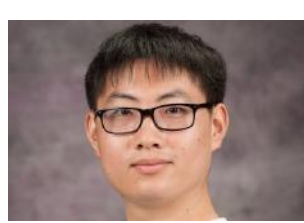


Publications of the Week

Beta Human Papillomavirus 8E6 Promotes Alternative End-Joining

First Author: Changkun Hu (*pictured*) | Senior Author: Nicholas Wallace eLife | Fred Hutch



Double strand breaks (DSBs) are one of the most lethal DNA lesions in cells. The E6 protein of beta-human papillomavirus (HPV8 E6) impairs two critical DSB repair pathways: homologous recombination and non-homologous end joining. However, HPV8 E6 only delays DSB repair. The authors hypothesize that HPV8 E6 promotes a less commonly used DSB repair pathway, alternative end joining. [Abstract](#)

Characterizing T Cell Responses to Enzymatically Modified Beta Cell Neo-Epitopes

First Author: Hai Nguyen | Senior Author: Eddie James (*pictured*) Frontiers in Immunology | UW



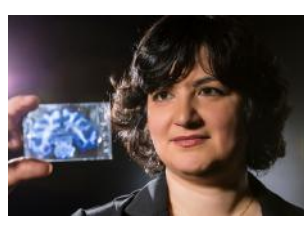
Previous studies verify the formation of enzymatically post-translationally modified (PTM) self-peptides and their preferred recognition by T cells in subjects with type 1 diabetes. However, questions remain about the relative prevalence of T cells that recognize PTM self-peptides derived from different antigens, their functional phenotypes, and whether their presence correlates with a specific disease endotype. [Abstract](#)

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Awards

UW-Led Team Receives \$4.2M Grant to Develop AI-Guided Brain Stimulation Methods Aimed at Treating Mental Health Disorders

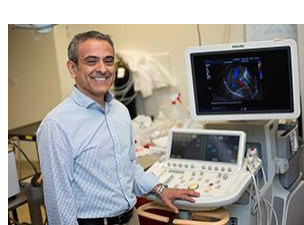
UW Department of Bioengineering



UW Assistant Professor Dr. Azadeh Yazdan (*pictured*) is co-leading a multidisciplinary, multi-institutional team that recently received a five-year, \$4.2 million grant from the National Institutes of Health to develop neural stimulation techniques guided by artificial intelligence machine learning methods. This research work is aimed at broadening our understanding of the brain and developing better treatments for mental health disorders. [Read More](#)

Averkiou Lab Awarded \$3 Million to Treat Liver Cancer Through Ultrasound and Microbubbles

UW Department of Bioengineering



Dr. Mike Averkiou (*pictured*), Associate Professor of UW Bioengineering, received a \$3 million R01 grant from the National Institutes of Health to treat hepatocellular carcinoma (HCC), the most common form of liver cancer, through ultrasound and microbubble-mediated cavitation. HCC is the fifth most common type of cancer with an estimated 750,000 diagnosed cases per year, making it the third leading cause of cancer-related deaths worldwide. [Read More](#)

Frontiers of Knowledge Award Goes to David Baker, Demis Hassabis and John Jumper

Institute for Protein Design



The 15th BBVA Foundation Frontiers of Knowledge Award in Biology and Biomedicine has gone to Drs. David Baker (*pictured*), Demis Hassabis, and John Jumper. Dr. Baker, a Professor of Biochemistry at UW and a Howard Hughes Medical Institute Investigator, developed the RoseTTAFold program, while Drs. Hassabis and Jumper, CEO and senior research scientist, respectively, at AI company DeepMind, are the creators of AlphaFold2. [Read More](#)

Dr. Ajay Gopal Named Stephen H. Petersdorf Endowed Chair in Cancer Care at UW Medicine

Fred Hutch



Dr. Ajay Gopal (*pictured*) was recently appointed the Stephen H. Petersdorf Endowed Chair in Cancer Care at UW Medicine. Renamed in 2015 for the late physician-researcher who specialized in the treatment of leukemia and lymphoma, this endowed chair recognizes qualities that make for an outstanding physician and teacher: excellence in patient care, teaching and communication. [Read More](#)

[View All Awards](#)

Local News

Chromatin Researcher and Professor of Radiation Oncology Dr. Mark Groudine Retires After Four Decades

Fred Hutch



During his four decades at Fred Hutch, Dr. Mark Groudine (*pictured*) exemplified the organization's breadth of scientific and clinical endeavors: While contributing fundamental discoveries about the interplay between DNA packaging, DNA's 3D organization, and gene expression, he also was a Professor of Radiation Oncology at UW. He also helped guide Fred Hutch's scientific directions and shape its culture of excellence. [Read More](#)

