

Publications of the Week
Nanoscavenger Provides Long-Term Prophylactic Protection against Nerve Agents in Rodents

 First Author: Peng Zhang | Senior Author: Shaoyi Jiang (*pictured*)
 Science Translational Medicine | UW


The authors report the development and testing of a nanoparticle-based nerve agent bioscavenger (nanoscavenger) that showed long-term protection against organophosphorus compound (OP) intoxication in rodents. The nanoscavenger, which catalytically breaks down toxic OP compounds, showed a good pharmacokinetic profile and negligible immune response in a rat model of OP intoxication. [Abstract](#)

Cumulative Mitochondrial Activity Correlates with Ototoxin Susceptibility in Zebrafish Mechanosensory Hair Cells

 First Author: Sarah Pickett | Senior Author: David Raible (*pictured*)
 eLife | UW


Although hair cells are thought to be energetically demanding cells, how mitochondria respond to these demands and how this might relate to cell death is largely unexplored. Using genetically encoded indicators, the authors found mitochondrial calcium flux and oxidation are regulated by mechanotransduction, and demonstrate that hair cell activity has both acute and long-term consequences on mitochondrial function. [Abstract](#)

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Awards
Dr. Kristin Anderson Receives Research Grant from Ovarian Cancer Research Alliance

Fred Hutchinson Cancer Research Center



Dr. Kristin Anderson (*pictured*), a postdoctoral research fellow in Dr. Philip Greenberg's lab at Fred Hutch, has received the Ann and Sol Schreiber Mentored Investigator Award of \$75,000 for one year from the Ovarian Cancer Research Alliance. The funding will support Anderson's research in developing strategies to improve the ability of the immune system's T cells to kill ovarian cancer. [Read More](#)

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Local News
Benaroya Research Institute Team Finds Link between New Type of Cell and a Deadly Inflammatory Disorder

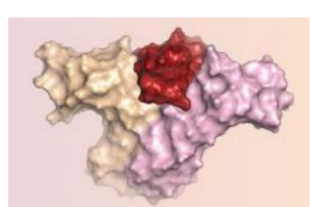
Benaroya Research Institute



A research team led by Jessica Hamerman (*pictured*) at Benaroya Research Institute at Virginia Mason has discovered a unique type of cell and its association with a life-threatening complication of viral and autoimmune disease. The team's discovery could lead to new treatments for a deadly form of inflammation in children with systemic juvenile idiopathic arthritis, malaria and Kawasaki disease, as well as patients with lupus. [Read More](#)

Scientists Design Protein that Prods Cancer-Fighting T-Cells

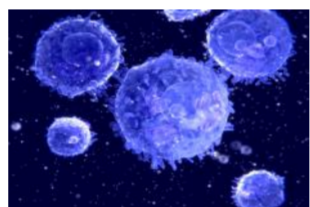
UW Medicine



Scientists at UW Medicine's Institute for Protein Design have created a new protein that mimics the action of a key immune regulatory protein, interleukin 2 (IL-2). IL-2 is a potent anticancer drug and an effective treatment for autoimmune disease, but its toxic side effects have limited its clinical usefulness. The achievement opens new approaches to the design of protein-based therapeutics for the treatment of cancer, autoimmune diseases and other disorders. [Read More](#)

Microsoft, Biotech Company Seek Medical Researchers, Patient Groups to Help 'Map' Human Immune System

Becker's Hospital Review



Microsoft is seeking new research partners to join its T-cell Antigen Map project — an ongoing effort to map the human immune system. The project launched one year ago, when Microsoft partnered with Adaptive Biotechnologies. Under the partnership, researchers at Microsoft are using artificial intelligence to help analyze Adaptive Biotechnologies' high-throughput sequencing and bioinformatics data on T-cell and B-cell receptors, which make up the immune system. [Read More](#)

Washington State's Tech Billionaires Pour Cash into Global Health

Nature Spotlight



The US state of Washington, in the Pacific Northwest, was once the epicenter of the information-technology world, thanks to Microsoft and its founder, Seattle-born Bill Gates — until the dotcom boom sent investors down the coast to Silicon Valley. Now, Gates and other high-profile Microsoft alumni, along with other wealthy donors, are elevating the state as a major player in another sector: global health. [Read More](#)

Dr. Wright Discusses Immunotherapy in Bladder Cancer

OncLive



Over the past few years, immunotherapy has made a significant impact in the treatment of upper tract urothelial and bladder cancers, according to Dr. Jonathan Wright (*pictured*) of UW Medical Center. Primarily, checkpoint inhibitors are being used upfront in the metastatic setting for patients with bladder cancer who are ineligible to receive cisplatin-based chemotherapy. [Read More](#)

Benaroya Research Institute Welcomes Two New Board Members

Benaroya Research Institute



Benaroya Research Institute has announced the addition of two new members to its Board of Directors: Kirk Nelson (*pictured*) and Robert Williams. Mr. Nelson is Chief Executive Officer and President of AAA Washington, and previously served as Washington President of Qwest. Dr. Williams holds a PhD in Organic Chemistry from Colorado State University and ten U.S. patents in the fields of silicone chemistry, organometallic catalysis and polymer chemistry. [Read More](#)

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Interesting Articles
Donald Trump Finally Has a White House Science Adviser

Nature News



Nearly two years after he took office, US President Donald Trump has a White House science adviser in place. The Senate confirmed meteorologist Kelvin Droegemeier for the job in a voice vote on January 2nd. Droegemeier, an expert in extreme weather, will lead the White House Office of Science and Technology Policy. He is the first non-physicist to head the office since it was established in 1976, and his confirmation ends a long drought in the White House. [Read More](#)

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Upcoming Events in Seattle

January 29 9:00 AM	Mutational Scanning Symposium Brotman Auditorium
February 2 8:30 AM	Women in Science Engineering Conference UW Student Union Building (HUB)
February 4 6:00 PM	Women in Bio-Seattle: Building a Plan for Your Year 400 Dexter Avenue
February 5 7:00 PM	Science in the City – Women in STEM: Breaking Down Barriers Pacific Science Center
February 21 5:00 PM	Life Science Industry Networking Event Agora Conference Center

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Science Jobs in Seattle

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Bloodworks Northwest
- Medical Director**
Zymeworks
- Research Technician I-II**
Benaroya Research Institute
- Assistant/Associate Faculty Member**
Benaroya Research Institute
- Laboratory Supervisor**
UW Department of Genome Sciences

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