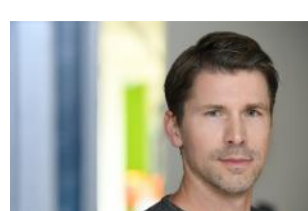


Publications of the Week

Epigenetic Regulator Function through Mouse Gastrulation

First Author: Stefanie Grosswendt | Senior Author: Alexander Meissner (pictured)
Nature | Broad Institute and Harvard



To advance strategies for investigating epigenetic regulator functions during gastrulation, the authors used a combined zygotic perturbation and single-cell RNA-sequencing platform in which many mutant mouse embryos can be assayed simultaneously, recovering robust morphological and transcriptional information across a panel of ten essential regulators. [Abstract](#)

Single-Cell RNA Profiling Reveals Adipocyte to Macrophage Signaling Sufficient to Enhance Thermogenesis

First Author: Felipe Henriques | Senior Author: Michael Czech (pictured)
Cell Reports | UMass Medical School



Adipocytes deficient in fatty acid synthase (AdFASNKO) emit signals that mimic cold exposure to enhance the appearance of thermogenic beige adipocytes in mouse inguinal white adipose tissues. The authors found that adipocyte signaling to enhance alternatively activated macrophages in AdFASNKO mice is associated with enhanced adipose thermogenesis independent of the sympathetic neuron involvement this process requires in the cold. [Abstract](#)

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Awards

Iain Cheeseman Earns a Global Consortium for Reproductive Longevity & Equality Scholar Award

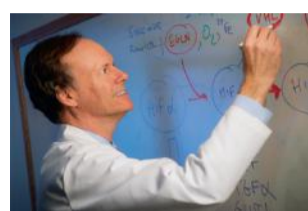
Buck Institute for Research on Aging



Dr. Iain Cheeseman (pictured) from the Whitehead Institute is among the 22 inaugural recipients of the Global Consortium for Reproductive Longevity and Equality Scholar Awards, made possible by the Bla-Echo Foundation. The recipients comprise a global group who share a vision of advancing research to better understand the underlying causes of female reproductive aging. [Read More](#)

Harvard Medical School Awards and Recognitions: August 2020

Harvard Medical School



Dr. William Kaelin Jr. (pictured) is among the Harvard Medical School faculty, staff and students who received honors in August. Kaelin has been named to receive the Association of American Cancer Institutes' Distinguished Scientist Award in recognition for his long-term research on how cells sense and adapt to changing oxygen levels. [Read More](#)

MassBio® to Honor Dr. Kenneth C. Anderson of Dana-Farber Cancer Institute with State of Possible Award

MassBio



MassBio® has announced that Dr. Kenneth C. Anderson (pictured), Program Director of the Jerome Lipper Multiple Myeloma Center and LeBow Institute for Myeloma Therapeutics at Dana-Farber, and Kraft Family Professor of Medicine at Harvard Medical School, will receive the second annual State of Possible Award. This annual award honors individuals who have contributed significantly to the well-being of Massachusetts' citizens. [Read More](#)

[View All Awards](#)

Local News

Quieting the Storm

Harvard Medical School



A team of researchers, led by neuroscientists at Harvard Medical School, has successfully used acupuncture to tame cytokine storm in mice with systemic inflammation. In the study, acupuncture activated different signaling pathways that triggered either a pro-inflammatory or an anti-inflammatory response in animals with bacterially induced systemic inflammation. [Read More](#)

Single-Cell Analysis Provides New Insights into Mitochondrial Diseases

Massachusetts General Hospital



Investigators led by Dr. Vamsi Mootha (pictured) at Massachusetts General Hospital have made discoveries at the single cell level to uncover new details concerning mitochondrial diseases — inherited disorders that interfere with energy production in the body and currently have no cure. The findings could eventually benefit affected patients. [Read More](#)

Secret of Her Success

Harvard Medical School



Rocio Nunez Pepen (pictured) is an immigrant from the Dominican Republic and a recent graduate of Brown University. Now living in Boston, she is this summer's coordinator of Project Success, a Harvard Medical School (HMS) program for underrepresented or disadvantaged Boston and Cambridge high school students who participate in paid, mentored research internships at HMS and its affiliated institutions. *MyHMS* interviewed Nunez Pepen prior to the Project Success 2020 summer kick-off. [Read More](#)

Researchers Characterize Important Regulators of Tissue Inflammation, Fibrosis and Regeneration

