



Publications of the Week

### Placental Senescence Pathophysiology Is Shared Between Peripartum Cardiomyopathy and Preeclampsia in Mouse and Human

First Authors: Jason Roh and Claire Castro | Senior Author: Anthony Rosenzweig *(pictured)*  
 Science Translational Medicine | Massachusetts General Hospital, Harvard Medical School, and the Broad Institute



Peripartum cardiomyopathy (PPCM) is an idiopathic form of pregnancy-induced heart failure associated with preeclampsia. Circulating factors in late pregnancy are thought to contribute to both diseases, suggesting a common underlying pathophysiological process. These findings link senescence biology to cardiac dysfunction in pregnancy and help to elucidate the pathogenesis underlying cardiovascular diseases of pregnancy. [Abstract](#) | [Press Release](#)

### Glial Activity Load on PET Reveals Persistent "Smoldering" Inflammation in MS Despite Disease-Modifying Treatment: <sup>18</sup>F-PBR06 Study

First Author: Tarun Singhal | Senior Author: Howard Weiner *(pictured)*  
 Clinical Nuclear Medicine | Brigham and Women's Hospital and Harvard Medical School



<sup>18</sup>F-PBR06-PET targeting 18-kDa translocator protein can detect abnormal microglial activation (MA) in multiple sclerosis (MS). The objectives of this study are to develop individualized mapping of MA using <sup>18</sup>F-PBR06, to determine the effect of disease-modifying treatment efficacy on reducing MA, and to determine its clinical, radiological, and serological correlates in MS patients. [Abstract](#) | [Press Release](#)

### Epigenetic Modulation Through BET Bromodomain Inhibitors as a Novel Therapeutic Strategy for Progranulin-Deficient Frontotemporal Dementia

First Author: Zachary Rosenthal | Senior Author: Stephen Haggarty *(pictured)*  
 Scientific Reports | Harvard Medical School and Massachusetts General Hospital



Frontotemporal dementia (FTD) is a debilitating neurodegenerative disorder with currently no disease-modifying treatment options available. Mutations in GRN are one of the most common genetic causes of FTD, near ubiquitously resulting in progranulin (PGRN) haploinsufficiency. These results reveal a new epigenetic target for treating PGRN-deficient forms of FTD and provide mechanistic insight to aid in translating this discovery into therapeutics. [Abstract](#)

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Awards

### Dana-Farber's Dr. Kornelia Polyak Elected as a Member of the American Academy of Arts & Sciences

Dana-Farber Cancer Institute



Dr. Kornelia Polyak *(pictured)* of Dana-Farber Cancer Institute, has been elected as a Member of The American Academy of Arts & Sciences. She is among the 250 members elected this year who are being recognized for their excellence and invited to uphold the Academy's mission of engaging across disciplines and divides. [Read More](#)

### Gabriela Schlau-Cohen Receives 2024 Protein Science Young Investigator Award

MIT Chemistry



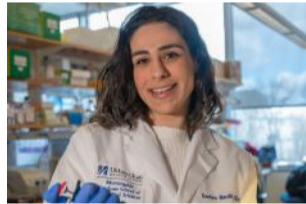
Dr. Gabriela Schlau-Cohen *(pictured)* has been selected by the Protein Society as the winner of the 2024 Protein Science Young Investigator Award. Sponsored by Wiley, this award recognizes scientists within their first 8 years of an independent career at the time of nomination who have made an important contribution to the study of proteins. [Read More](#)

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Local News

### PhD Candidate Engineers New RNA Sequences to Enable mRNA-Based Therapeutics

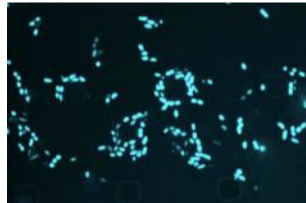
UMass Chan Medical School



PhD candidate Seden Bedir *(pictured)* moved from Turkey to the United States to attend the Morningside Graduate School of Biomedical Sciences. She is studying in the RNA Therapeutics Institute and is passionate about mentoring students from Turkey who are contemplating moving to the US to fulfill their research aspirations. [Read More](#)

### When an Antibiotic Fails: MIT Scientists Are Using AI to Target "Sleeper" Bacteria

MIT News



When an infection is treated repeatedly, clinicians run the risk of bacteria becoming resistant to the antibiotics. But why would an infection return after proper antibiotic treatment? One well-documented possibility is that the bacteria are becoming metabolically inert, escaping detection of traditional antibiotics that only respond to metabolic activity. [Read More](#)

### Co-Transplantation of Regulatory T Cells Improves Cell Replacement Therapy for Parkinson's Disease

Massachusetts General Hospital



The motor symptoms of Parkinson's disease correlate with selective, progressive degeneration of midbrain dopamine neurons. Transplantation of autologously derived dopamine neurons, that is, created from the patient's own cells, has shown promise in a recent clinical study co-led by Dr. Kwang-Soo Kim *(pictured)*, but survival of the cells has been poor. [Read More](#)

### Study Furthers Understanding of Lung Regeneration

Healthcare in Europe



Researchers led by Dr. Darrell Kotton *(pictured)* has detailed the development of a method for generating human alveolar epithelial type I cells from pluripotent stem cells (iPSCs). The ability to recreate these cells in an iPSC-based model will allow researchers to analyze the historically difficult to isolate cells in greater detail and potentially expedite progress in treatment and therapeutic options for people living with pulmonary diseases. [Read More](#)

### Science Communication Competition Brings Research into the Real World

MIT News



The Research Slam follows the format of the 3-Minute Thesis competition, which takes place annually at over 200 universities around the world. Both an exciting competition and a rigorous professional development training opportunity, the event serves an opportunity to learn for everyone involved. Among the postdoc competitors, Laurence Willemet *(pictured)* won first place and Audience Choice. [Read More](#)

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### Upcoming Events in Boston

- April 29 5:30 PM **Martinos Center Women in Science Networking Event**  
Martinos CNY Building
- May 14 6:00 PM **Biotech Networks Scientific Speed Networking**  
Lord Hobo Boston
- May 22 8:00 AM **Mutational Scanning Symposium 2024**  
Broad Institute
- June 8 9:00 AM **Consortium for Health Innovation Partnerships**  
MGH Institute of Health Professions
- June 10 8:30 AM **Lighting Up Neurobiology with Antibodies**  
Marshall A. Wolf Conference Center

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### Science Jobs in Boston

- Research Science Liaison**  
Syneos Health
- Scientist/Senior Scientist, Potency Analytical Development**  
Beam Therapeutics
- Scientific Associate, Biology**  
NIBR
- Senior Research Support Associate, Li lab**  
MIT
- Bench Scientist**  
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