

Publications of the Week

Automatic and Accurate Ligand Structure Determination Guided by Cryo-Electron Microscopy Maps

First Author: Andrew Muenks | Senior Author: Frank DiMaio (*pictured*)
Nature Communications | UW



Advances in cryo-electron microscopy (cryoEM) and deep-learning guided protein structure prediction have expedited structural studies of protein complexes. However, methods for accurately determining ligand conformations are lacking. The authors develop EMERALD, a tool for automatically determining ligand structures guided by medium-resolution cryoEM density. [Abstract](#)

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Awards

UW Cancer Vaccine Institute Receives Science Fair Award for Breast Cancer Vaccine

UW Medicine



Scientists at the University of Washington School of Medicine led by Dr. Nora Disis (*pictured*) are winners of the 2023 Gizmodo Science Fair for their experimental breast cancer vaccine. In November, the researchers published data from a Phase I safety trial of their vaccine, which involved 66 women with advanced-stage breast cancer. [Read More](#)

Fred Hutch Announces 2023 Harold M. Weintraub Graduate Student Award Recipients

Fred Hutch



Fred Hutch has announced 12 recipients (*pictured*) of the 2023 Harold M. Weintraub Graduate Student Award, which recognizes exceptional achievement in graduate studies in the biological sciences. This year's recipients come from universities around the US and study a range of topics, such as how the sense of smell develops, and new technologies for gene editing, stem cell, and machine learning approaches to human heart development. [Read More](#)

Endometriosis Test Wins Top Prize at University Of Washington Health Innovation Competition

GeekWire



UW students (*pictured*) developing a potential test for endometriosis took home the top prize at the 8th annual UW Hollomon Health Innovation Challenge. The competition gives students the chance to make connections and win funding that could help develop their school projects into startups. The winning group, Endoze, received \$15,000 sponsored by Washington Research Foundation. [Read More](#)

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Local News

Two Rare Antibodies, One Drug, Four Viruses

Fred Hutch



With a team of researchers at Fred Hutch, Dr. Jim Boonyaratanakornkit (*pictured*) is reporting progress on the development of an experimental drug combination to prevent infection by four common respiratory viruses. Before the emergence of COVID-19, these four have been blamed for more than half of serious lung infections in patients with compromised immune systems, such as those recovering from transplants. [Read More](#)

Thermostable TB Vaccine Found Safe and Immunogenic in Humans

Genetic Engineering & Biotechnology News



The Access to Advanced Health Institute has published the results of a Phase I clinical trial demonstrating the safety and immunogenicity of a new, thermostable vaccine against tuberculosis (TB). A non-temperature stable form of the candidate previously had been tested in several clinical trials. However, this newly reported study was the first clinical trial of any subunit TB vaccine candidate in a thermostable form. [Read More](#)

For Women's History Month: Q&A with Scientific Leaders

Kaiser Permanente



March is Women's History Month and Kaiser Permanente is celebrating by talking with some of the institute's directors. The Executive Director of Kaiser Permanente Washington Health Research Institute (KPWHRI) is Dr. Rita Mangione-Smith (*pictured*), who is also Vice President for Research and Health Care Innovation for Kaiser Permanente Washington. Among KPWHRI's 11 directors are nine women, with women leading all four scientific divisions. [Read More](#)

WRF Welcomes Carol Dahl and Desney Tan as New Board Members

Washington Research Foundation



Washington Research Foundation (WRF), a leader in advancing life sciences in Washington state, has announced the appointment of two new board members: Dr. Carol Dahl (*pictured, left*), a strategic executive leader with expertise in science and technology innovation, and Dr. Desney Tan (*right*), Vice President and Managing Director of Microsoft Health Futures. [Read More](#)

BBI Co-Leads Creation of New Molecular Atlas for Scientists Studying Sleep, Mood, and Other Brain Disorders

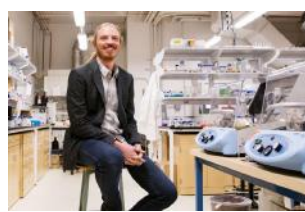
Brotman Baty Institute (BBI)



"The cellular and molecular origins of complex human thought and behavior remain largely a mystery." Most articles in peer-reviewed journals do not begin with such a philosophical statement. But then other papers do not summarize the creation of a molecular atlas across the brain. The study generated a 4.2 million cell transcriptomic and epigenomic atlas across the brain of the rhesus macaque. [Read More](#)

ISCRM Researchers Recover Cells from Hydrogels with Minimal Disturbance

Institute for Stem Cell & Regenerative Medicine (ISCRM)



A new study from the labs of Drs. Cole DeForest (*pictured*) and Jennifer Davis at UW describes a new method for cell extraction using engineered versions of an enzyme called sortase that have evolved to recognize and break specific peptide sequences. "This work presents an exciting strategy to get cells out of engineered 3D biomaterials without inadvertently impacting their function in the process," says Dr. DeForest. [Read More](#)

COVID-19 Vaccine Efficacy Study Has Added RSV, Flu Testing

UW Medicine



Pacific Northwest researchers are enrolling 3,500 children and adults to participate in a study to assess how well COVID-19 vaccines protect against infection in the community. The study will also look at the rates of respiratory syncytial virus (RSV) and influenza, commonly called the flu. The CASCADIA study is being led jointly by the UW School of Medicine in Seattle and the Kaiser Permanente Center for Health Research in Portland. [Read More](#)

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Interesting Articles

The Unexpected Career Opportunities in Life Sciences

Osmosis



"There's a real diversity of jobs available that folks don't always think about initially when they think about going into healthcare," says Dr. Marc Cummings (*pictured*), the President and CEO of Life Science Washington. The Seattle region is a well-established hub in the growing biotech sector due to a unique blend of strengths including longstanding non-profit research institutions and powerhouse tech companies such as Microsoft and Amazon. [Read More](#)

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Upcoming Events in Seattle

March 14 4:00 pm	The Science of Alzheimer's Allen Institute
March 15 4:00 pm	Plenary Session with Otsuka Conference Center
March 21 6:30 pm	The Power and Perils of Gene Editing 400 Dexter Ave N.
March 22 8:00 am	From the Laboratory to Leadership – Virtual 2023 Spring Program Online
March 28 5:00 pm	Deloitte PNW Life Science Industry Networking Topgolf Renton

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Science Jobs in Seattle

Senior Manager, QA Operations Just - Evotec Biologics
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Senior Clinical Lab Technologist Adaptive Biotechnologies
Research Associate II, Process Development Universal Cells-Astellas
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Using Social Media to Advance Your Scientific Career

Webinar by Dr. Kristina McBurney and Leanna Bedell



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