

Publications of the Week

Ceramide Synthesis Mediates Colorectal Cancer Metastasis Through a YAP-Driven Regenerative Program

First Authors: Swagata Goswami (*pictured*), Qiming Zhang, and Abdullah Burak Yildiz | Senior Author: Ömer H. Yilmaz Science | Massachusetts General Hospital, Ragon Institute, Beth Israel Deaconess Medical Center, Koch Institute, Dana-Farber Cancer Institute, Harvard University, Broad Institute, and MIT



This study establishes tumor-intrinsic ceramide biosynthesis, amplified by dietary fat, as a metabolic switch that activates yes-associated protein (YAP) and engages a regenerative transcriptional program to drive colorectal cancer liver metastasis. Researchers position sphingolipid metabolism as a key regulator of regenerative plasticity during metastatic initiation. [Abstract](#) | [Press Release](#)

The Molecular Landscape of Hypertrophic Cardiomyopathy Across Disease Stages and Genotypes

First Authors: Eleonora Adami and Yuri Kim | Senior Authors: Norbert Norbert Hübner and Christine Seidman (*pictured*) Science Translational Medicine | Brigham and Women's Hospital and Harvard Medical School



Hypertrophic cardiomyopathy (HCM) is marked by asymmetric cardiac wall thickening, hypercontractility, diastolic dysfunction, and fibrosis. To investigate stage- and genotype-specific disease mechanisms, researchers performed single-nucleus RNA sequencing of cardiac tissues from 47 patients with HCM. Their findings uncover multicellular, genotype-associated remodeling programs in HCM. [Abstract](#) | [Press Release](#)

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Awards

Allen Institute Announces 2026 Next Generation Leaders

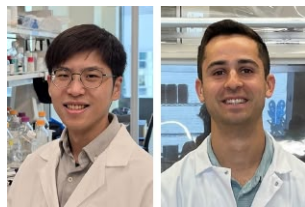
Allen Institute



The Allen Institute's 2026 Next Generation Leaders (NGL) cohort features eight talented researchers exploring the frontiers of bioscience and pursuing insights into biology with the potential to advance human health. Among this year's winners is Dr. Eric Sun (*pictured*) from MIT. The NGL program began in 2014 and highlights the vital contributions of early-career researchers to the field of science. [Read More](#)

Meet the 2026 CMIT Rasmussen Fellows Q&A with Thomas Cheng and Daniel Sellers

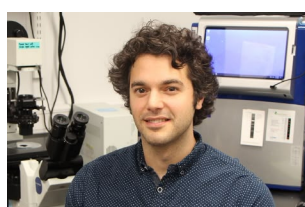
The Center for Microbiome Informatics & Therapeutics (CMIT)



The Rasmussen Fellowships were established by Neil and Anna Rasmussen in 2023 to support microbiome research and training at MIT. Each year, two graduate students are awarded a Rasmussen Fellowship. This year's awardees are Nok Hin "Thomas" Cheng (*pictured, left*) and Daniel Sellers (*right*). They are studying inflammatory bowel disease and the gut microbiome, respectively. [Read More](#)

Dr. Nick Bellono Named 2026 Schmidt Sciences Polymath

Harvard University Department of Molecular and Cellular Biology



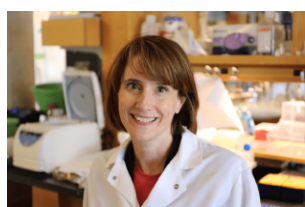
Dr. Nicholas Bellono (*pictured*) has been named a 2026 Schmidt Sciences Polymath, receiving up to \$2.5 million over five years to pursue an ambitious new research direction exploring the molecular basis of symbiosis. Dr. Bellono is one of eight researchers selected for the sixth cohort of the Schmidt Sciences Polymath Program, which is committing up to \$20 million to support scientists. [Read More](#)

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Local News

Sokol Lab Study Finds Sensory Neurons "Remember" Allergens, Explain Why Allergies Build Over Time

Ragon Institute



Many people who develop an allergy to a new dog, a dusty apartment, or seasonal pollen notice it only after weeks or months of exposure. A new study from the lab of Dr. Caroline Sokol (*pictured*) offers one explanation: the nerve cells that sense itch can keep a record of past allergen exposures and respond more strongly the next time. The researchers call the process "neuroimmune training." [Read More](#)

Breakthrough Study Finds Possible Causes of Cardiac Fibrosis in HLHS

Boston Children's Hospital



Many children who have hypoplastic left heart syndrome (HLHS) also develop a condition in which the inner lining of their left ventricle thickens and further disrupts heart function. New research led by Drs. Yang Yu (*pictured, left*) and Lili Zhang (*right*) has uncovered possible causes of the condition. They discovered that endothelial cells, the cells that line the inner surface of blood vessels, are profoundly altered by the condition. [Read More](#)

New Cell-Collection Device Could Improve Early Cancer Detection

MIT News



About 20 years ago, researchers studying ovarian cancer discovered that many cases of high-grade serous ovarian cancer originate in the fallopian tubes. Detecting the disease there remains challenging, but researchers in Dr. Kripa Varanasi's (*pictured*) lab have developed a handheld device capable of gently collecting living cells from specific locations to test for ovarian and many other types of cancer. [Read More](#)

Breaking and Entering: How Parasites Prepare Host Cells for Invasion

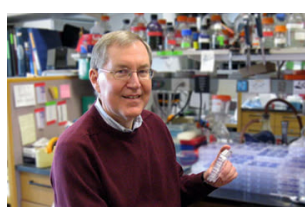
Whitehead Institute



New research reveals that the parasite *Toxoplasma gondii* doesn't simply recognize a ready-made doorway into a cell. Instead, it helps create the conditions for its own entry. Dr. Sebastian Lourido's (*pictured*) lab has discovered that *Toxoplasma* reorganizes sugar-coated proteins on the surface of a host cell and creates specialized membrane patches that trigger the parasite's invasion machinery. [Read More](#)

New Mechanism of Antiviral Immunity Discovered

Harvard Medical School



Dr. David Knipe (*pictured*) and collaborators have figured out a missing piece of the puzzle of how human cells detect invading viruses and mount an immune response within an hour. This new insight into the mechanics of the battle between viruses and hosts could provide important clues for improving vaccines, gene therapies, and other treatments that use viruses to deliver medicines or fight disease themselves. [Read More](#)

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Upcoming Events in Boston

October 6-7 9:00 AM	FASI 10: Catalyst for a Cure - The Food Allergy Science Innovation Summit Broad Institute
October 13 6:00 PM	An Ocean (Re)Introduction MIT Museum
October 18-21 8:00 AM	The Medtech Conference 2026 Boston Convention and Exhibition Center
November 4 9:00 AM	Comparative Neuroscience: Lessons from Biodiversity Singleton Auditorium
November 19-20 8:00 AM	Pharma Partnering US Summit Hilton Boston Logan Airport

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Science Jobs in Boston

Associate, QC Analytical, Cell Therapy Bristol Myers Squibb
Manufacturing Associate I Moderna
Research Technician II, Anatomy & Neurobiology Boston University
Research Assistant I Boston Children's Hospital
Research Associate Beth Israel Deaconess Medical Center

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[An interview about AI uses in scientific research with César de la Fuente of the University of Pennsylvania.](#)

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