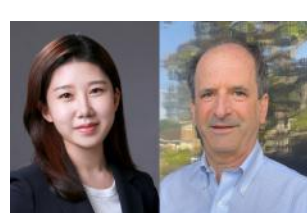


Publications of the Week

Blockade of TGF-β (Transforming Growth Factor Beta) Signaling by Deletion of *Tgfb2* in Smooth Muscle Cells of 11-Month-Old Mice Alters Aortic Structure and Causes Vasomotor Dysfunction

First Author: Chloe Lee (pictured, left) | Senior Author: David Dichek (right) | *Arteriosclerosis, Thrombosis, and Vascular Biology* | Institute for Stem Cell and Regenerative Medicine and UW



The authors investigated if smooth muscle cell (SMC) TGF-β signaling contributes to maintenance of aortic structure and function beyond the early postnatal period. They found that loss of TGF-β signaling in aortic SMC of one-year-old mice does not cause early severe aortopathy or death; however, it causes mild structural and substantial physiological abnormalities. [Profile](#) | [Abstract](#)

Colorectal Cancer Is Associated with the Presence of Cancer Driver Mutations in Normal Colon

First Author: Julia Malas | Senior Author: Rosana Risques (pictured) | *Cancer Research* | UW and Fred Hutch



Although somatic mutations in colorectal cancer are well characterized, little is known about the accumulation of cancer mutations in the normal colon before cancer. The authors developed and applied an ultrasensitive, single-molecule mutational test based on CRISPR-duplex sequencing technology, which enables mutation detection at extremely low frequency in normal colon from patients with and without colorectal cancer. [Abstract](#)

[View All Publications](#)

Awards

ISHLT Drives Innovation with Research Grants

PR Newswire



The International Society for Heart and Lung Transplantation (ISHLT) awarded grants to three researchers during its 2022 Annual Meeting. The ISHLT/O.H. Frazier Award in Mechanical Circulatory Support Translational Research was presented to Dr. Maziar Khorsandi (pictured), cardiothoracic surgeon and Assistant Professor of Surgery at the UW Medical Center. [Read More](#)

[View All Awards](#)

Local News

Gene That Shapes Mutation Rate Variation Found in Mice

UW Medicine



A collaborative team led by researchers at UW report they have located an area in the mouse genome where genetic variation is associated with differences in the mutation rate between individuals. "Our findings show that at least one mutator allele exists in nature, and that's something we've been trying to demonstrate for a while," said Dr. Kelley Harris (pictured), Assistant Professor of Genome Sciences at UW Medicine. [Read More](#)

New Research to Understand How the Brain Handles Optical Illusions and Makes Predictions

Allen Institute



What's going on in our brains when we are fooled by an optical illusion? How do our neurons take shortcuts to avoid sensory overload while taking in the world around us? New research projects are underway at the Allen Institute to address these questions through OpenScope, a shared neuroscience observatory that allows scientists around the world to propose and direct experiments conducted on one of the institute's high-throughput experimental platforms. [Read More](#)

BRI Advances Understanding of the Link between Genetics and Autoimmune Disease Risk

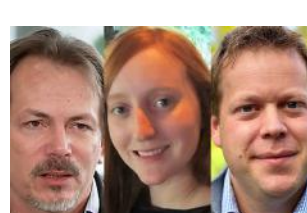
Benaroya Research Institute at Virginia Mason (BRI)



A study published in *Nature Genetics* brings scientists closer to unraveling the genetic mechanisms underpinning autoimmune disease risk. The work pinpoints many regions of the genome that vary between individuals that could potentially cause autoimmune disease. Most of these regions lay outside of genes, making them difficult to study without the use of cutting-edge technologies employed by Dr. John Ray (pictured) of BRI and colleagues. [Read More](#)

The Backstory of the First Complete Sequence of the Human Genome

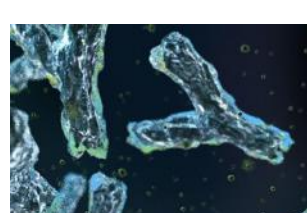
Brotman Baty Institute (BBI)



A Q&A with BBI researchers reveals why the merger of two sequencing systems was crucial to a landmark study. Drs. Evan Eichler (pictured, left), Danny Miller (right), and Glennis Logsdon (center) discuss the backstory behind the first complete sequence of the human genome, announced in late March in a series of papers published in *Science*. [Read More](#)

