



Publications of the Week

Continuous Evolution of Compact Protein Degradation Tags Regulated by Selective Molecular Glues

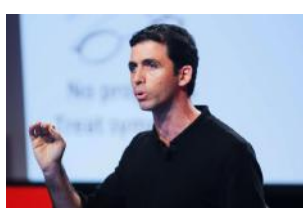
First Authors: Jaron Mercer, Stephan DeCarlo, and Shourya Roy Burman | Senior Authors: Amit Choudhary, Eric Fischer, and David Liu (*pictured*)
 Science | Broad Institute, Harvard University, Dana-Farber Cancer Institute, MIT, and Brigham and Women's Hospital



Conditional protein degradation tags (degrons) are usually >100 amino acids long or are triggered by small molecules with substantial off-target effects, thwarting their use as specific modulators of endogenous protein levels. Here, researchers developed an evolution platform for molecular glue complexes and evolved a 36-amino acid zinc finger degron that binds the ubiquitin ligase substrate receptor cereblon. [Abstract](#) | [Press Release](#)

Single-Cell Dissection of the Human Motor and Prefrontal Cortices in ALS and FTLN

First Author: Sebastian Pineda | Senior Authors: Veronique Belzil and Manolis Kellis (*pictured*)
 Cell | Picower Institute, Broad Institute, and MIT



Amotrophic lateral sclerosis (ALS) and frontotemporal lobar degeneration (FTLD) share many clinical, pathological, and genetic features. Here, researchers report a high-resolution, comparative single-cell molecular atlas of the human primary motor and dorsolateral prefrontal cortices and their transcriptional alterations in sporadic and familial ALS and FTLD. [Abstract](#) | [Press Release](#)

Human Lung Cancer Harbors Spatially Organized Stem-Immunity Hubs Associated with Response to Immunotherapy

First Authors: Jonathan Chen, Linda Nieman, and Maxwell Spurrell | Senior Authors: Justin Gainor, Ilya Korsunsky, and Nir Hacohen (*pictured*)
 Nature Immunology | Massachusetts General Hospital Cancer Center, Harvard University, Broad Institute, Brigham and Women's Hospital, and the Koch Institute



Immunogenic tumors harbor spatially localized multicellular 'immunity hubs' defined by expression of the T cell-attracting chemokines *CXCL10/CXCL11* and abundant T cells. Here, researchers examined immunity hubs in human pre-immunotherapy lung cancer specimens and found an association with beneficial response to PD-1 blockade. [Abstract](#) | [Press Release](#)

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Awards

Dr. Ryan Logan Receives Inaugural NIH HEAL Initiative Director's Trailblazer Award

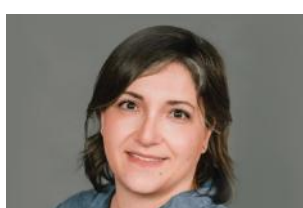
UMass Chan Medical School



Dr. Ryan Logan (*pictured*), Professor of Psychiatry, received the inaugural Helping to End Addiction Long-Term (HEAL) Initiative Director's Trailblazer Award from the National Institutes of Health (NIH). Dr. Logan's HEAL-funded project focuses on specific cell types in the brain involved in opioid use disorder, opioid dependence, and withdrawal. [Read More](#)

Dana-Farber Researcher Dr. Nicoletta Cieri Awarded Amy Strelzer Manasevit Research Program Grant

Dana-Farber Cancer Institute



The National Marrow Donor Program awarded Dr. Nicoletta Cieri (*pictured*) its Amy Strelzer Manasevit Research Program grant. Dr. Cieri is one of only two researchers to receive this award, which is one of the largest and most coveted grants in the transplant and cellular therapy field. The grant will help her evaluate a large dataset of patients who have undergone allogeneic hematopoietic cell transplantation. [Read More](#)

Dr. Dennis Jones Awarded Department of Defense Grant to Better Understand, Treat Lymphedema

