

Publications of the Week

Suboptimal Biological Sampling as a Probable Cause of False-Negative COVID-19 Diagnostic Test Results

First Author: Natalie Kinloch (pictured) | Senior Author: Zabrina Brumme
The Journal of Infectious Diseases | SFU and the BC Centre for Excellence in HIV/AIDS



False-negative SARS-CoV-2 test results can negatively impact the clinical and public health response to COVID-19. The authors used droplet digital PCR to demonstrate that human DNA levels, a stable molecular marker of sampling quality, were significantly lower in samples from 40 confirmed or suspected COVID-19 cases that yielded negative diagnostic test results compared to a representative pool of 87 specimens submitted for COVID-19 testing. [Profile](#) | [Abstract](#)

AAV8 Ins1-Cre Can Produce Efficient β -Cell Recombination but Requires Consideration of Off-Target Effects

First Author: Adam Rantzy (pictured) | Senior Author: Timothy Kieffer
Scientific Reports | UBC Life Sciences Institute



Cre transgenic mice are the most prevalent technology used to deliver Cre, but many models have caveats of off-target recombination, impaired β -cell function, and high cost of animal production. The authors characterized an adeno associated virus with a rat insulin 1 promoter driving Cre recombinase (AAV8 Ins1-Cre) that is economical and rapid to implement, and has limited caveats. [Profile](#) | [Abstract](#)

MYC-Induced Human Acute Myeloid Leukemia Requires a Continuing IL3/GM-CSF Co-Stimulus

First Author: Elizabeth Bulaeva (pictured) | Senior Author: Connie Eaves
Blood | BC Cancer and UBC



Recent evidence suggests that the microenvironment may play an important role in modulating human acute myeloid leukemia (AML) population dynamics. To investigate this concept further, the authors examined the combined and separate effects of an oncogene (c-MYC) and exposure to IL3, GM-CSF and SCF on the experimental genesis of a human AML in xenografted immunodeficient mice. [Abstract](#)

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Local News

Supergenes Play a Larger Role in Evolution Than Previously Thought

Genome BC



Massive blocks of genes — inherited together ‘plug and play’ style — may play a larger role in evolutionary adaptation than previously thought, according to new research. Biologists at UBC have identified 37 of these so-called ‘supergenes’ in wild sunflower populations, and found they govern the modular transfer of a large range of traits important for adaptation to local habitats. [Read More](#)

Gene Expression Networks Flag Potential Therapeutic Targets for SARS-CoV-2

News-Medical.Net



An international team led by researchers at UBC has identified dozens of genes that could contribute to the pathology of COVID-19 and serve as potential therapeutic targets. The genes are co-expressed with two proteins that the SARS-CoV-2 protein uses to gain host cell entry. Many of these genes could potentially be targeted with drugs that are already available. [Read More](#)

Keeping Research Alive at SFU During Pandemic

SFU News



Most people don't realize there are staff in the SFU Faculty of Science who have been on site every weekday since the campus closure. Their work is crucial for keeping animals, insects, specimens and research alive. Four staff members in Science Stores and Receiving, along with their leader Ruth Appannah, the Technical Director of Facilities and Operations, are critical to a faculty that relies on wet labs and live specimens to conduct research and teaching. [Read More](#)

Vancouver Biotech Company Plays Key Role in Developing COVID-19 Vaccine

CTV News



A Vancouver biotech company has, until now, remained relatively in the shadows in the fight against COVID-19. “We very much have flown under the radar for a long time,” says Thomas Madden (pictured), the President and CEO of Acuitas Therapeutics. The 25-person company operates in a building on the UBC campus. Since 2009, it has specialized in developing cutting-edge delivery systems for nucleic acid therapeutics based on lipid nanoparticles. [Read More](#)

New Sequence Simulator Helps Leverage Power of Long-Read Transcriptome Sequencing

Canada's Michael Smith Genome Sciences Centre at BC Cancer



Long-read sequencing technologies are increasingly being employed by researchers to gain important insights into the transcriptomes of cells, revealing a need for computational tools designed for long-read RNA sequencing analysis. To facilitate software development, Dr. Inanc Birol (pictured) and colleagues at the Genome Science Centre have created a sequence simulator designed to produce simulated long-read transcriptome data, providing a cost-effective means to help develop, refine and benchmark novel tools for data analysis. [Read More](#)

Derm-Biome Pharmaceuticals, Inc. Raises Pre-Seed Funding, Spins Out New Company Focused on Chronic Inflammatory Diseases

Derm-Biome Pharmaceuticals via Globe Newswire



Derm-Biome Pharmaceuticals, Inc., a Vancouver based preclinical biopharmaceutical company, has raised \$500,000 in pre-seed funding — money that will allow it to advance its anti-aging and atopic dermatitis topicals to the clinic by Q1 2021. A new and independent biotech company named Pan-Biome Pharmaceuticals, Inc. has also been spun out and will focus on developing medicines for chronic inflammatory diseases. [Read More](#)

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July 14 11:30 AM	Virtual Science Slam: Science Writers and Communicators of Canada Edition Online
July 14-15 1:00 PM	VANFLY 2020 Online
July 15 7:00 AM	Meet with... adMare BioInnovations Online
July 16 1:00 PM	Industry Ready CV/Resume: Workshop Online
July 16 4:00 PM	Story Collider's First Science Story Slam Online

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Canada's Michael Smith Genome Sciences Centre at BC Cancer

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