Volume 3.41: October 26, 2020

Publications of the Week

FOXM1 Drives HPV+ HNSCC Sensitivity to WEE1 Inhibition

First Author: Ahmed Diab | Senior Author: Bruce Clurman (*pictured*)
PNAS | Fred Hutch and UW

Researchers showed that human papilloma virus (HPV)16 E6/E7 rendered head and neck squamous cell carcinoma (HNSCC) sensitive to WEE1 inhibition through a CDK1-FOXM1 circuit that drove premature mitosis and required E6 activities beyond p53 inactivation. Primary HPV+ HNSCCs exhibited high FOXM1 activity, which may underlie their sensitivity to WEE1 inhibition. **Abstract**

Enhancing the Long-Term Stability of a Polymer Dot Glucose Transducer by Using an Enzymatic Cascade Reaction System

First Author: Kai Sun | Senior Author: Daniel Chiu (*pictured*)
Advanced Healthcare Materials | UW

Existing continuous glucose monitoring systems are unsuitable for long-term clinical glycemic management due to poor long-term stability. The authors show that by adding catalase to a glucose oxidase-based polymer dot sensor to create an enzymatic cascade, the hydrogen peroxide product of glucose oxidation is rapidly decomposed by catalase, preventing its accumulation and improving the sensor's photostability, enzymatic activity, and biocompatibility. **Abstract**

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Awards

Gavin Ha Wins "45 under 40 in Cancer" for 2020

Brotman Baty

Congratulations to Dr. Gavin Ha (*pictured*) at Fred Hutch for being recognized as a rising star and emerging leader in cancer in 2020. He and his research team focus on developing and applying computational methods to profile cancer genomes from patient tumors and blood. His laboratory develops novel approaches to study cell-free DNA released from tumor cells into the blood. **Read More**

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Local News

High-Stringency Human Proteome Blueprint Released

Institute for Systems Biology (ISB)

The Human Proteome Project has released the first Human Proteome Organization-endorsed, high-stringency Human Proteome Blueprint. The lab of Dr. Robert Moritz (*pictured*) has been heavily involved in this 10-year high-stringency blueprint creation with Drs. Eric Deutsch and Ulrike Kusebauch, providing cornerstone analysis and knowledge bases underpinning these efforts. **Read More**

Demonstrating Impact of COVID-19 on the Heart

Institute for Stem Cell & Regenerative Medicine (ISCRM), UW

Is the heart a bystander victim of inflammation triggered by the body's response to COVID-19, or is the virus capable of infecting heart cells directly? That question is at the center of an ongoing research effort led by the lab of Dr. Chuck Murry (*pictured*) at ISCRM. In the investigation, they have partnered with the Sniadecki lab and the Gale lab to expose stem cell-derived cardiomyocytes to the SARS-CoV-2 virus. **Read More**

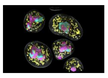
Genetic Discovery in the UW Valdmanis Lab Illuminates Ancient Origins and Mechanisms of Novel ALS Risk Factor

UW Medicine Memory and Brain Wellness Center

Over the past seven million years, mostly in the past two million, the human brain has tripled in size and increased in cellular complexity. For modern humans, there's a price to pay for this rapid brain development — our vulnerability to certain medical conditions. The lab of Dr. Paul Valdmanis (*pictured*) at UW is investigating potentially pathogenic human-specific DNA repeat expansions, aiming to build a more complete atlas of amyotrophic lateral sclerosis (ALS) risk factors. **Read More**

Projects Launch to Map the Nucleus, the Information Center of Our Cells

Allen Institute



Teams from two divisions of the Allen Institute, the Allen Institute for Cell Science and the Allen Institute for Brain Science, are participating in newly launched projects to address unanswered questions in nuclear biology. Both projects are part of 4D Nucleome Centers for Data Integration, Modeling and Visualization of the National Institutes of Health Common Fund 4D Nucleome program. **Read More**

One Step Ahead

University of Wisconsin Alumni Association

Dr. Emily Voigt (*pictured*) is a vaccine researcher at the Infectious Disease Research Institute. She is also the head of their new RNA Vaccine team, which oversees several initiatives regarding both the development of new vaccines and the enhancement of existing vaccine technology. Voigt and her team were recently tapped to start work on a vaccine to protect against SARS-CoV-2, the virus that causes COVID-19. **Read More**

COVID-19 and What Else? Researchers Use Metagenomics to Find Out

Fred Hutch

UW and Fred Hutch researchers are working together to explore the use of advanced genetic sequencing technologies to analyze nasal swabs of COVID-19 patients to find out what kinds of germs might co-exist with the coronavirus and conceivably affect their course of disease. Hutch's Dr. Sam Minot (*pictured*) is contributing his expertise in wrangling massive amounts of data to the project. **Read More**

Fred Hutch Completes Move-In of Lake Union Steam Plant

Fred Hutch

After more than two years of reconstruction efforts, scientists from Fred Hutch have moved into their new labs at the newly renovated Lake Union Steam Plant. The 106,000-square-foot historical building provides a collaborative space for nearly 300 scientists and staff focused on immunotherapy, translational data science and related programs. **Read More**

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Upcoming Events in Seattle

October 27 12:00 PM	**Engineering Human Tissues for Medical Impact** Online
October 28 7:00 AM	**Women in Bio-Seattle: Virtual Networking** Online
November 2 - 6 2:00 PM	**Dr. Eddie Méndez Postdoctoral Symposium** Online
November 5 - 6 9:00 AM	**BCREGMED & ISCRM Cascadia Corridor Research Symposium** Online
November 18 8:30 AM	**Hindsight 2020 Virtual Symposium** Online

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Science Jobs in Seattle

Postdoctoral Research Fellow, Viral Genes
Fred Hutch

Scientist, Quantitative Cell Biologist
Allen Institute for Cell Science

Scientist, Pharmaceutical Sciences
Seagen

Research Technician, Human Genetic Variation
Benaroya Research Institute at Virginia Mason

Research Scientist, Oncology/Immuno-Oncology
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