Looking Back and Charting the Course Ahead: AVE Alliance's 2022 Annual Report

Brotman Baty Institute



The first annual report of the Atlas of Variant Effects (AVE) Alliance, an international consortium of more than 400 geneticists, biologists, clinicians, mathematicians, and other scientists, outlines several highlights from 2022 and looks ahead to opportunities and challenges in 2023. The AVE Alliance was established in 2020 and this is its first annual report. [Read More](#)

Seattle-Area Longevity Company Emerges from Three Startups, Plans to Go Public via SPAC

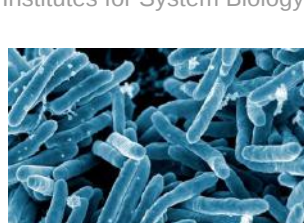
GeekWire



Bradford Zakes recently helped combine the Seattle-area biotech company he led, Cerevast Medical, with two startups to create a new company. Now he's poised to take Longevity Biomedical public as its President and CEO, via a merger with a shell company. Longevity combines Cerevast with NovoKera, a Nevada startup, and Aegeria Soft Tissue, a Johns Hopkins University spinout. The common theme is helping aging people lead healthier, longer lives. [Read More](#)

How Bacteria Build Communities That Can Impact Your Health

Institutes for System Biology (ISB)



Studying biofilms is just one of the research areas of ISB Assistant Professor Dr. Anna Kuchina's lab. Recently, Dr. Kuchina, who joined ISB one year ago, delivered a Research Roundtable presentation detailing her study of biofilms, and discussed a state-of-the-art technology she developed that will shine light on how biofilms are made up and how individual bacteria behave in the community. [Read More](#)

Genomics Aids Study of Seattle 2017-22 *Shigella* Outbreak

UW Medicine



A genomic study of a sustained, multidrug-resistant Shigellosis outbreak in Seattle enabled scientists to retrace its origin and spread. Additional analysis of the gut pathogen and its transmission patterns helped direct approaches to testing, treatment, and public health responses. "The aim of the study," the Seattle researchers noted, "was to better understand the community transmission of *Shigella* and spread of antimicrobial resistance in our population, and to treat these multi-drug resistant infections more effectively." [Read More](#)

Risks Associated with Control of Blood Sugar in the ICU

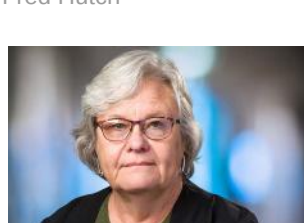
UW Medicine



Efforts by hospital intensive-care unit (ICU) teams to reduce glucose readings of patients with diabetes might do more harm than good, according to an analysis published in *Diabetes Care*. Dr. Michael Schwartz and co-authors found that, among patients with diabetes, efforts to reduce blood glucose levels to what is considered normal in a non-diabetic person may actually harm the patients by triggering a dangerous reaction. [Read More](#)

Geneticist and Cell-Cycle Expert Dr. Linda Breeden Retires

Fred Hutch



Fred Hutch geneticist Dr. Linda Breeden (*pictured*) recently retired from a career spent untangling the intricacies of the factors that regulate the cell cycle, the series of steps a cell takes to divide into two new cells. Now a Professor Emerita, Dr. Breeden focused on the factors and DNA elements that turn on the genes needed to jumpstart the cell cycle in resting cells. [Read More](#)

UW Biotech Spinout Raises \$5M to Develop Gene Therapy System for Muscular Dystrophy

GeekWire



Myosana Therapeutics, a Seattle startup developing gene therapy technology, raised \$5 million to develop an early-stage candidate treatment for Duchenne muscular dystrophy. Myosana says its experimental platform to deliver genes to cells has advantages over the standard approach, which is limited to smaller pieces of DNA. [Read More](#)

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Upcoming Events in Seattle

February 8 12:00 pm	Biostatistics Seminar Series Featuring Dr. Noorie Hyun Online
February 9 5:30 pm	Innovators Network Lab Crawl Lake Union Steam Plant
February 11 9:00 am	SEP School Year Workshop: mRNA Vaccines Fred Hutch
February 13 12:30 pm	Synthetic Developmental Biology: Cross-Species Comparison and Manipulation of Organoids Odin Smith Auditorium and Online
February 13 - 14 4:00 pm	VIP Forum with BMS Life Science Washington

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Science Jobs in Seattle

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Universal Cells-Astellas Pharma
- Bioinformatics Postdoctoral Research Associate**
Benaroya Research Institute at Virginia Mason
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Allen Institute for Cell Science
- Research Associate II/Senior, Protein Sciences**
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