

**Publications of the Week**
**Functional SARS-CoV-2-Specific Immune Memory Persists after Mild COVID-19**

 First Author: Lauren Rodda | Senior Author: Marion Pepper *(pictured)*  
 medRxiv | UW, Benaroya Research Institute, Seattle Children's


Researchers performed a longitudinal assessment of individuals recovered from mildly symptomatic COVID-19 to determine if they developed and sustained immunological memory against SARS-CoV-2. They found that recovered individuals developed SARS-CoV-2-specific IgG antibody and neutralizing plasma, as well as virus-specific memory B and T cells that not only persisted, but in some cases increased numerically over three months following symptom onset.

[Abstract](#)
**Metabolic Excretion Associated with Nutrient-Growth Dysregulation Promotes the Rapid Evolution of an Overt Metabolic Defect**

 First Author: Robin Green | Senior Author: Wenyng Shou *(pictured)*  
 PLOS Biology | Fred Hutch


In eukaryotes, conserved mechanisms ensure that cell growth is coordinated with nutrient availability. Overactive growth during nutrient limitation can lead to rapid cell death. The authors demonstrated that cells can adapt to nutrient-growth dysregulation by evolving major metabolic defects. Specifically, when yeast lysine-auxotrophic mutant *lys<sup>-</sup>* encountered lysine limitation, an evolutionarily novel stress, cells suffered nutrient-growth dysregulation. [Abstract](#)

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**Awards**
**Gene Therapy Research for HIV Awarded \$14.6 Million NIH Grant**

Keck School of Medicine of USC



An HIV research program led by scientists at USC and Fred Hutch has received a five-year, \$14.6 million grant from the National Institutes of Health (NIH). The team, co-directed by Fred Hutch's Dr. Hans-Peter Kiem *(pictured)*, is advancing a gene therapy approach to control the virus without the need for daily medicines. The award will support preclinical studies, combining gene editing with technologies for safer and more effective hematopoietic stem cell transplants. [Read More](#)

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**Local News**
**Experimental, Precision Strategy Targets Unique Cancer Protein found in Certain Acute Myeloid Leukemia Cases**

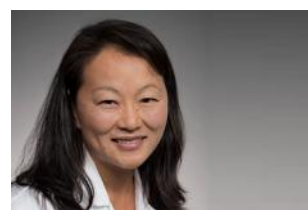
Fred Hutch



New research by a team from Fred Hutch led by Dr. Marie Bleakley *(pictured)* is helping to build momentum toward targeted new immunotherapies in acute myeloid leukemia, or AML. This aggressive cancer of white blood cells can't yet be treated by therapies that harness these disease-fighting cells, called T cells, like those now approved for use in the clinic with other types of leukemia. [Read More](#)

**Flu Season Looms and Scientists Wonder How Flu and COVID-19 Might Mix**

NPR



With the annual flu season about to start, it's still unclear exactly how influenza virus will interact with the coronavirus if a person has both viruses. Generally speaking, co-infections are common when it comes to respiratory diseases. Dr. Helen Chu *(pictured)*, Associate Professor of Medicine at UW, has done studies to screen people with respiratory symptoms for a variety of viruses. [Read More](#)

**Study Confirms Link between Influenza and Heart Complications**

UW Medicine



The link between influenza and serious heart conditions just grew stronger. A Centers for Disease Control and Prevention study looking at more than 80,000 adult patients hospitalized with flu over eight seasons found that sudden, serious heart complications were common, occurring in 12% of patients. Lead author Dr. Eric Chow *(pictured)* from UW Medicine said "...there had been suggestions between the link, but our study shows just how common it is". [Read More](#)

**Is that a Chi Site? How to Fool a Smart Enzyme**

Fred Hutch



The laboratory of Dr. Gerry Smith *(pictured)* at Fred Hutch has long studied the major mechanism by which bacteria repair breaks in their DNA that naturally occur during processes such as chromosome replication. In the bacterium *Escherichia coli*, homologous recombination is mediated by the RecBCD helicase-nuclease enzyme complex. The enzyme complex is composed of three different subunits called RecB, RecC, and RecD, hence the name. [Read More](#)

**RareCyte Announces First Commercially Available ARv7/Synaptophysin CTC Assay for Blood-Based Characterization of Treatment Resistant Prostate Cancer**

BioSpace



Seattle-based RareCyte® has announced a new dual biomarker liquid biopsy assay for androgen receptor splice variant 7 (ARv7) and the neuroendocrine marker synaptophysin (SYP), enabling customers to evaluate both ARv7 and SYP expression on circulating tumor cells with industry leading accuracy and precision in patients with prostate cancer. [Read More](#)

**AGC Biologics Completes PPQ Manufacturing Campaign with Provention Bio for Type 1 Diabetes Product Candidate, Teplizumab**

AGC Biologics via PR Newswire



AGC Biologics has achieved the on-schedule completion of a drug substance process performance qualification (PPQ) campaign focused on teplizumab for partner Provention Bio, Inc. Teplizumab, Provention Bio's lead drug candidate, is an anti-CD3 monoclonal antibody being developed for the delay or prevention of type 1 diabetes. [Read More](#)

**Researchers to Test Monoclonal Antibodies against COVID-19**

UW Medicine



UW Medicine is one of a network of US sites testing a new treatment for COVID-19 that involves monoclonal antibodies. Leading the trial at UW Medicine, Dr. Ann Collier *(pictured)* said "We need a treatment that is effective...People living in the Seattle area who have recently been diagnosed with COVID-19 and are not hospitalized have the opportunity to make a huge contribution by participating in this study." [Read More](#)

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**Interesting Articles**
**Commission Charts Narrow Path for Editing Human Embryos**

ScienceMag



No recent biomedical experiment has caused more consternation than He Jiankui's creation of the first gene-edited babies, in 2018, which was widely seen as dangerous, unethical, and premature — and which led to his incarceration by China. Now, an international committee has concluded that gene-editing methods, despite substantial improvements, are still far from mature enough to safely introduce heritable DNA modifications into human embryos. [Read More](#)

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**Upcoming Events in Seattle**

- September 16 - 17 **Society of Biomolecular Imaging and Informatics High Content Conference**  
6:00 AM Online
- September 17 **Institute for Systems Biology 20<sup>th</sup> Anniversary, Future of Health**  
6:00 PM Online
- September 18 **A Virtual Evening of Wine and Science**  
5:30 PM Online
- September 29 - October 1 **Online Bernstein Conference 2020**  
8:00 AM Online
- October 1 **Allen Institute for Brain Science Distinguished Seminar Series**  
8:00 AM Online

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Benaroya Research Institute at Virginia Mason
- Postdoctoral Research Fellow, Pancreatic Cancer Research**  
Fred Hutch
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