

Publications of the Week

The PI3K/mTOR Inhibitor Gedatolisib Eliminates Dormant Breast Cancer Cells in Organotypic Culture, but Fails to Prevent Metastasis in Preclinical Settings

First Author: Ryann Shor (pictured, 5th from right) | Senior Author: Cyrus Ghajar (2nd from right)  
Molecular Oncology | Fred Hutch



By probing a number of kinases downstream of integrin-β1, the authors determined that PI3K inhibition with either tool compounds or a compound (Gedatolisib) in clinical trials robustly sensitizes quiescent breast tumor cells seeded in organotypic bone marrow cultures to chemotherapy. These results motivated the preclinical study of whether Gedatolisib would reduce disseminated tumor cell burden and prevent metastases. [Profile](#) | [Abstract](#)

CMV Exposure Drives Long-Term CD57+ CD4 Memory T Cell Inflation Following Allogeneic Stem Cell Transplant

First Author: Albert Yeh | Senior Author: Geoffrey Hill (pictured)  
Blood | Fred Hutch



Donor and recipient cytomegalovirus (CMV) serostatus correlates with transplant related mortality that is associated with reduced survival following allogeneic stem cell transplant (SCT). The authors investigated the hypothesis that prior donor CMV exposure irreversibly modifies immunologic function after SCT. They identified a CD4+CD57+CD27- T cell subset that was differentially expressed between seropositive graft and seronegative graft transplants. [Abstract](#)

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Awards

Kendan Jones-Isaac and Dr. Eric Scott Nealy Named on 2021 Husky 100 List

Institute for Stem Cell and Regenerative Medicine



Congratulations to Dr. Eric Scott Nealy (pictured, right) and Kendan Jones-Isaac (left). Dr. Nealy hopes to help steer microgel therapy toward clinical trials and commercialization so that it can someday be used to treat cancer patients. Kendan is a key contributor to a multi-year effort to study the effects of microgravity on kidney health. [Read More](#)

Dr. Yasemin Sancak Is Named Pew Scholar

UW Medicine Newsroom



Dr. Yasemin Sancak (pictured), an Assistant Professor of Pharmacology at UW Medicine, was named a 2021 Pew Scholar in the Biomedical Sciences. Dr. Sancak studies mitochondria, the multi-purpose cell organelles. In addition to being power stations for energy production, mitochondria are central to metabolism, calcium signaling, innate immunity and cell death. [Read More](#)

Nola Klemfuss and Peter Han Receive UW 'Together We Will' Honors

Brotman Baty Institute (BBI)



Research Coordinator Peter Han and Administrative Director Nola Klemfuss (pictured) were recognized with 'Together We Will' awards. Nola Klemfuss played a pivotal role in managing the development of the COVID-19 WA Notify smartphone alert system. Peter Han oversaw the expansion of the work of BBI's lab on the Seattle Flu Study to form the Seattle Coronavirus Assessment Network. [Read More](#)

Dr. Xiaohu Gao Receives \$250,000 Phase 2 Grant from Washington Research Foundation for Intracellular Delivery of Proteins

EIN Presswire



The Washington Research Foundation has awarded a \$250,000 grant that will enable Dr. Xiaohu Gao (pictured) to develop a technology platform to tag proteins and other large molecules with cholesterol in a way that enables them to be efficiently delivered into living cells. Dr. Gao's team discovered that restrictions caused by endocytosis can be largely overcome by tagging the cargo with cholesterol. [Read More](#)

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Local News

How RNA-Altering Drugs Might Improve Anticancer Immunotherapies

Fred Hutch



Cancer researchers have now found that inducing short-lived changes in bits of genetic material known as mRNA can make some tumors more susceptible to immunotherapy drugs. Work from Dr. Robert Bradley's (pictured) team shows that drugs that trigger errors in mRNA codes can cause tumor cells to sprout lots of new and varied surface proteins called neoantigens. [Read More](#)

Taking Aim: Mesothelin as a Novel Target for Pediatric AML Therapy

Fred Hutch



Dr. Soheil Meshinchi's (pictured) lab in the Fred Hutch Clinical Research Division recently completed the largest ever target discovery effort in acute myeloid leukemia (AML), identifying a library of new target candidates for immunotherapies against childhood and adult AML. The group reveals that the cell surface protein mesothelin is highly expressed in a subset of high-risk pediatric and adult AMLs. [Read More](#)

BRI President Dr. Jane Buckner Elected to Focis Leadership

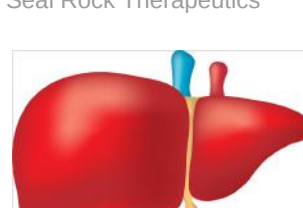
Benaroya Research Institute at Virginia Mason (BRI)



BRI is pleased to announce the election of its President, Dr. Jane Buckner to the board of the national Federation of Clinical Immunology Societies (FOCIS). Since 1999, Dr. Buckner has been an investigator at BRI. She became Director of its Translational Research Program in 2005, was named BRI's Associate Director in 2012 and President in 2016. [Read More](#)

Seal Rock Therapeutics Announces Initiation of Phase 1 Clinical Trial of ASK1 Inhibitor SRT-015 for NASH

Seal Rock Therapeutics



Seal Rock Therapeutics has announced dosing of the first healthy volunteer in a Phase 1 clinical trial of SRT-015, a next-generation, liver-selective inhibitor of apoptosis signal-regulating kinase 1 (ASK1) for non-alcoholic steatohepatitis (NASH) and other liver diseases such as Alcoholic Hepatitis. This randomized, double-blind, placebo-controlled trial will evaluate SRT-015 in up to 96 healthy volunteers to assess safety, tolerability and pharmacokinetics. [Read More](#)

