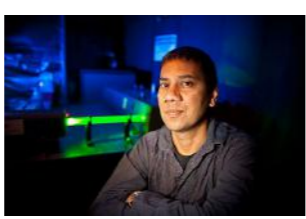


Publications of the Week
Evolutionary Repair: Changes in Multiple Functional Modules Allow Meiotic Cohesin to Support Mitosis

 First Author: Yu-Ying Phoebe Hsieh | Senior Author: Andrew Murray *(pictured)*
 PLOS Biology | Harvard University


The role of proteins often changes during evolution, but we do not know how cells adapt when a protein is asked to participate in a different biological function. The authors forced the budding yeast, *Saccharomyces cerevisiae*, to use the meiosis-specific kleisin Rec8, during the mitotic cell cycle, instead of its paralogue, Scc1. This perturbation impairs sister chromosome linkage, advances the timing of genome replication, and reduces reproductive fitness by 45%. [Abstract](#)

Microglial Depletion Disrupts Normal Functional Development of Adult-Born Neurons in the Olfactory Bulb

 First Author: Jenelle Wallace | Senior Author: Venkatesh Murthy *(pictured)*
 eLife | Harvard University


Microglia play key roles in regulating synapse development and refinement in the developing brain, but it is unknown whether they are similarly involved during adult neurogenesis. By transiently depleting microglia from the healthy adult mouse brain, the authors show that microglia are necessary for the normal functional development of adult-born granule cells (GCs) in the olfactory bulb. Microglial depletion reduces the odor responses of developing, but not preexisting GCs *in vivo*. [Abstract](#)

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Awards
New ALS Association Grant Supports John Landers Research into Identifying ALS Genes

UMass Med Now



The Massachusetts chapter of the ALS Association awarded Dr. John Landers *(pictured)*, Professor of Neurology, a \$25,000 grant to further his ongoing research into amyotrophic lateral sclerosis (ALS). ALS is a progressive neurodegenerative disease that affects the motor neurons that control muscle cells. People with ALS slowly lose the ability to initiate and control muscle movement, which often leads to total paralysis and death within two to five years of diagnosis. [Read More](#)

2020 MacVicar Faculty Fellows Named

McGovern Institute



The Office of the Vice Chancellor and the Registrar's Office have announced this year's Margaret MacVicar Faculty Fellows: Materials Science and Engineering Professor Dr. Polina Anikeeva *(pictured)*, Literature Professor Dr. Mary Fuller, Chemical Engineering Professor Dr. William Tisdale, and Electrical Engineering and Computer Science Professor Dr. Jacob White. [Read More](#)

Dr. Vaishali Sancharawala to Serve on Board of International Society of Amyloidosis

BU School of Medicine



Dr. Vaishali Sancharawala *(pictured)*, Professor of Medicine and Director of the Amyloidosis Center, was recently elected secretary of the International Society of Amyloidosis. She will serve in this role for a term of two years. In this position she will be responsible for keeping minutes of the proceedings of members' meetings, meetings of the Board and meetings of the Executive Committee. She will conduct other duties as specified by the bylaws. [Read More](#)

Founding Member Harvey Lodish Receives the Donald Metcalf Award for Research on Red Blood Cells

Whitehead Institute



The International Society for Experimental Hematology (ISEH) has selected Whitehead Institute Founding Member Dr. Harvey Lodish *(pictured)* to receive the organization's Donald Metcalf Award for 2020. This highest award of the society honors a scientist who has made outstanding contributions to basic science in the fields of hematology, immunology, stem cell research, and cell and gene therapy. [Read More](#)

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Local News
Biotech Lures Foreign Investors, Signs COVID-19 Partnership

Boston Business Journal



For two months, the spread of COVID-19 has kept Harbour BioMed and millions of people cooped up in their homes in Shanghai. But while the flow of people on the city streets has been squelched during the outbreak, investment has not. Harbour BioMed — which has offices in Massachusetts, the Netherlands and China — has raised \$75 million and is launching a collaboration with New York's Mount Sinai Health System to develop a treatment for COVID-19. [Read More](#)

