



Publications of the Week

The Choroid Plexus Synergizes with Immune Cells During Neuroinflammation

First Author: Huixin Xu | Senior Author: Maria Lehtinen (pictured)
Cell | Harvard Medical School, Broad Institute, and Boston Children's Hospital



The choroid plexus (ChP) is a vital brain barrier and source of cerebrospinal fluid. Here, researchers use longitudinal two-photon imaging in awake mice and single-cell transcriptomics to elucidate the mechanisms of ChP regulation of brain inflammation. They use intracerebroventricular injections of lipopolysaccharides to model meningitis in mice. [Abstract](#)

Rapid iPSC Inclusionopathy Models Shed Light on Formation, Consequence, and Molecular Subtype of α -Synuclein Inclusions

First Authors: Isabel Lam and Alain Ndayisaba | Senior Author: Vikram Khurana (pictured)
Neuron | Brigham and Women's Hospital, Harvard Medical School, and the Whitehead Institute



The heterogeneity of protein-rich inclusions and its significance in neurodegeneration is poorly understood. Standard patient-derived iPSC models develop inclusions neither reproducibly nor in a reasonable time frame. Here, researchers developed screenable iPSC "inclusionopathy" models utilizing piggyBac or targeted transgenes to rapidly induce central nervous system cells that express aggregation-prone proteins at brain-like levels. [Abstract](#)

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Awards

Pew Award Will Fund Study of Neural Role in Respiratory Disease

The Picower Institute



As a newly named Pew Scholar in the Biomedical Sciences, Assistant Professor Dr. Sara Prescott (pictured) and her lab plan to test whether and how neurons have a role in airway remodeling, which goes awry in many diseases. "The funding that's coming from the Pew Charitable Trusts is allowing us to pursue questions that we think are important and potentially transformative," said Dr. Prescott. [Read More](#)

MIT Affiliates Named 2024 HHMI Investigators

MIT News



The Howard Hughes Medical Institute (HHMI) announced its 2024 Investigators. Four of the Investigators are from the School of Science at MIT: Drs. Steven Flavell (pictured, top left), Mary Gehring (top right), Mehrad Jazayeri (bottom left), and Gene-Wei Li (bottom right). Every three years, HHMI selects investigators who have significantly impacted their chosen disciplines to receive a substantial and completely discretionary grant. [Read More](#)

Dana-Farber's Edward Chouchani Selected as a Howard Hughes Medical Institute Investigator

Dana-Farber Cancer Institute



Dr. Edward Chouchani (pictured) of Dana-Farber Cancer Institute has been named a Howard Hughes Medical Institute Investigator, joining a prestigious community tackling challenging problems in biomedical research and propelling groundbreaking scientific discoveries. Dr. Chouchani will receive approximately \$11 million over seven years, which is renewable pending scientific review. [Read More](#)

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Local News

Research Spotlight: Patterns and Prognostications in Immune-Related Adverse Events from Immunotherapy Treatment

Massachusetts General Hospital



Dr. Yevgeniy Semenov (pictured), a Physician-Investigator in the Mass General Department of Dermatology and an Assistant Professor of Dermatology at Harvard Medical School is the senior author of a new study in *The Lancet Oncology*. He evaluated the occurrence patterns of immune-related adverse events in cancer patients being treated with immune checkpoint inhibitors. [Read More](#)

Snapshot of Science: Mass General's High Impact Research Publications for June 2024

Bench Press



The Mass General Research Institute's Snapshot of Science offers a quick look at some recent publications, press releases, and stories about the Mass General Research Institute community. In June, they highlighted 29 new studies, seven press releases, four research spotlights, and four new posts on the the Mass General Research Institute blog. [Read More](#)

#WhyScience Q&A: A Mechanical Engineer Builds Microscopes to Give New Spatial Views of Cells and Tissues

Broad Institute



At some point during her education, self-described "space nerd" Dr. Lindsey Erion-Barner (pictured) traded gazing through telescopes for peering into microscopes. "There are many commonalities between astronomy and microscopy, they're just at different scales," she explained. The computational algorithms for correcting distortions are often the same, she added, whether you're examining a star far away or small spots within a tissue. [Read More](#)

Monkeys Build Mental Maps to Navigate New Tasks

The Transmitter



Monkeys can memorize a sequence of images and then toggle between them in their minds, a new study from MIT's McGovern Institute has found. Each mental move is associated with a tiny burst of brain activity that could be the neural representation of a thought. The study is the first to find evidence that an animal creates cognitive maps based on experience and later uses them exclusively, without any sensory input, to navigate a new task. [Read More](#)

"Future African Scientist" — The Unlikely Friendship Teaching the Next Generation of African Researchers

Ragon Institute



In January 2020, two students from across the world met on the "Evolution of an Epidemic" course. Their friendship inspired the creation of a program they hope will benefit African science for years to come. Daniel Zhang (pictured, left), a biology student at MIT, and Martin Lubowa (right), a student at the African Leadership Academy, have partnered on a global project to mentor the next generation of African scientists. [Read More](#)

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Interesting Articles

Applied Biostatistics Certificate: Methods & Applications

Harvard Catalyst



Harvard Catalyst's online professional certificate program offers a comprehensive introduction to biostatistics in medical research. The program includes a review of the most common techniques in the field, as well as the manner in which these techniques are applied in standard statistical software. The session begins on September 9, 2024 and is open for applications. [Read More](#)

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Upcoming Events in Boston

- August 19 - 22 8:00 AM **The Bioprocessing Summit 2024**
Sheraton Hotel
- September 18 8:30 AM **The 2025 Aging Brain Initiative Symposium: The Neuro-Immune Axis and the Aging Brain**
Singleton Auditorium
- September 23 8:00 AM **2024 Rosamund Stone Zander Translational Neuroscience Center Symposium**
Joseph B. Martin Conference Center
- September 23 - 25 9:00 AM **The Biotech Event Accelerating Fresh Ideas, Partnerships, and Opportunities**
Hynes Convention and Exhibition Center
- September 24 - 25 9:00 AM **Kuggie Vallee Distinguished Lectures and Workshops**
Singleton Auditorium

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Science Jobs in Boston

- Contract Scientist, Protein Sciences and Lead Discovery**
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- Multi-disciplinary Translational Researcher**
Tufts University School of Medicine
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The Cystic Fibrosis Foundation
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