

Volume 7.21: May 28, 2024

Publications of the Week

Computational Design of Non-Porous pH-Responsive Antibody **Nanoparticles**

First Author: Erin Yang (pictured) | Senior Author: Neil King and David Baker Nature Structural & Molecular Biology | Institute for Protein Design, Howard Hughes Medical Institute, and UW



Programming protein nanomaterials to respond to changes in environmental conditions is a current challenge for protein design and is important for targeted delivery of biologics. This study describes the design of octahedral non-porous nanoparticles with a targeting antibody on the two-fold symmetry axis, a designed trimer programmed to disassemble below a tunable pH transition point on the three-fold axis, and a designed tetramer on the four-fold symmetry axis. Abstract

Gene Editing for Latent Herpes Simplex Virus Infection Reduces Viral Load and Shedding *In Vivo*

First Author: Martine Aubert | Senior Author: Keith Jerome (pictured) Nature Communications | Fred Hutch and UW



Anti-HSV therapies are only suppressive because they do not eliminate latent HSV present in ganglionic neurons, the source of recurrent disease. Researchers have developed a potentially curative approach against HSV infection, based on gene editing using HSV-specific meganucleases delivered by adeno-associated virus vectors. Abstract | Press Release

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Awards

New Study of Asian, Native Hawaiian, and Pacific Islander Populations Gets **\$38.7M Grant**

Fred Hutch



The National Institutes of Health is building a new population study from the ground up. Fred Hutch has been awarded \$38.7 million in a seven-year grant to coordinate this work. Dr. Garnet Anderson (pictured, left) is leading this new national collaboration, which will focus exclusively on the health issues of Asian Americans, Native Hawaiians, and other Pacific Islanders. Read More

Thirteen UW Students Receive Fulbright Exchange Awards for Study, **Research and Teaching Positions Around the World**



Thirteen UW students and recent alumni were awarded Fulbright U.S. Student Program scholarships this year, joining about 2,000 students and recent graduates from around the country to study and teach abroad. Among the thirteen awardees is Claire Rater (pictured), a Master's student in Epidemiology whose research grant will fund travel to Colombia. Read More

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Local News

Predicting Breast Cancer Risk After a High-Risk Benign Lesion Diagnosis Kaiser Permanente Washington Health Research Institute (KPWHRI)



A newly funded study will improve clinical guidelines for managing high-risk benign breast lesions. The project will develop risk models to support clinical guidelines to help physicians guide people with high-risk lesions in managing their condition. The work is funded by the National Cancer Institute with \$800,165 to KPWHRI over five years. Read More

Novel Chemoimmunotherapy Approach Shows Promise for B-Cell Acute Lymphoblastic Leukemia in Phase 1 Study at Fred Hutch Fred Hutch



Fred Hutch Cancer Center hematologist-oncologist Dr. Ryan Cassaday (pictured) designed a phase 1 study for B-cell acute lymphoblastic leukemia with a novel chemoimmunotherapy approach. In the first clinical trial of dose-adjusted EPOCH along with inotuzumab ozogamicin in adults with relapsed or refractory B-cell acute lymphoblastic leukemia, researchers found this combination was well tolerated and produced a high overall response rate (83%). Read More

'If You Want to Go Far, Go Together'

Fred Hutch



Fred Hutch Cancer Center scientist Dr. Jennifer Adair (pictured, third from left) is on a mission to foster worldwide collaboration on potentially curative gene therapies. Holder of the Fleischauer Family Endowed Chair in Gene Therapy Translation, Adair has co-authored two articles published in Science Translational Medicine as part of a special series on global access to these therapies that she curated. **Read More**

Move Over, Wastewater. Store-Bought Milk Could Be Another Way to Track the Bird Flu Outbreak in Cows

STAT News



Scientists from the University of Washington and the Fred Hutchinson Cancer Center have managed to generate a full genetic sequence of H5N1 virus from milk, a development they suggest means commercially purchased milk products could be used to monitor the progress of the bird flu outbreak in dairy cattle and to check for important changes in the virus over time. Read More

A-Alpha Bio Lands \$14.5M from Department of Defense to Prep for Future **Biological Threats**

GeekWire



A-Alpha Bio will receive \$14.5 million from the Department of Defense to expand a project with a national lab to help prepare for future biological threats using the company's machine learning tools. The partnership brings together A-Alpha Bio, a Seattle-based spinout of the Institute for Protein Design at UW, and the federally funded Lawrence Livermore National Laboratory. Read More

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Interesting Articles

Updated TL1 Offering: Unique Funding Opportunity for Pre-Doctoral Researchers

Institute of Translational Health Sciences (ITHS) The National Institutes of Health is offering a unique funding opportunity for



students interested in basic or patient-oriented research related to conditions that co-occur with Down syndrome, linked to awards held by ITHS. The initiative seeks to better understand risk and resilience factors co-occurring with Down Syndrome such as cognitive decline, cancers, and autoimmune disorders. Read More

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Upcoming Events in Seattle June 11 Human and Non-Human Primate Brain Atlases and Tools

9:00 AM Online BiopharmaPM Seattle Forum Morning Networking Event and a June 12

Presentation 7:30 AM Seattle Children's Research Insititute

Hack Your Health — The Secrets of Your Gut June 13 7:30 PM The Wyncote NW Forum

7th TERMIS World Congress 8:00 AM Seattle Convention Center June 27

Where AI Meets Humanity in Healthcare: What's Next? 10:00 AM Seattle University

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Scientist/Senior Scientist, Protein Design

Science Jobs in Seattle

June 25

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Technical Project Manager III

Allen Institute for Cell Science Senior Medical Science Liaison, Inflammation (Allergy/Asthma)

Principal Scientist, Data Science & Cell Therapy Regeneron

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