

**Publications of the Week**
**Homozygous Mutations in CSF1R Cause a Pediatric-Onset Leukoencephalopathy and Can Result in Congenital Absence of Microglia**

First Authors: Nynke Oosterhof, Irene Chang and Ehsan Ghayoor Karimiiani | Senior Author: James Bennett (pictured) | American Journal of Human Genetics | UW School of Medicine and Seattle Children's Research Institute



Proliferation and development of macrophages, including microglia, requires Colony Stimulating Factor 1 Receptor (*CSF1R*), a gene previously associated with a dominant adult-onset neurological condition. CUX1<sup>+</sup> neurons were reduced in a zebrafish model lacking Csf1r function, and in sections of homozygous *CSF1R* mutant human brain, identifying an evolutionarily conserved role for *CSF1R* signaling in production or maintenance of CUX1<sup>+</sup> neurons. [Profile](#) | [Abstract](#)

**Transcriptome Networks Identify Mechanisms of Viral and Nonviral Asthma Exacerbations in Children**

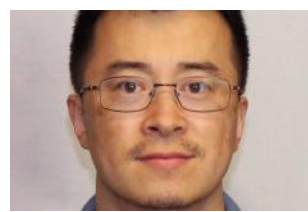
First Author: Matthew Altman (pictured) | Senior Author: Daniel Jackson | Nature Immunology | UW and Benaroya Research Institute



By using systems-scale network analysis, the authors have identified repertoires of cellular transcriptional pathways that lead to and underlie distinct patterns of asthma exacerbation. They showed an additional set of multiple inflammatory cell pathways involved in virus-associated exacerbations, in contrast to squamous cell pathways associated with nonviral exacerbations. [Abstract](#)

**Spatially Restricted Stromal Wnt Signaling Restrains Prostate Epithelial Progenitor Growth through Direct and Indirect Mechanisms**

First Author: Xing Wei | Senior Author: Li Xin (pictured) | Cell Stem Cell | Fred Hutch and UW



The authors showed that the non-canonical Wnt ligand Wnt5a, secreted by proximal stromal cells, directly inhibited the proliferation of prostate epithelial stem or progenitor cells, whereas stromal cell-autonomous canonical Wnt/β-catenin signaling indirectly suppressed prostate stem or progenitor activity via the transforming growth factor β pathway. [Abstract](#)

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**Awards**
**Life Science Washington Announces 2019 Inductees into the Washington Life Science Hall of Fame**

Life Science Washington



Life Science Washington has announced its 2019 inductees into the Washington Life Science Hall of Fame, which recognizes innovative leaders and industry pioneers in Washington state who have made significant contributions to the life sciences. The new inductees include industry veterans Drs. Colleen Delaney, Christopher Henney, Ron Howell and Steven Reed (pictured). [Read More](#)

**Leukemia Research Leader Dr. Fred Appelbaum Named 'Giant of Cancer Care'**

Fred Hutch



Dr. Fred Appelbaum (pictured), who serves as Fred Hutch's Executive Vice President and Deputy Director, has been named one of 15 "Giants of Cancer Care" for his contributions to advancing leukemia research and care. Nominated by their oncology peers, finalists in each category were selected by a seven-member advisory board of leading oncologists and voted on by a selection committee of more than a hundred oncologists. [Read More](#)

**Gabby Wolff Wins 2019 Postdoc Mentoring Award**

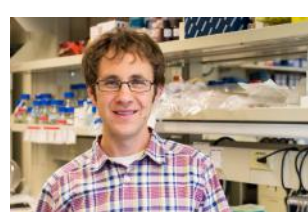
UW Department of Biology



Dr. Gabby Wolff (pictured), a postdoc in the Riffell Lab, has been awarded the UW Graduate School's 2019 Postdoc Mentoring Award. The Graduate School and the UW Office of Postdoctoral Affairs awards an annual Mentoring Award for Postdoctoral Trainees to recognize and honor the tremendous role postdocs play in student research and training at UW. [Read More](#)

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**Local News**
**Mapping All Flu Routes from Bird to Human**

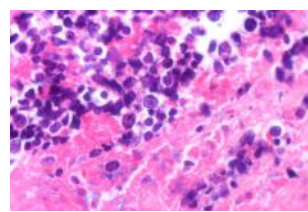
Fred Hutch



Deadly flu pandemics can arise when influenza viruses circulating in animals acquire the ability to jump to humans. Scientists at Fred Hutch have comprehensively mapped the alterations in a key influenza protein that allows bird flu to grow better in people. The map could help scientists better understand which changes enable flu to jump species and may presage a new pandemic. [Read More](#)

