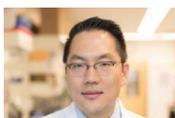


Publications of the Week

Targeting Advanced Prostate Cancer With STEAP1 Chimeric Antigen Receptor T Cell and Tumor-Localized IL-12 Immunotherapy

First Authors: Vipul Bhatia | Senior Author: John Lee *(pictured)*
Nature Communications | Fred Hutch and UW



Six transmembrane epithelial antigen of the prostate 1 (STEAP1) is a cell surface antigen for therapeutic targeting in prostate cancer. The authors report broad expression of STEAP1 relative to prostate-specific membrane antigen in lethal metastatic prostate cancers and the development of a STEAP1-directed chimeric antigen receptor T cell therapy. [Abstract](#)

Amyloid Beta Peptides From Alzheimer's Disease Neuronal Secretome Induce Endothelial Activation in a Human Cerebral Microvessel Model

First Author: Yu Jung Shin | Senior Author: Ying Zheng *(pictured)*
Neurobiology of Disease | UW



In Alzheimer's disease (AD), secretion and deposition of amyloid beta peptides (Aβ) have been associated with blood-brain barrier dysfunction. However, the role of Aβ in endothelial cell (EC) dysfunction remains elusive. The authors investigated AD mediated EC activation by studying the effect of Aβ secreted from human induced pluripotent stem cell-derived cortical neurons harboring a familial AD mutation (Swe^{Tg}) on human brain microvascular endothelial cells in 2D and 3D perfusable microvessels. [Abstract](#)

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Awards

BioE Undergraduate, Zoe Chau, Receives Scholarship to Study Breast Cancer Therapeutics in Japan

UW Department of Bioengineering



Zoe Chau *(pictured)*, a senior bioengineering undergraduate student, received a MEXT scholarship to study in Japan starting in the fall. This scholarship is funded by the Japanese government to assist students interested in studying at Japanese universities. MEXT, an abbreviation for the Ministry of Education, Culture, Sports, Science and Technology, offers scholarships for undergraduate, master's and Ph.D. studies. [Read More](#)

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Local News

Alpenglow Biosciences and Mayo Clinic Enter Collaboration Agreement to Advance Pathology and Drug Development Through 3D Spatial Biology

Alpenglow Biosciences via PR Newswire



Alpenglow Biosciences has announced a collaboration with the Mayo Clinic to integrate Alpenglow's 3D spatial biology platform to accelerate drug development and advance clinical diagnostics. Alpenglow has created an end-to-end 3D spatial biology solution including patented high-throughput 3D imaging, cloud-based, GPU accelerated bioinformatics pipelines, and AI-powered spatial analysis. [Read More](#)

Promising Young Scientist: MD-PhD Student Nick Popp Combines Determination, Communications, and Compassion to Remove 'Insurmountable Roadblocks'

Brotman Baty Institute



Nick Popp *(pictured)* became an advocate for himself before he understood the meaning of the word. Nearly a quarter century later, he's advocating on behalf of others in the classroom and the lab. And soon, in the clinic. The MD-PhD student at UW was born with hemophilia A, which occurs in about 1 of every 5,000 male births, according to the US Centers for Disease and Prevention. [Read More](#)

Just Making Genetic Tests Available Is Not Enough

UW Medicine



About one to two out of a hundred Americans carry a harmful genetic mutation that increases their risk of developing cancer or cardiovascular disease. Yet, despite a large drop in the costs of genetic screening tests that can detect these variant genes, most people do not get tested until they have developed cancer or, in the case of hereditary cardiovascular risk factors, heart and vascular disease. [Read More](#)

Generative AI Is Dreaming Up New Proteins

Institute for Protein Design



De novo protein design has reached an inflection point. AI-powered protein design is becoming very real and very usable, thanks to technological advances in the development of algorithms and the hardware that runs them. Protein science itself is uniquely positioned to take advantage of these advances because of the enormous amounts of work carried out over the past 50 years to curate and annotate biological data. [Read More](#)

Breaking Boundaries in Skin Research With Biosensors and Optogenetics

Institute for Stem Cell & Regenerative Medicine



Disruptions in cellular signaling processes can create problems that contribute to many diseases, including skin disorders. Calcium is one important regulator of cellular communication. When a mutation causes an imbalance of calcium within cells, it can lead to misery for a patient. The skin tears and blisters as the structures that hold cells together (known as desmosomes) deteriorate under the surface. [Read More](#)

SpyLigation Uses Light to Switch On Proteins

UW Medicine



Scientists led by Dr. Cole DeForest *(pictured)* have discovered how to use light to activate protein functions both inside and outside of living cells. The new method, called light-activated SpyLigation, can turn on proteins that are normally off to allow researchers to study and control them in more detail. This technology has potential uses in tissue engineering, regenerative medicine, and understanding how the body works. [Read More](#)

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Upcoming Events in Seattle

- April 25 - 26
5:30 pm

Life Science Innovation Northwest 2023
Seattle Convention Center
- April 26
12:00 pm

Understanding the Regulation of Our Genome – a PNRI Science Matters Seminar
Online
- April 26
5:30 pm

UW Engage Science 2023
The Wyncote NW Forum
- April 30 - May 2
5:30 PM

Fourth Symposium on Infectious Diseases in the Immunocompromised Host
Marriot Waterfront Seattle
- May 3
5:30 pm

UW Engage Science 2023
The Medhi Reading Room

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Science Jobs in Seattle

- Scientist, Vector Biology**
Umoja Biopharma
- Research Technician I**
Fred Hutch
- Scientist, Analytical Development**
Zymeworks
- Senior Research Investigator**
Bristol Myers Squibb
- Research Associate III, Impurity Assays**
Seagen

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How to Communicate Your Science to the Public

Webinar by Dr. Kristina McBurney & Leanna Bedell



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