

Publications of the Week

The Evolutionary Plasticity of Chromosome Metabolism Allows Adaptation to Constitutive DNA Replication Stress

First Author: Marco Fumasoni | Senior Author: Andrew Murray (pictured)
eLife | Harvard University



The authors used the budding yeast, *Saccharomyces cerevisiae*, to investigate the evolutionary plasticity of chromosome metabolism. They experimentally evolved cells constitutively experiencing DNA replication stress caused by the absence of Ctf4, a protein that coordinates the enzymatic activities at replication forks. Parallel populations adapted to replication stress, over 1000 generations, by acquiring multiple, concerted mutations. [Abstract](#)

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Awards

BU Biology Graduate Students and Alumni Awarded NSF Graduate Research Fellowships

Boston University Biology



The awardees and honorable mentions for the 2020 National Science Foundation (NSF) Graduate Research Fellowship Program competition have been announced. Boston University graduate students Marisol Dothard (right), Zoey Werbin (left), and Caroline Fleming (middle) were all awarded with a 3-year graduate research fellowship. [Read More](#)

McLean Hospital Receives Coveted NIH Grant to Clinically Study Autologous Stem Cell Therapy for Parkinson's Disease

McLean Hospital



The National Institutes of Health (NIH) has awarded McLean Hospital's Neuroregeneration Institute a \$6 million grant over 5 years to further its groundbreaking research on stem cell-based therapy for Parkinson's disease. The research will be led by Drs. James Schumacher, Ole Isacson, Penny Hallett, and Teresa Osborn (pictured from left to right). [Read More](#)

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Local News

Scientists Map Human Protein Interactions

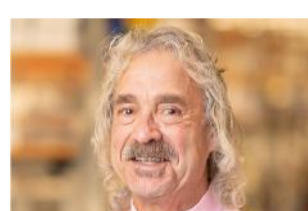
The Harvard Gazette



Almost a decade in the making, the human protein map is now available thanks to a joint effort involving over 80 researchers led by Dr. Marc Vidal (pictured) at Dana-Farber Cancer Institute and others. The largest of its kind, the Human Reference Interactome map charts 52,569 interactions between 8,275 human proteins. [Read More](#)

Dana-Farber Scientists Bring Experience from SARS and MERS Outbreaks to Aid COVID-19 Research

Dana-Farber Cancer Institute



As scientists race to develop and test new treatments for COVID-19, Dana-Farber's Wayne Marasco (pictured) and his team are bringing one of the world's most formidable resources to the effort: a "library" of 27 billion human antibodies against viruses, bacteria, and other bodily invaders. The library constitutes "a tremendous tool chest of reagents for testing against this and other viruses," says Marasco. [Read More](#)

Biotech Vet Gilman's Startup Earns \$190M-Plus in Roche Deal

Boston Business Journal



Arrakis Therapeutics, a Massachusetts-based startup, is collaborating with pharmaceutical giant Roche to help develop drugs that target RNA, the element inside molecules that uses DNA instructions to create proteins. The deal will give Roche exclusive rights to test and commercialize any drug candidates discovered in the collaboration. [Read More](#)

BIDMC Launches Clinical Trial to Assess Common Anti-Clotting Medication for Treatment of COVID-19-Related Respiratory Failure

Beth Israel Deaconess Medical Center



A team of physician-scientists led by Dr. Michael Yaffe (pictured) at Beth Israel Deaconess Medical Center (BIDMC) is enrolling patients in a clinical trial to evaluate a common anti-clotting drug for the treatment of COVID-19-positive patients with acute respiratory distress syndrome. Because the medication is an FDA-approved drug already in widespread use, doctors are permitted to prescribe it for off-label usage. [Read More](#)

Researchers Identify Potential Early Biomarker to Track Development of Dangerous Non-Alcoholic Fatty Liver Disease

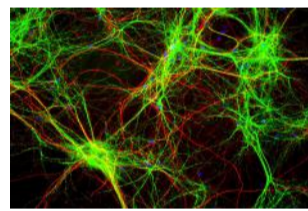
Joslin Diabetes Center



Dr. Rohit Kulkarni's (pictured) lab at Joslin Diabetes Center has uncovered a biomarker in humans tied to the development of non-alcoholic fatty liver disease that might help doctors detect early stages of the disease. The researchers also determined that this biomarker plays a significant role in the regulation of a pathway that is currently being reviewed in clinical trials as a treatment option for the disease. [Read More](#)

Neuroscientists Find Memory Cells That Help Us Interpret New Situations

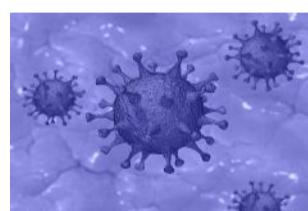
MIT News



MIT neuroscientists have identified populations of cells that encode distinctive segments of an overall experience. These chunks of memory, stored in the hippocampus, are activated whenever a similar type of experience takes place, and are distinct from the neural code that stores detailed memories of a specific location. [Read More](#)

Network Scientists Identify 40 New Drugs to Test against COVID-19

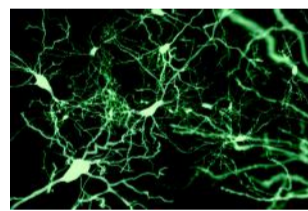
News@Northeastern



Northeastern researchers have identified 40 new potential drugs that could treat COVID-19. The findings come from a modeling tool for infection dynamics based on network science — complex math, physics, and computing. The toolset mapped the way proteins within human cells behave after a cell is hijacked with SARS-CoV-2, the new coronavirus that causes the COVID-19 illness. [Read More](#)

A New Approach Refining Multiple Sclerosis Genetics Hits a Nerve

Whitehead Institute



Dr. Olivia Corradin and her laboratory at the Whitehead Institute have discovered that immune cells are not the only cell types implicated in the development of multiple sclerosis; rather, genetic variants that affect cells in the central nervous system also appear to contribute to the disease, including variants that cause dysregulation in oligodendrocytes, the brain cells that produce myelin. [Read More](#)

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Upcoming Events in Boston

April 14-17 9:30 AM	Open Data Science Conference Online
April 15 9:00 AM	Webinar: The Modern Mentor Online
April 21 1:00 PM	Vascular Specification and Development Online
April 22 12:00 PM	Every Cell Has its Place: <i>In Situ</i> Sequencing of Tissue Samples at Single-Cell Resolution Online
April 30 4:00 PM	MIT Alumni Research Slam: Course 7 Online

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Science Jobs in Boston

- Director, Business Development and In-Licensing**
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- Scientist/Senior Scientist, Protein Science**
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Bluebird Bio
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Sanofi
- Senior Reagent Development Scientist**
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