



Publications of the Week

### Targeted Therapies Prime Oncogene-Driven Lung Cancers for Macrophage-Mediated Destruction

First Author: Kyle Vaccaro | Senior Author: Kipp Weiskopf (pictured)  
The Journal of Clinical Investigation | The Whitehead Institute and the Massachusetts General Hospital Cancer Center



Macrophage immune checkpoint inhibitors, such as anti-CD47 antibodies, show promise in clinical trials for solid and hematologic malignancies. Here, researchers developed a novel screening platform to identify drugs that render lung cancer cells more vulnerable to macrophage attack, and they identified therapeutic synergy exists between genotype-directed therapies and anti-CD47 antibodies.

[Abstract](#) | [Press Release](#)

### Episymbiotic Saccharibacteria TM7x Modulates the Susceptibility of Its Host Bacteria to Phage Infection and Promotes Their Coexistence

First Author: Qiu Zhong | Senior Authors: Yan Li, Xuesong He (pictured), and Shuai Le  
Proceedings of the National Academy of Sciences | Forsyth Institute, Harvard School of Dental Medicine



Saccharibacteria are ubiquitous members of the human oral microbiome. These ultrasmall bacteria form episymbiotic relationships with their host bacteria and impact their physiology. Here, researchers showed that during surface-associated growth, a human oral Saccharibacteria isolate (named TM7x) protects its host bacterium, a *Schaalia odontolytica* strain against lytic phage LC001 predation.

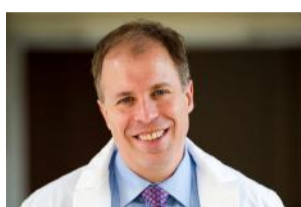
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Awards

### Dr. Avrum Spira to Co-Lead Project to Intercept Lung Cancer

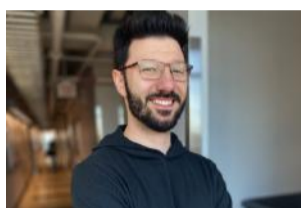
Boston University Chobanian & Avedisian School of Medicine



Lung cancer remains the leading cause of cancer deaths in the United States, with someone diagnosed approximately every two minutes. In a collaborative effort to end this devastating disease, the American Lung Association and LUNGEVITY Foundation have invested \$3 million over the next three years in research led by Dr. Avrum Spira (pictured). [Read More](#)

### Jaice Rottenberg Receives Charles Terner Award

Boston University Biology



Jaice Rottenberg (pictured), a fifth-year PhD student in the Fuxman Bass Lab, received the 2024 Charles Terner Award. Rottenberg's project explores the mechanisms by which human-infecting viruses manipulate the host cellular environment to replicate and survive. Specifically, he is investigating the impact of viral-encoded proteins on host signaling pathways and gene expression.

[Read More](#)

### Alejandro Rondon Ortiz Receives Brenton R. Lutz Award

Boston University Biology



Alejandro Rondon Ortiz (pictured), a Biology PhD student in the Wolozin Lab, received the 2024 Brenton R. Lutz Award. In his study, Ortiz investigated the protein interaction networks from the autophagy receptor SQSTM1/p62. SQSTM1/p62 regulates proteostasis by degrading cellular cargo, including protein aggregates. [Read More](#)

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Local News

### AGA Guideline Makes the Case for Biomarkers in Managing Crohn's Disease

Massachusetts General Hospital (MGH)



Successful, early treatment for patients with Crohn's disease (CD) can significantly reduce their risk for long-term disability and surgical intervention. The American Gastroenterological Association (AGA) recently published a clinical practice guideline on the evolving role of biomarkers in managing CD. This study was led by Dr. Ashwin Ananthakrishnan, Director of the Crohn's and Colitis Center at MGH. [Read More](#)

### A Biomedical Engineer Pivots from Human Movement to Women's Health

MIT News



Dr. Shaniel Bowen (pictured) is a biomedical engineer at MIT focused on women's health. As a Black woman raised by Jamaican immigrants, Dr. Bowen was personally confronted with inequities in health care that result in discrepancies in treatment. As a result, for the last ten years Dr. Bowen has been involved in mentoring at STEM outreach to develop the next generation of scientists and advocates. [Read More](#)

### From Neurons to Learning and Memory

MCGovern Institute



Dr. Mark Harnett (pictured), an Associate Professor at MIT, investigates how electrical activity in mammalian cortical cells helps to produce neural computations that give rise to behavior. "My lab's ultimate goal is to understand how the cortex works," Dr. Harnett says. "We go after that by looking at molecules, like synaptic receptors and ion channels, all the way up to animal behavior, and building theoretical models of neural circuits." [Read More](#)

### Women in STEM — a Celebration of Excellence and Curiosity

MIT News



What better way to commemorate Women's History Month and International Women's Day than to give three of the world's most accomplished scientists an opportunity to talk about their careers? MindHandHeart invited Drs. Paula Hammond (pictured, center left), Ann Graybiel (center right), and Sangeeta Bhatia (right) to share their career journeys with moderator Dr. Mary Fuller (left). [Read More](#)

### Ragon Faculty Sheds Light on Intricate Functions of Resident Tissue Macrophages (RTMs) Which Extend Beyond Immune Defense

The Ragon Institute



The Ragon Institute's Dr. Hernandez Moura Silva (pictured) and his lab recently published a review in *Science Immunology* regarding resident tissue macrophages (RTMs), shedding light on their multifaceted roles in organ health. RTMs have traditionally been recognized for their immune defense functions. However, this review highlights their contributions extend far beyond immune response. [Read More](#)

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Interesting Articles

### New Fellowship Program with Center for Brain Science

Harvard University Department of Molecular and Cellular Biology



The Nippon Telegraph and Telephone (NTT) Research Foundation announced the new Harvard University Center for Brain Science-NTT Fellowship Program in the field of Physics of Intelligence. The Fellowship will bolster studies bridging computer science, brain science, and physics, building on the continuing research themes in natural and artificial intelligence. [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 Specialist**  
Boston University
- Lecturer**  
MIT
- Laboratory Assistant, Pathology**  
Brigham and Women's Hospital
- Senior Scientist, IVD Assay Developer**  
Nanobiosym
- Principal Scientist I, Protein Science**  
ModeX Therapeutics

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