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Publications of the Week

High Density DNA Data Storage Library via Dehydration with Digital Microfluidic Retrieval

First Author: Sharon Newman | Senior Author: Luis Ceze
Nature Communications | UW

The authors proposed the storage of dehydrated DNA spots on glass as an approach for scalable DNA data storage. They showed that this storage schema worked with varying spot organization, spotted masses of DNA, and droplet retrieval dwell times. In all cases, the majority of the DNA was retrieved and successfully sequenced. **Profile | Abstract**

Increasing the Accuracy of Nanopore DNA Sequencing Using a Time-Varying Cross Membrane Voltage

Fist Author: Matthew Noakes *(pictured back row, third from left)* | Jens Gundlach *(not pictured)*
Nature Biotechnology | UW

Nanopore DNA sequencing is limited by low base-calling accuracy. The authors varied the driving voltage from 100 to 200 mV, with a frequency of 200 Hz, across a *Mycobacterium smegmatis* porin A nanopore, thus changing how the DNA strand moved through the nanopore. The electronic signal produced with variable voltage was used to overcome the primary error modes in base calling. **Profile | Abstract**

Large, Stable, Contemporary Interspecies Recombination Events in Circulating Human Herpes Simplex Viruses

First Author: Amanda Casto *(pictured)* | Senior Author: Alexander Greninger
The Journal of Infectious Diseases | UW, Fred Hutch and Benaroya Research Institute

Using 255 newly sequenced and 230 existing herpes simplex virus (HSV) genome sequences, the authors comprehensively assessed interspecies recombination in HSV. Their findings show that the sizes and locations of interspecies recombination events in HSV-2 were significantly more variable than previously appreciated and that they could impact species-specific T-cell recognition of HSV. **Profile | Abstract**

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Awards

Harmit Malik Elected to National Academy of Sciences

Fred Hutch

Fred Hutch evolutionary biologist Dr. Harmit Malik *(pictured)* has been elected to the National Academy of Sciences (NAS) for his fundamental discoveries of genetic conflict. Members are elected to this honor, one of the highest a scientist can receive, on the basis of their "distinguished and continuing achievements in original research," according to the NAS press release. **Read More**

Fred Hutch Announces Seven Inaugural Recipients of Dr. Eddie Méndez Award

Fred Hutch

Dr. Ahmed Diab *(pictured)* from Fred Hutch is one of seven inaugural recipients of an award honoring Dr. Eddie Méndez, a physician-scientist at Fred Hutch and cherished colleague and mentor. Fred Hutch leaders created the award to recognize Méndez's commitment to cancer research and to support early-career scientists from underrepresented minorities as well as individuals with disabilities. **Read More**

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Local News

Breakthroughs in 3D Organ Printing Detailed in *Science*

Institute for Stem Cell & Regenerative Medicine

Bioengineers at the UW School of Medicine, UW College of Engineering and Rice University have cleared a major hurdle on the path to 3D printing replacement organs with a breakthrough technique for bioprinting tissues. The new innovation allows scientists to create exquisitely entangled vascular networks that mimic the body's natural passageways for blood, air, lymph and other vital fluids. **Read More**

Researchers Ready B Cells for Novel Cell Therapy

Seattle Children's Hospital

Scientists at Seattle Children's Research Institute, like Dr. Richard James *(pictured)*, are paving the way to use gene-edited B cells – a type of white blood cell in the immune system – to treat a wide range of potential diseases that affect children, including hemophilia and other protein deficiency disorders, autoimmune diseases, and infectious diseases. **Read More**

Algorithms Help Spot Cancer 'Lottery Winners' in New Fred Hutch Study

GeekWire

Certain mutations that cause lung cancer are not always identified in patients — meaning they never get the treatment. New research led by Dr. Bernardo Goulart *(pictured)* at Fred Hutch has used machine learning to find these needle-in-a-haystack patients. The idea was to leverage cancer databases to see if patients were being tested for the mutations and receiving these personalized treatments. **Read More**

A Former Experimental Psychologist with a Passion for Data Governance

Allen Institute for Immunology

As more and more new technologies come on the scene, researchers' ability to generate and store massive datasets is on the rise. But doing something with that data is a different question. It's a massive engineering challenge to package, store and present biological data so that other scientists can use it to glean new insights. Dr. Paul Meijer *(pictured)*, Director of Software Development at the newly launched Allen Institute for Immunology, is up for that challenge. **Read More**

Groundbreaking Research at Seattle Children's Hospital to Help Diagnose Rare Health Condition

Kiro7 News

Groundbreaking research is giving doctors new hope at better treating and diagnosing a rare health condition called Kawasaki disease. Pediatric cardiologist Dr. Michael Portman and his team at Seattle's Children Hospital are performing genetic studies in nearly 800 patients with the hopes of creating a blood test that could help better identify patients with this disease. **Read More**

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Interesting Articles

White House to Convene Committee to Address Research Obstacles

The Scientist

A government committee has been formed to focus on impediments that affect research in multiple disciplines across government labs, academia, and the private sector. "It's critical we remove any obstacles in the way of the scientists, engineers, and inventors of today and tomorrow achieving their full potential," says Kelvin Droegemeier, Director of the White House Office of Science and Technology Policy. **Read More**

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Upcoming Events in Seattle

May 15 6:00 PM	**Business Savvy: Essential Skills for Women in the Workplace**	Fred Hutchinson Cancer Research Center – Pelton Auditorium
May 16 4:30 PM	**Science Matters – Looking in Unexpected Places**	Perkins Coie LLP
May 16 5:00 PM	**Life Science Industry Networking Event**	Agora Conference Center
May 22 7:00 PM	**A Life Unbound (Documentary Screening Seattle)**	Youngstown Cultural Arts Center
May 25 1:00 PM	**Introduce a Girl to CoRDS Fair**	Husky Union Building

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Science Jobs in Seattle

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Adaptive Biotechnologies

Director, Biomarker Assay Technologies
Gilead

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The Allen Institute for Immunology

Postdoctoral Research Associate
Benaroya Research Institute at Virginia Mason

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