

Publications of the Week

Altered microRNA Expression Links IL6 and TNF-Induced Inflammation with Myeloid Malignancy

First Author: Jennifer Margaret Grants | Senior Author: Aty Karsan (pictured)
Blood | BC Cancer and UBC



The authors identified loss of *miR-146a* as driving aging-associated inflammation in AML patients. Using single-cell assays of hematopoietic stem cell (HSC) quiescence, stemness, differentiation potential, and epigenetic state to probe HSC function and population structure, they found that loss of *miR-146a* depleted a subpopulation of primitive, quiescent HSCs. [Profile](#) | [Abstract](#)

Deregulated Regulators: Disease-Causing cis Variants in Transcription Factor Genes

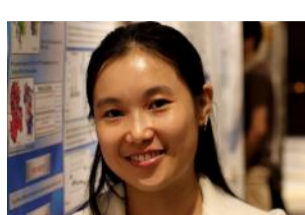
First Author: Robin van der Lee (pictured) | Senior Author: Wyeth Wasserman
Trends in Genetics | Centre for Molecular Medicine and Therapeutics



From the literature, the authors compiled 46 regulatory variants linked to 40 transcription factor (TF) genes implicated in rare diseases. They discuss the genomic geography of these variants and the evidence presented for their potential pathogenicity. To help advance research on candidate disease variants into the literature, they introduce an evidence framework specific to regulatory variants, which are under-represented in current variant classification guidelines. [Abstract](#)

Utilizing Organoid and Air-Liquid Interface Models as a Screening Method in the Development of New Host Defense Peptides

First Author: Ka-Yee Grace Choi (pictured) | Senior Author: Robert Hancock
Frontiers in Cellular and Infection Microbiology | UBC



In this review, the authors discuss the recent development of human organoids for disease modelling and drug screening, assisted by the use of omics analyses. The use of patient-derived organoids enables the study of patient-specific efficacy, toxicogenomics and drug response predictions. They outline how organoids and omics data analysis can be leveraged to aid in the clinical translation of innate defense regulator peptides. [Abstract](#)

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Awards

Cutting-Edge COVID-19 Research in BC Boosted by Research Funding

Vancouver Coastal Health Research Institute



The Vancouver Coastal Health Research Institute, along with the VGH & UBC Hospital Foundation, is providing funding for innovative research projects aimed at addressing the evolving health care needs and challenges related to the COVID-19 pandemic. Dr. Agnes Lee (pictured) is one of the recipients, and will be studying the risk of thromboembolism events in COVID positive patients. [Read More](#)

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Local News

How B.C. Scientists Are Addressing the COVID-19 Testing Challenge

Canada's Michael Smith Genome Sciences Centre



As the COVID-19 pandemic continues, public health authorities around the world are facing a significant challenge: ensuring a large enough supply of reagents to scale-up diagnostic testing. Researchers at Canada's Michael Smith Genome Sciences Centre at BC Cancer, UBC and the BC Centre for Disease Control, led by Dr. Martin Hirst (pictured), are working to develop new non-proprietary reagents to support current and future testing in British Columbia. [Read More](#)

Dr. Josef Penninger and Colleagues Identify a Gene that Controls Thinness

UBC Life Sciences Institute



Why can some people eat as much as they want, and still stay thin? UBC Life Sciences Institute Director Dr. Josef Penninger and a team of international colleagues have discovered that a gene called *ALK* (Anaplastic Lymphoma Kinase) plays a role in resisting weight gain. Using biobank data from Estonia, Penninger's team compared the genetic makeup and clinical profiles of 47,102 healthy thin, and normal-weight individuals aged 20-44. [Read More](#)

AbCellera Announces Multi-Year Antibody Discovery Collaboration with Lilly

AbCellera



AbCellera has announced that it has entered into a multi-year strategic research collaboration and license agreement with Eli Lilly and Company on the discovery of antibodies for up to nine Lilly-selected therapeutic targets. Lilly will have the rights to develop and commercialize therapeutic products resulting from the collaboration. AbCellera and Lilly were in discussions about the multi-target agreement in early 2020 when the COVID-19 pandemic emerged. [Read More](#)

CanSino Biologics and Precision NanoSystems Announce Collaboration to Co-Develop a COVID-19 RNA Vaccine

Precision NanoSystems via NewsWire



CanSino Biologics Inc. and Precision NanoSystems (PNI) has announced a co-development agreement of a mRNA lipid nanoparticle (mRNA-LNP) vaccine against COVID-19. The parties will leverage PNI's proprietary RNA vaccine platform to rapidly advance a COVID-19 mRNA-LNP vaccine candidate towards human clinical testing and pursuant to regulatory approvals, commercialization in different regions. [Read More](#)