Boston University Chobanian & Avedisian School of Medicine



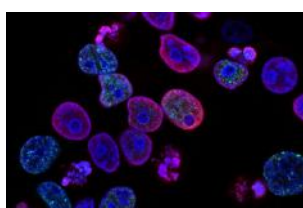
Dr. Dennis Jones (*pictured*), Assistant Professor of Pathology & Laboratory Medicine, has been awarded a two-year, \$330,000 grant from the Department of Defense. As part of this discovery grant, Dr. Jones will conduct experiments to investigate lymphedema and better understand how skin and soft tissue infections cause lymphatic vessel dysfunction. [Read More](#)

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Local News

A Better Way to Screen for Lung Cancer

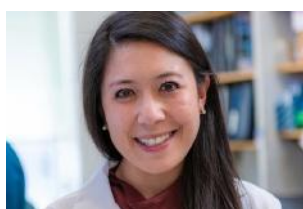
Tufts Now



Even though cigarette smoking is on the decline, more people in the U.S. die of lung cancer each year than of colon, breast, and prostate cancers combined. Professor Dominique Michaud at Tufts University School of Medicine and colleagues at collaborating institutions hope to change that by devising a way to detect lung cancers earlier and more accurately. [Read More](#)

Combination of Immunotherapy and Anti-Angiogenesis Drug Shows Potential in Form of Endometrial Cancer in Trial

Dana-Farber Cancer Institute



A combination of two drugs used to treat a form of kidney cancer has shown promise in a clinical trial involving patients with a hard-to-treat type of endometrial cancer. In the trial led by Dr. Elizabeth Lee (*pictured*), investigators administered the combination therapy to 35 patients. Of the 35 evaluable patients, 14 achieved a response – a decrease in the extent of their cancer – including two patients with a complete response to the therapy. [Read More](#)

Researchers Roll Out a More Accurate Way to Estimate Genetic Risks of Disease

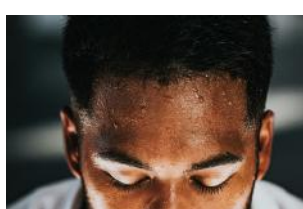
Broad Institute



Statistical tools called polygenic risk scores (PRSs) can estimate individuals' risk for certain diseases with strong genetic components, such as heart disease or diabetes. However, the data on which PRSs are built is often limited in diversity and scope. Research led by Dr. Pradeep Natarajan (*pictured*) has developed a new scoring approach that uses a comprehensive method to generate more accurate and informative PRSs. [Read More](#)

A Protein Found in Human Sweat May Protect Against Lyme Disease

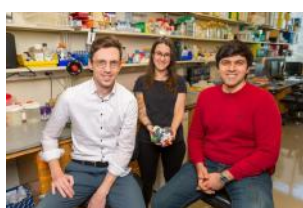
MIT News



Lyme disease, a bacterial infection transmitted by ticks, affects nearly half a million people in the U.S. every year. In most cases, antibiotics effectively clear the infection, but for some patients, symptoms linger for months or years. Researchers at MIT have now discovered that human sweat contains a protein that can protect against Lyme disease. [Read More](#)

Cracking the Code to Precise and Efficient Gene Editing with HarborSite

Wyss Institute



Drs. Tina Lebar (*pictured, middle*) and Erik Aznauryan (*right*) are developing a next-generation gene therapy platform with commercialization expertise from Wyss Business Development Manager Bill Bedell (*left*). The platform HarborSite is a genome editing technology that allows for precise insertion of large DNA sequences into specific spots in the genome for safe, lifelong expression of therapeutic genes. [Read More](#)

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📅 Upcoming Events in Boston

March 28 6:00 PM	NOVA Science Trivia Night Boston Public Library
April 3 12:00 PM	Careers in Biotech at Intellia Therapeutics Intellia Therapeutics
April 4 4:00 PM	TEDxEndicott College Judge Science Center, Endicott College
April 4 5:30 PM	Navigating the Academic Journey: Empowering Postdocs on the Path to Tenure Track Success 3 Blackfan St
April 7 9:30 AM	Annual MIT Microbiome Symposium 2023 MIT Media Lab

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📁 Science Jobs in Boston

- Scientist, Biology**
Relay Therapeutics
- In Vitro Scientist, Obesity Research**
Lilly
- Scientist II, Drug Product Development**
Takeda
- Scientist, Cell Culture**
Cytiva
- Research Scientist**
Harvard University

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