

Publications of the Week

Interleukin-37 Regulates Innate Immune Signalling in Human and Mouse Colonic Organoids

First Author: Joanne Allaire (pictured) | Senior Author: Bruce Vallance
 Scientific Reports | UBC, BC Children's Hospital, and STEMCELL Technologies



Intestinal epithelial cells reside in close proximity to the gut microbiota and are hypo-responsive to bacterial products, likely to prevent maladaptive inflammatory responses. This is in part due to their strong expression of single immunoglobulin interleukin (IL)-1 related receptor, a negative regulator of IL-1 and toll-like receptor signalling. The authors characterized innate immune responses of human and murine colonoids to bacteria and host products. [Profile](#) | [Abstract](#)

Small Molecule Y-320 Stimulates Ribosome Biogenesis, Protein Synthesis, and Aminoglycoside-Induced Premature Termination Codon Readthrough

First Author: Sara Hossain-Panabazaa | Senior Author: Michel Robeige (pictured)
 PLOS Biology | UBC



Some aminoglycosides that bind to the ribosome decoding center can induce premature termination codon (PTC) readthrough and restore low levels of full-length functional proteins. However, concomitant inhibition of protein synthesis limits the extent of PTC readthrough that can be achieved by aminoglycosides like G418. The authors identified a small molecule, the phenylpyrazoleamide Y-320, that potently enhances TP53, DMD, and COL17A1 PTC readthrough by G418. [Abstract](#)

ILC-You in the Thymus: A Fresh Look at Innate Lymphoid Cell Development

First Author: Samsel Shin (pictured) | Senior Author: Kelly McNagry
 Frontiers in Immunology | UBC



The presence and maintenance of innate lymphoid cells (ILCs) are critical for modulating immune homeostasis, responding to injury or infection, and repairing damaged tissues. To date, ILCs have been defined by a set of transcription factors, surface antigens and cytokines, and their functions resemble those of three major classes of helper T (Th) cell subsets, Th1, Th2 and Th17. [Abstract](#)

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Awards

April 2021 Award Winners

Science in Vancouver



Dr. Veronica Hirsch-Reinshagen (pictured), Assistant Professor in the Department of Pathology and Laboratory Medicine at UBC and neuropathologist at Vancouver General Hospital, received a Vancouver Coastal Health Research Institute Investigator Award for her work on MRI and histological changes in traumatic spinal cord injuries. Find out which other Vancouver researchers won grants, awards, or scholarships in this month's award summary. [Read More](#)

Dr. Connie Eaves Elected to the Royal Society

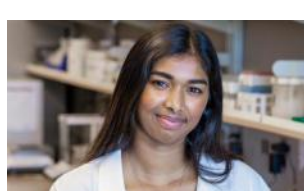
The Royal Society



Over 60 outstanding scientists from all over the globe have joined the Royal Society as Fellows and Foreign Members. The distinguished group of scientists consists of 52 Fellows, 10 Foreign Members and one Honorary Fellow and were all selected for their exceptional contributions to science. Among this year's Fellows and Foreign Members is Dr. Connie Eaves (pictured), Distinguished Scientist at the Terry Fox Laboratory. [Read More](#)

Charu Sankaran Awarded UBC Faculty of Medicine Summer Student Research Program Scholarship

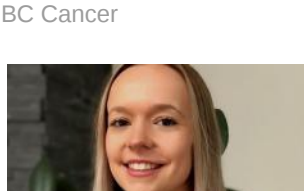
BC Cancer



Charu Sankaran (pictured) in Dr. Kevin Hey's lab has been awarded a UBC Faculty of Medicine Summer Student Research Program scholarship for her research entitled "Improving the persistence of CAR T cells using telomerase". The Faculty of Medicine Summer Student Research Program provides undergraduate students with an opportunity to explore their interest in health research by undertaking a summer project supervised by a Faculty of Medicine researcher. [Read More](#)

Lauren Wilkinson Awarded BioCanRx Summer Studentship

BC Cancer



Lauren Wilkinson (pictured) in Dr. Kevin Hay's lab has been awarded a BioCanRx Summer Studentship for her research entitled "Improving CAR T cell persistence by overcoming cellular senescence". BioCanRx Summer Studentships provide funding for undergraduate and college students to gain work experience in the Canadian cancer biotherapeutics research sector. [Read More](#)

Drs. Florian Kuchenbauer and Kevin Hay Receive Grants from International Myeloma Society and Paula and Rodger Riney Foundation

BC Cancer



Dr. Florian Kuchenbauer received a grant for his work entitled "Exploring apolipoprotein B mRNA editing enzyme, catalytic polypeptides as therapeutic vulnerabilities in multiple myeloma" and Dr. Kevin Hay (pictured) received a grant for his work entitled "Chimeric antigen receptor T cells secreting interleukin (IL)-12 and anti-IL-6 to enhance responses in multiple myeloma." [Read More](#)