Genetic Multitasking and the Resolution of Cellular Conflict

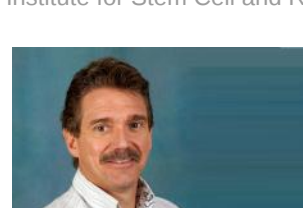
Fred Hutch



Understanding genetic conflicts, and how evolution deals with them, is a major interest of Dr. Harmit Malik (pictured), a Professor in the Basic Sciences Division at Fred Hutch. Dr. Malik's group identified a gene at the center of a conflict between cell types in the fruit fly *Drosophila virilis*, and described the means by which the conflict was resolved. [Read More](#)

Gene Editing May Help Address Arrhythmia Challenges in Heart Regeneration

Institute for Stem Cell and Regenerative Medicine (ISCRM)



ISCRM researchers are using stem cell technology to pioneer novel approaches to treating heart disease that can potentially cure this chronic disease. Dr. Charles Murry (pictured) demonstrated that stem cell-derived cardiomyocytes have the potential to regenerate heart tissue. Now, new evidence suggests the researchers are closer to solving another persistent challenge, known as arrhythmia. [Read More](#)

A Closer Look at T Cells across the Female Reproductive Tract

Fred Hutch



A subset of memory T cells that reside in non-lymphoid peripheral tissues, called tissue resident memory T cells (TRM), are important for pathogen control at mucosal barriers. These TRM cells rapidly respond during re-exposure to pathogens and are able to control infections. Dr. Sarah Vick (pictured) along with colleagues defined the CD4+ Trm compartment across different tissues within the human female reproductive tract. [Read More](#)

NanoString Launches nCounter Stem Cell Characterization Panel to Advance the Development of Stem Cell Therapy

NanoString Technologies



NanoString Technologies has announced the launch of the nCounter® Stem Cell Characterization Panel for the analysis and optimization of stem cell lines. This panel measures the eight essential components of stem cell biology and provides a novel, standardized assay for evaluating factors that influence and determine viability, functionality, and pluripotency. [Read More](#)

Transcription Factor Binding: A Sharp View of a Fuzzy Interaction

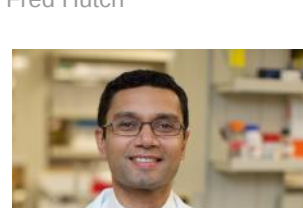
Fred Hutch



The rules that govern how transcription factors interact with each other, and with DNA, and how these interactions impact gene expression, are the focus of Dr. Steve Hahn (pictured), a Professor in the Basic Sciences Division at Fred Hutch and a member of the UW/Fred Hutch Cancer Consortium. Dr. Hahn and collaborators identified how transcription factors interact to control this process. [Read More](#)

Single-Cell CUT&Tag to Identify Cell States in Normal and Disease Tissue

Fred Hutch



In new research from Dr. Anoop Patel (pictured) and colleagues, the Cleavage Under Targets and Tagmentation (CUT&Tag) method was adapted to profile chromatin landscapes in single cells from a variety of tissues, including differentiating human embryonic stem cells, peripheral blood mononuclear cells, and a set glioblastoma biopsies. [Read More](#)

To Understand Human Cells, Scientists Look Beyond Genes

Allen Institute for Cell Science



Researchers at the Allen Institute for Cell Science developed a method to automatically capture visual characteristics from thousands of images of human heart muscle cells generated from human stem cells. When they compared one important characteristic of those heart cells to expression of the genes responsible for heart cell maturity, they found very little correlation. [Read More](#)

Novo Nordisk Partners with Seattle Biopharm to Research, Develop Obesity Therapies

BioSpace



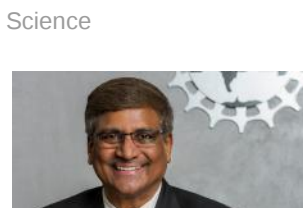
Seattle-based clinical-stage biopharmaceutical company Lumen Bioscience is teaming up with Novo Nordisk to explore research and development opportunities within obesity, among other metabolic disorders. The collaboration will harness Lumen's drug development and manufacturing platform alongside Novo Nordisk's experience in R&D activities within this space. [Read More](#)

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Interesting Articles

'Speed and Scale.' One Year into the Job, NSF's Director Prepares for Massive Budget Growth

Science



Sethuraman Panchanathan has a lot to celebrate as he marks his first anniversary as Director of the US National Science Foundation (NSF). President Joe Biden has asked Congress to boost its current \$8.5 billion budget by 20% in 2022, and a bipartisan majority in both the Senate and the House of Representatives has embraced the idea of making NSF the lead agency in a massive increase in federal research spending. [Read More](#)

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Upcoming Events in Seattle



June 29 1:00 PM UW Recent Graduate Job Fair Online

June 30 12:00 PM Biostatistics Seminar Series Online

July 6 5:00 PM Webinar Series: The Microbiome and Over-the-Counter Drugs & Probiotics Online

July 13 4:00 PM Research Roundtable with Dr. Naeha Subramanian Online

July 15 6:00 PM Healing through Music Online

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Science Jobs in Seattle

Research Associate

SBX Nanopore Sequencing

Research Associate, Medicinal Chemistry

Gilead

Research Project Manager, HIV/AIDS Research

Fred Hutch

Postdoctoral Position, Coler Translational Research Group

Seattle Children's

Associate Scientist, Raw Material Testing

Bristol Myers Squibb

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