

**Publications of the Week**
**Spatial Modeling of Prostate Cancer Metabolic Gene Expression Reveals Extensive Heterogeneity and Selective Vulnerabilities**

 First Author: Yuliang Wang (pictured) | Senior Author: Walter Ruzzo  
 Scientific Reports | Institute for Stem Cell and Regenerative Medicine, UW and Fred Hutch


Spatial heterogeneity is a fundamental feature of the tumor microenvironment, and tackling spatial heterogeneity in neoplastic metabolic aberrations is critical for tumor treatment. To account for spatial heterogeneity, the authors performed spatially-resolved metabolic network modeling of the prostate cancer microenvironment. They discovered novel malignant-cell-specific metabolic vulnerabilities targetable by small molecule compounds. [Profile](#) | [Abstract](#)

**Candidate Silencer Elements for the Human and Mouse Genomes**

 First Author: Naresh Doni Jayavelu (pictured, right) | Senior Author: David Hawkins (left)  
 Nature Communications | UW Medicine


The study of gene regulation is dominated by a focus on the control of gene activation or increase in the level of expression. Just as critical is the process of gene repression or silencing. Chromatin signatures have identified enhancers, however, genome-wide identification of silencers by computational or experimental approaches are lacking. The authors have developed a general strategy for genome-wide identification and characterization of silencer elements. [Abstract](#)

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**Local News**
**To Develop a Coronavirus Vaccine, Synthetic Biologists Try to Outdo Nature**

STAT News



With funding from the Gates Foundation and the NIH, the emerging field of synthetic biology is answering the SOS over COVID-19, aiming to engineer vaccines that overcome these obstacles. "It's all of us against the bug," said Neil King of UW, who has been part of the hunt for a coronavirus vaccine since 2017. A vaccine created through the tinkering of synthetic biology looks not only scalable to a level of billions but also like it will work without the need for refrigeration. [Read More](#)

**Inside Scorpion Venom: A Future Rx for Arthritis?**

Fred Hutch



Steroids and other drugs can offer relief to the millions of Americans living with arthritis and other inflammatory diseases, but they can also come with a host of serious side effects. Scientists at Fred Hutch have identified a scorpion-derived mini-protein that could one day help tame the sting of that toxic tradeoff. The drugs that they developed concentrated in the joints, potentially avoiding the bodywide toxicities and infection risks caused by nontargeted steroid treatment. [Read More](#)

**Coronavirus Vaccine Ready for Clinical Trials in Seattle**

KING 5 News



Researchers are recruiting participants for clinical trials on a vaccine that's being developed for the 2019 novel coronavirus. Forty-five trial participants will be divided into three groups, each of which will receive different doses of the vaccine. The goal of the first phase of the study is to learn about the vaccine's safety and see how the immune system responds to it. [Read More](#)

**Gates Foundation, Wellcome, Mastercard Launch \$125M COVID-19 Therapeutics Accelerator**

GeekWire



The Bill & Melinda Gates Foundation is teaming up with Wellcome and Mastercard to form the COVID-19 Therapeutics Accelerator, a \$125 million effort to help find potential treatments for the coronavirus epidemic and future threats. The accelerator will bring together the World Health Organization, pharmaceutical companies, biotech firms, government, and other philanthropic groups to develop therapies for COVID-19. [Read More](#)

**3D Beating Heart Tissue Experiment Heads to Space Station**

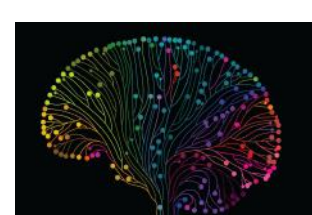
UW Medicine



Space exploration can take a toll on the human heart. Astronauts are at risk for changes in their cardiac function and rhythm. To learn how microgravity and other physical forces in space exact their effects on heart muscle, a Tissue Chips in Space project involving researchers at UW has now been packed and is awaiting launch to the International Space Station. [Read More](#)

**A New Guidebook to the Brain**

Fred Hutch



A guidebook is invaluable in navigating the brain. Intrepid brain explorers need to know how the different areas connect, as well as functions of the different neurons within each area. Neuroscientists used to have to choose between mapping, or tracing, neuronal circuits or peering at the molecules inside single cells removed from their circuits. A new technique from researchers at Fred Hutch combines this information to create the guidebooks they need. [Read More](#)

**When Coronavirus Struck Seattle, This Lab Was Ready to Start Testing**

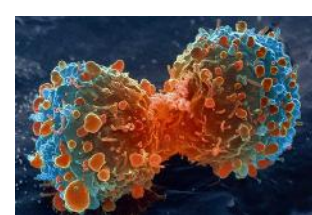
NPR



Dr. Keith Jerome's (pictured) lab at UW Medicine is processing about 100 coronavirus tests a day. But it's prepared to do more than 1,000 a day immediately and could quickly increase that to 4,000. The lab's readiness is the result of months of planning. Jerome and other virologists started the process in January, after hearing reports about the coronavirus outbreak in China. [Read More](#)

**Century Therapeutics Announces Opening of Seattle Innovation Hub**

Century Therapeutics



Century Therapeutics, a developer of induced pluripotent stem cell-derived allogeneic cell therapies for cancer, has announced the opening of its Seattle-based Innovation Hub to develop next-generation product candidates that overcome barriers that have limited the effectiveness of cell therapies in solid tumor cancers. [Read More](#)

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**Interesting Articles**
**Trump Signs \$8.3 Billion Emergency Coronavirus Spending Package**

CNBC



President Donald Trump (pictured) has signed a sweeping spending bill to combat the spread of the new coronavirus, pumping billions of dollars into prevention efforts and research in hopes of quickly producing a vaccine for the deadly disease. Trump signed the bill on the same day worldwide cases surpassed 100,000. [Read More](#)

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**Upcoming Events in Seattle**

 March 26  
12:00 PM

**Women in Bio National Webinar: Fundraising Boot Camp for Life Science Startups: Messaging and Branding**  
 Online

 April 21  
12:00 PM

**Women in Bio National Webinar: Fundraising Boot Camp for Life Science Startups: Successful Partnering**  
 Online

 June 18-19  
8:00 AM

**Microbiome Exposition 2020**  
 UW Student Union Building (HUB)

 June 19  
6:00 PM

**UW Molecular and Cellular Biology Gala**  
 Burke Museum

 July 16-17  
8:00 AM

**2020 Life Science Innovation Northwest**  
 Washington State Convention Center

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**Science Jobs in Seattle**
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Allen Institute for Cell Science

**Statistical Geneticist**

Adaptive Biotechnologies

**Research Associate Conjugation**

Seattle Genetics

**Senior Process Engineer, Allogeneic Cell Therapy**

Bristol-Myers Squibb

**Research Scientist III**

Seattle Children's Research Institute

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