BU School of Medicine



For the first time, researchers led by Dr. Lan Zhou (pictured) at BU School of Medicine have characterized the origins, gene expression and diverse functions of resident macrophages in normal skeletal muscle. They believe the findings will provide a knowledge base for future studies of the roles of skeletal muscle resident macrophages in skeletal muscle diseases such as muscular dystrophies, as well as muscular injuries such as muscle trauma. [Read More](#)

Universal Trade-Off

Harvard Medical School



One of the foremost challenges in biology is the quest to uncover the underlying rules that determine how biological organisms behave in different situations. Even seemingly simple questions, such as why bacteria grow at a certain rate and why there is a tremendous variation in growth rate across species in different environments, have remained unclear. A new study involving scientists from Harvard Medical School sheds light on these long-standing mysteries. [Read More](#)

Two Drugs Join Forces against COVID-19

Boston Children's Hospital



Two drugs, including one developed by a researcher at Boston Children's Hospital, inhibit the SARS-CoV-2 virus that causes COVID-19 in tests of human cells. Both drugs, vacuolin-1 and apilmod, originally developed years ago, target a large enzyme called PI3Kγ kinase. Prior to this study, little was known about this enzyme's role in COVID-19 infection. [Read More](#)

A New Way to Target Resistant Cancer

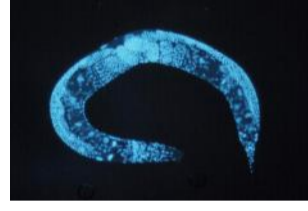
Harvard Stem Cell Institute



Harvard Stem Cell Institute researchers led by Dr. David Scadden (pictured) have identified a unique characteristic of resistant cancer cells: a temporary change in metabolism, or how they use nutrients. Specifically, the cells changed the way they used the amino acid glutamine, directing it almost exclusively to fuel nucleotide production. The findings pave the way for using drugs to target the metabolic pathway and eliminate resistant cells. [Read More](#)

How a Freeloading Worm Might Help Us Live Healthier, Longer Lives

News@Northeastern



Life at the microbial scale is full of hazards. Microscopic organisms need to be ready to protect themselves from compounds that can break down cell walls or disrupt the processes they need to survive. But all that vigilance comes at a cost. It requires energy. It's stressful. According to researchers at Northeastern, a small worm known as *Caenorhabditis elegans* has evolved a way to take the easy road and freeloading off of the protection provided by nearby bacteria. [Read More](#)

Intestinal Insight: Bile Component Appears to Help Lower High Blood Sugar after Bariatric Surgery

Harvard Medical School



A new study from Harvard Medical School and Brigham and Women's Hospital reveals the latest piece of the puzzle of how bariatric surgery can lead to healthier blood sugar levels. The researchers report that a specific bile acid — a component of bile produced in the liver — rises in the guts of mice and humans after bariatric surgery and sets off a chain of biochemical events that lowers high blood sugar. [Read More](#)

Northeastern's Life Sciences Testing Center Secures Certifications to Process the University's Coronavirus Tests

News@Northeastern



Northeastern's Life Sciences Testing Center, a brand-new, state-of-the-art laboratory built to support the university's testing protocols in the fall, has received state and federal certifications to conduct the complex molecular diagnostic tests that can determine whether someone has been infected with the coronavirus that causes COVID-19. [Read More](#)

Researchers Discover Sex-Specific Differences in Neural Mechanisms for Glucose Regulation

Tufts Now



Researchers at Tufts University School of Medicine and Tufts Graduate School of Biomedical Sciences have discovered neural mechanisms in mice specific to females that can shift estrogen from playing a protective role in glucose metabolism to one that is disruptive. The authors of the study hypothesized that the metabolic "switch" mediated by estrogen may provide clues to the increased risk of insulin resistance and diabetes among post-menopausal women. [Read More](#)

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Upcoming Events in Boston

| | |
|-------------------------|--|
| August 19 11:00 AM | MassBio Virtual Mixer Featuring Synthace Online |
| August 20 10:00 AM | Massachusetts Life Sciences Innovation Day 2020 Online |
| August 20 2:00 PM | COVID-19 Research Registry Virtual Journal Club Online |
| August 25 12:00 PM | Community Forum on COVID-19 Research – August 2020 Online |
| August 26-27 8:00 AM | MassBio State of Possible Conference Online |

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Other Science Jobs in Boston

- Research Project and Collaboration Manager, Tissue-Specific Stem Cells
Harvard University
- Scientist I, Tissue Biomarker Laboratory
Dana-Farber
- Senior Scientist, High Throughput Production
Dragonfly Therapeutics
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