Like Hand Sanitizer for Your Nose: Vancouver Scientists Test New COVID Treatment

CTV News



Clinical trials are underway for a new COVID-19 treatment that's delivered by nasal spray. It's called Sanotize, and it uses a known anti-microbial called nitric oxide. "You're using a hand sanitizer to disinfect your hands. It's a similar idea, but instead of a hand sanitizer, it's a nasal spray to disinfect your upper airway," said Sanotize CEO Dr. Gilly Regev. [Read More](#)

Algeron Pharmaceuticals Files Investigational New Drug Application with FDA for Possible Coronavirus Treatment Ifenprodil

Proactive Investors



Algeron Pharmaceuticals Inc. has submitted an investigational new drug application to the US FDA for the next phase of its multinational study of lead drug NP-120, known as Ifenprodil. The drug, an NMDA receptor antagonist, is a potential therapy for patients with COVID-19, the disease caused by coronavirus. Ifenprodil could reduce the infiltration of neutrophils and T cells into the lungs, where they can release glutamate and cytokines respectively. [Read More](#)

AbCellera Raises \$105 Million to Boost Drug Discovery against Coronavirus and Other Diseases

Forbes



A biotech company partnering with major pharmaceutical players like Lilly on Covid-19 drug development is raising \$105 million in funding to ramp up. AbCellera, led by CEO and co-founder Dr. Carl Hansen (pictured), has announced that it raised that \$105 million in a Series B funding round led by OrbiMed and DCVC Bio. The investment takes the company's total funding to about \$115 million in its eighth year of operation. [Read More](#)

UBC Recruits New Faculty Member Dr. Anna Blakney

UBC School of Biomedical Engineering



The Michael Smith Laboratories and UBC School of Biomedical Medical Engineering are excited to welcome Dr. Anna Blakney (pictured) to UBC. As a joint faculty member and with her extensive training in biomaterials, drug delivery and immunology, Anna will benefit from, and be a key catalyst for, meaningful collaborations in research and education. She will officially join in January 2021. [Read More](#)

Harnessing the Power of Scientific Cloud Computing to Fight COVID-19

Compute Canada



The University of Victoria and Compute Canada are turning the power of Arbutus, Canada's largest scientific cloud, toward the task of analyzing the protein structure of the SARS-CoV-2 virus, as part of an international collaborative effort to help researchers develop drug therapies for COVID-19. The Folding@home project is an international distributed computing collaboration that runs protein folding simulations for the purpose of disease pathology and treatment. [Read More](#)

Data Acquisition Modes for LC-MS-Based Untargeted Metabolomics

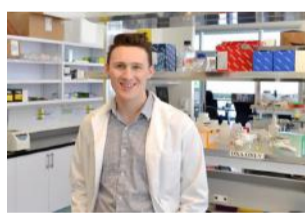
Bioanalysis Zone



In this interview, Bioanalysis Zone caught up with Jian Guo (pictured) from UBC to discuss his presentation at the American Society for Mass Spectrometry's 2020 Reboot conference. Jian discussed his research inspirations, current focus and what inspired his presentation exploring which data acquisition modes to use for LC-MS-based untargeted metabolomics. [Read More](#)

People in Profile: Jack Bacon

Vancouver Coastal Health Research Institute



Jack Bacon (pictured) is a PhD student working in the Faculty of Genome Science and Technology with the Vancouver Prostate Centre and UBC. In this interview, he talks about his research interests in cancers of the genitourinary system, including the kidneys, bladder, and prostate, and the development of novel biomarkers for predicting response to treatment. [Read More](#)

Genome BC Invests \$1M in Breakthrough Solution for Detecting Chronic Liver Disease, Closing Off Sonic Incytes' \$3.5M Financing Round

Genome BC



Genome BC has announced \$1 million in funding to Sonic Incytes Medical Corp., completing the company's seed financing round of over \$3.5 million supported by institutional investors, angel funds and private individuals. Vancouver based Sonic Incytes is developing a breakthrough, point of care ultrasound solution for assessing and managing chronic liver disease — an emerging global health crisis, affecting one in four persons worldwide. [Read More](#)

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Upcoming Events in Vancouver

June 2 10:00 AM	Coffee with Wendy featuring Special Guest David Llewellyn from STEMCELL Online
June 3 10:00 AM	Stem Cells from the Sofa Speaker Series: Dr. Véronique Moulin Online
June 3 12:00 PM	BCREGMED Quarantine Sessions Online
June 3 1:30 PM	Connect Your Research in COVID Times Online
June 10 10:00 AM	Get Hired UBC Virtual Fair Online

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Science Jobs in Vancouver

Sr. Scientist, In Vivo Pharmacology (Team Lead)

Chinook Therapeutics

Quality Systems Manager

Canada's Michael Smith Genome Sciences Centre at BC Cancer

Scientist, Protein Analysis and Bioconjugation

AbCellera

Postdoctoral Research Fellow, Stem Cells

UBC Centre for Heart Lung Innovation

Product Manager

Precision NanoSystems

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