How the Brain Encodes Landmarks That Help Us Navigate

MIT News



When we move through the streets of our neighborhood, we often use familiar landmarks to help us navigate. And as we think to ourselves, "OK, now make a left at the coffee shop," a part of the brain called the retrosplenial cortex (RSC) lights up. While many studies have linked this brain region with landmark-based navigation, exactly how it helps us find our way is not well-understood. A new study from MIT neuroscientists now reveals how neurons in the RSC use both visual and spatial information to encode specific landmarks. [Read More](#)

Bayer Partners with MassBio® to Launch Center for Regulatory Excellence to Support Startup Community

Business Wire



Bayer and MassBio® have announced the creation of the Center for Regulatory Excellence, a first-of-its-kind forum for startups and academia to interact with and learn from regulatory experts. The Center for Regulatory Excellence will provide formal mentorship and regular seminars to ensure early identification and mitigation of regulatory issues and optimize the chances of regulatory success. [Read More](#)

Gene Therapy Reverses Heart Failure in Mouse Model of Barth Syndrome

Mass General News



Barth syndrome is a rare metabolic disease caused by mutation of a gene called tafazzin or *TAZ*. It can cause life-threatening heart failure and also weakens the skeletal muscles, undercuts the immune response, and impairs overall growth. Because Barth syndrome is X-linked, it almost always occurs in boys. There is no cure or specific treatment. To fully capture Barth syndrome and its whole-body effects, Dr. William Pu *(pictured, right)* at Boston Children's Hospital is working on an animal model. [Read More](#)

Liver Fibrosis Tied to Specific Heart Failure, Regardless of HIV or Hepatitis C Status

BU School of Medicine



While there is an association between liver fibrosis and heart failure, the mechanisms for this association are currently unclear but may be of particular importance for people living with human immunodeficiency virus (HIV) and/or hepatitis C. Dr. Kaku So-Armah *(pictured, left)* has discovered that the higher risk of heart failure in such patients may be specific to a certain kind of heart failure called heart failure with preserved ejection fraction. [Read More](#)

Mouse Model Could Lead to New Treatments for Endometriosis Pain

Boston Children's Hospital



There are few effective long-term treatments for endometriosis; even fewer options for relieving the often severe pain associated with the condition, which involves tissue overgrowth outside of the uterus. As a first step toward identifying new pain treatments, researchers in the Vascular Biology Program at Boston Children's Hospital, have developed the first mouse model that mimics the development, lesion growth — even the severe pain — associated with endometriosis. [Read More](#)

Mathematical Model Could Lead to Better Treatment for Diabetes

MIT News



One promising new strategy to treat diabetes is to give patients insulin that circulates in their bloodstream, staying dormant until activated by rising blood sugar levels. However, no glucose-responsive insulins (GRTs) have been approved for human use, and the only candidate that entered the clinical trial stage was discontinued after it failed to show effectiveness in humans. MIT researchers have now developed a mathematical model that can predict the behavior of different kinds of GRTs in both humans and in rodents. [Read More](#)

S1P and Its Receptor: New Approaches to Cancer?

Boston Children's Hospital



Boston Children's Hospital has a Vascular Biology Program, and one of the questions they answered was what S1P does in the vascular system. In the early 2000s, scientists showed that S1P is essential for angiogenesis, or the growth of blood vessels, finding that endothelial cells, which line blood vessels, are rich in the S1P receptor. Now, they're exploring how S1P and its receptor can have new applications in cancer therapy. [Read More](#)

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Upcoming Events in Boston

March 26 8:00 AM	Women on Boards Getting On and Adding Value Harvard T.H. Chan School of Public Health
March 30 8:00 AM	The International Leadership Development Program for Physicians Harvard T.H. Chan School of Public Health
April 7 8:00 AM	HMX Pro Genetics – Cancer Genomics and Precision Oncology Online
April 7 8:00 AM	HMX Pro Immunology – Immuno-Oncology Online

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