

Publications of the Week

Autologous Neutralizing Antibodies Increase with Early Antiretroviral Therapy and Shape HIV Rebound after Treatment Interruption

First Author: Elmira Esmaeilzadeh | Senior Authors: Michael Seaman (*pictured*) and Jonathan Li
 Science Translational Medicine | Brigham and Women's Hospital, Harvard Medical School, Beth Israel Deaconess Medical Center, and Boston University



Early initiation of antiretroviral therapy (ART) alters viral rebound kinetics after analytic treatment interruption (ATI) and may play a role in promoting HIV-1 remission. The authors aimed to investigate the role of autologous neutralizing antibodies (aNAbs) in shaping post-ATI HIV-1 rebound variants. ANAb responses appeared to mature after early initiation of ART and applied selective pressure on rebounding viruses. [Abstract](#)

Abundant Aβ Fibrils in Ultracentrifugal Supernatants of Aqueous Extracts from Alzheimer's Disease Brains

First Author: Andrew Stern | Senior Author: Dennis Selkoe (*pictured*)
 Neuron | Harvard Medical School and Brigham and Women's Hospital



Soluble oligomers of amyloid β-protein (Aβ) have been defined as aggregates in supernatants following ultracentrifugation of aqueous extracts from Alzheimer's disease (AD) brains and are believed to be upstream initiators of synaptic dysfunction, but little is known about their structures. The authors report the unexpected presence of Aβ fibrils in synaptotoxic high-speed supernatants from AD brains extracted by soaking in an aqueous buffer. [Abstract](#)

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Local News

Study Reveals Differences in the Airway Response to Allergens Between People with Allergic Asthma and Those with Allergies but No Asthma

Massachusetts General Hospital



The strongest risk factor for developing asthma is the presence of allergies, but it's unclear why only some individuals with allergies go on to develop asthma. A team led by investigators at Massachusetts General Hospital has identified the key differences in the airway response to allergens between people with allergic asthma and people with allergies but no asthma. [Read More](#)

How One Lab Uses Machine Learning to Solve a Key Gene Therapy Problem

Broad Institute



When Dr. Ben Deverman (*pictured*) joined the Broad Institute in 2018, he was tackling a longstanding challenge in his research. Dr. Deverman had spent years at CalTech building a technology that could quickly screen large numbers of inactivated adeno-associated virus — viral vectors that don't cause disease but are engineered to deliver potentially life-changing gene therapies to specific cells in the body. [Read More](#)

New Institute to Address Cancer, Immune, Inflammatory Diseases

Harvard Medical School



Brigham and Women's Hospital announced the establishment of the Gene Lay Institute of Immunology and Inflammation of Brigham and Women's Hospital, Massachusetts General Hospital, and Harvard Medical School. The Institute's primary areas of research will include basic understanding of immune-mediated diseases, aging, and cancer, and translation of this knowledge to the development of new immunotherapies. Dr. Vijay Kuchroo (*pictured*) will serve as inaugural Director of the Institute. [Read More](#)

Bringing Stone Age Genomic Material Back to Life

The Harvard Gazette



For the first time, molecules dating to the Stone Age have been revived in the lab. This breakthrough was made possible only after scientists achieved another first — they successfully reconstructed the genomes of ancient microorganisms up to 100,000 years old, said Dr. Christina Warinner (*pictured*), Associate Professor of Anthropology at Harvard and a senior author on the new study. [Read More](#)

To Boost Cancer Immunotherapy's Fighting Power, Look to the Gut

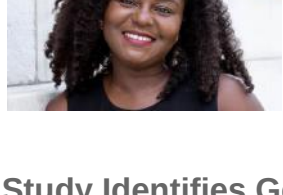
Harvard Medical School



Cancer immunotherapy has transformed the treatment of many types of cancer. Yet, for reasons that remain poorly understood, not all patients get the same benefit from these powerful therapies. One potent factor in treatment outcome appears to be an individual's gut microbiota — the trillions of microorganisms that live in the human intestine — according to new research led by investigators at Harvard Medical School and Dana-Farber Cancer Institute. [Read More](#)

New Clinical Tool for Clonal Hematopoiesis Identifies Patients at High Risk for Blood Cancer

Dana-Farber Cancer Institute



A new clinical tool developed by a team of researchers led by the Dana-Farber Cancer Institute pinpoints which clonal hematopoiesis patients are at highest risk for cancer progression. "We've been able to detect clonal hematopoiesis in patients for years now," said Dana-Farber hematologist-oncologist and lead author Dr. Lachelle Weeks (*pictured*). [Read More](#)

Study Identifies Genetic Mutations Contributing to Adult Epilepsy

Harvard Medical School



Epilepsy affects approximately 1 in 26 people and the most common form, known as temporal lobe epilepsy (TLE), often cannot be adequately treated with anti-seizure medications. A recent study sheds new light on the role of somatic mutations — DNA alterations that occur after conception — in TLE and suggests the potential of using existing cancer therapies to treat TLE that is resistant to anti-seizure medications. [Read More](#)

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Upcoming Events in Boston

- June 5
8:30 AM

Accelerate Access to EU Market: Biotech Valley in Wallonia (Belgium)
 Tufts Launchpad BioLabs
- June 6
6:30 PM

Community Concert at BIO
 Big Night Live
- June 13
7:00 PM

Public Symposium: Stem Cells at the Planetarium
 Museum of Science
- June 14-17
9:00 AM

ISSCR 2023
 Boston Convention and Exhibition Center
- June 20-23
8:00 AM

FOCIS 2023
 Boston Marriott Copley Place

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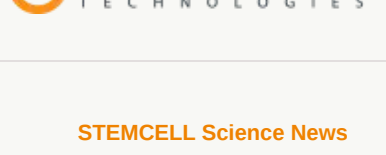
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