

Publications of the Week

Immune Predictors of Mortality Following RNA Virus Infection

First Author: Jessica Graham (pictured, second from left) | Senior Author: Jennifer Lund (fourth from left)
The Journal of Infectious Diseases | Fred Hutch and UW



The authors completed a screen of mice from the Collaborative Cross infected with influenza, SARS-coronavirus, and West Nile virus. A range of disease manifestations was exhibited upon infections, which was used to identify strains with and without mortality following infection. Comprehensive pre-infection immunophenotyping was used to identify global baseline immune correlates of protection from mortality to virus infection. [Profile](#) | [Abstract](#)

Human-Specific Tandem Repeat Expansion and Differential Gene Expression during Primate Evolution

First Author: Arvis Sulovari | Senior Author: Evan Eichler (pictured)
PNAS | UW



Short tandem repeats (STRs) and variable number tandem repeats (VNTRs) are important sources of natural and disease-causing variation, yet they have been problematic to resolve in reference genomes and genotype with short-read technology. The authors have created a framework to model the evolution and instability of STRs and VNTRs in apes. [Abstract](#)

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Awards

Targeting Metastatic Breast Cancer with CAR T-Cell Immunotherapy

Fred Hutch



A team of researchers, led Drs. Cyrus Ghajar (pictured) and Stanley Riddell of Fred Hutch, have received a coveted four-year, \$4 million Department of Defense Breast Cancer Research Program Breakthrough award. The award will launch an innovative investigation aimed at preventing late-onset, metastatic breast cancer with CAR T-cell immunotherapy. [Read More](#)

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Local News

Baiting for B Cells: A Clever New Way to Make an AIDS Vaccine

Fred Hutch



Scientists at Fred Hutch, co-led by Drs. Justin Taylor (pictured), Andrew McGuire and Leo Stamatatos, have developed a new strategy to counter the frustrating ability of HIV to sidestep vaccines designed to block it. It is a scheme that relies on one of the oldest tricks in the book for a fisherman: Use the right bait. The Hutch vaccine researchers used a tiny chunk of protein as bait to fish for extremely rare white blood cells hidden within ordinary blood. [Read More](#)

A New High-Resolution Map of How the Brain Is Wired

Allen Institute for Brain Science



In their quest to map the millions of neural highways and connections in the brain, researchers at the Allen Institute for Brain Science have made a significant step forward, unveiling a new high-resolution view of the wiring diagram of the mouse brain. They have traced thousands of connections between brain areas and lay the groundwork for researchers to better understand how brain circuitry might go awry in diseases and disorders. [Read More](#)

Genes from 'Fossil' Virus in Human DNA Found to Be Active

UW Medicine



Genes from a virus that was stitched into the human genome thousands of years ago are active, producing proteins in the human brain and other tissues, according to researchers at the UW School of Medicine. Their finding might help explain why people who inherit this "fossil virus" appear to have a higher risk of developing neurodegenerative diseases such as multiple sclerosis and Alzheimer's. [Read More](#)

New Database Enhances Genomics Research Collaboration

The Walter and Eliza Hall Institute of Medical Research



The MaveDB database is a repository for data from experiments – called multiplex assays of variant effect – that systematically measure the impact of thousands of individual sequence variants on a gene's function. MaveDB is the first publicly accessible database for this data, and was developed by an international team including Professor Douglas Fowler (pictured) at UW. [Read More](#)

Marker Reveals if Benign-Appearing Meningiomas are Perilous

UW Medicine



Researchers led by Dr. Manuel Ferreira (pictured) at UW Medicine have discovered that a modified protein in benign-appearing meningiomas can reveal which are truly benign and which are more dangerous and require more aggressive treatment. The finding may also offer clues as to why these 'benign' tumors, which arise from the membranes that surround the brain and spinal cord, start to grow rapidly and spread. [Read More](#)

Infectious Cancer in Mussels Spread across the Atlantic

eLife



By conducting DNA sequencing, investigators at the Pacific Northwest Research Institute have found that an infectious cancer that originated in one species of mussel growing in the Northern Hemisphere has spread to related mussels in South America and Europe. The findings also suggest that humans may unwittingly be contributing to the worldwide spread of infectious cancers that can affect mussels and other bivalves such as clams and cockles. [Read More](#)

How a Studio Art Major Turned Neuroscientist Is Trying to Cure Hearing Loss

The Daily



Dr. Jennifer Stone (pictured), a Research Professor at the UW, started her college career as a studio art major at Skidmore College, though switched to biology after she took an introductory course she was dreading, after bad experiences in high school. She found herself connecting with the professors in the department and realized biology's potential as an outlet to continue to express her artistic side. [Read More](#)

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Interesting Articles

NIH Fails to Correct Pattern of Violating Spending Transparency Law on Government Animal Testing

Washington Examiner



The National Institutes of Health (NIH) has not stopped violating a federal spending law on government animal research after an audit earlier this year found systemic transparency failures by the agency. Taxpayer watchdog White Coat Waste Project has planned to file a complaint with the Department of Health and Human Services, requesting an investigation into widespread violations of the Stevens Amendment by all seven taxpayer-funded National Primate Research Centers. [Read More](#)

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Upcoming Events in Seattle

- November 14 5:00 PM **Life Science Industry Bothell Networking Event**
Life Science Washington HQ
- November 16 7:30 PM **GEEK OUT! A Variety Comedy Night of Science, Geekiness, and Fun!**
Big Time Brewery and Alehouse
- November 17-19 12:00 PM **Cell Symposia: Hallmarks of Cancer**
Motif Seattle
- November 22 6:30 PM **PacSci Happy Hour: Science Improv**
Pacific Science Center
- November 27 8:00 AM **BioTech & Bagels Morning Meetup**
Capital One Cafe

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Science Jobs in Seattle

- Senior Product Manager, Life Sciences Research**
Adaptive Biotechnologies
- Scientist, Immunology**
Seattle Genetics
- Staff Scientist, Vaccine Development**
Fred Hutchinson Cancer Research Center
- Postdoctoral Scholar, Nephrology**
UW Department of Medicine
- Senior Research Associate II, Oncology/ Immuno-Oncology**
Gilead

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