

Volume 4.22: June 15, 2020

Publications of the Week

Epithelial-Interleukin-1 Inhibits Collagen Formation by Airway Fibroblasts: Implications for Asthma

First Author: Emmanuel Osei *(pictured)* | Senior Author: Tillie-Louise Hackett Scientific Reports | Centre for Heart Lung Innovation and UBC



In asthma, the airway epithelium has an impaired capacity to differentiate, and plays a key role in the development of airway inflammation and remodelling through mediator release. The authors investigated the release of interleukin-1 family members from primary airway epithelial-cells during differentiation, and how they affected primary airway fibroblast-induced inflammation, extracellular matrix production, and collagen I remodelling. **Profile | Abstract**

T Reg-Specific Insulin Receptor Deletion Prevents Diet-Induced and Age-Associated Metabolic Syndrome

First Author: Dan Wu (*pictured, front row, right*) | Senior Author: Megan Levings (*second from right*) Journal of Experimental Medicine | BC Children's Hospital Research Institute and UBC



Adipose tissue (AT) regulatory T cells (T regs) control inflammation and metabolism. Diet-induced obesity causes hyperinsulinemia and diminishes visceral AT T reg number and function, but whether these two phenomena were mechanistically linked was unknown. Using a T reg-specific insulin receptor deletion model, the authors found that diet-induced T reg dysfunction is driven by T reg-intrinsic insulin signalling. **Profile | Abstract**

Epigenetic and Functional Changes Imposed by NUP98-HOXA9 in a Genetically Engineered Model of Chronic Myeloid Leukemia Progression

First Author: Ivan Sloma | Senior Author: Connie Eaves (pictured) Haematologica | BC Cancer, UBC and the Michael Smith Laboratories



NUP98-HOXA9 (NA9) is a fusion gene commonly found in human acute myeloid leukemia cells together with other mutations, and occasionally in the blast-phase cells of chronic myeloid leukemia (CML) patients in whom disease progression has occurred. The authors report the results of assessing the biological and molecular consequences of lentivirally-introduced expression of NA9 in freshly isolated CD34⁺ CML cells from patients with chronic phase disease. Abstract

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Awards

10 BC Research Teams Undertaking Critical COVID-19 Research Michael Smith Foundation for Health Research



How has COVID-19 affected long-term care delivery in BC? What do COVID-19 mutations mean in a pandemic response? Are physical distancing measures effective in preventing the spread of COVID-19? These are some of the questions that Dr. Manish Sadarangani *(pictured)* and the first 10 Michael Smith Foundation for Health Research COVID-19 Research Response Fund teams are tackling to further BC's understanding and response to the COVID-19 pandemic. **Read More**

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Local News

Amplifying BC's COVID-19 Testing Capacity

UBC Science



Public health authorities around the world are facing a significant challenge: ensuring a large enough supply of reagents to scale-up diagnostic testing for COVID-19. A team led by Dr. Martin Hirst *(pictured)* from UBC, Canada's Michael Smith Genome Sciences Centre at BC Cancer and the BC Centre for Disease Control, is working to develop new non-proprietary reagents to support testing in British Columbia. **Read More**

Algernon Receives U.S. FDA Clearance for Multinational Phase 2b/3 Human Study to Evaluate Ifenprodil as a Potential Therapeutic for COVID-19 Algernon Pharmaceuticals Inc.



Algernon Pharmaceuticals Inc., a clinical stage pharmaceutical development company, has announced that it has received clearance from the U.S. FDA for its recently submitted investigational new drug application for its planned multinational Phase 2b/3 study of its re-purposed drug NP-120 (Ifenprodil) as a potential therapeutic treatment for patients with COVID-19. **Read More**

Cracking the Complex Biology of Cannabis

Medium



After legalization of cannabis in Canada in 2018, scientists from UBC expected that it would become much easier to study the valuable and complex plant. The process is now much more stream-lined, but the reporting and physical security issues are still stringent. Researchers all say that, due to prohibition, many aspects of chemistry and biology of cannabis remain a mystery, and we need to do more to crack its secrets. **Read More**

Life Sciences See Silver Lining in Dark COVID Clouds

Business in Vancouver



Vancouver biotech and medical device companies, like SaNOtize Research and Development Corp. led by Dr. Gilly Regev (*pictured*), have recently received government funding, inked partnerships with big pharmaceutical companies and gained quick regulatory approvals to move their platforms and discoveries to the front of the clinical trial queue. **Read More**

