

Publications of the Week
Native Zinc Catalyzes Selective and Traceless Release of Small Molecules in β -Cells

First Author: Mison Lee | Senior Author: Amit Choudhary (*pictured*)
 J.A.C.S | The Broad Institute of MIT and Harvard, Harvard University and Brigham and Women's Hospital



The loss of insulin-producing β -cells is the central pathological event in type 1 and 2 diabetes, which has led to efforts to identify molecules to promote β -cell proliferation, protection, and imaging. The authors leverage the unusually high Zn(II) concentration in β -cells to develop a Zn(II)-based prodrug system to selectively and tracelessly deliver bioactive small molecules and fluorophores to β -cells. [Abstract](#)

FGF6 and FGF9 Regulate UCP1 Expression Independent of Brown Adipogenesis

First Author: Farnaz Shamsi | Senior Author: Yu-Hua Tseng (*pictured*)
 Nature Communications | Harvard Medical School and Harvard University



Uncoupling protein-1 (UCP1) plays a central role in energy dissipation in brown adipose tissue (BAT). The authors have identified two fibroblast growth factors (FGF), FGF6 and FGF9, as potent inducers of UCP1 expression in adipocytes and preadipocytes. Surprisingly, this occurs through a mechanism independent of adipogenesis and involves FGFR3, prostaglandin-E2 and interaction between estrogen receptor-related alpha, flightless-1 (FLI1) and leucine-rich-repeat-(in FLII)-interacting-protein-1 as a regulatory complex for UCP1 transcription. [Abstract](#)

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Awards
Alliance for Academic Internal Medicine Honors Emelia Benjamin, MD

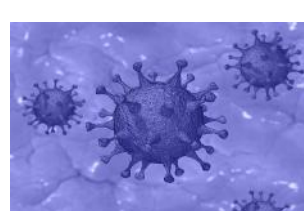
BU School of Medicine



Dr. Emelia J. Benjamin (*pictured*), Vice Chair for Faculty Development and Diversity in the Department of Medicine at Boston University School of Medicine and Boston Medical Center and BUMC Assistant Provost for Faculty Development, will receive the 2020 Alliance for Academic Internal Medicine Diversity, Equity and Inclusion Award. The award is presented to an individual who has effectively improved diversity within a medical school or community teaching hospital.

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Local News
Learning from the Recovered

Harvard Medical School



Researchers at Harvard Medical School and at Brigham and Women's Hospital are adapting an antibody-detection tool to study the aftermath of infections by the novel coronavirus that is causing the current global pandemic. The tool, called VirScan, detects antibodies in people's blood that indicate active and past infections by viruses and bacteria. VirScan will not be used to provide real-time diagnoses of the infection. [Read More](#)

Regency Pharma Earns \$30 Million Series A to Advance Diabetic Neuropathy Drug

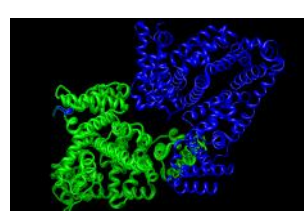
BioSpace



Regency Pharmaceuticals in Waltham, Massachusetts has closed a \$30 million Series A financing. The round was co-led by Cobro Ventures and Taiwan Capital Management Corporation. Other participants included 3E Bioventures Capital, Yonjin Capital, VIVA Biotech Holdings, TA YA Venture Holdings and undisclosed private investors. Their mission is to provide lasting relief for all symptoms of diabetic peripheral neuropathy. [Read More](#)

A Stopgap Measure to Treat Respiratory Distress

MIT News



Researchers at MIT and the University of Colorado at Denver have proposed a stopgap measure that they believe could help COVID-19 patients who are in acute respiratory distress. By repurposing a drug that is now used to treat blood clots, they believe they could help people in cases where a ventilator is not helping, or if a ventilator is not available. Three hospitals in Massachusetts and Colorado are developing plans to test this approach in severely ill COVID-19 patients. [Read More](#)

Understanding the Score: A Dynamic Interrogation of Acute HIV Infection

Ragon Institute



Dr. Alex Shalek (*pictured*), Ragon associate member, has used single-cell RNA sequencing to understand immune system dynamics after acute HIV infection, with samples provided from the Females Rising through Education, Support, and Health study in South Africa. The study sequenced and analyzed over 59,000 cells from four patients with HIV who provided frequent clinical samples from a non-infected state, through acute infection. [Read More](#)

New Insights on How the Brain "Wakes Up" after Anesthesia

MGH News



New details have emerged about how the brain recovers from general anesthesia based on research from Massachusetts General Hospital. The process of awakening from anesthesia has not been well understood before, but studies using microelectrodes directly placed in the cortex of non-human primates now show that when consciousness returns after anesthesia, brain dynamics change abruptly, despite the fact that the anesthetic concentrations fall gradually. [Read More](#)

Maryland Biotech CEO: Virus Outbreak Won't Stop Opening of Boston R&D Hub

Boston Business Journal



A global pandemic isn't stopping a Maryland biotech from staffing a new R&D hub in Boston's Seaport. While biopharma companies and academic laboratories close up shop, Sensei Biotherapeutics plans to open a research hub in SmartLab's Seaport facility. The 18-person company will hire 10 people to begin, but plans to grow over the course of the year. Sensei hopes to tackle head, neck and other cancers by tricking the body's immune system. [Read More](#)

Scientists Identify Factors for Predicting Which Patients with Ovarian Cancer Won't Benefit from Immunotherapy-Parp Inhibitor Combination

Dana-Farber Cancer Institute



In patients with advanced ovarian cancer, a combination of drugs known as immune checkpoint inhibitors and PARP inhibitors can produce powerful remissions, clinical trials have shown, but up until now investigators haven't been able to predict which patients won't benefit from the treatment and should explore other options. A new study by Dana-Farber Cancer Institute researchers, is showing that it's now possible to identify such patients in advance. [Read More](#)

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April 3 8:00 AM	Autism Partnership Foundation 5th Annual Conference 2020 Online
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
April 15 1:00 PM	Webinar: The Modern Mentor Online
April 21 1:00 PM	Vascular Specification and Development Online

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Dana-Farber Cancer Institute

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Boston Children's Hospital

Basic Researcher/Investigator, Transplant Immunology
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