

Publications of the Week

Fasting Prevents Hypoxia-Induced Defects of Proteostasis in *C. Elegans*

First Author: Nicole Iranon (pictured, third from left) | Senior Author: Dana Miller (second from left)
PLOS Genetics | UW



The authors have previously shown that specific hypoxic conditions disrupt protein homeostasis in *C. elegans*, leading to protein aggregation and proteotoxicity. In this article, they showed that nutritional cues regulated this effect of hypoxia on proteostasis. Animals fasted prior to hypoxic exposure developed dramatically fewer polyglutamine protein aggregates compared to their fed counterparts, indicating that the effect of hypoxia was abrogated. [Abstract](#)

Interferon-λ Modulates Dendritic Cells to Facilitate T Cell Immunity during Infection with Influenza A Virus

First Author: Emily Hemann | Senior Author: Michael Gale Jr. (pictured)
Nature Immunology | UW



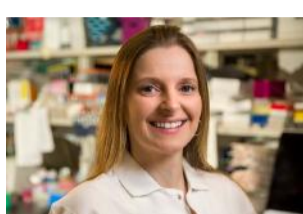
Type III interferon (IFN-λ) is important for innate immune protection at mucosal surfaces and has therapeutic benefit against influenza A virus (IAV) infection. However, the mechanisms by which IFN-λ programs adaptive immune protection against IAV are undefined. The authors found that IFN-λ signaling in dendritic cell populations was critical for the development of protective IAV-specific CD8⁺ T cell responses. [Abstract](#)

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Local News

Why This Cancer Researcher (and Survivor) Is Climbing Kilimanjaro to Raise Money to Study Cancer

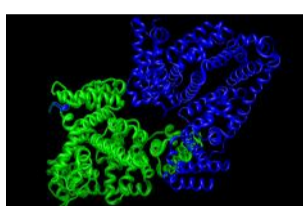
GeekWire



Kristin Anderson (pictured) has already fought cancer in more ways than one. She's a cancer survivor and a researcher at Fred Hutch investigating ways to use our body's own immune system to attack solid tumors. But Anderson has another plan to fight the disease. She's climbing Mount Kilimanjaro as part of a fundraising effort that has raised \$1.4 million and drawn 28 climbers, several of whom are biotech executives and investors. [Read More](#)

Patterns in DNA Reveal Hundreds of Unknown Protein Pairings

UW Medicine



Sequencing a genome is getting cheaper, but making sense of the resulting data remains hard. Researchers at the UW School of Medicine have found a new way to extract useful information out of sequenced DNA. By cataloging subtle evolutionary signatures shared between pairs of genes in bacteria, the team was able to discover hundreds of previously unknown protein interactions. [Read More](#)

UW Gets Multi-Million Dollar Grant to Study Sudden Cardiac Arrest

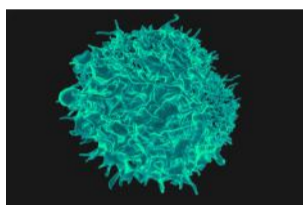
Centre Daily Times



The American Heart Association is pumping almost 4 million dollars into UW, opening the door for researchers to study sudden cardiac arrest and arrhythmia's in order to develop, test and implement innovative new ways to prevent and treat the potentially deadly conditions. Each year in the United States, it's estimated 350,000 people suffer from sudden cardiac arrest, which happens when the heart suddenly stops beating. [Read More](#)

Skin Immune Cell Discovery Challenges Beliefs about T Cells and How They Protect against Infection

Benaroya Research Institute at Virginia Mason



Scientists at Benaroya Research Institute at Virginia Mason are scrutinizing a newly identified population of human immune cells in the blood that appear to have everything in common with infection-fighting T cells isolated from the skin. The findings challenge current thinking that tissue-resident memory T cells are strictly retained in the tissue, in this case the skin. [Read More](#)

Q&A with Dr. James Heath: Evolution of CAR-T Cell Therapy and Future Directions

Genetic Engineering & Biotechnology News



Dr. James Heath (pictured) is President and a Professor at the Institute for Systems Biology. The Heath group is interested in developing and applying new molecular, imaging, computational, and microchip-based single-cell techniques for quantitatively interrogating tumor/immune interactions. Dr. Heath spoke with Genetic Engineering & Biotechnology News on current issues and future trends regarding CAR T-cell therapeutics. [Read More](#)

Geeking Out with a Goal: Regina Wu Brings Hutch Research to Classrooms

The Seattle Times



Meet Regina Wu (pictured), a Seattle-based biologist who works to bring science to classrooms across Washington state. Regina spoke to the Seattle Times about her job as a curriculum designer and educator at Fred Hutch, and how she partners with teachers and scientists to translate groundbreaking research into labs and lessons for the classroom. [Read More](#)

The Pill Has Been around Since the '60s — Are We Finally Going to See One for Men?

The Province



The promise of a contraceptive pill for men has been discussed for decades, with academics offering hope it was on the horizon — but nothing emerged. Scientists at UW are working on a once-a-day tablet called 11-beta-MNTDC, which reduces sperm production using a combination of hormonal actions, thus temporarily making a man infertile while having no effect on libido. [Read More](#)

\$8.5M Grant Standardizes Genetic Data Collection for Rare Diseases

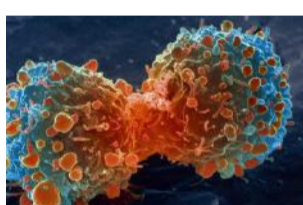
Xtelligent Healthcare Media



The National Institutes of Health has awarded Geisinger, along with UW and Washington University in St. Louis, a \$5.8 million, five-year grant to study the role of genetics in neuropsychiatric disorders. The standardized data will be made available to research facilities across the country through the National Institute of Mental Health to accelerate future discoveries. [Read More](#)

OncoSenX Raises \$3 Million to Advance New Class of Cancer Therapeutics

BioSpace



OncoSenX, Inc., a late preclinical-stage company developing therapeutics to kill cancer cells based on their genetics, has announced that it has raised \$3 million in pre-seed funding to advance its pipeline. The company is developing a highly selective tumor-killing platform with two main components: a proprietary lipid nanoparticle for cellular delivery and a highly selective DNA payload. [Read More](#)

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Upcoming Events in Seattle

July 17

7:00 PM

Ensuring an Equal Genetic Inheritance: A Tale of Yeast, Lasers, and the Effort to Rebuild One of Nature's Most Complex Molecular Machines

Foegen Auditorium

July 18

11:30 AM

2019 Hutch Award Luncheon

T-Mobile Park

July 24

7:00 PM

Understanding the Genetics of Epilepsy

Foegen Auditorium

July 25

8:00 AM

Exploring Frontiers: Predicting Biology

Allen Institute

July 26

8:00 PM

THEORY

Pacific Science Center

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Science Jobs in Seattle

Director, Process Development

NanoString

Senior Medical Writer

Seattle Genetics

Faculty Position, CryoEM/Structural Biology

Fred Hutchinson Cancer Research Center

Research Scientist, Immunology and Inflammation

Gilead

Scientist, AAV Viral Capsid Discovery

Allen Institute for Brain Science

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Scientist, Human Immunology, Vancouver

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Scientist, Matrix Biology, Vancouver

STEMCELL Technologies

Program Manager, Scientific Communications - Histochemistry, Vancouver

STEMCELL Technologies

Scientific Inside Sales Representative, Vancouver

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PATHOGEN INFECTION STUDIES LACKED AN OPTIMAL CULTURE SYSTEM. THEN SHE USED ORGANOIDS.

Webinar by Dr. Devanjali Dutta

[WATCH NOW](#)

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