

Publications of the Week

Cell-Specific Image-Guided Transcriptomics Identifies Complex Injuries Caused by Ischemic Acute Kidney Injury in Mice

First Author: Tomoaki Miyazaki | Senior Author: Neal Paragas (pictured) | Communications Biology | UW



The kidney's inherent complexity has made identifying cell-specific pathways challenging, particularly when temporally associating them with the dynamic pathophysiology of acute kidney injury. The authors combined renal cell-specific luciferase reporter mice using a chemoselective luciferin to guide the acquisition of cell-specific transcriptional changes in C57BL/6 background mice. [Profile](#) | [Abstract](#)

A Lineage-Resolved Molecular Atlas of *C. Elegans* Embryogenesis at Single-Cell Resolution

First Author: Jonathan Packer (pictured) | Senior Author: John Murray | Science | UW



The authors sequenced more than 80,000 cells from embryos of the roundworm *Caenorhabditis elegans* to determine the expression of genes directing the development of terminal cell types. Because all somatic cells in a *C. elegans* individual had been mapped, the authors were able to connect gene expression with cell lineages over time during development, noting stark transitions in some cases. [Abstract](#)

Tissue Chips in Space - Challenges and Opportunities

First Author: Catherine Yeung | Senior Author: Edward Kelly (pictured) | Clinical and Translational Science | Kidney Research Institute and UW



The microgravity environment results in a multitude of physiological changes associated with aging and altered organ function. Deployment of microphysiological systems, also known as "tissue chips", to the International Space Station US National Laboratory, will allow the study of these changes at the cellular/molecular level. The goal of these studies is to expand understanding of age-related conditions to improve human health on earth. [Abstract](#)

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Awards

Allen Institute Announces 2019 Next Generation Leaders

The Allen Institute for Brain Science



Dr. Nick Steinmetz (pictured), an Assistant Professor at UW, is among a group of six early-career neuroscientists who will participate in a special advisory council for the Allen Institute for Brain Science. Now in its sixth year, the Next Generation Leaders Program was created for and by researchers in early stages of their scientific career, who don't always get the benefit of formal external advice. [Read More](#)

Washington Research Foundation Provides Additional \$1.5M Grant for Dr. Jim Olson's Novel Immunotherapy Program at Fred Hutch

Washington Research Foundation



The Washington Research Foundation has pledged over \$1.5 million in additional support for a novel immunotherapy platform being developed in Dr. Jim Olson's (pictured) lab at Fred Hutch. The Olson lab's Simultaneous Multiple Interaction T-Cell Engagers technology offers a new approach for harnessing the patient's immune system to more specifically target cancerous cells. [Read More](#)

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Local News

An Old HIV Vaccine Surprises Researchers Once Again

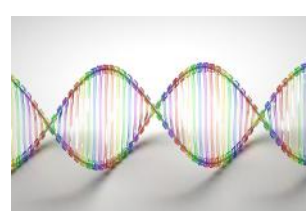
Fred Hutch



In a small study led by the HIV Vaccine Trials Network, an international collaborative headquartered at Fred Hutch, researchers have found that an old vaccine formulation — designed to block HIV strains found in Thailand — stirred up an even stronger immune response among volunteers in South Africa, where a different strain of HIV predominates. [Read More](#)

New, Improved Human Genome Reference in the Works

UW Medicine



A completely new, comprehensive human genome reference will be created in a National Institutes of Health-funded, multi-institutional initiative. The Human Pangenome Project will be based on the complete genome sequences of 350 individuals from a variety of the world's populations. Dr. Evan Eichler, a Professor of Genome Science, will lead the UW team. [Read More](#)

UW Spinout Split Bio Raises Cash for RNA Sequencing Kits

GeekWire



UW spinout Split Bio has raised \$560,000 in bridge financing to fund the manufacturing of kits that allow scientists to perform high throughput single-cell RNA sequencing. Split's technology, SPLIT-seq, was developed at the UW in the lab of synthetic biology professor Dr. Georg Seelig by Charles Roco (pictured, right) and Alex Rosenberg (left), two researchers at the lab. [Read More](#)

Watchdog Organization Calls for Investigation of UW's Animal Testing

The Daily



Stop Animal Exploitation Now, a Cincinnati-based watchdog organization for animal welfare, has sent a letter to the Office of UW President Ana Mari Cauce alleging "serious systemic problems" and insisting the university "launch an independent probe of the animal experimentation program." The letter outlined six incidents involving the deaths of rats and five separate deaths of primates since 2018. It ended with two demands. [Read More](#)

An Entrepreneur's Quest to Make Seattle a Genome Sciences Hub

Xconomy



Dr. Ivan Liachko turned postdoctoral research at UW into a company whose genomics tools are now found in laboratories researching human, animal, and plant health. As the CEO of the growing company Phase Genomics, Liachko now sees missed opportunities for UW and the Puget Sound region. He is the main organizer of Genome Startup Day, hoping to spark connections that will lead to new companies. [Read More](#)

Machine Learning Provides Insight into DNA and Protein Function

The Daily



Cutting edge computer science techniques and biology meet in Professor of Genomics Dr. William Noble's lab, where they use machine learning to identify patterns and find answers about DNA structure, protein function, gene expression, and other cellular processes. Noble's lab is able to use techniques to paint a more complete picture of multiple characteristics of a single cell. [Read More](#)

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Interesting Articles

Trump's Top Scientist Outlines Plan to Reduce Foreign Influence on US Research

Nature News



After months of outcry over whether the US government is unfairly targeting foreign-born researchers over purported security breaches, President Donald Trump's science adviser, Kelvin Droegmeier (pictured), is launching an effort to strengthen national policies on research security. He is working to establish government-wide requirements for what information researchers need to disclose to receive federal research grants. [Read More](#)

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Upcoming Events in Seattle

- October 1 8:30 AM **3D Quantitative Visualization of Fluorescently Labeled Cells** Allen Institute
- October 5 6:30 PM **Science in the City – The Feeling of Life Itself: Why Consciousness is Widespread but Can't be Computed** Pacific Science Center
- October 5 - 6 11:00 AM **SciFi // Curiosity Expo** Pacific Science Center
- October 7 - 9 8:00 AM **GeekWire Summit 2019** The Hyatt Regency Seattle
- October 8 7:00 PM **Science in the City – Cervical Cancer Elimination: A New World Health Goal** Pacific Science Center

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Science Jobs in Seattle

- Staff Scientist, Transplant Biology** Fred Hutchinson Cancer Research Center
- Scientist, Antibody Discovery** Systimmune
- Principal Scientist, Protein Engineering** Seattle Genetics
- Research Scientist, Mucosal Immunology or Inflammation** Gilead
- Research Scientist Engineer** Brotman Baty Institute

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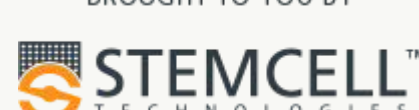
- Scientist, Cell Line Development (Vancouver, BC)** STEMCELL Technologies
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- Research Associate, Bioengineering (Vancouver, BC)** STEMCELL Technologies
- Scientific Sales Representative, Cell Separation Products (Los Angeles, CA)** STEMCELL Technologies
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