SCIENCE in BOSTON

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Publications of the Week

Single-Cell and Spatial Transcriptomics of Stricturing Crohn's Disease Highlights a Fibrosis-Associated Network

First Author: Lingjia Kong | Senior Author: Christopher Smillie and Ramnik Xavier *(pictured)*
Nature Genetics | Broad Institute, Massachusetts General Hospital, Harvard Medical School, and Brigham and Women's Hospital

Fibrosis is a major complication of Crohn's disease (CD) marked by excess deposition of extracellular matrix, leading to stricturing and functional impairment. As mechanistic characterization and therapeutic options are lacking, researchers paired single-cell and spatial transcriptomics in 61 samples from twenty-one patients with CD and ten patients without inflammatory bowel disease.
Abstract | Press Release

Neoadjuvant PD-1 and PD-L1 Blockade With Chemotherapy for Borderline Resectable and Unresectable Stage III Non–Small Cell Lung Cancer

First Author: Biagio Ricciuti *(pictured)* | Senior Author: Federico Cappuzzo
JAMA Oncology | Dana-Farber Cancer Institute, Harvard Medical School, and Brigham and Women's Hospital

Patients with borderline resectable or unresectable stage III non–small cell lung cancer (NSCLC) with T4 and/or N2-N3 involvement face limited treatment options and poor outcomes. In this study, neoadjuvant PD-1/PD-L1 blockade combined with chemotherapy was associated with high resectability and pathological responses, offering a promising approach for selected patients with advanced stage III NSCLC. **Abstract | Press Release**

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Awards

Wong Lab Postdoc Awarded Jane Coffin Childs Fellowship

Ragon Institute

Dr. Tomer Milo *(pictured)*, a postdoctoral fellow in the Wong Lab at the Ragon Institute, has received the esteemed Jane Coffin Childs Fellowship. The fellowship supports promising early-career scientists conducting innovative biomedical research. Dr. Milo is recognized for his talent in simplifying and understanding complex biological systems. **Read More**

Claflin Distinguished Honor Awards Help Mass General Researchers at a Crucial Juncture of Career and Family

Bench Press

Mass General has announced eight new Claflin Distinguished Scholars. Each recipient is provided with $60K per year for two years that they can use to help sustain their clinical and research careers. This year's cohort includes Drs. Sara Barmettler, Kendra Becker, Elisabetta Morini, Nina Gold, Melissa Rengarajan, Bin Song, Melissa Walker, and Maria Clavijo Jordan *(pictured)*. **Read More**

Dr. Megan Orzalli Awarded Competitive Biomedical Science Research Grant

UMass Chan Medical School

Dr. Megan Orzalli *(pictured)*, Assistant Professor of Medicine at UMass Chan Medical School, is one of eight recipients of the 2025 Investigators in the Pathogenesis of Infectious Disease (PATH) award. The grant, which supports independent research at the critical early stages of investigators' careers, will support Dr. Orzalli's research on the skin's immune system and its defense against viral infections. **Read More**

Dr. Jingyan Han Awarded American Heart Association Transformational Project Award

Boston University Chobanian & Avedisian School of Medicine

Dr. Jingyan Han *(pictured)*, Associate Professor of Medicine at Boston University Chobanian & Avedisian School of Medicine, has received a three-year, $300,000 American Heart Association Transformational Project Award. The award will enable her to use 3D printing to create and study artificial blood vessels to improve the understanding of vascular biology. **Read More**

PhD Candidate Bradley Class Receives NIH Grant to Study Louis-Bar Syndrome

UMass Chan Medical School

PhD candidate Bradley Class *(pictured)* has been awarded a Ruth L. Kirschstein National Research Service Award Individual Predoctoral Fellowship. This fellowship will further his research into the correlation between neuron mutations and ataxia-telangiectasia, a rare disease characterized by impaired motor function, dilated blood vessels, and a weakened immune system.
Read More

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Local News

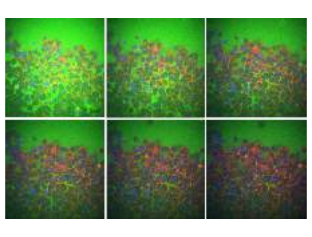
Q&A: One Scientist's Bold Vision to Make On-Demand Treatments Routine for Life-Threatening Rare Genetic Diseases

Broad Institute

In May 2025, researchers announced that K.J. Muldoon, a baby boy born without the ability to process dietary protein properly, had become the first person to be treated with a customized gene editing therapy. Based on a technology developed by Broad Institute core member Dr. David Liu's *(pictured)* laboratory, the treatment is the first in a series of new medicines being tested to treat rare diseases by repairing patients' particular genetic misspellings. **Read More**

MIT Engineers Uncover a Surprising Reason Why Tissues Are Flexible or Rigid

MIT News



MIT engineers have found that intercellular fluid plays a major role in how tissues respond when squeezed, pressed, or physically deformed. Their findings could help scientists understand how cells, tissues, and organs physically adapt to conditions such as aging, cancer, diabetes, and certain neuromuscular diseases. The findings appeared in *Nature Physics*. **Read More**

Meet Whitehead Institute Alumni

Whitehead Institute

The Whitehead Institute is committed to training the next generation of scientists to be innovative, curious, courageous thinkers. Six Whitehead Institute alumni who were originally featured in the "Meet a Whitehead postdoc series" have returned for a new Q&A to reflect on how their time at the Whitehead Institute informed their careers and share updates on where they are now. **Read More**

New Research Sheds Light on the Genetic Roots of Amblyopia

Boston Children's Hospital

For decades, amblyopia has been considered a disorder primarily caused by abnormal visual experiences early in life. But new research from Dr. Mary Whitman *(pictured)* and her colleagues suggests the story is more complicated. "There may be underlying neurodevelopmental differences in children with amblyopia that affect how their brain reacts to the differences in their eyes," says Dr. Whitman.
Read More

Accelerating Scientific Discovery With AI

MIT News

The philanthropically funded research lab FutureHouse is seeking to accelerate scientific research with an AI platform designed to automate many of the critical steps on the path toward scientific progress. The platform is made up of a series of AI agents specialized for tasks including information retrieval, information synthesis, chemical synthesis design, and data analysis. **Read More**

Studying Stasis to Learn About Aging

Whitehead Institute

Closely related species can have wildly different lifespans—but why is that so? One strange but well-established fact is that animals that enter states of dormancy, such as daily torpor or hibernation, live much longer compared to closely related species. Curious to know how these animals might be pressing pause on aging, Dr. Siniša Hrvatin's *(pictured)* lab has developed a way to induce a state of stasis in animals that don't normally experience periods of dormancy. **Read More**

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Upcoming Events in Boston

July 10 6:00 PM	**After Dark: Tangible** MIT Museum
August 5 4:30 PM	**Fundraising Amid the Turmoil: Resilient Strategies for Health Innovators** Greenberg Traurig, LLP
August 14 6:00 PM	**After Dark: AI & Discovery** MIT Museum
August 18 - 21 8:00 AM	**The Bioprocessing Summit 2025** Omni Hotel Boston at the Seaport
September 18 9:00 AM	**The 2025 Aging Brain Initiative Symposium: The Neuro-Immune Axis and the Aging Brain** Singleton Auditorium

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Science Jobs in Boston

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Flagship Pioneering

Postdoc Fellow
Beth Israel Deaconess Medical Center

Scientist I, Beltran Lab
Dana-Farber Cancer Institute

Senior Principal Scientist, Discovery Biotherapeutics, Selection Technologies
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