

Publications of the Week

Targeted Genomic Sequencing with Probe Capture for Discovery and Surveillance of Coronaviruses in Bats

First Author: Kevin Kuchinski (pictured) | Senior Author: Andrew Cameron eLife | BC Centre for Disease Control and UBC



Public health emergencies like SARS, MERS, and COVID-19 have prioritized surveillance of zoonotic coronaviruses, resulting in extensive genomic characterization of coronavirus diversity in bats. In this study, the authors evaluated whether a technique called hybridization probe capture can achieve more extensive genome recovery from surveillance specimens. [Abstract](#)

Exposure to Diesel Exhaust Alters the Functional Metagenomic Composition of the Airway Microbiome in Former Smokers

First Author: Illiassou Hamidou Soumana | Senior Author: Christopher Carlsen (pictured) Environmental Research | Vancouver Coastal Health Research Institute, Centre for Heart and Lung Innovation, and UBC



The lung microbiome plays a crucial role in airway homeostasis, yet we know little about the effects of exposures such as air pollution therein. The authors conducted a controlled human exposure study to assess the impact of diesel exhaust (DE) on the human airway microbiome. DE exposure altered airway microbiome metabolic functions in spite of statistically stable microbiome diversity. [Abstract](#)

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Awards

Nine SFU Researchers Awarded as New and Renewed Canada Research Chairs

SFU News



Nine SFU researchers are among the country's new and renewed Canada Research Chairs (CRC). Molecular Biology and Biochemistry Professor Dr. Tim Audas (pictured) is a Tier 2 CRC in Cellular Stress. His research studies the role of noncoding RNA in the reversible formation of amyloid aggregates to better understand the causes and potentially expand treatment options for neurodegenerative diseases. [Read More](#)

Eight Faculty of Medicine Researchers Among New and Renewed Canada Research Chairs

UBC Medicine



Eight Faculty of Medicine researchers are among a group of Canada Research Chairs (CRCs) announced by the Government of Canada. The Canada Foundation for Innovation, a partner of the CRC program, also announced an investment for cutting-edge research infrastructure to support chairholders through the John R. Evans Leaders Fund (JELF). Through JELF, a combined total of over \$500,000 was awarded to new CRCs at UBC, including the Faculty of Medicine's Drs. Jessica McAlpine and Paul Yong (pictured). [Read More](#)

Dr. Gleave Received the Mostafa M. Elhilali Award

Vancouver Prostate Centre



Congratulations to Dr. Martin Gleave (pictured), who received the Mostafa M. Elhilali Award at the Société Internationale d'Urologie (SIU) in Montreal! Every year, during the SIU Annual Congress, the Society recognizes outstanding contributions to the Society and the field of urology through the presentation of various awards. This award in particular is given to a scientist of excellent scientific and ethical standing. [Read More](#)

Michael John Page Postdoctoral Fellowship Award Recipient 2022: Dr. Miffy Hok Yan Cheng

The Centre for Blood Research



Dr. Miffy Hok Yan Cheng's (pictured) work mainly focuses on delivering gene therapies, where she develops delivery platforms called liposomes and lipid nanoparticles. These are the same platforms used to carry mRNA for the COVID-19 mRNA vaccine. She received the Michael John Page Postdoctoral Fellow Award, which recognizes a postdoctoral fellow who reflects Dr. Page's academic excellence and his passion for life. [Read More](#)

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Local News

Cembrowski Lab Profiled in Nature Methods Story on Patch-Seq

Life Sciences Institute



Patch-clamp electrophysiology is one of the most powerful methods in neuroscience and truly a workhorse technique in the field, but it may have fallen a little out of fashion. In a new form described by Nature Methods author Vivien Marx as "its younger cousin," called Patch-seq, it is being nudged back into vogue. Dr. Mark Cembrowski (pictured) says that studying the brain in ever greater multimodal detail can, for example, reveal that cells "classically" lumped together are actually different cell types. [Read More](#)

Emerging Artificial Intelligence Methods to Assess Transfusion Quality

The Centre for Blood Research



The deformability of red blood cells (RBCs) — their ability to squeeze through small spaces — is vital for their navigation through the body. During circulation, RBCs squeeze through small gaps in the microvasculature to deliver oxygen and remove carbon dioxide from cells and tissues. Dr. Hongshen Ma's (pictured) lab developed a microfluidic device to sort RBCs based on their deformability. [Read More](#)

New Blood

UBC Science



Dr. Stephen Withers (pictured) has learned a lot about the economics of blood over the past few years. Blood donations dried up during the COVID-19 pandemic. In response, alongside UBC researchers Drs. Jay Kizhakkedathu and Peter Rahfeld, Dr. Withers has developed a process that could very well make blood types obsolete. [Read More](#)

Faculty Profile: Dr. Sarah Kraeutner

Djavad Mowafaghian Centre for Brain Health



Growing up, Dr. Sarah Kraeutner (pictured) liked to build things and had always wanted to be an engineer. However, after taking some psychology courses during her undergrad, she became interested in how the brain works and how it can recover after an injury, such as a stroke. Her first connection with UBC was when she saw Dr. Lara Boyd give a talk at a conference about neuroplasticity in stroke. [Read More](#)

When Research Is Personal

BC Children's Hospital Research Institute



Lindsay Pallo (pictured, left) and Raelyn Gallant (right) know too well how wonderful it would be to cure, prevent, or at least improve treatment for diabetes. Pallo was diagnosed with type 1 diabetes (T1D) at age eight, Gallant at age ten. Pallo is working on two studies related to T1D. In one study, she's measuring the different proteins that beta cells release when they're stressed to see if there's a different level of beta cell dysfunction occurring that could indicate the imminent onset of T1D. [Read More](#)

BC Researchers Uncover Previously Unknown Genetic Condition That Affects Immune System

Vancouver Sun



A team of researchers and doctors at BC Children's Hospital Research Institute has discovered a previously unknown genetic condition in a Vancouver man who came to Canada as a refugee from Syria eight years ago. "Kids with rare diseases go on a diagnostic odyssey where they see specialist after specialist, go through painful test after painful test and still can't find an answer," said the principal investigator, Dr. Stuart Turvey (pictured), a pediatric immunologist and clinician-scientist at BC Children's Hospital Research and Head of the Rare Disease Discovery Hub. [Read More](#)

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Upcoming Events in Vancouver

- November 22 7:45 AM **Earl W. Davie Symposium 2022** UBC Robson Square
- November 23 11:00 AM **Position Your Health Technology for Success: How Early Health Technology Assessment Can Quantify the Potential Value and Uptake of Your Novel Technology** Online
- November 24-26 7:30 AM **BC Cancer Summit** Sheraton Vancouver Wall Centre & Online
- November 24 9:00 AM **Data Literacy Webinar: FAIR Guiding Principles** Online
- November 29 4:00 PM **Careers in Science Communication** Online

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- Senior Manager, Strategic Planning & Project Management** Acuitas Therapeutics
- Research Associate** UBC

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