Volume 6.44: November 13, 2023

Publications of the Week

Induction of Long-Term Tolerance to a Specific Antigen Using Anti-CD3 Lipid Nanoparticles Following Gene Therapy

First Author: Chun-Yu Chen | Senior Author: Carol Miao *(pictured)*
Molecular Therapy Nucleic Acids | Seattle Children's Research Institute

Development of factor VIII (FVIII) inhibitors is a serious complication in the treatment of hemophilia A (HemA) patients. In clinical trials, anti-CD3 antibody therapy has been effective in modulating immune response. In this study, researchers delivered mRNA-encapsulated lipid nanoparticles (LNPs) encoding therapeutic anti-CD3 antibody to overcome the anti-FVIII immune responses in HemA mice. **Abstract**

A Novel Formulation Enabled Transformation of Three-HIV Drugs Tenofovir–Lamivudine–Dolutegravir from Short-Acting to Long-Acting All-in-One Injectable

First Author: Simone Perazzolo *(pictured)* | Senior Author: Rodney Ho
AIDS | UW

This study aimed to develop an injectable dosage form of the daily oral HIV drugs, tenofovir, lamivudine, and dolutegravir (TLD), creating a single, complete, all-in-one TLD three-drug-combination that demonstrates long-acting pharmacokinetics. This study confirms that TLD with disparate properties can be made stable by drug-combination-nanoparticle technology to enable TLD concentrations of four weeks in nonhuman primates. **Abstract**

View All Publications

Awards

The Prostate Cancer Foundation Announces the 2023 Young Investigator Awards Totaling More Than $6 Million for Prostate Cancer Research

The Prostate Cancer Foundation

The Prostate Cancer Foundation (PCF) has announced the Class of 2023 Young Investigator Award recipients totaling $6.1 million in funding for innovative prostate cancer research. Twenty-eight PCF Young Investigator Awards totaling $6.1 million were awarded to the promising next generation of cancer researchers. Among the recipients is Fred Hutch's Dr. Robert Patton *(pictured)*. **Read More**

Induction of Long-Term Tolerance to a Specific Antigen Using Anti-CD3 Lipid Nanoparticles Following Gene Therapy

UW Department of Bioengineering

Dr. Ayokunle Olanrewaj *(pictured)*, Assistant Professor for UW Bioengineering, has been awarded a Rogel Faculty Support Award. Established in 2002, the grant honors an outstanding junior faculty member who has made important contributions to the Department of Bioengineering, the College of Engineering, and the University of Washington. **Read More**

UW Medicine Inventor of the Year: Ruikang Wang

The Huddle

Dr. Ruikang Wang *(pictured)* has always had a passion and desire to apply engineering techniques to medicine. When he was young, his dream was to become a scientist to improve the quality of life of others. And it came true. Wang's Biophotonics and Imaging Laboratory combines bioengineering with ophthalmology to create new technology to help treat ocular diseases, advancing the field. He has been awarded for his work as UW Medicine's Inventor of the Year. **Read More**

View All Awards

Local News

Diving Deep into the Mouth's Microbial Dark Matter

Discover

There's a whole world of stunning and strange microorganisms that scientists are just starting to discover. But doing so hasn't been a walk in the microbial park. To identify these microbes and to decipher their secrets, scientists have needed to think outside of the box, searching for microbes in some pretty odd and outlandish places. **Read More**

Petter Bjornstad to Direct UW Medicine Diabetes Institute

UW Medicine

Dr. Petter Bjornstad *(pictured)* will be the new Director of the UW Medicine Diabetes Institute effective May 2024. He leads an exceptional bench to bedside research program with an international reputation for innovation exploring the pathophysiologic underpinnings of diabetic kidney disease and optimal treatment strategies to prevent the complications of diabetes across the lifespan. **Read More**

Insulin Resistance Turns Tidy Brain Cells into Slobs — Which Could Be a Link Between Diet and Neurodegenerative Diseases

Fred Hutch

Neurons like it tidy. Brain cells called glia help neurons perform at their best by cleaning up toxic cellular debris. A new study shows a diet high in sugar makes glia insulin resistant — which turns them into apathetic housekeepers that let damaging debris pile up. "These findings show how eating processed food doesn't just affect weight gain, it affects cognitive function. It affects a deep functioning of your body," said Fred Hutch obesity researcher Dr. Akhila Rajan *(pictured)*. **Read More**

Adaptive Biotechnologies Announces New Translational Collaboration to Measure Minimal Residual Disease with clonoSEQ® Assay Across BeiGene's Lymphoid Malignancy Pipeline

BioSpace

Adaptive Biotechnologies Corporation is a commercial stage biotechnology company that aims to translate the genetics of the adaptive immune system into clinical products to diagnose and treat disease. They announced a multi-year, global translational collaboration with BeiGene to assess minimal residual disease using clonoSEQ® assay technology across the company's pipeline of treatments for patients with lymphoid malignancies. **Read More**

Unlocking the Secrets of Complex Genomic Rearrangements in Disease

Pacific Northwest Research Institute (PNRI)

The human genome is a dynamic and ever-evolving puzzle shaped by various mutations and the forces of evolution. In a pair of recent studies, PNRI's Dr. Cláudia Carvalho *(pictured)* and her lab are making significant strides in unraveling the intricate relationship between our genes and their structure, shedding new light on the genetic underpinnings of specific diseases. **Read More**

View All Articles | **Submit an Article**

Upcoming Events in Seattle

November 14 12:00 PM	**WIB-National: From Ask to Audit – A Conversation Around Company Best Practices & Stages of Funding** Online
November 15 1:00 PM	**Long-Read Sequencing Symposium** Fred Hutch
November 18 5:00 PM	**46th Annual Seattle Festival of Trees Guild Gala** Fairmont Olympic Hotel
November 19 6:30 PM	**Painting with Bacteria** SoundBio Lab
December 2 9:00 AM	**yEvo Workshop** Fred Hutch

View All Events

Science Jobs in Seattle

Associate Operations Director
Fred Hutch

Assistant/Associate Professor, Hematology and Oncology
UW

Event Advertising Coordinator
SoundBio Lab

Lab Assistant
LabCorp

Clinical Research Faculty Assistant/Associate Member
Benaroya Research Institute

View 56 Other Science Jobs

Submit your articles and events by reaching out to us at info@scienceinseattle.com.