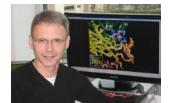
Predicting the Evolution of COVID-19 to Help Manage Future Outbreaks UBC Faculty of Medicine



The ability to predict mutations in the novel coronavirus even before they emerge will be essential to stopping future COVID-19 outbreaks. UBC Faculty of Medicine's Dr. Robert Brunham and Dr. Natalie Strynadka *(pictured)*, together with the Faculty of Science's Steven Plotkin and a team of commercial and academic collaborators, are one step closer to achieving this thanks to a \$1.8 million grant from the Digital Technology Supercluster COVID-19 Program. **Read More**

Coagulation Going Viral: Wisdom to Draw from Herpes Simplex Virus-1 Investigation

Centre for Blood Research



Dr. Ed Pryzdial's *(pictured)* laboratory at the UBC Centre for Blood Research has been investigating mechanisms of clot-formation enhancement by enveloped viruses for over 20 years. Often overlooked agents like viruses have a track record of association with the disruption of blood clotting mechanisms. Thus, they can contribute to cardiovascular diseases. **Read More**

Chinook Therapeutics, Aduro Joining Forces in Cross-Border Merger Business in Vancouver



International borders may be closed, but that's not stopping a merger between biotech firms based in Vancouver and the US. Privately held Chinook Therapeutics Inc. has reached an agreement with Silicon Valley's Aduro Biotech Inc., in which the latter will acquire all of the Vancouver company's outstanding stock. In exchange, Chinook will receive 50% of Aduro's common stock once the merger deal is complete. **Read More**

Podcast: The Future of Food: How Genomics Is Shaping the Way We Eat Genome BC



The way we ate 1,000 years ago is vastly different from the way we eat now. And two scientists who specialize in how food is produced believe the way we'll eat in 1,000 years will be much different than today. The latest episode of Genome BC's podcast, *The Code of Life*, features Drs. Lenore Newman *(pictured)* from the University of the Fraser Valley, and Daniel Weary from UBC. **Read More**

Graduate Aims to Make a Difference Amid Challenges of Lab Work on COVID-19 Project

SFU News



Abeline Watkins *(pictured)* hopes the data that she is discovering at SFU may one day make a difference in addressing the ongoing COVID-19 pandemic. Watkins is investigating whether cannabidiol, a non-psychoactive component of *cannabis sativa*, can help to mitigate the negative side effects of taking Azithromycin, a drug that has been proposed to treat symptoms of COVID-19, particularly lung problems. **Read More**

Getting Rid of the Itch

Vancouver Coastal Health Research Institute



Approximately 15 to 20 per cent of Canadians live with some form of atopic dermatitis, also known as eczema. In a bid to find a better treatment to prevent eczema's debilitating effects, findings by Vancouver Coastal Health Research Institute researchers, led by Dr. David Granville (*pictured*), have identified a key enzyme that contributes to the condition. **Read More**

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Interesting Articles

Increased Support for Students, Trainees and Research Support Personnel Funded through NSERC Research Grants

Natural Sciences and Engineering Research Council of Canada



Canada's three federal research granting agencies recognize the vital role that highly qualified talent plays in the research enterprise and the need to sustain the talent pipeline during the major disruptions caused by the COVID-19 pandemic. To lessen the impact due to COVID-19 on students, trainees and research support personnel funded through research grants, they will provide additional funding to eligible grant recipients. **Read More**

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Upcoming Events in Vancouver

June 17 10:00 AM	Stem Cells from the Sofa Speaker Series: Stem Cell Network's COVID-19 Rapid Response Initiative Projects Online
June 17 3:00 PM	Seminar: Single-Cell RNA Sequencing with Split-Pool Barcoding from the Brain to Bacteria Online
June 17 3:00 PM	Innovate BC Ignite Awards Online
June 24 10:00 AM	STAT Webinar: Targeted Cancer Drugs: What's on the Market? What's in the Pipeline? Online
June 25 10:00 AM	McCarthy Spotlight Speaking Series: Non-Dilutive Funding Programs Online

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(iii) Science Jobs in Vancouver

Data Scientist AbCellera

Research Associate, Theoretical and Computational Biology UBC School of Biomedical Engineering

Sr. Scientist, *In Vivo* Pharmacology (Team Lead) Chinook Therapeutics

Postdoctoral Research Fellow, Stem Cells UBC Centre for Heart Lung Innovation

Associate Scientist (18-Month Contract), Biologic Discovery Amgen

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