

Publications of the Week

**Germline CRISPR/Cas9-Mediated Gene Editing Prevents Vision Loss in a Novel Mouse Model of Aniridia**

First Author: Zeinab Mohanna (pictured) | Senior Author: Elizabeth Simpson  
Molecular Therapy: Methods & Clinical Development | Centre for Molecular Medicine and Therapeutics and UBC



To enable the Pax6 small eye (Sey) mouse model of aniridia, which carries the same mutation found in patients, for preclinical testing of CRISPR-based therapeutic approaches, the authors endogenously tagged the Sey allele, allowing for the differential detection of protein from each allele. They optimized a correction strategy *in vitro* then tested it *in vivo* in the germline of their new mouse to validate the causality of the Sey mutation. [Profile](#) | [Abstract](#)

**Cerebrovascular Amyloid Angiopathy in Bioengineered Vessels Is Reduced by High-Density Lipoprotein Particles Enriched in Apolipoprotein E**

First Author: Jerome Robert (pictured) | Senior Author: Cheryl Wellington  
Molecular Neurodegeneration | Djavad Mowafaghian Centre for Brain Health and UBC



Several lines of evidence suggest that high-density lipoprotein (HDL) reduces Alzheimer's disease risk. The authors used a human bioengineered model of cerebral amyloid angiopathy to define several mechanisms by which HDL reduces Aβ deposition within the vasculature and attenuates endothelial inflammation as measured by monocyte binding. [Abstract](#)

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Awards

March 2020 Award Winners



Dr. Jeffrey Joy (pictured), Assistant Professor in the UBC Department of Medicine, has receiving federal funding to study the genomic epidemiology and evolutionary dynamics of COVID-19 and other emerging corona viruses. Find out which other Vancouver researchers won grants, awards, fellowships and scholarships last month in our March 2020 award summary! [Read More](#)

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Local News

**Trial Drug Can Significantly Block Early Stages of COVID-19 in Engineered Human Tissues**

UBC News



An international team led by UBC researcher Dr. Josef Penninger (pictured) has found a trial drug that effectively blocks the cellular door SARS-CoV-2 uses to infect its hosts. The study provides new insights into key aspects of SARS-CoV-2, the virus that causes COVID-19, and its interactions on a cellular level, as well as how the virus can infect blood vessels and kidneys. [Read More](#)

**Scientists Discover Gene that Increases Risk of Alzheimer's Disease**

Djavad Mowafaghian Centre for Brain Health



An international team involving researchers from Dr. Weihong Song's (pictured) lab at UBC has for the first time identified a gene that increases the risk of Alzheimer's disease. The researchers have found two mutations in the gene endothelin-converting enzyme 2, which impaired its ability to break down amyloid beta protein. These mutations were present significantly more often in people with Alzheimer's than in controls. [Read More](#)

**In Search of a Rapid COVID-19 Testing Protocol**

St. Paul's Foundation



The team at the Centre for Heart Lung Innovation at St. Paul's Hospital, led by Dr. Don Sin (pictured), is working with SFU professors to develop and implement a rapid and cost-effective diagnostic test for COVID-19. This test is intended to complement existing protocols recommended by the World Health Organization and provide a potential inexpensive and rapid alternative. [Read More](#)

**TELUS Donates \$500,000 to Support Global-Leading Research Team Develop Antiviral Treatments for COVID-19**

TELUS Communications Inc



TELUS has announced a \$500,000 donation to the Vancouver Prostate Centre (VPC), Vancouver General Hospital and UBC Hospital Foundation to assist in the search for therapeutic antiviral treatments for COVID-19. Led by Professor Art Cherkasov (pictured), VPC and UBC scientists have joined forces with experts around the world. This Vancouver-led team brings together some of the best talent in the world in medicinal chemistry and virology. [Read More](#)

**New Study Shows Immune Cells of the Brain Still Function in Glucose-Limited Environment**

Djavad Mowafaghian Centre for Brain Health



An emerging area of research called immunometabolism investigates how the metabolism of immune cells affects their function. But for the most part, this area remains largely understudied when it comes to the brain because it's such a complex structure. New work led by Djavad Mowafaghian Centre for Brain Health Research Associate Dr. Louis-Philippe Bernier (pictured) in Dr. Brian MacVicar's lab is one of the first to look at immunometabolism in the brain. [Read More](#)

