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Publications of the Week

Previremic Identification of Ebola or Marburg Virus Infection Using Integrated Host-Transcriptome and Viral Genome Detection

First Author: Emily Speranza | Senior Author: John Connor *(pictured)*
mBio | Boston University and the National Infectious Diseases Laboratories

Molecular diagnostics for filoviruses that rely on the detection of viral RNA in the blood are only effective after significant disease progression. As an approach to identify these infections earlier in the disease course, the authors tested the effectiveness of viral RNA detection combined with an assessment of sentinel host mRNAs that are upregulated following filovirus infection. Abstract

Keap1 Mutation Renders Lung Adenocarcinomas Dependent on *Slc33a1*

First Author: Rodrigo Romero | Senior Author: Tyler Jacks *(pictured)*
Nature Cancer | Koch Institute for Integrative Cancer Research and MIT

Approximately 20–30% of human lung adenocarcinomas harbor mutations in Kelch-like ECH-associated protein 1 (*KEAP1*) that hyperactivate the nuclear factor, erythroid 2-like 2 (*NFE2L2*) antioxidant program. The authors performed a druggable genome CRISPR screen and uncovered a *Keap1*-mutant-specific dependency on solute carrier family 33 member 1 (*Slc33a1*), as well as several functionally related genes associated with the unfolded protein response. Abstract

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Awards

Harvard Business School Introduces 2020-2021 Blavatnik Fellows in Life Science Entrepreneurship

Harvard Business School

Harvard Business School (HBS) has named its 2020-21 Blavatnik Fellowship in Life Science Entrepreneurship. The Fellowship was established to support HBS alumni and Harvard-affiliated postdocs in their new ventures around promising life science technologies while developing their leadership talents and providing mentorship during their entrepreneurial journey. Sophie Bai *(pictured)* is one of this year's recipients. Read More

Pew Funds 22 Researchers to Pursue Scientific Breakthroughs

The Pew Charitable Trusts

Dr. Lauren Orefice *(pictured)* from Massachusetts General Hospital is one of the 22 early-career researchers that have been selected to join the Pew Scholars Program in the Biomedical Sciences. These talented scientists will receive four years of funding to invest in foundational research to pursue scientific breakthroughs and advance human health. Read More

Katherine Fitzgerald and Anastasia Khvorova Named Harrington Scholars

UMass Medical School

The Harrington Discovery Institute, in collaboration with Morgan Stanley GIFT Cures, has chosen two UMass Medical School faculty members to receive Harrington Scholar Awards for Coronavirus. Drs. Katherine Fitzgerald and Anastasia Khvorova *(pictured)* are among the 12 COVID-19 Rapid Response Initiative award winners, selected from among hundreds of applications submitted by physicians and scientists at 122 universities and health systems across the U.S., Canada and the United Kingdom. Read More

Dana-Farber Scientist Awarded SITC-Bristol-Myers Squibb Postdoctoral Cancer Immunotherapy Translational Fellowship

Society for Immunotherapy of Cancer

Dr. Li Qiang *(pictured)* from Dana-Farber has received one of six fellowships from the Society for Immunotherapy of Cancer (SITC), which support the next generation of cancer immunotherapy and tumor immunology experts through dedicated funding of impactful research. Her project is titled: "Signaling pathways in tumoricidal macrophages in pancreatic cancer". Read More

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Local News

New Technique May Quickly and Accurately Predict Effective Therapies in Solid Tumors

Dana-Farber

A new method of screening thousands of drugs in freshly collected human tumor cells can help identify which of the drugs are most likely to be effective against those cancers. The study's lead author, Dr. Patrick Bhola *(pictured)* from Dana-Farber, says that because the technique uses tumor cells that less than a day earlier were in patients' bodies, it may well prove more accurate than traditional drug-screening approaches. Read More

Magenta, Beam Partner to Explore Use of Antibody-Based Conditioning Drug for Gene Therapies

MedCity News

Cambridge-based Magenta Therapeutics and Beam Therapeutics have signed a non-exclusive research and collaboration agreement centered on one of Magenta's pre-clinical assets as a conditioning therapy in patients with beta-thalassemia and sickle cell disease, the antibody-drug conjugate MGTA-117. Beam is developing gene-editing therapies that can edit DNA at the single-letter level. Read More

