

Publications of the Week

Approaching a Connectome of the Human Foveal Retina

First Author: Yeon Jin Kim (*pictured*) | Senior Author: Dennis Dacey
Proceedings of the National Academy of Sciences | Washington National Primate Research Center and UW



The foveal retina is a unique primate specialization and a promising target for the first connectome of a human central nervous system structure. In the fovea, neural cells and circuits are miniaturized and compressed to sample the visual image at high spatial resolution, initiating form, color, and motion perception. Here, researchers report a working-draft human foveal connectome.

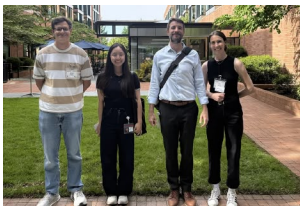
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Awards

Speed Dating? Shark Tank? Trainees Promote Their Ideas for Incorporating AI Into Their Science

Fred Hutch



As AI becomes more entrenched in society, scientists are increasingly exploring ways that the technology can enhance their work and make the way they approach both research and patient care more efficient. Fast Pitch AI featured graduate students and postdocs presenting a three-minute pitch about their project and how applying AI would enhance the outcomes. [Read More](#)

Eleven UW Professors Elected to Washington State Academy of Sciences

UW News



Twelve faculty members at UW have been elected to the Washington State Academy of Sciences. They are among 30 scientists and educators from across the state announced July 16 as new members. Among the twelve is Dr. Ruth Etzioni (*pictured*), Affiliate Professor of Health Services and Biostatistics and Professor in the Public Health Sciences Division at the Fred Hutch. [Read More](#)

Small Cell Lung Cancer Research Gets a Boost

Fred Hutch



Small cell lung cancer (SCLC) is fraught with challenges. Now thanks to a new \$1.5 million grant from the Andy Hill Cancer Research Endowment Fund, Fred Hutch biologist Dr. David MacPherson (*pictured, left*) and computational biologist Dr. Gavin Ha (*right*) plan to bring a reliable, noninvasive way to profile and treat SCLC tumors. [Read More](#)

Local B Cell Response to Recurrent Varicella Zoster Virus Infection

UW Medicine



Drs. Christine Johnston (*pictured, left*) and David Koelle (*right*) have received an R21 award for their project, "Local B cell response to recurrent varicella zoster virus infection." The goal of the grant is to optimize human-derived monoclonal antibodies to replace the FDA-approved immunoglobulin product currently used for pregnant women who are at risk for transmitting varicella zoster virus infection to their child. [Read More](#)

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Local News

'A Totally New Observation' Published in *Immunity*

UW Department of Bioengineering



UW's Dr. Wendy Thomas (*pictured*) and collaborators have revealed that mechanical forces can shape how antibodies interact with immune cells, opening new ways to think about cancer treatments. They established for the first time that mechanical forces can change how antibodies interact with their receptors independent of their binding strength. [Read More](#)

How Does Wildfire Smoke Impact the Immune System?

Benaroya Research Institute



Scientists are still working to understand the long-term health effects of exposure to wildfire smoke, including how it affects the immune system. "We know that people who smoke tobacco or live in areas with lots of air pollution are at higher risk of some autoimmune diseases like rheumatoid arthritis," said Dr. Megan Smithmyer (*pictured*). "Wildfire smoke is a similar kind of exposure." [Read More](#)

New Paper Explores Long-Read Sequencing of Pathogenic Structural Variants: Q&A with First Author Jonas Gustafson

Brotman Baty Institute



Jonas Gustafson (*pictured*), a PhD candidate in the Miller Lab, is the first author on a paper that discusses filtering and prioritization of pathogenic structural variants using data from the 1,000 Genomes Project. "We now have a catalogue of long read sequencing-derived structural variants we can use to filter for candidate disease-causing variants in unsolved cases," says Gustafson. [Read More](#)

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Interesting Articles

Virtual Cells: Perspectives From Structure Prediction

Brotman Baty Institute



The virtual cell, or a computational model of the cell, is a great idea on paper. Unfortunately, the catchiness of the term "virtual cell" has been more successful than any result produced to date. Dr. Sanjay Srivatsan (*pictured*) discusses how the term lacks any real specificity, despite the hype and the amount of resources spent to make it a reality. Underlying this problem is the fact that no one seems to agree on what abstraction best represents a cell. [Read More](#)

Cancer Research Opens New Window Into Battle Against Viruses

Allen Institute



For myeloma patients, infections are the leading cause of death, and researchers weren't entirely sure why. In a new study in *Cell Press*, scientists from the Allen Institute and Fred Hutch have helped answer that question. They discovered that inflammatory signals stayed suppressed specifically in bone marrow, even as therapy continued. [Read More](#)

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📅 Upcoming Events in Seattle

Sept. 10 - 11 8:00 AM	Cascadia Mucosal Biology Symposium Allen Institute
September 12 6:00 PM	SIGNAL: Modular on the Spot: Seattle Pacific Science Center
Sept. 15 - 16 8:00 AM	Emerging Connectomics of Thalamus and Striatum Workshop Allen Institute
Sept. 23 - 25 8:00 AM	Stem Cell & Developmental Biology Early Career Symposium Allen Institute
Sept. 24 - 25 8:00 AM	Dr. E. Donnall Thomas Symposium Fred Hutch

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📁 Science Jobs in Seattle

Flow Cytometry Technologist Labcorp
Pediatric BMT/Immunotherapy Research Associate Fred Hutch
Research Technologist 1, Golden Lab UW
Scientist II, Molecular and Proteomic Immunology Allen Institute
Medical Science Liaison LEO Pharma

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