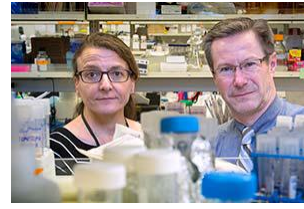


Publications of the Week

Gene Editing and Elimination of Latent Herpes Simplex Virus *In Vivo*

First Author: Martine Aubert (*pictured, left*) | Senior Author: Keith Jerome (*pictured, right*)
Nature Communications | Fred Hutch and UW



The authors evaluated gene editing of herpes simplex virus (HSV) in a well-established mouse model, using adeno-associated virus (AAV)-delivered meganucleases, as a potentially curative approach to treat latent HSV infection. They showed that AAV-delivered meganucleases, but not CRISPR/Cas9, mediated highly efficient gene editing of HSV, eliminating over 90% of latent virus from superior cervical ganglia. [Abstract](#) | [Press Release](#)

CBFB-MYH11 Fusion Neoantigen Enables T Cell Recognition and Killing of Acute Myeloid Leukemia

First Author: Melinda Biernacki | Senior Author: Marie Bleakley (*pictured*)
The Journal of Clinical Investigation | Fred Hutch and UW



Researchers provided proof of principle for immunologically targeting acute myeloid leukemia (AML)-initiating fusions and demonstrated that targeting neoantigens has clinical relevance even in low-mutational frequency cancers like fusion-driven AML. This work also represents a first critical step toward the development of T cell receptor T cell immunotherapy targeting fusion gene-driven AML. [Abstract](#)

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Awards

UWMDI Investigator, Dr. Karin Bornfeldt, Receives Program Project Grant from the National Heart, Lung and Blood Institute

UW Medicine Diabetes Institute (UWMDI)



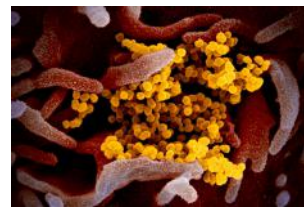
Dr. Karin Bornfeldt (*pictured*), Professor of Laboratory Medicine and Pathology at UWMDI, has received a new Program Project Grant from the National Heart, Lung, and Blood Institute. Her program's primary focus is to investigate whether diabetes causes changes in remnants of triglyceride-rich lipoproteins, and whether these changes contribute to the increased cardiovascular disease risk associated with diabetes. [Read More](#)

[View All Awards](#)

Local News

A New Map Catalogs the Effects of Coronavirus Mutations

Howard Hughes Medical Institute



Scientists have analyzed every possible mutation to one key part of the coronavirus. The data could help guide vaccine and drug development and hint at how the virus might spread. As the novel coronavirus spreads, it's picking up new mutations – for better and for worse. Howard Hughes Medical Institute investigators have cataloged how nearly 4,000 different mutations alter SARS-CoV-2's ability to bind to human cells. [Read More](#)

ISB Researchers Show Genetic Risk for Disease Often Reflected in Our Blood

Institute for Systems Biology (ISB)



Humans do not develop disease overnight. Rather, diseases develop gradually over years — sometimes decades — before symptoms appear, and are due to malfunctioning physiological processes brought about by our genes and environment. In new research, Dr. Michael Wainberg (*pictured*) and colleagues at ISB have shown how an individual's genetic risk for disease is often reflected in their blood. [Read More](#)

New Insights into Drug Resistance in Small Cell Lung Cancer

Fred Hutch



People with small cell lung cancer, a less common but more aggressive type of lung cancer, have yet to see treatment advances improve their prognosis. After an initial response to chemotherapy, most patients see their tumors roar back, now with resistance to drugs. Dr. David MacPherson (*pictured*) at Fred Hutch who specializes in studying small cell lung cancer, is working to give patients more options. [Read More](#)

Novel Breast Cancer Therapy Candidate Enters Clinical Study

UW Medicine



A Phase I patient trial of the novel, oral therapy candidate, alpha-TEA, for advanced HER2 positive breast cancer is now underway. Veana Therapeutics, Inc., and UW Medicine will collaborate on the clinical testing of Veana's lead agent – an alpha TEA lysine salt, in combination with the monoclonal antibody, trastuzumab, brand name Herceptin. UW's William Gwin (*pictured*) is co-leading the study. [Read More](#)

Silverback Therapeutics Initiates Phase I Clinical Study of SBT6050

Silverback Therapeutics via Business Wire



Silverback Therapeutics, a Seattle-based biopharmaceutical company advancing a pipeline of therapies that are systemically delivered but locally active, has announced initiation of a Phase I clinical study of SBT6050, a novel therapeutic comprising a specific small molecule toll-like receptor 8 agonist conjugated to a HER2-directed monoclonal antibody. [Read More](#)

New 'Molecular Computers' Find the Right Cells

UW Medicine



Scientists have demonstrated a new way to precisely target cells by distinguishing them from neighboring cells that look quite similar. In a recent study, Dr. Marc Lajoie (*pictured*) and a team of researchers at Fred Hutch and UW Medicine have described the design of new nanoscale devices made of synthetic proteins. These target a therapeutic agent only to cells with specific, predetermined combinations of cell surface markers. [Read More](#)

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Upcoming Events in Seattle

- | | |
|-------------------------|--|
| September 1
8:00 AM | Alzheimer's Disease Genetics Global Symposium
Online |
| September 2
8:30 AM | 2020 From the Laboratory to Leadership - Fall Program
Online |
| September 17
6:00 PM | ISB 20th Anniversary - Future of Health
Online |
| September 18
5:30 PM | PNRI Fundraiser
Online |
| October 1
8:00 AM | Distinguished Seminar Series
Online |

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Science Jobs in Seattle

- Senior Research Scientist, Immune Response**
Seattle Children's
- Director of Scientific Operations**
Allen Institute
- Postdoctoral Research Fellow, Methods for Cancer Biomarkers**
Fred Hutch
- Postdoctoral Research Fellow, Pancreatic Cancer Research**
Fred Hutch
- Postdoctoral Research Associate, Novel T Cell Pathways**
Benaroya Research Institute at Virginia Mason

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