

Publications of the Week

Human *De Novo* Mutation Rates from a Four-Generation Pedigree Reference

First Author: David Porubsky | Senior Author: Evan Eichler (*pictured*)
Nature | Howard Hughes Medical Institute, Blue Marble Space Institute of Science, and UW



Understanding the human *de novo* mutation rate requires complete sequence information. Here, using five complementary short-read and long-read sequencing technologies, researchers phased and assembled more than 95% of each diploid human genome in a four-generation family. These near-telomere-to-telomere familial genomes provide a truth set to understand the most fundamental processes underlying human genetic variation. [Abstract](#) | [Press Release](#)

In Vivo Functional Screens Reveal *KEAP1* Loss as a Driver of Chemoresistance in Small Cell Lung Cancer

First Authors: Lauren Brumage and Scott Best | Senior Author: David MacPherson (*pictured*)
Science Advances | Fred Hutch and UW



Exquisitely chemosensitive initially, small cell lung cancer (SCLC) exhibits dismal outcomes owing to rapid transition to chemoresistance. Elucidating the genetic underpinnings has been challenging owing to limitations with cellular models. As SCLC patient-derived xenograft (PDX) models mimic therapeutic responses, researchers performed genetic screens in chemosensitive PDX models to identify drivers of chemoresistance. [Abstract](#)

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Awards

Dr. Billie Swalla Wins Society for Developmental Biology Lifetime Achievement Award

UW Department of Biology



UW Biology Professor Emerita Dr. Billie Swalla (*pictured*) was recently honored with the Society for Developmental Biology's (SDB) Lifetime Achievement Award. The Society confers yearly the SDB Lifetime Achievement Award to a senior developmental biologist in recognition of their outstanding and sustained contributions in the field, exceptional mentoring, and service to the scientific community. [Read More](#)

Biology Students Recognized in the 2025 Husky 100

UW Department of Biology



Six UW Biology students were recently recognized in this year's Husky 100. The Husky 100 recognizes the outstanding work and achievements of both undergraduate and graduate students who are leaders and innovators in our community. The six awardees are Alex Gonin, Amy Hamada, Shreya Suresh, Trevor Marquis, Vanessa Garnica, and Mickey (Micaela) Vela Ruiz (*pictured, left to right, top to bottom*). [Read More](#)

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Local News

Managing Mountains of Genomic Data

Fred Hutch



Tools invented at Fred Hutch are helping researchers analyze the enormous global database of genomic sequences of the virus that causes COVID-19 to better understand how pathogens evolve and spread. Drs. Brendan Larsen (*pictured, left*) and Cécile Tran-Kiem (*right*) from the Bedford lab are apart of the innovative team behind the tools. [Read More](#)

On the Ground with KPWHRI's Flu Trackers

Kaiser Permanente Washington Health Research Institute (KPWHRI)



The Centers for Disease Control and Prevention (CDC) has rated the season's severity as "high," and preliminary estimates suggest it is the worst season for flu cases and hospitalizations in 15 years. Drs. Karen Wernli and Erika Kiniry spoke about their work for the CDC's U.S. Influenza Vaccine Effectiveness Network, the crucial role urgent care centers play in this research, and what insights their team has gleaned from the current flu season. [Read More](#)

Through Chemistry and 3D Printing, New Materials Emerge

UW College of Arts & Sciences



Imagine being able to produce medications on demand, anywhere, with a 3D printer. Dr. Alshakim Nelson (*pictured*), UW Professor of Chemistry and Nist Faculty Fellow, can imagine that and more. Dr. Nelson's research team develops innovative materials using 3D-printing technology, with potential real-world applications in medicine, engineering, and other areas. [Read More](#)

FDA Grants Breakthrough Therapy Designation for BrainChild Bio's B7-H3 CAR T-Cell Therapy for Incurable Pediatric Brain Tumors

BusinessWire



BrainChild Bio, a clinical-stage Seattle biotechnology company developing CAR T-cell therapies to treat tumors in the central nervous system, announced that the investigational B7-H3 targeting autologous CAR T-cell therapy has been granted Breakthrough Therapy designation by the FDA. This therapy is for the treatment of diffuse intrinsic pontine glioma, an incurable pediatric brain tumor. [Read More](#)

Fred Hutch's Enduring Partnership with Cornish

Fred Hutch



As you walk through the Arnold Building at Fred Hutch Cancer Center in Seattle, you may feel like you are visiting an art gallery. This is thanks to a unique, long-standing partnership between Fred Hutch and Cornish College of the Arts that started in 2005. Beyond aesthetics, the partnership reflects a deeper connection between science and creativity. [Read More](#)

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📅 Upcoming Events in Seattle

- | | |
|------------------------|--|
| May 7
7:30 pm | Artificial Intelligence, Hope, and the Human Spirit
Town Hall Seattle |
| May 11 - 14
8:00 AM | Symposium on Infectious Diseases in the Immunocompromised Host
Grand Hyatt Seattle |
| May 14
4:30 PM | Nucleate Seattle: 2025 Demo Day
Allen Institute |
| May 14
12:00 PM | Precision Medicine: Tackling the Mysteries of Genetic Diseases
Online |
| May 21
9:00 AM | 8th Northwest Nature and Health Symposium
Intellectual House |

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📁 Science Jobs in Seattle

- Bioinformatics Analyst I-II**
Fred Hutch
- Research Technician I, Bettelli Lab**
Benaroya Research Institute
- Scientist I, Experimental Immunology and Tissue Biology**
Allen Institute
- Research Scientist III, Heczey Lab**
Seattle Children's
- Research Technologist I**
UW

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