



Volume 6.15: April 15, 2024

Publications of the Week

Direct Interrogation of Context-Dependent GPCR Activity with a Universal **Biosensor Platform**

First Authors: Remi Janicot and Marcin Maziarz | Senior Author: Mikel Garcia-Marcos (pictured) Cell | Chobanian & Avedisian School of Medicine at Boston University



G protein-coupled receptors (GPCRs) are the largest family of druggable proteins encoded in the human genome. Here, researchers developed a collection of compact ONE vector G-protein Optical (ONE-GO) biosensor constructs as a scalable platform that can be conveniently deployed to measure G-protein activation by virtually any GPCR with high fidelity even when expressed endogenously in primary cells. Abstract | Press Release

Discovery of Antibiotics That Selectively Kill Metabolically Dormant Bacteria

First Authors: Erica Zheng, Jacqueline Valeri, and Ian Andrews | Senior Author: James Collins (pictured) Cell Chemical Biology | Harvard University, Broad Institute, Wyss Institute, Whitehead Institute, and MIT



There is a need to discover and develop non-toxic antibiotics that are effective against metabolically dormant bacteria, which underlie chronic infections and promote antibiotic resistance. Here, researchers combine a stationary-phase screening method with deep learning-powered virtual screens and toxicity filtering to discover compounds with lethality against metabolically dormant bacteria and favorable toxicity profiles. Abstract | Press Release

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Awards

Revolutionizing Cancer Immunotherapy for Melanoma and Beyond Massachusetts General Hospital (MGH)



A team of researchers and physician-investigators at MGH are among the inaugural winners of a Breakthrough Award from the Krantz Family Center for Cancer Research. "Immunotherapy has altered the landscape of metastatic melanoma from a fatal disease to a treatable and potentially curable one for many patients," says Dr. Genevieve Boland (pictured), a co-investigator on the project. **Read More**

Tufts Medical Center Researcher Studying Pulmonary Hypertension in Kidney Patients Awarded Clinical Scientist in Nephrology Fellowship by **American Kidney Fund**

Tufts Medicine



The American Kidney Fund announced the recipients of this year's Clinical Scientist in Nephrology fellowship program, in which promising researchers work to improve the quality of care for people living with kidney disease and promote clinical research in nephrology. One of the recipients is Dr. Marcelle Tuttle (pictured), a first-year fellow in the Tufts Medical Center Division of Nephrology. **Read More**

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Local News

Joyce Wong's Journey in Engineering and Advocacy

Boston University College of Engineering



With a steadfast commitment to advancing knowledge and fostering interdisciplinary collaboration, Dr. Joyce Wong (pictured) is not only shaping the future of biomaterials engineering but has also championed diversity and inclusion. Dr. Wong led Boston University's ARROWS (Advance, Recruit, Retain, and Organize Women in STEM) organization from 2014 to 2023 as its inaugeral Director. Read More

A New Computational Technique Could Make It Easier to Engineer Useful **Proteins**

McGovern Institute



MIT researchers have now developed a computational approach that makes it easier to predict mutations that will lead to better proteins, based on a relatively small amount of data. Dr. Ila Fiete (pictured) is one of the senior authors on a new study, which showed how this new model can lead to improved versions of GFP and a protein from adeno-associated virus. Read More

Novel ADC and Immunotherapy Combo Shows Promise in Endometrial

Cancer Subtype Dana-Farber Cancer Institute



In a small, investigator-initiated phase 2 study by Dana-Farber Cancer Institute investigators, a novel combination of an antibody-drug conjugate (ADC) and an immune checkpoint inhibitor showed notable activity in pre-treated patients with a difficult-to-treat form of endometrial cancer. This study was led by principal investigator Dr. Rebecca Porter (pictured). Read More

The HEALEY ALS Platform Trial Completes Enrollment for Testing **Investigational Product ABBV-CLS-7262 from Calico Life Sciences**

Massachusetts General Hospital



The HEALEY ALS Platform trial is paving the way for rapid testing of several potential treatments for people with amyotrophic lateral sclerosis (ALS), a neurodegenerative disease affecting the brain and spinal cord. The trial is led by the Sean M. Healey & AMG Center for ALS at Massachusetts General Hospital in collaboration with the Northeast ALS Consortium. Read More

UMass Chan and MITRE Launch Health AI Assurance Laboratory with **MassTech Grant**

UMass Chan Medical School



UMass Chan Medical School and MITRE, operator of federally funded research and development centers, announced the establishment of the Health Al Assurance Laboratory, a collaborative initiative to advance health artificial intelligence in the public interest. The initiative is at the forefront of efforts in the U.S. to ensure AI technology in health care is safe and effective for everyone using it. Read More

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Upcoming Events in Boston

2024 MIT Research Slam Showcase April 17 5:00 PM MIT Welcome Center

April 29 **Martinos Center Women in Science Networking Event** 5:30 PM Martinos CNY Building

May 14 **Biotech Networks Scientific Speed Networking** 6:00 PM Lord Hobo Boston

Mutational Scanning Symposium 2024 May 22 8:00 AM **Broad Institute**

Consortium for Health Innovation Partnerships June 8 9:00 AM

MGH Institute of Health Professions

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Science Jobs in Boston

Senior Research Associate

Postdoctoral in Autophagy, Cell Biology, Cardiovascular Physiology and Pathophysiology, and Cancer Tufts University School of Medicine

Research Associate/Senior Research Associate, TCR Discovery

Research Scientist 3

2024 Intern, Biological Sciences

TScan Therapeutics

Moderna

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