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Publications of the Week

Bacterial Metabolic State More Accurately Predicts Antibiotic Lethality than Growth Rate

First Author: Allison Lopatkin | Senior Author: James Collins (pictured) Nature Microbiology | The Wyss Institute, MIT and the Broad Institute

Jobs

Events



Growth rate and metabolic state of bacteria have been separately shown to affect antibiotic efficacy. However, the two are interrelated as bacterial growth inherently imposes a metabolic burden; thus, determining individual contributions from each is challenging. The authors measured growth and metabolism in parallel across a broad range of coupled and uncoupled conditions to determine their relative contribution to antibiotic lethality. Abstract

Epigenetic Signatures of Methylated DNA Cytosine in Alzheimer's Disease

First Author: Irfete Fetahu (pictured) | Senior Author: Yujiang Shi Science Advances | Dana-Farber Cancer Research Institute, Brigham and Women's Hospital and Harvard Medical School



Alzheimer's disease (AD), a progressive neurodegenerative disorder, is the most common untreatable form of dementia. Identifying molecular biomarkers that allow early detection remains a key challenge in the diagnosis, treatment, and prognostic evaluation of the disease. The authors report a novel experimental and analytical model characterizing epigenetic alterations during AD onset and progression. Abstract

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Local News

Harvard's Athlete-Based Next-Generation Probiotics Technology Licensed to FitBiomics

Wyss Institute



The Wyss Institute has announced that its athlete microbiome-based technology will be commercialized by Fitbiomics Inc., a recently formed startup company, to develop highly validated probiotics based on elite athletes' microbiomes, which could improve athletic performance and, conceivably, even overall health. The concept behind the new technology was developed by former Wyss Institute postdoctoral fellow Dr. Jonathan Scheiman (pictured). Read More

Polypill Holds Promise for Tackling Cardiovascular Disease in Low- and **Middle Income Countries**

Beth Israel Deaconess Medical Center



Heart attacks and strokes are collectively the leading cause of death in most lowand middle-income countries worldwide. A team of researchers led by Dr. Dhruv Kazi (pictured), Associate Director of the Smith Center for Outcomes Research at Beth Israel Deaconess Medical Center, evaluated whether it would be cost-

effective to combine several medications into a single "cardiovascular polypill" to patients who have had a previous heart attack or stroke. Read More

Vertex Snaps Up Cambridge Diabetes Startup Semma for \$950M

Boston Business Journal



Vertex Pharmaceuticals has struck a deal to acquire local diabetes-focused startup Semma Therapeutics, marking another substantial pivot for the company as CEO Jeff Leiden's tenure comes to a close. Vertex will pay \$950 million for the preclinical Cambridge startup, which is developing a cell therapy for type 1 diabetes, which affects around a million Americans. The deal is expected to close in the fourth quarter of this year. Read More

In High-Risk Neuroblastoma, Two Stem Cell Transplants May Be Better than One

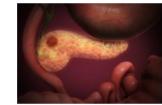
Boston Children's Hospital



Chemotherapy followed by an autologous stem cell transplant has been the standard of care for high-risk neuroblastoma. A study led by Dr. Lisa Diller (pictured), supports a new, even more intensive approach for most children with high-risk neuroblastoma: giving not one but two autologous stem cell transplants. In a multicenter randomized trial, the double transplant enabled children to survive longer without new or recurrent disease over three years of follow-up. Read More

Exposing How Pancreatic Cancer Does Its Dirty Work

Harvard Gazette



Pancreatic cancer is one of the most insidious forms of the disease, because by the time the cancer is discovered, usually it has already spread. Using both in vitro and in vivo models of pancreatic cancer and vasculature, scientists from the Wyss Institute and Boston University, have revealed the mechanism that destroys and replaces nearby blood vessels, driving malignancy. Read More

An Apple a Day: Healthy Foods Matter More than Type of Diet in Reducing **Risk of Heart Disease**

Harvard Medical School



Researchers at Harvard Medical School and Beth Israel Deaconess Medical Center have examined the effects of three healthy diets emphasizing different macronutrients-carbohydrates, proteins or unsaturated fats-on biomarkers that directly reflect heart injury. Using highly specific tests, the team found that all three diets reduced heart cell damage and inflammation, consistent with improved heart health. Read More

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🔁 Upcoming Events in Boston

From Bedside to Bench—Streamlined Workflow for Disease-September 10 Modeling Using Patient-Specific iPSC-Derived Neurons 11:45 AM STEMCELL Cambridge

September 11 2:30 PM

Career Pathways for Researchers Interested in Government and **Regulatory Agencies** Harvard Medical School September 12 FRAXA Biotech Games 2:30 PM The Common at Cambridge Crossing September 13 Science in Boston Meet and Greet 5:30 PM Meadhall September 17 Mass Cytometry Day 10:00 AM Merck Research Laboratories View All Events 📀 | Submit an Event 😜 **STEMCELL** Jobs Scientific Inside Sales Representative (Cambridge, MA) **STEMCELL** Technologies Scientific Sales Representative, Cell Separation Products (Cambridge, MA) STEMCELL Technologies Scientist, B Cell Immunology (Vancouver, BC) **STEMCELL** Technologies Customer Master Data Specialist (Vancouver, BC) **STEMCELL** Technologies Program Coordinator, Strategic Marketing (Vancouver, BC) STEMCELL Technologies View 99 Other STEMCELL Jobs 🕤 Other Science Jobs in Boston Senior Manager, Oncology Global MAP Strategic Analytics & Planning EMD Serono Cellular Process Development & Gene Editing Specialist (Contract) Bluebird Bio Scientist II, Biomarker Astellas **Statistical Programmer** Baim Institute for Clinical Research **Associate Scientist** Sanofi View 66 Other Science Jobs 🖸 | Submit a Job 🕄 STEMCELL **INFORMATION DRIVES PROGRESS.** Scientific resources to support your organoids research. LEARN MORE Submit your articles and events by reaching out to us at info@scienceinboston.com. BROUGHT TO YOU BY



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