SCIENCE in SEATTLE

STEMCELL™ TECHNOLOGIES

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Publications of the Week

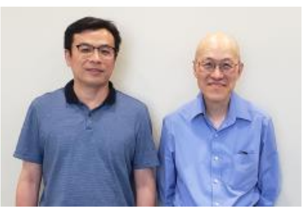
The CD33 Splice Isoform Lacking Exon 2 as Therapeutic Target in Human Acute Myeloid Leukemia

First Author: Colin Godwin *(pictured)* | Senior Author: Roland Walter
Leukemia | Fred Hutch and UW

There is long-standing interest in therapies targeting full-length CD33 (CD33^{FL}) for acute myeloid leukemia (AML), with numerous efforts to develop more effective CD33-directed therapeutics. To examine the expression and localization of a variant missing exon 2 ($\text{CD33}^{\Delta\text{E2}}$) in human AML cell lines and primary AML blasts, the authors raised antibodies that bound human $\text{CD33}^{\Delta\text{E2}}$ but not CD33^{FL}. **Profile | Abstract**

Increased Islet Antigen–Specific Regulatory and Effector CD4^+ T Cells in Healthy Individuals with the Type 1 Diabetes–Protective Haplotype

First Author: Xiaomin Wen | Senior Author: William Kwok *(pictured, right)*
Science Immunology | Benaroya Research Institute at Virginia Mason



Polymorphic histocompatibility genes in the HLA locus have a strong influence on genetic susceptibility to type 1 diabetes (T1D). Several high-risk HLA haplotypes increase susceptibility to T1D, whereas the *DR1501-DQ6* HLA haplotype confers dominant protection. The authors investigated the mechanistic basis for this protective effect by measuring the frequency of CD4^+ T cells reactive with epitopes on islet autoantigens in healthy individuals. **Abstract**

View All Publications

Awards

New Strategies for Prevention of Cardiovascular Complications of Diabetes

UW Department of Medicine

Dr. Karin Bornfeldt *(pictured)*, Professor of Medicine and Pathology at UW, has received an Outstanding Investigator Award from the National Heart, Lung, and Blood Institute for her R35 project “Identifying new strategies for prevention of cardiovascular complications of diabetes.” The award will support Bornfeldt’s research program for seven years, with cumulative funding of more than $7.2 million over the award’s duration. **Read More**

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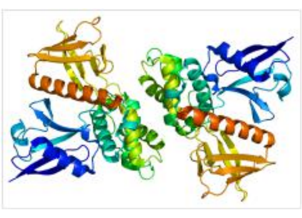
Local News

University of Washington Coronavirus Puzzle Game Aims to Crowdsource a Cure

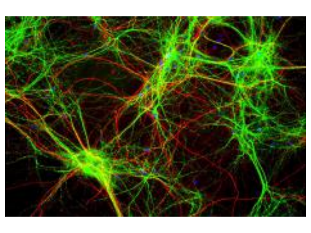
GeekWire



The University of Washington is taking a novel approach to combat the spread of coronavirus around the world. A new puzzle game from the university challenges scientists and the public alike to build a protein that could block the virus from infiltrating human cells. The game is on Foldit, a 12-year-old website created by the university’s Center for Game Science designed to crowdsource contributions to important protein research from more than 200,000 registered players. **Read More**

New Clues About a Huge, Rare Human Brain Cell

Allen Institute for Brain Science



Thanks to a woman's donation of a piece of tissue from her brain tumor, investigators at the Allen Institute have been able to record the first-ever electrical spikes of human von Economo neurons, which came from a relatively deep region of the brain that is one of just a few places where the rare neurons are found. Von Economo neurons are large, spindle-shaped neurons that are sparsely studded through just three small regions of the human brain. **Read More**

Genetic Analysis Suggests Coronavirus Infections Double Every Six Days, Spreading to Hundreds

GeekWire

An evolutionary analysis based on the genome sequences of COVID-19 coronavirus samples taken from patients in the Seattle area suggests that the number of infections doubles roughly every six days, which translates into hundreds of infections over the course of the past six weeks. The work was led by Dr. Trevor Bedford *(pictured)*, a researcher at Fred Hutch who specializes in the study of viral dynamics. **Read More**

Metabolomics Reveals Connection between Gut Microbiome and Blood

Metabolon, Inc.

Alpha-diversity in the gut microbiome holds many clues to understanding human health. Now those clues are more accessible because Institute for Systems Biology researchers, led by Dr. Sean Gibbons *(pictured)*, can predict the diversity of an individual’s gut microbiome by examining metabolites in the blood. Metabolomics was a key tool that researchers used throughout their work. **Read More**

Study Suggests Way to Improve Cytomegalovirus Testing

UW Medicine

Many tests for cytomegalovirus infection are difficult to interpret because most of its DNA fragments are too small to be detected in the blood of infected people through current assays. Laboratory medicine experts at the UW School of Medicine, led by Dr. Alex Greninger *(pictured)*, are looking at this problem to find better ways to check for the virus, particularly in pregnant women. **Read More**

Meet a Principal Investigator: Oliver “Ollie” Harrison

Benaroya Research Institute at Virginia Mason

Benaroya Research Institute recently welcomed Dr. Oliver Harrison as their newest Principal Investigator and Assistant Member in the Fundamental Immunology Center. His lab’s research focuses on understanding how microbes like bacteria interact with the body — on the skin and in the intestinal tract. In this interview, he answers questions about his scientific interests and motivation. **Read More**

PNNL Scientists Defend against New Threats Like Coronavirus

Pacific Northwest National Laboratory

Combining its strength in biological sciences and data analytics, researchers at the Department of Energy's Pacific Northwest National Laboratory (PNNL) are working to enable a quick response to a biological incident — whether intentional, accidental or natural. This research is critical given that new threats, such as the coronavirus, can emerge at any time. **Read More**

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Upcoming Events in Seattle

March 10 6:30 PM	**The Collective: 3D Organ Printing and Other Bio-Powered Technology Reshaping Medicine With Kelly Stevens** The Collective
March 12 5:00 PM	**Life Science Industry Seattle Networking Event** Life Science Washington HQ
March 15 6:30 PM	**Femmes of STEM: A Burlesque Benefit for Seattle 500 Women Scientists** The Rendezvous
March 18 12:00 PM	**Lunch and Learn: Building Your Founding Team** The Union Conference Center
March 20 6:30 PM	**Pacific Science Center Happy Hour** Pacific Science Center

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Science Jobs in Seattle

Senior Scientist, Small Molecule Formulation and Drug Product Sciences
Seattle Genetics

Scientist, Differentiation
Allen Institute for Cell Science

Statistical Geneticist
Adaptive Biotechnologies

Postdoctoral Research Associate, Translational Immunology
Benaroya Research Institute at Virginia Mason

Senior Research Associate, DNA Synthesis
Bristol-Myers Squibb

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