News



Wearable devices like smartwatches and fitness trackers interact with parts of our bodies to measure and learn from internal processes, such as our heart rate or sleep stages. Now, MIT researchers led by Dr. Deblina Sarkar *(pictured)* have developed wearable devices that may be able to perform similar functions for individual cells inside the body. [Read More](#)

Neuroscientists Create a Comprehensive Map of the Cerebral Cortex

MIT News



By analyzing brain scans taken as people watched movie clips, MIT researchers led by Dr. Reza Rajimehr *(pictured)* have created the most comprehensive map yet of the functions of the brain's cerebral cortex. Using functional magnetic resonance imaging data, the research team identified 24 networks with different functions, which include processing language, social interactions, visual features, and other types of sensory input. [Read More](#)

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Upcoming Events in Boston

- November 14 4:00 PM **Uncovering the Neural Circuit Mechanisms of Spontaneity**
Whitehead Institute for Biomedical Research
- November 14 6:00 PM **After Dark: Junk**
MIT Museum
- November 15 1:00 PM **McGovern Institute Special Seminar, Rachel Ryskin**
Building 46
- November 18 6:00 PM **P. J. E. Peebles at the Harvard Science Center**
Harvard Science Center
- November 19 1:00 PM **Biology of Endemic, Emerging, and Even Submerging Viruses**
Albert Sherman Center Auditorium



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Science Jobs in Boston

- Senior Scientist, Cell Biology**
Flagship Pioneering
- Principal Scientist, Molecular Biology**
Generation Bio
- Research Technician, Center for Patient Derived Models**
Dana-Farber Cancer Institute
- Research Senior Associate**
Takeda
- Part Time Lecturer, Cell & Gene Therapies Laboratory Course**
Northeastern University

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On-Demand Webinar:
Stem Cell-Based Models in Drug Discovery
With Dr. Bas Trietsch

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