

Publications of the Week

Phase I Study of Anito-cel, a d-Domain BCMA CAR T Cell for Refractory or Recurrent Myeloma

First Author: Matthew Frigault (*pictured*) | Senior Author: Michael Bishop
The New England Journal of Medicine | Beth Israel Deaconess Medical Center, Mass General Brigham Cancer Institute, and Harvard Medical School



In a Phase I study, researchers evaluated the safety and efficacy of anito-cel in patients with relapsed or refractory multiple myeloma who had received three or more lines of therapy previously or had triple-class refractory disease. Anito-cel therapy led to a high incidence of response among patients. Cytokine release syndrome and severe immune effector cell–associated neurotoxicity syndrome were rare. [Abstract](#) | [Press Release](#)

Autonomous Lipid Nanoparticle Engineering

First Author: Peter Sagmeister | Senior Author: Allan Myerson
ACS Nano | MIT



Lipid nanoparticles (LNPs) are the leading vehicles for encapsulating and delivering nucleic acid therapeutics. Yet, their process development remains labor-intensive. Researchers present an autonomous, pilot-scale platform for accelerating LNP process development by identifying critical process parameters that produce LNPs with target size attributes. [Abstract](#) | [Press Release](#)

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Awards

Grant Awarded to BU-Led Team Targeting Early Lung Cancer Detection

Boston University Chobanian & Avedisian School of Medicine



Dr. Joshua Campbell (*pictured*), Associate Professor of Medicine at Boston University (BU) Chobanian & Avedisian School of Medicine, has been awarded a five-year, \$3.4M U01 grant from the National Cancer Institute Human Tumor Atlas Network. This Phase II award will allow his team to begin to translate their Lung Pre-Cancer Atlas efforts into clinically useful biomarkers. [Read More](#)

Who from MIT Made Tech Review's Under 35 List This Year?

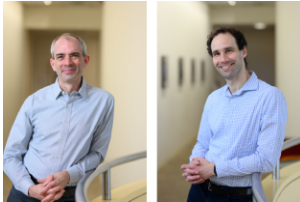
Slice of MIT



Every year, *MIT Technology Review* publishes a list of 35 Innovators Under 35— young scientists, entrepreneurs, and inventors who are emerging leaders in their fields. This year's list features 11 people with MIT connections and their work spans a wide range of fields: AI, biotechnology, climate and energy, and computing and robotics. Among the list is Dr. Loza Tadesse (*pictured*). [Read More](#)

Whitehead Institute Members Iain Cheeseman and Siniša Hrvatin Receive Bose Research Grants

Whitehead Institute



Drs. Iain Cheeseman (*pictured, left*) and Siniša Hrvatin (*right*) have each received a Professor Amar G. Bose Research Grant, which supports ambitious MIT faculty research that may be too early, exploratory, or unconventional for traditional funding. Dr. Cheeseman will use the grant to study the hidden proteome and Dr. Hrvatin will use the grant to lay groundwork for cryopreservation. [Read More](#)

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Local News

Study Reveals How Pancreatic Cells Preserve Their Identity

Joslin Diabetes Center



New research identifies a molecular mechanism that plays a key role in helping pancreatic cells maintain their identities while revealing a potential path toward generating new insulin-producing beta cells from neighboring alpha cells. "The potential to transform pancreatic α -cell into insulin-producing β -cells offers a promising strategy for addressing as β -cell deficient diabetes," says Dr. Rohit Kulkarni (*pictured*). [Read More](#)

Dana-Farber Researchers Find Blood Test Could Guide Future Treatment in Ewing Sarcoma

Dana-Farber Cancer Institute



A blood test may help doctors identify which patients with Ewing sarcoma are at greater risk of relapse, according to a new study. The study is the first to prospectively show that a blood test measuring circulating tumor DNA before treatment can help predict how patients with Ewing sarcoma will do. Drs. Steven DuBois, Brian Crompton, and David Shulman (*pictured*) led the study. [Read More](#)

Two Years Later, CAR T Cell Therapy Shows Promise for Life Without Lupus Flares

UMass Chan Medical School



CAR T cell therapy works by removing some of a patient's white blood cells, including T cells, and genetically altering them in a lab. Once returned to the body, these changes help the patient's T cells identify and kill antigens on the outside of harmful cells. Dr. Roberto Caricchio (*pictured, left*) is principal investigator of the CAR T cell therapy trial in lupus at UMass Chan. [Read More](#)

Ernest Aguinam on Understanding the Immune System to Help Patients With Radiation Injury and Chronic Lyme

Wyss Institute



Dr. Ernest Aguinam (*pictured*) is using Lymph Node Organ Chips to study the immune system and ultimately develop medical countermeasures for radiation injury and chronic Lyme disease. Understanding the impact of radiation on vaccine response could help protect vulnerable populations in the event of another pandemic. Dr. Aguinam is also working to validate an immunotherapeutic candidate for Lyme disease. [Read More](#)

New Formulation Helps RNA Vaccines Withstand High Temperatures

MIT News



Researchers tweaked the formulation surrounding the lipid nanoparticles that are typically used to deliver mRNA vaccines, making the vaccines more heat-resistant. By using the AI algorithm to predict the optimal formulations for the particles, the researchers were able to cut down the number of experiments they needed to do. "The real beauty of this algorithm is that we can use it with small data sets," says Dr. Ana Jaklenec (*pictured*). [Read More](#)

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Upcoming Events in Boston

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

Clinical Research Coordinator III UMass Chan Medical School
Manufacturing Associate I Moderna
Research Technician, Antibiotic Discovery Center Northeastern University
Clinical Research Coordinator Boston Children's Hospital
Research Lab Technician I Mass General Brigham

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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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