"Lean Lab" Approach Enables Quick Research Ramp Down

MIT News

When MIT announced in March that most research labs on campus would need to ramp down to help prevent the spread of Covid-19, Canan Dagdeviren's lab was ready. For the past two years, Dagdeviren and her lab manager, David Sadat, have run the Conformable Decoders Group using "lean lab" management principles, working closely with MIT's Environment, Health and Safety Office. As a result, it took the lab just 15 minutes to close down operations on March 13. Read More

Drug with New Approach on Impeding DNA Repair Shows Promise in First Clinical Trial

Dana-Farber via NewsWise

In its first randomized clinical trial by investigators at Dana-Farber, a drug that targets a protein needed by cancer cells to maintain their dogged growth and division has shown considerable promise in combination with chemotherapy in patients with a common form of ovarian cancer. Patients with high-grade serous ovarian cancer who were treated with the drug and chemotherapy lived substantially longer before their disease began to worsen than did those treated with chemotherapy alone. Read More

Cholesterol-Busting Gut Bacteria May Affect People's Cardiac Health

Broad Institute

Of the thousands of species of bacteria that live in the digestive tract, scientists know how only a handful of them directly influence human health. Now, researchers at the Broad Institute and Harvard University have discovered a group of gut bacteria that can metabolize enough cholesterol to potentially affect people's metabolism. Read More

Study Identifies Mechanism Affecting X Chromosome that Could Lead to Novel Therapies for Rare and Common Diseases

Massachusetts General Hospital

Researchers at Massachusetts General Hospital have identified a key mechanism in X chromosome inactivation, a phenomenon that may hold clues that lead to treatments for certain congenital diseases known as X-linked disorders, which are caused by mutations in genes on the X chromosome. Their findings may also aid in the creation of novel medicines for certain cancers. Read More

Moderna's Expedited COVID-19 Vaccine Trial to Test 30,000

Boston Business Journal

Moderna Inc. has unveiled large-scale, expedited plans to begin the final stage of testing on its COVID-19 vaccine. Cambridge-based Moderna plans to enroll 30,000 people in the U.S. in the Phase 3 test of its COVID-19 vaccine, according to a press release. The company also plans to begin testing in July — months sooner than the fall 2020 timeframe it had previously laid out. Read More

Genomic Test Accurately Identifies Patients with Smoldering Multiple Myeloma at High Risk of Developing Myeloma, Study Finds

Dana-Farber

A study led by Dana-Farber researchers has shown that a genomic test of bone marrow tissue can determine whether people with a common precursor of multiple myeloma have a high risk of developing the full-blown form of the disease. Individuals found to be at an increased risk could benefit from close monitoring of their condition or from clinical trials of therapies intended to halt the progression toward myeloma. Read More

MIT, Guided by Open Access Principles, Ends Elsevier Negotiations

MIT News

Standing by its commitment to provide equitable and open access to scholarship, MIT has ended negotiations with Elsevier for a new journals contract. Elsevier was not able to present a proposal that aligned with the principles of the MIT Framework for Publisher Contracts. MIT has long been a leader in open access. Adopted in 2009, the MIT Faculty Open Access Policy was one of the first and most far-reaching initiatives of its kind in the United States. Read More

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Upcoming Events in Boston

June 23-27 8:00 AM	**ISSCR 2020 Virtual Annual Meeting** Online	
June 23 1:30 PM	**Innovation and Biotech in the Time of COVID-19: Tech Transfer** Online	
June 24 1:00 PM	**STAT Webinar: Targeted Cancer Drugs: What's on the Market? What's in the Pipeline?** Online	
June 25 12:30 PM	**How to Choose the Right Next Lab or Workplace** Online	
June 29 10:00 AM	**How Open Sharing Speeds Science** Online	

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Other Science Jobs in Boston

Group Leader: Cancer Biology, Translational Pharmacology
Broad Institute

Scientist, Immunology (Human *Ex Vivo*/*In Vitro*)
Dragonfly Therapeutics

Scientist I, Research Analytics/Sample Management
Editas Medicine

BS/MS Cellular and Molecular Biology Scientist, Oncology
Novartis

Lab Manager, Discovery Group
Cambridge, MA

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Submit your articles and events by reaching out to us at info@scienceinboston.com.