



Volume 7.25: June 24, 2024

#### Publications of the Week

### Modulation of FGF Pathway Signaling and Vascular Differentiation Using **Designed Oligomeric Assemblies**

First Authors: Natasha Edman, Ashish Phal, Rachel Redler, and Thomas Schlichthaerle | Senior Authors: Hannele Ruohola-Baker and David Baker (pictured) Cell | UW, Institute for Protein Design, Howard Hughes Medical Institute, Brotman Baty, and Allen Institute

Many growth factors and cytokines signal by binding to the extracellular domains of their receptors and driving association and transphosphorylation of the receptor intracellular tyrosine kinase domains. To enable systematic exploration of how receptor valency and geometry affect signaling outcomes, researchers designed cyclic homo-oligomers with up to eight subunits using repeat protein building blocks that can be modularly extended. Abstract

## Germline-Like TCR-α Chains Shared Between Autoreactive T Cells in Blood and Pancreas

First Author: Peter Linsley (pictured) | Senior Author: Karen Cerosaletti Nature Communications | Benaroya Research Institute



Human type 1 diabetes (T1D) is caused by autoimmune attack on the insulinproducing pancreatic beta cells by islet antigen-reactive T cells. How human islet antigen-reactive (IAR) CD4<sup>+</sup> memory T cells from peripheral blood affect T1D progression in the pancreas is poorly understood. Here, researchers aim to determine if IAR T cells in blood could be detected in the pancreas. **Abstract | Press Release** 

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Awards

## Dr. Ayokunle Olanrewaju Receives Prestigious Beckman Young Investigator Award

UW Department of Bioengineering



The Arnold and Mabel Beckman Foundation awarded UW Bioengineering and Mechanical Engineering Assistant Professor Dr. Ayokunle Olanrewaju (pictured) with the Beckman Young Investigator Award. The Beckman Young Investigator Program offers research funding to highly promising early-career faculty in the chemical and life sciences. Read More

# Four Bioengineering Professors Receive WRF Grant for Pioneering Life-**Science Projects**

**UW** Department of Bioengineering



UW Bioengineering faculty have been awarded major new grant funding by the Washington Research Foundation. These teams are tasked with developing detailed plans for projects that could significantly advance Washington state's lifescience ecosystem and improve lives. The teams are led by Drs. Jennifer Davis (pictured), Elizabeth Nance, Shelly Sakiyama-Elbert, and Kelly Stevens. **Read More** 

# **Pew Biomedical Scholars**



The Pew Scholars Program in the Biomedical Sciences provides funding to young investigators of outstanding promise in science relevant to the advancement of human health. The 2024 awardees include two Seattle-based researchers. Drs. Claudia Vásquez (pictured) and Devin Schweppe are both from UW and are in their first few years of their appointment at the Assistant Professor level. Read More

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## Local News

## Before They Bite — UW Researcher Hones In on Which Scents, Colors Make Us a Tempting Target for Hungry Mosquitoes

**UW News** 



UW researchers are hoping a mosquito's itchy bites could soon become a thing of the past. Dr. Jeffrey Riffell, a UW Biology Professor, studies mosquito sensory systems, particularly their sense of smell. Knowing what attracts mosquitoes can help develop better control and containment efforts against these insects, whose bites can also transmit malaria, Zika, dengue, and other diseases. Read More

### Cyrus Biotech Spins Out Company to Expand Reach of Versatile Drug **Development Software**

GeekWire



Seattle startup Cyrus Biotechnology is spinning out a business that will expand access to the company's software technology, with the potential of supporting innovation in drug development, agriculture, synthetic biology, and manufacturing. The new for-profit subsidiary is called Levitate Bio and will be owned by the Rosetta Commons Foundation. Read More

## Nearly All Syphilis Strains in US Resistant to Azithromycin **UW Medicine**



US syphilis cases have surged. Nearly all isolates of the bacterium that causes syphilis bear mutations that make them resistant to the antibiotic azithromycin, according to a study of samples collected from the United States and Canada. The findings were reported by researchers in Dr. Alex Greninger's (pictured) lab in the New England Journal of Medicine. Read More

# Secret to Tamping Down GVHD May Lie in Microbial Genetics

Fred Hutch



Risk of graft-vs.-host disease (GVHD), an often-debilitating and sometimes-deadly bone marrow transplant complication, can be reduced by matching key immune genes in a transplant recipient and their donor. But new work led by Drs. Geoff Hill (pictured) and Albert Yeh in mouse transplant models suggests that researchers seeking new GVHD-tempering strategies should cast an even wider net. **Read More** 

### 'Bully' Gain Resistance to Last-Resort Antibiotic Fred Hutch

What Doesn't Kill You Makes You Stronger: Bacteria That Withstand Fungal



5:30 PM

resistant, according to new work published June 20 in the journal PLOS Biology by Fred Hutch scientists. "Our study really reveals a new mechanism with the potential to explain how bacteria might acquire antibiotic resistance during polymicrobial infections," said lead author Dr. Phoebe Hsieh (pictured). Read More

A mineral-hogging fungus can "bully" bacteria into becoming more antibiotic

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#### **Upcoming Events in Seattle** 7<sup>th</sup> TERMIS World Congress June 25

8:00 AM Seattle Convention Center **Breast Cancer Breakthroughs Fundraising Event** June 25

Sole Repair

3:00 PM SoDo Park June 25 WIB-Seattle: Summer Social in Capitol Hill

June 27 Where AI Meets Humanity in Healthcare: What's Next? 10:00 AM Seattle University

**Laser Pride** June 30 11:30 AM Pacific Science Center

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# Science Jobs in Seattle Postdoctoral Fellow, Page Lab

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