

Publications of the Week

Chemokines, Soluble PD-L1, and Immune Cell Hyporesponsiveness Are Distinct Features of SARS-CoV-2 Critical Illness

First Author: Eric Morrell (*pictured*) | Senior Author: Carmen Mlakacenic
 American Journal of Physiology-Lung Cellular and Molecular Physiology | UW and Benaroya Research Institute at Virginia Mason



Critically ill patients manifest many of the same immune features seen in COVID-19, including both "cytokine storm" and "immune suppression." However, direct comparisons of molecular and cellular profiles between contemporaneously enrolled critically ill patients with and without SARS-CoV-2 are limited. The authors sought to identify immune signatures specifically enriched in critically ill patients with COVID-19 compared with patients without COVID-19. [Abstract](#)

Succinate Metabolism in the Retinal Pigment Epithelium Uncouples Respiration from ATP Synthesis

First Author: Daniel Hass | Senior Author: James Hurley (*pictured*)
 Cell Reports | UW and the Diabetes Institute



In a previous report, the authors showed that mitochondria in retinal pigment epithelium (RPE)-choroid preparations can use succinate to reduce O₂ to H₂O. However, cells in that preparation could have been disrupted during tissue isolation. They now use multiple strategies to quantify intactness of the isolated RPE-choroid tissue and find that exogenous ¹³C₄-succinate is oxidized by intact cells then exported as fumarate or malate. [Abstract](#)

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Awards

Dr. Melody Campbell Named Pew Scholar

Fred Hutch



Dr. Melody Campbell (*pictured*), a structural biologist at Fred Hutch, was named a 2022 Pew Scholar in the Biomedical Sciences by The Pew Charitable Trusts. Dr. Campbell studies how cells communicate and interact with their surroundings, focusing on proteins that infection-fighting immune cells use to move through the body, find pathogens, and fight them. She is a world expert in a protein-imaging technique called cryogenic electron microscopy that helps her understand how proteins' forms contribute to their functions. [Read More](#)

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Local News

Seattle Children's Research Institute Creating 'On-Ramp to Biotech' for Early Career Scientists

Seattle Children's



Seattle Children's announced the Invent at Seattle Children's Postdoctoral Scholars Program, a \$45 million investment in training early career scientists historically underrepresented in biotech in the development of therapeutics for childhood conditions. The research institute's investment includes a \$12.5 million grant from the Washington Research Foundation — the largest single-program grant in its 40-year history. [Read More](#)

Researchers Advance Development of Potential Epstein-Barr Virus Vaccines

Fred Hutch



Fred Hutch molecular biologist Dr. Andrew McGuire (*pictured*) and his team are experimenting with a vaccine made of nanoparticles, each minuscule particle studded with up to 60 copies of a pair of proteins that mimic similar pairs found on the surface of the virus. Those surface proteins — known as gH and gL — work like tiny crowbars, allowing live virus to pry through the outer membranes of cells it infects. [Read More](#)

Pushing Beyond Gene Editing Limits with Programmable RNA Medicines

BioSpace



Shape Therapeutics, a Seattle-based RNA-focused therapeutics company, has developed a technology that is allowing it to evolve programmable RNA medicines that push the limits of current gene editing capabilities in a safer and more effective manner. Chief Scientific Officer Dr. David Huss outlined the company's capabilities in an interview with BioSpace. He said that at its core, Shape has built a number of different platform technologies that span payloads, deliveries, and manufacturing. [Read More](#)

New Grants Help Community Organizations Overcome Health Disparities across Washington

Fred Hutch



Ensuring good health for all is a tall order, and organizations within marginalized communities are working hard to meet the challenge. A new round of grant funding is accelerating the progress of 11 of these organizations across Washington that are working to keep all residents healthy. "The Community Grant Program is an opportunity for our institution to use an equitable and bidirectional approach to address the cancer burden in our state," said Kathy Briant (*pictured*), the Assistant Director of the Office of Community Outreach & Engagement. [Read More](#)

Inspired by Scientist CEOs, Seattle Startup Lands \$9.75M to Build Up Drug Discovery Platform

GeekWire



A biotech startup born of an academic research project and inspired by emerging companies led by scientific founders is growing in Seattle. Talus Bioscience has raised \$9.75 million in new funding to advance its drug discovery platform to find compounds that affect gene activity. The company is in the "early exploration" stage of forming partnerships with biopharma companies and is also working on its own drug targets, said CEO Alex Federation. [Read More](#)

David Baker, Head of Seattle's Institute for Protein Design, Launches London Biotech Startup

GeekWire



Dr. David Baker (*pictured*), Head of the UW Institute for Protein Design, has launched a new company, Charm Therapeutics, based in London, harnesses deep learning to uncover new compounds against targets for cancer and other therapeutic areas. Dr. Baker is a Scientific Co-Founder along with CEO Laksh Aithani, previously a machine learning engineer at drug discovery company Exscientia. [Read More](#)

With New Funding, Phase Genomics Seeks to Eliminate One of Biology's Biggest Blind Spots

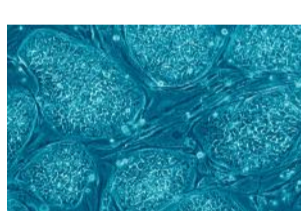
Business Wire



Phase Genomics announced \$5.5M in combined non-dilutive funding from the Bill and Melinda Gates Foundation and the National Institute of Allergy and Infectious Diseases. With the new funding, Phase Genomics will leverage its world's largest phage-bacteria interactome repository to power the development of a unique AI-driven predictive engine for therapeutic phage discovery. [Read More](#)

Umoja Biopharma and TreeFrog Therapeutics Announce Collaboration to Address Current Challenges Facing Ex Vivo Allogeneic Therapies in Immuno-Oncology

BioSpace



Umoja Biopharma and TreeFrog Therapeutics, a biotechnology company aimed at making safer, more efficient and more affordable cell therapies based on induced pluripotent stem cells (iPSCs), announced that they have entered into a collaboration to evaluate Umoja's iPSC platform within TreeFrog's C-Stem™ technology for scalable expansion and immune cell differentiation in bioreactors. [Read More](#)

ASCO 2022: Equity, Innovation and In-Person

Fred Hutch



Fred Hutch biostatistician and health services researcher Dr. Joe Unger presented the first evidence showing that an ongoing campaign by the American Society of Clinical Oncology (ASCO), the Friends of Cancer Research, and the US Food and Drug Administration to modernize trial eligibility criteria has resulted in what he termed "a shift in patterns of exclusion criteria related to brain metastasis for patients with advanced cancers." [Read More](#)

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Upcoming Events in Seattle

June 26 8:30 AM	Defeat Multiple Myeloma 5K Magnuson Park
June 29 8:00 AM	East West Life Science Summit 2022 Conference Center
July 9 12:00 PM	Odessa Brown Children's Clinic Community Open House 3939 S. Othello Street
July 14 11:00 AM	ISCRM Fellows Mini-Symposium 2022 Orin Smith Auditorium
July 25-26 8:30 AM	2022 Allen Institute Modeling Software Workshop Allen Institute

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Science Jobs in Seattle

- Research Technician I**
Fred Hutch
- Research Scientist II**
Seattle Children's
- Research Technician I**
Benaroya Research Institute at Virginia Mason
- Director/Senior Director, Biologics Process Development**
Chinook Therapeutics
- Research Specialist, Digital Biotechnologies**
Adaptive Biotechnologies

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