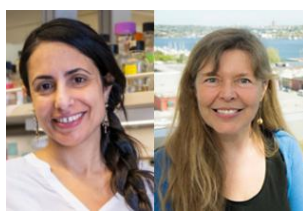


Publications of the Week

dCas9 Fusion to Computer-Designed PRC2 Inhibitor Reveals Functional TATA Box in Distal Promoter Region

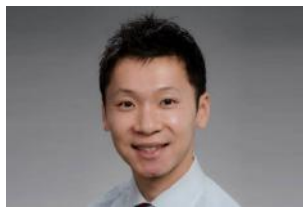
First Author: Shiri Levy (pictured, left) | Senior Author: Hannele Ruohola-Baker (right)
Cell Reports | Institute for Stem Cell and Regenerative Medicine and UW



Bifurcation of cellular fates, a critical process in development, requires histone 3 lysine 27 methylation (H3K27me3) marks propagated by the polycomb repressive complex 2 (PRC2). However, precise chromatin loci of functional H3K27me3 marks are not yet known. The authors fused a computationally designed protein, EED binder, which competes with EZH2 and thereby inhibits PRC2 function, to dCas9 to allow for PRC2 inhibition at a precise locus using gRNA. [Abstract](#) | [Press Release](#)

Effect of Lung Pericyte-Like Cell Ablation on the Bleomycin Model of Injury and Repair

First Author: Chi Hung (pictured) | Senior Author: Lynn Schnapp
American Journal of Physiology - Lung Cellular and Molecular Physiology | UW



The authors used a model of lung pericyte-like cell ablation to test the hypothesis that pericyte-like cell ablation attenuates lung fibrosis in bleomycin-induced lung injury. Compared to diphtheria toxin (DT)-insensitive littermates where pericyte-like cells were not ablated, DT-sensitive animals exhibited no difference in fibrosis at day 21 both in the early and late pericyte ablation models. [Abstract](#)

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Local News

Protein Drugs Designed from the Ground Up

Institute for Protein Design (IPD)



Dr. David Baker's (pictured) lab at IPD reported in *Nature* a new method for generating protein drugs. Using Rosetta-based design, they designed molecules that can target important proteins in the body, such as the insulin receptor, as well as proteins on the surface of viruses. This solves a long-standing challenge in drug development and may lead to new treatments for cancer, diabetes, infection, inflammation, and beyond. [Read More](#)

Initial SeqFirst Results are Promising for Genome Sequencing on Infants

Brotman Baty Institute (BBI)



Initial results of the BBI-sponsored SeqFirst Project using whole genome sequencing have demonstrated that "clear opportunities exist to center equity for providing a precise genetic diagnosis that adds value to the care of critically ill newborns." Those results were recently presented by Dr. Tara Lynn Wenger (pictured), an Associate Professor in the Division of Genetic Medicine at Seattle Children's Hospital. [Read More](#)

Some Puzzling Genome Areas Hold Distinctly Human Data

UW Medicine



UW Medicine genome scientists were among the leading contributors to the publication of the first complete, gapless sequence of a human genome announced this week by the National Human Genome Research Institute. The lab of Dr. Evan Eichler (pictured), Professor of Genome Sciences at UW, was one of the major contributors to the main paper, recently published in *Science*. [Read More](#)

HDT Bio Doses First Healthy Volunteer in US Phase I Trial of Next Generation COVID-19 Variant RNA Vaccine

HDT Bio



HDT Bio announced the first healthy volunteer has been dosed in the company's US Phase I clinical trial of its next generation COVID-19 RNA vaccine, HDT-301. The vaccine targets the Beta variant of SARS-CoV-2 and has a demonstrated ability to provide broad protection against multiple variants of the virus that cause COVID-19 and unique cellular immunity compared to existing mRNA vaccines. [Read More](#)

Science Says: Comedian, Researchers Tackle Tough Topics

Fred Hutch



Trevor Noah (pictured), host of "The Daily Show," recently joined Fred Hutch scientists and supporters for a conversation about some tough topics, including colorectal cancer and improving equity in health care. When discussing the challenges of misinformation and complicated topics, he reminded listeners of the importance of personal connections and storytelling when trying to encourage people to make changes that could improve their health. [Read More](#)

Promising Young Scientists: Amanda Riley

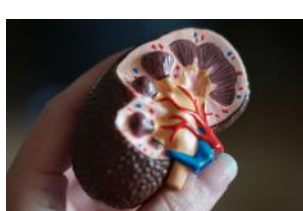
Brotman Baty Institution (BBI)



Amanda Riley (pictured) is in her fourth year as a PhD candidate at Fred Hutch and UW's Molecular and Cellular Biology Program in the lab of BBI's Dr. Alice Berger. She is especially interested in the *RIT1* gene and its influence on the development of lung cancer. Riley's "gift for both the academic side of science as well as the technical side of science" was evident prior to arriving at Fred Hutch, said Dr. Berger. [Read More](#)

Ultrasonic Bursts Reduce Kidney Stones' Volume by 90%

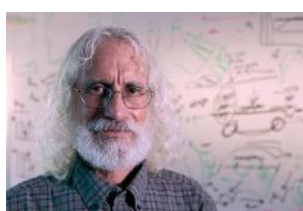
UW Medicine



A small study shows that ultrasound bursts reduce kidney stones' volume by 90%, according to research published in the *Journal of Urology*. Using burst wave lithotripsy, UW Medicine urologists were able to fragment the stones in 10-minute procedures on patients who were under anesthesia. Eventually, urologists could use this procedure on conscious patients in a clinic visit, said Dr. Mathew Sorensen. [Read More](#)

Biotech Vet Phil Greenberg on His New Cancer-Fighting Startup and Immunotherapy's Next Phase

GeekWire



Dr. Philip Greenberg (pictured) has been trying to stop cancer for decades. With Affini-T Therapeutics, the Fred Hutch investigator may finally have his chance. The company recently announced \$175 million in funding to move cell therapies developed by Dr. Greenberg and his colleagues into the clinic. The approach involves removing a patient's T cells and engineering them to make a molecule that recognizes cancer cells, a T cell receptor. [Read More](#)

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Interesting Articles

Biden Bids Again to Boost Science Spending — but Faces Long Odds

Nature



Although Congress modestly increased funding for most science agencies in 2022, it heavily scaled back some of the administration's most ambitious proposals. For instance, the Advanced Research Projects Agency-Health, a new high-risk, high-reward agency meant to accelerate innovations in health and medicine, received \$1 billion rather than the \$6.5 billion the President requested last year. [Read More](#)

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Upcoming Events in Seattle

- April 5 3:00 PM **Variant Effect Seminar Series – Shawn Fayer and Marty Yang** Online
- April 7 4:00 PM **Research Roundtable with Dr. Sui Huang** Online
- April 8 12:00 PM **Science Friday** Online
- April 12 4:00 PM **Research Roundtable with Drs. Jenn Hadlock and Sam Piekos** Online
- April 20-21 7:00 AM **Life Science Innovation Northwest 2022** Washington State Convention Center

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- Research Technician III, Immunologic Models of Metastasis**
Fred Hutch
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- Postdoctoral Research Associate**
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