

Publications of the Week

A Burst of Genetic Innovation in *Drosophila* Actin-Related Proteins for Testis-Specific Function

First Author: Courtney Schroeder | Senior Author: Harmit Malik (pictured)
Molecular Biology and Evolution | Fred Hutch



Despite its strict conservation across eukaryotes, the authors have found that the actin-related proteins (Arps) superfamily has undergone dramatic lineage-specific diversification in *Drosophila*. Their phylogenomic analyses reveal four independent Arp gene duplications that occurred in the common ancestor of the obscure group of *Drosophila* and have been mostly preserved in this lineage. [Abstract](#)

Improved Assembly and Variant Detection of a Haploid Human Genome Using Single-Molecule, High-Fidelity Long Reads

First Author: Mitchell Vollger | Senior Author: Evan Eichler (pictured)
Annals of Human Genetics | UW School of Medicine



The sequence and assembly of human genomes using long-read sequencing technologies has revolutionized our understanding of structural variation and genome organization. The authors compared the accuracy, continuity, and gene annotation of genome assemblies generated from either high-fidelity or continuous long-read datasets from the same complete hydatidiform mole human genome. [Abstract](#)

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Awards

Dr. Martin 'Mac' Cheever, Cancer Immunotherapy Expert, Receives Distinguished Service Award

Fred Hutch



Cancer immunotherapy expert Dr. Martin 'Mac' Cheever (pictured) of Fred Hutch has been awarded the first-ever Distinguished Service Award from the Society for the Immunotherapy of Cancer. The award honors Cheever's work establishing and directing the Cancer Immunotherapy Trials Network. The federally funded network conducts early-stage, multicenter clinical trials of promising immunotherapy agents for people with various cancers. [Read More](#)

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Local News

Scientists Put out the Call for 10,000 Canines to Join the Dog Aging Project

GeekWire



Scientists at UW and other research institutions are looking for 10,000 good dogs to take part in a 10-year effort aimed at tracking their health and identifying factors that can lengthen their lifespan. The larger purpose of the campaign — and the reason it's getting \$15 million in direct funding from the National Institute on Aging at the National Institutes of Health — is to pick up new clues about the aging process in humans. [Read More](#)

Supplements Don't Preserve Kidney Health in Type 2 Diabetes

UW Medicine



Supplements of vitamin D and omega-3 fatty acids (often sold as fish oil) do not help people with type 2 diabetes stave off chronic kidney disease, according to findings from the largest clinical study to date of the supplements in this patient population. The study was conducted as part of the nationwide Vitamin D and Omega-3 Trial and involved researchers at the UW Department of Medicine and the Kidney Research Institute. [Read More](#)

Researchers Discover Areas in the Brain Where Nicotine Could Disrupt Early Brain Development

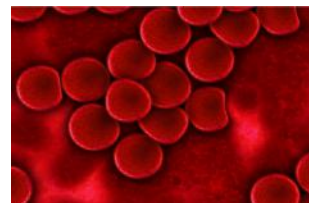
Seattle Children's Hospital



Researchers at Seattle Children's Research Institute have discovered that populations of neurons in the brain stem have a previously unrecognized susceptibility to disruption by nicotine during early brain development. The findings offer a clue to how nicotine exposure *in utero* could have a lasting effect on the brain's wiring and give rise to negative outcomes like sudden infant death syndrome. [Read More](#)

Methylation Marks Make the Difference in Erythropoiesis

Fred Hutch



An mRNA modification called N6-methyladenosine (m6A) controls the expansion and self-renewal of hematopoietic stem cells. The addition of the methyl group on mRNA adenosine is mediated by a methyl-transferase complex composed of METTL3, METTL14 and Wilms' tumor 1-associated protein. Dr. Patrick Paddison's group at Fred Hutch is investigating the role of m6A in erythropoiesis. [Read More](#)

Studying Disease in a Dish

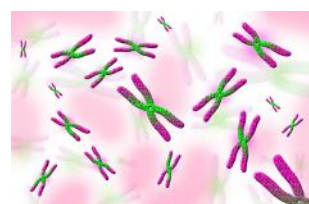
The Daily



A new study by UW Medicine has identified a genetic link for some instances of sudden infant death syndrome (SIDS). The study was the first of its kind to seek a tangible link between some forms of SIDS and a genetic mutation in the *HADHA* gene, which allows for fully functional fatty acid oxidation — a process in which fatty acids are broken down to produce energy. [Read More](#)

Chromosomes Are Safer with Stu2

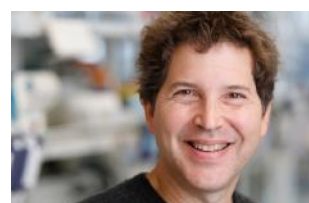
Fred Hutch



The cell cycle, the biological process underlying how cells grow and multiply, is tightly regulated to ensure a faithful distribution of genetic material to daughter cells. This tight regulation of cell division is essential to minimize erroneous partitioning of genetic material which can lead to genomic instability, a common hallmark of cancer. The Biggins lab at Fred Hutch is studying cell division mechanisms in yeast. [Read More](#)

Baker Lab Postdocs Discover Protein Coevolution Patterns Through AI Modeling

The Daily



Researchers in Dr. David Baker's (pictured) lab, part of the Institute for Protein Design, recently made a breakthrough in learning how proteins interact and co-evolve with each other to carry out biological functions. With this new knowledge about protein-to-protein interactions, researchers might have an advantage against infectious diseases. [Read More](#)

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Upcoming Events in Seattle

- November 27 8:00 AM **BioTech & Bagels Morning Meetup**
Capital One Café
- December 3 8:30 AM **Cambia Grove Open House**
Cambia Grove
- December 5 7:00 PM **Geekwire Gala 2019**
The Showbox at the Market
- December 6 7:00 PM **Health Care Leadership Awards**
The Westin Bellevue
- December 13 8:30 AM **Seattle Cell Science Symposium**
Allen Institute

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