**Line Is Blurring between Human Herpes Simplex Viruses**

UW Medicine



The line between the human herpes simplex viruses, HSV-1 and HSV-2, is blurrier than previously thought, according to new findings from the UW School of Medicine. HSV-1 and HSV-2 are two of the most common viruses affecting people. The researchers have found that HSV-1 and HSV-2 are mixing together to result in several new and different recombinant versions of herpes. [Read More](#)

**Delving Deeper into Individual Genomic Differences**

UW Medicine



The most comprehensive view so far of the spectrum of genetic differences between individuals has been obtained using a suite of advanced genomic technologies. The study was conducted by a large, international team of researchers from the Human Genome Structural Variation Consortium, whose leading contributors were scientists from the Department of Genome Sciences at UW Medicine, including former postdoc Dr. Mark Chaisson (pictured). [Read More](#)

**New Method Quickly, Precisely Maps Epigenome in Single Cells**

Fred Hutch



Scientists at Fred Hutch, led by Dr. Steven Henikoff (pictured) have developed a new method that allows investigators to map chromatin — the DNA modifications, packaging proteins and molecular factors that work together to turn genes on or off — precisely, quickly, at low cost and in single cells. The team hopes that the tool will make it possible for scientists to rapidly make high-resolution, low-cost epigenetic maps. [Read More](#)

**UW Team Works to Develop Prosthetic Limbs that Help Users Touch and Feel**

knkx



The science of prosthetics has come a long way from the crude wood-and-metal devices of earlier generations. Bioengineers have even developed artificial limbs that can be operated by the user's mind. Now, a team at UW's Center for Neurotechnology is working to take that one step further: engineering a device — say, a prosthetic arm — that can actually deliver the sensation of touch. [Read More](#)

**Merck Research Chief Roger Perlmutter Touts Seattle Biotech Strength after \$300M Immune Design Deal**

GeekWire



Two months after Merck acquired Seattle-based biotech Immune Design for \$300 million, the president of Merck Research Laboratories, Roger Perlmutter, says the city's life science community has plenty more to offer. "Great ideas emerge here all the time, and there's a spirit of entrepreneurship. So I wouldn't be at all surprised if there's a larger biotechnology organization that comes about here in Seattle," Perlmutter told GeekWire. [Read More](#)

**Local Nonprofit Donates \$10K for Autoimmune Disease Research**

Cape Gazette



With a \$10,000 donation, Operation Shooting Star, a nonprofit autoimmune disease advocacy organization, has announced its partnership with Benaroya Research Institute at Virginia Mason, a leader in autoimmune disease research. The donation will support their current projects, which focus on why the immune system turns on itself, and finding a way for everyone to have a healthy immune system. [Read More](#)

**Seattle to Glow Orange to Support Cancer Research at Fred Hutch**

Fred Hutch



Businesses and landmarks across Seattle are joining the Fred Hutch Obliterate Glow Orange to Cure Cancer campaign. Much of the city will be lit up in orange during National Cancer Research Awareness Month to support lifesaving work at Fred Hutch. The Seattle Great Wheel will help kick off the annual event, illuminating the waterfront with an Obliterate orange light show. [Read More](#)

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**Upcoming Events in Seattle**

May 10 1:30 PM	<b>The Seattle Cancer Summit</b> Fred Hutchinson Cancer Research Center – Pelton Auditorium
May 15 6:00 PM	<b>Business Savvy: Essential Skills for Women in the Workplace</b> Fred Hutchinson Cancer Research Center – Pelton Auditorium
May 16 4:30 PM	<b>Science Matters – Looking in Unexpected Places</b> Perkins Cole LLP
May 16 5:00 PM	<b>Life Science Industry Networking Event</b> Agora Conference Center
May 22 7:00 PM	<b>A Life Unbound (Documentary Screening Seattle)</b> Youngstown Cultural Arts Center

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Adaptive Biotechnologies
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Gilead
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Infectious Disease Research Institute
- Post-Doctoral Research Fellow, Gene Editing in Leukemia**  
Fred Hutch
- Research Scientist, Antigen Map**  
Adaptive Biotechnologies

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