**Canadian Hospitals to Start Enrolling Patients in Global COVID-19 Drug Trials**

The Star



Within the next week, more than a dozen Canadian hospitals will start enrolling patients as part of an unprecedented global collaboration to test four potential treatments for COVID-19, the disease caused by the pandemic coronavirus that currently has no vaccine or cure. Dr. Srinivas Murthy from UBC sits on the global steering committee for the multinational trial, dubbed SOLIDARITY. [Read More](#)

**From Fighting Marine Contaminants to Fishing for Cancer Treatments from Marine Sponges: How a GSC Biochemist Made a Drug Discovery Breakthrough**

Canada's Michael Smith Genome Sciences Centre



Dr. Marianne Sadar (pictured) is not one to back down from a challenge. So even when told it wasn't possible, she did something no one else dared to try. She completed her PhD with the intention of pursuing a career tackling environmental contaminants. But while trying her hand at health research at BC Cancer, she made a discovery that would propel her career in an entirely new direction, leading to fascinating findings in prostate cancer. [Read More](#)

**Interview with the CEO Of Algernon Pharmaceuticals**

Equity Insight



In this exclusive interview, the CEO of Algernon Pharmaceuticals Christopher Moreau (pictured) discusses the company's operations surrounding COVID-19. The company was founded on the idea of repurposing generic drugs for new diseases. Now, they are investigating whether the drug Ifrenprodil can be used as a treatment for COVID-19. [Read More](#)

**#LabLifeLessons: Life After the Lab with Dr. Francois Mayer, Associate Editor**

Michael Smith Laboratories



Are you one of those scientists that get excited about seeing cool new papers that have absolutely nothing to do with your own research? Are those papers stacking up because the annoying benchmark is keeping you from reading them in detail? The Michael Smith Labs interviewed Dr. Francois Mayer (pictured), formerly with the Kronstad lab, who decided to make the switch to an editorial position after his postdoctoral research. [Read More](#)

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Interesting Articles

**Canada's Research Ecosystem And the Response to the Coronavirus**

TheFutureEconomy.ca



TheFutureEconomy.ca asked expert Dr. Rob Annan (pictured), President and CEO of Genome Canada, to detail Canada's response to the unprecedented COVID-19 crisis. Dr. Annan outlines the initial research projects being funded in Canada, the strengths of Canada's research ecosystem, and the role our researchers are playing in the global fight for COVID-19 treatments and cure. [Read More](#)

**A New Breed of Celebrity in the Age of COVID-19: The Chief Medical Officer**

National Post



Day after day, premiers have announced new restrictions on Canadians' civil liberties that they say are critical to limiting the spread of COVID-19. But it is the chief medical officers at their side who provide the science buttressing the calls for sacrifice. Some, like BC's Dr. Bonnie Henry (pictured), have become stars in their own right, displaying a kind of television bedside manner that combines a reassuring, fact-based approach with occasional levity. [Read More](#)

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**Upcoming Events in Vancouver**

- April 7 11:00 AM **Virtual Writing Workshop** Online
- April 7 6:00 PM **Hack the Performance Review WEBINAR, with Collaborator: Success Bully** Online
- April 8 9:00 AM **Webinar: Deciphering the Cell Cycle – The Role of Cell Cycle Control in Cancer** Online
- April 8 10:00 AM **Stem Cells from the Sofa Speaker Series: Dr. Michael Rudnicki** Online
- April 8 3:00 PM **LARGER THAN LIFE SCIENCE | Advancing Gene Therapy** Online

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**Science Jobs in Vancouver**

- Canada Research Chair (Tier 2), Public Health 'Omics for Heart and Lung Innovation**  
Simon Fraser University
- Biomaterials Scientist, Tissue Therapeutics**  
Aspect Biosystems
- Research Associate/Senior Research Associate, *In Vivo* Pharmacology**  
Chinook Therapeutics
- Associate Research Scientist, Antibody Production & Characterization**  
AbCellera
- Research Associate I, Mass Spectrometry**  
Zymeworks

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