

Publications of the Week

DNA Origami Vaccines Program Antigen-Focused Germinal Centers

First Author: Anna Romanov (*pictured*) | Senior Author: Darrell Irvine
Science | Koch Institute, Ragon Institute, Broad Institute, Massachusetts General Hospital, Harvard University, and MIT



Generating broadly neutralizing antibodies is a key aim of HIV vaccine design. Researchers found that priming of robust germinal center responses in mice required that DNA-VLPs display antigen at a high density on the particle surface, which promoted activation of complement and led the particles to be captured in B cell follicles after immunization. [Abstract](#) | [Press Release](#)

A Highly Resolved Integrated Single-Cell Atlas of Human Breast Cancers

First Author: Andrew Chen | Senior Author: Stefano Monti (*pictured*)
NAR Genomics and Bioinformatics | Boston University



In this study, researchers developed an integrated single-cell transcriptomic (scRNAseq) atlas of human breast cancer, the largest resource of its kind, totaling >600 000 cells across 138 patients. Rigorous integration and annotation of publicly available scRNAseq data enabled a highly resolved characterization of epithelial, immune, and stromal heterogeneity within the tumor microenvironment.

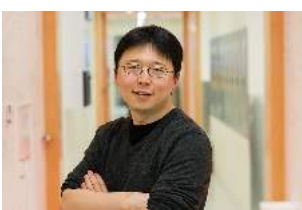
[Abstract](#) | [Press Release](#)

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Awards

Dr. Feng Zhang Inducted into National Inventors Hall of Fame

Broad Institute



Broad Institute's Dr. Feng Zhang (*pictured*), along with 15 other innovators, will be inducted into the National Inventors Hall of Fame. Dr. Zhang is recognized by the organization for "inventing transformative technologies to improve human health, including pioneering the use of engineered CRISPR-Cas9 systems for genome editing in human cells and harnessing CRISPR-Cas12 and Cas13 systems.

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Three Dana-Farber Cancer Institute Scientific Leaders Elected as Fellows of the American Association for Cancer Research Academy Class of 2026

Dana-Farber Cancer Institute



Drs. Alice Shaw (*pictured*), Kimberly Stegmaier, and Matthew Vander Heiden have been elected as Fellows of the American Association for Cancer Research (AACR) Academy Class of 2026. The Fellows of the AACR Academy have propelled major breakthroughs in cancer biology, prevention, diagnosis, and treatment, and together form a global community of thought leaders who are advancing the AACR's mission to prevent and cure all cancers. [Read More](#)

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Local News

Will Record-High Cancer Survival Rates Continue?

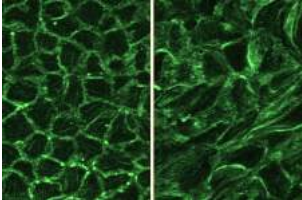
The Brink



Medicine started the new year with an encouraging first-ever milestone: 70% of all cancer patients now remain alive five years post diagnosis, according to a new American Cancer Society report. *The Brink* asked Dr. Julie Palmer (*pictured*), a Boston University School of Public Health Professor of Epidemiology, what explains the good news—and whether the advances will continue. [Read More](#)

How Airway ‘Squeezing’ During Asthma Attacks Triggers a Cycle of Worsening Disease

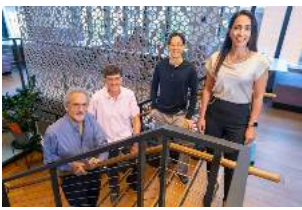
Harvard T.H. Chan School of Public Health



During asthma flare-ups, a major symptom people experience is bronchoconstriction. New research from Harvard T.H. Chan School of Public Health has shown that this mechanical “squeezing” of the airway can trigger responses in the epithelial cells that make bronchoconstriction worsen and persist, creating a self-reinforcing cycle that may contribute to asthma progression. [Read More](#)

Transforming Cancer Treatments Through Bioinspired Engineering and Translation

Wyss Institute



Despite major advances in personalized medicine, targeted drugs, and immunotherapies, many cancers remain difficult or impossible to treat. Wyss Institute researchers are tackling these challenges head-on by developing new therapies that more powerfully activate the immune system, sharpen the precision of existing treatments, and make side effects more predictable and manageable.

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Researchers Identify Previously Unrecognized Genetic Variants, Patterns Associated with Hypermobile Ehlers–Danlos Syndrome

Boston University Chobanian & Avedisian School of Medicine



Hypermobile Ehlers–Danlos syndrome (hEDS) is one of the most common heritable connective tissue disorders. Using for the first time machine learning with rigorous subject-level statistical analysis, researchers led by Dr. Michael Holick (*pictured*) believe that hEDS is not a single-gene disorder, but rather involves a combination of genetic variations affecting three key biological systems.

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Stopping Nipah Before It Spreads

Tufts Now



To help explain what's known about the Nipah virus outbreak and what it means for global health, Drs. Felicia Nutter (*pictured*) and Jonathon Gass shared their insights. Nutter and Gass both have worked extensively with and in high-risk countries to study and help address the risks posed by Nipah and other dangerous viruses. [Read More](#)

Clinical Trial Explores Whether a Genetic Test Can Improve Early Detection of Prostate Cancer

Broad Institute



A genetic test developed by researchers at Broad Clinical Labs and the U.S. Department of Veterans Affairs is now enabling a large, nationwide clinical trial aimed at improving health care for men at increased risk of developing prostate cancer. “Prostate cancer is a huge concern and major health burden for VA’s patient population, so it’s an ideal place to conduct this research,” said study senior author Dr. Jason Vassy (*pictured*). [Read More](#)

Tooling up To Diagnose Ocean Health

Wyss Institute



To address the urgent need for advanced ocean health monitoring, Drs. James Collins and Peter Nguyen (*pictured*) at the Wyss Institute have developed an inexpensive, laboratory-free approach to be used by many to rapidly quantify marine species and their physiological states on-site. The CRISPR-based biosensing platform has the potential to be advanced to enable the prediction of outbreaks in marine communities. [Read More](#)

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📅 Upcoming Events in Boston

February 19 7:00 PM	Ending HIV: The Journey to a Vaccine Museum of Science
February 25 8:30 AM	Better Together: A Pharma & Biotech EHS Forum Museum of Science
February 25 1:30 PM	11th Annual Rare Disease Day Event Broad Institute
February 26 7:00 PM	The Collective Cure: Upstream Solutions for Better Public Health Museum of Science
February 28 1:00 PM	SpaceTime TeaTime MIT Museum

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📁 Science Jobs in Boston

Research Associate I Tufts Medicine
Technical Associate I, Hansen Lab MIT
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MEDscience Teacher Harvard Medical School
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