

Publications of the Week
Neural Coding of Leg Proprioception in *Drosophila*

 First Author: Akira Mamiya | Senior Author: John Tuthill *(pictured)*
 Neuron | UW


Animals rely on an internal sense of body position and movement to effectively control motor behavior. This sense of proprioception is mediated by diverse populations of mechanosensory neurons distributed throughout the body. The authors investigate neural coding of leg proprioception in *Drosophila*, using *in vivo* two-photon calcium imaging of proprioceptive sensory neurons during controlled movements of the fly tibia. [Abstract](#)

Range, Routing and Kinetics of Rod Signaling in Primate Retina

 First Author: William Grimes | Senior Author: Fred Rieke *(pictured)*
 eLife | UW


Work in mice shows that rod photoreceptor signals are routed through several retinal pathways, each specialized for different light levels. This light-level-dependent routing of rod signals has been invoked to explain several human perceptual results, but it has not been tested in primate retina. The authors show that rod signals traverse the primate retina almost exclusively through a single pathway - the dedicated rod bipolar pathway. [Abstract](#)

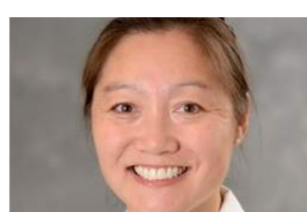
Neutral Evolution: The Randomness that Shapes Our DNA

 Author: Kelley Harris *(pictured)*
 eLife | UW


How much of the genome evolves neutrally? Although the neutral theory turned 50 this year, this seemingly basic question is still a topic of hot debate. Unlike adaptive mutations, which spread through populations as fast as their fitness advantages can carry them, neutral mutations diffuse at a slow, steady rate that is easy to model mathematically. [Abstract](#)

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Awards
Dr. Stephanie Lee Honored as New Giuliani/Press Endowed Chair Recipient

Fred Hutchinson Cancer Research Center



Fred Hutch physician-scientist Dr. Stephanie Lee *(pictured)* has been honored as the second recipient of the David and Patricia Giuliani/Oliver Press Endowed Chair in Cancer Research. The honor will help support Lee in perpetuity as she continues her research on blood stem cell transplantation and chronic graft-vs.-host disease. [Read More](#)

Dr. Joachim Deeg Named Miklos and Natalia Zimonyi Kohary Endowed Chair for Cancer Research

Fred Hutchinson Cancer Research Center



Dr. Joachim Deeg *(pictured)* has been named the first Miklos Kohary and Natalia Zimonyi Kohary Endowed Chair for Cancer Research. The chair comes in recognition of Deeg's incredible accomplishments and the incredible accomplishment that will be seen going forward. The funds that endow the chair will provide a source of long-term research support to the chairholder. [Read More](#)

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Local News
Tailor-Made Fish Help Explain Genetic Conditions in Children

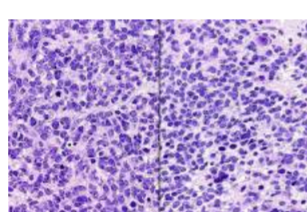
Seattle Children's Hospital



Dr. Lisa Maves at Seattle Children's Research Institute has used CRISPR to introduce a genetic variant previously identified in children with congenital heart defects into zebrafish embryos. Her and her team have closely monitored the developing fish in search of clues that the genetic change affected the development of the heart. [Read More](#)

Researchers 'Shocked' to See How Often Experts Misdiagnose Certain Brain Tumors in Kids

Fred Hutchinson Cancer Research Center



Traditional methods of diagnosing certain brain cancers in children are deeply flawed, according to a new study led by Dr. Jim Olson at Fred Hutch. As a result, some children with these particular rare tumors have been getting the wrong diagnoses and, in some cases, the wrong treatment. The errors were only revealed with the help of new tests that can look at the molecular profiles of tumor cells. [Read More](#)

Forecasting the Shape of Flu Viruses to Come

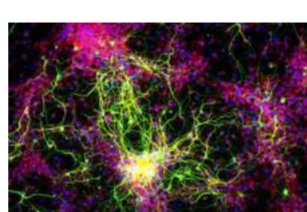
Fred Hutchinson Cancer Research Center



At Fred Hutch, a team of scientists led by Drs. Jesse Bloom and Trevor Bedford is working to take some of the guesswork out of selecting the right vaccine to fight the flu virus. The team is doing so via a deep analysis of the constant evolutionary changes in the flu virus, and by building computer models to anticipate influenza's next tricky move. [Read More](#)

New Research Models May Lead to Vision Loss Treatment

UW Medicine



Research to prevent vision loss from glaucoma will be aided by a project funded through a major National Eye Institute effort in regenerative medicine. The lab of Tom Reh, Professor of Biological Structure at the UW School of Medicine, will join with scientists at other institutions to look at a possible cell-replacement approach to correcting degeneration of the optic nerve. [Read More](#)

University of Washington Spinout Raises \$1.2M for Next-Generation RNA Sequencing Technology

GeekWire



There's a new biotechnology spin-out from the University of Washington, and the company is already raising cash to get its technology off the ground. Split Biosciences just raised a \$1.2 million seed round. The company is developing a new method of sequencing cells' RNA, the messenger molecules that communicate genetic instructions to proteins. [Read More](#)

Researchers Identify New Way Skin Stops Tumor Growth

Fred Hutchinson Cancer Research Center



A new study led by Dr. Slobodan Beronja at Fred Hutch shows that skin stem cells in mice respond to what ought to have been a cancer-causing mutation by opting to differentiate, or specialize, instead of renewing themselves. Because differentiated skin cells eventually slough off, the strategy appears to allow skin to jettison dangerous mutations without disrupting its function. [Read More](#)

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What's Next for Paul Allen's Big Investments? It's Not Clear

KOMO News



Prior to his death, billionaire Microsoft co-founder Paul Allen *(pictured)* invested large sums in technology ventures, research projects and philanthropy, some of it eclectic and highly speculative. More than \$2 billion was given to efforts aimed at improving education, science, technology, conservation and communities. What happens to those commitments now? [Read More](#)

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Upcoming Events in Seattle

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|------------------------|-------------------------------------------------------------------------------------------------------------------|
| October 29
6:00 PM | Science on Tap: Hematology and Blood Transfusion Research
Ravenna Third Place Bookstore |
| October 30
9:00 AM | 15th Annual STD & AIDS Research Symposium
Harborview Research and Training Building |
| November 2
9:00 AM | The Personal Genome
Foegen Auditorium |
| November 2
10:30 AM | Illuminations Luncheon
Sheraton Hotel |
| November 8
6:00 PM | Parenteral Drug Association Pacific Northwest Chapter Kickoff and Welcome Reception
Aptevo Therapeutics |

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Science Jobs in Seattle

- Postdoctoral PharmD Fellow, Medical Writing**
Seattle Genetics
- Scientist 1, Neuroanatomy and Data Analysis**
Allen Institute for Brain Science
- Scientist, Hematopoietic Cell Differentiation**
Astellas Pharma
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Fred Hutchinson Cancer Research Center
- Research Assistant**
Infectious Disease Research Institute

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