Custom Biosensors for Detecting Coronavirus Antibodies in Blood

Institute for Protein Design (IPD)



IPD scientists recently reported in *Nature Biotechnology* the design of custom protein-based biosensors that can detect coronavirus-neutralizing antibodies in blood. This research, which builds on prior sensor design technology developed in the Baker lab, was led by Baker lab postdoctoral scholars Drs. Jason Zhang and Hsien-Wei (Andy) Yeh. [Read More](#)

Lessons from Mom: How to Be the Best Immune System You Can Be

Fred Hutch



In honor of Mother's Day, Fred Hutch spoke with Dr. Meghan Koch (pictured), who uses mice to study how specialized immune proteins passed to infants during breastfeeding can "imprint" the infant's immune system. Dr. Koch hopes her insights into what factors in breast milk set infants up for optimal health translate into improved formula composition and support for parents who do breastfeed. [Read More](#)

Model Finds COVID-19 Deaths Among Elderly May Be Due to Genetic Limit on Cell Division

UW



According to a model created by UW Research Professor Dr. James Anderson (pictured), the genetically predetermined limit on your immune system may be the key to why COVID-19 has such a devastating effect on the elderly. Dr. Anderson is the lead author of a paper published in *The Lancet eBioMedicine* detailing this modeled link between aging, COVID-19, and mortality. [Read More](#)

Faraday Pharmaceuticals Announces First Patient Enrolled in Phase III Trial for Myocardial Infarction/occyte AMI-3 Trial

BioSpace



Faraday Pharmaceuticals announced the enrollment of the first patient in its ococyte AMI-3 study — a Phase III clinical trial assessing the efficacy and safety of FDY-5301 in reducing cardiovascular death and heart failure in anterior ST-segment elevation myocardial infarction patients undergoing primary percutaneous intervention. The trial is being conducted under a Special Protocol Agreement reached with the US Food and Drug Administration. [Read More](#)

Bill Gates Helps Open New Vaccine Manufacturing Facility in Seattle Area

GeekWire



Bill Gates helped cut the ribbon at a new Seattle-area manufacturing facility for vaccines built by Inventris, a biotech company supported with funds from the Bill & Melinda Gates Foundation. The new 70,000-square foot facility will produce vaccines against pneumococcal disease. If the company's upcoming clinical trials are successful, the plant is positioned to produce tens of millions of shots each year for commercial use. [Read More](#)

[View All Local News](#) | [Submit an Article](#)

Interesting Articles

Odds Improve for Winning NSF Grants, but Drop in Applications Troubles Some Observers

ScienceInsider



Federal research agencies strive to fund a healthy percentage of the grant applications they receive, ensuring that scientists can pursue their best ideas. A steadily rising budget is their preferred method for maintaining a robust success rate. But a fall in applications can have the same effect. A new report from the National Science Foundation (NSF) on its merit review system documents how falling demand has boosted success rates at the \$8.5 billion research agency. [Read More](#)

[View All Interesting Articles](#) | [Submit an Article](#)

Upcoming Events in Seattle

- May 17 8:45 AM **World IP Day Symposium** Online
- May 19 12:00 PM **ISCRM Annual Stem Cell Mini-Symposium 2022** Drin Smith Auditorium
- May 21 12:00 PM **SEP STEM for Justice Summit** Online
- May 23 - 31 1:00 PM **Preparing Scientists for Industry Careers: Career Development Workshop** Online
- May 24 10:00 AM **NanoString Life Science Career Fair Hosted by Biotech Networks** Online

[View All Events](#) | [Submit an Event](#)

Science Jobs in Seattle

- Postdoctoral Research Associate**
Benaroya Research Institute at Virginia Mason
- Research Associate**
Fred Hutch
- Research Associate I, High Resolution Flow Cytometry Specialist**
Allen Institute
- Director, Molecular Laboratory Operations**
Adaptive Biotechnologies
- Senior Project Manager, Product Quality Team Cell Therapy**
Bristol Myers Squibb

[View 94 Other Science Jobs](#) | [Submit a Job](#)

Networking & Conference Toolkit
Follow These Tips to Prepare for Your Next Conference [ACCESS NOW](#)

Submit your articles and events by reaching out to us at info@scienceinseattle.com.

BROUGHT TO YOU BY



- STEMCELL Technologies**
Products | Services
- STEMCELL Science News**
Free Weekly Updates on Your Field
- The Stem Cell Podcast**
Interviews and Updates on Stem Cell Science