

Volume 7.10: March 11, 2024

#### Publications of the Week

#### Flipped C-Terminal Ends of APOA1 Promote ABCA1-Dependent Cholesterol **Efflux by Small HDLs**

First Author: Yi He | Senior Author: Jay Heinecke (pictured) Circulation | UW



Cholesterol efflux capacity (CEC) predicts cardiovascular disease independently of high-density lipoprotein (HDL) cholesterol levels. Isolated small HDL particles are potent promoters of macrophage CEC by the ABCA1 (ATP-binding cassette transporter A1) pathway, but the underlying mechanisms are unclear. Here, researchers present a mechanism for the enhanced CEC of small HDLs. Abstract

#### Integrative Systems Biology Reveals NKG2A-Biased Immune Responses Correlate with Protection in Infectious Disease, Autoimmune Disease, and Cancer

First Author: Daniel Chen | Senior Author: James Heath (pictured) Cell Reports | Institute of Systems Biology, Fred Hutch, and UW



Infection, autoimmunity, and cancer are principal human health challenges of the 21<sup>St</sup> century. Often regarded as distinct ends of the immunological spectrum, recent studies hint at potential overlap between these diseases. Here, researchers reveal that NKG2A<sup>+</sup> CD8<sup>+</sup> T cells correlate with reduced inflammation and increased humoral immunity and that they resemble T resident memory cells. **Abstract | Press Release** 

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#### Awards

# Advancing Knowledge of Vascular Calcification for Better Human Health UW Department of Bioengineering

The National Heart, Lung, and Blood Institute Outstanding Investigator Award is designed to boost scientific productivity and innovation for experienced researchers who have an outstanding track record in heart, lung, blood and sleep research. Coinvestigators Drs. Cecilia Giachelli (pictured) and Marta Scatena have been awarded \$7 million in funding through the Outstanding Investigator Award for the next seven years. Read More

# Transplant Organ Freezing and Rewarming Technique Wins UW Health **Innovation Challenge**

GeekWire



A team working on prolonging the lifespan of transplant organs took home the top prize in the 9<sup>th</sup> annual Hollomon Health Innovation Challenge at the University of Washington. BioLegacy, made up of Seattle University and University of Washington students (pictured), was awarded the \$15,000 Washington Research Foundation Capital Grand Prize for its organ cryopreservation and rewarming innovation. Read More

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# Local News

#### Allen Institute Joins the Weill Neurohub

Allen Institute



The Allen Institute has officially become the newest member of the Weill Neurohub, a collaborative research network advancing treatments for neurological diseases. The new partnership will integrate the Allen Institute's expertise in large-scale brain mapping and brain recording with the cutting-edge research of the Weill Neurohub's founding members: the University of California and UW. Read More

# New Research Unveils Effective STEM Program Models for High School **Students from Historically Marginalized Communities**

Institute for Systems Biology (ISB)



An ISB-led study has unveiled important insights and actionable protocols into providing equitable STEM experiences for high school students from historically marginalized communities. The research was led by Drs. Claudia McLaughlin Ludwig and Nitin Baliga (pictured) and offers consequential insights for advancing informal STEM learning. Read More

#### Phase Genomics Gets \$1.5M Grant from Gates Foundation to Fight Cow **Burp Methane**

GeekWire



Seattle biotech startup Phase Genomics is receiving \$1.5 million from the Bill & Melinda Gates Foundation to fund research into two important areas: killing drugresistant bacteria and battling methane-producing microorganisms that live in the guts of cows and other ruminants. The new grant will support a year-long project to create an antimicrobial discovery platform to tackle these challenges with a focus on Campylobacter infections. Read More

# Prototype Device Effectively Treated Multiorgan Failure

**UW Medicine** 



Clinical trial results describe a novel medical device that, in a ten-patient pilot, showed remarkable success at rescuing people from multiorgan failure caused by acute-on-chronic liver failure. The findings appear in the Journal of American Society for Artificial Internal Organs. The co-lead authors from the University of Washington are Drs. Suhail Ahmad (pictured, right) and Dayong Gao (left). **Read More** 

# Q&A: How a Potential Treatment for Alzheimer's Disease Could Also Work for Type 2 Diabetes

UW



A UW research team previously showed that a synthetic peptide can block the formation of small, toxic Alzheimer's protein clusters. Now the team used a similar peptide to block the formation of islet amyloid polypeptide clusters for type 2 diabetes. Research team lead Dr. Valerie Daggett (pictured) discusses about protein aggregation and how these synthetic peptides work. Read More

## **Execution on Its Clinical Research and Development Initiatives Business Wire**

**Know Labs Secures U.S. \$12 Million Funding for Company's Further** 



announced it has entered into a funding agreement for an investment of up to \$12 million, of which it has executed a \$4 million close with Lind Global Fund II LP. The Know Labs's platform technology uses spectroscopy to direct electromagnetic energy through a substance or material to capture a unique molecular signature. **Read More** 

Know Labs, an emerging developer of non-invasive medical diagnostic technology,

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#### Upcoming Events in Seattle You Can't See the Trees for the Forest: Dissecting the Many Causal March 20

**Roots Driving Autoimmune Disease Genetic Risk** 12:00 PM Online April 4 Biomedical Innovation Fireside Chats: Regulatory Strategy

2:00 PM Online **Life Science Innovation Northwest 2024** April 17 - 18

8:00 AM Seattle Convention Center **Biomedical Innovation Fireside Chats: Product Development** April 18

April 27 SEP School Year Workshop: Cancer Fighting Proteins 9:00 AM Fred Hutch

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# Science Jobs in Seattle **Research Associate I, Protein Science Department**

2:00 PM

## Allen Institute Post-Doctoral Research Fellow, Bloom Lab

Fred Hutch **Director, Applied Data Science** 

A-Alpha Bio **Medical Science Liaison** 

Boehringer Ingelheim Medical Science Liaison, Immunology

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