Louis-Alexandre Fournier Awarded CIHR Doctoral Award

BC Cancer



Congratulations to Louis-Alexandre Fournier (pictured) in Dr. Peter Stirling's lab, who has been awarded a Canadian Institutes of Health Research (CIHR) Doctoral Award (Frederick Banting and Charles Best Canada Graduate Scholarship) for his project entitled "Investigating the role of AT-rich interactive domain-containing protein 1A loss in cancer and its effects on R-loop accumulation and genome instability". [Read More](#)

Dr. Hugh Kim Awarded Network for Canadian Oral Health Research Grant

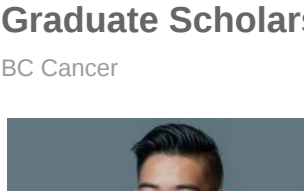
The Centre for Blood Research



Congratulations to Dr. Hugh Kim (pictured) for receiving a Network for Canadian Oral Health and Research New Frontier Seed Grant! Dr. Kim brought together a team of researchers from UBC, the University of Toronto, and the Canadian Blood Services to collaborate on the project "Deciphering the molecular links between periodontitis and ischemic cardiovascular disease" and obtained a \$40,000 grant. [Read More](#)

Lorenzo Lindo Awarded CIHR – Frederick Banting and Charles Best Canada Graduate Scholarship

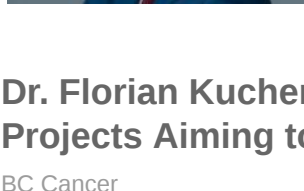
BC Cancer



Lorenzo Lindo (pictured) in Dr. Kevin Hay's lab has been awarded a Canadian Institutes of Health Research (CIHR) – Frederick Banting and Charles Best Canada Graduate Scholarship – Master's for his research entitled "Engineering MicroMod CAR T cells to overcome the immunosuppressive microenvironment in myeloma". [Read More](#)

Dr. Florian Kuchenbauer Receives Funding for Multiple Myeloma Clinical Projects Aiming to Improve Treatment Outcomes

BC Cancer



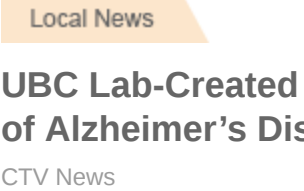
Dr. Florian Kuchenbauer (pictured) received \$50,000 USD in Proteona's ESCAPE™ multi-omic single cell analysis services. Proteona, a single-cell precision medicine company, announced awards from its Single Cell Multimomics Grant competition for multiple myeloma. "The simultaneous measurement of protein and RNA using the ESCAPE platform will identify affected cellular pathways at single cell resolution," said Dr. Kuchenbauer. [Read More](#)

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Local News

UBC Lab-Created Brain Cells Hold New Hope for Understanding Mechanics of Alzheimer's Disease

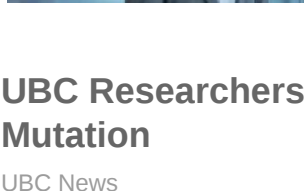
CTV News



Brain cells are being grown in a lab to try and better understand the progression of Alzheimer's and hopefully pave the way for new treatments. Assistant Professor in Neurology Dr. Haakon Nygaard (pictured) said researchers are taking blood from patients with the disease and using the stem cells to create brain cells in the lab. The result is a unique view of the mechanisms leading to the disease. [Read More](#)

UBC Researchers Unveil First Molecular Images of B.1.1.7 COVID-19 Mutation

UBC News



UBC researchers are the first in the world to publish structural images of the N501Y mutation on the SARS-CoV-2 spike protein — a change believed to be partly responsible for the highly infectious nature and rapid spread of variant B.1.1.7. The pictures, taken at near-atomic resolution, provide critical insight as to why the B.1.1.7 variant is more infectious. Dr. Sriram Subramaniam (pictured) discusses the implications of his team's research. [Read More](#)

A Novel Transcriptome-Based Clinical Assay Allows for Improved Risk Group Stratification of Acute Myeloid Leukemia Patients

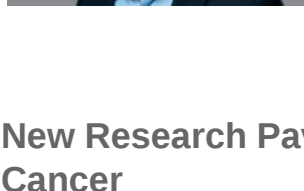
Canada's Michael Smith Genome Sciences Centre



Acute myeloid leukemia (AML) is an aggressive cancer that manifests in the bone marrow and affects the production of blood cells. The rapid progression of the disease, combined with the large degree of heterogeneity between AML patients, complicates individualized treatment planning. In a new study led by Dr. Aly Karan (pictured), researchers used the power of next generation sequencing technologies to develop a clinical test that improves patient stratification. [Read More](#)

New Research Paves Way to Better Treatment for Common Childhood Brain Cancer

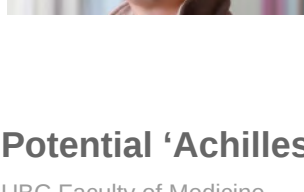
BC Children's Hospital Research Institute



Medulloblastoma (MB) is the most common pediatric brain tumour and usually affects children and infants under 10 years old. A new study led by Dr. James Lim (pictured) has found that certain immune signals may help MB resist chemotherapy. Blocking these signals could present a new way to improve treatment for children with this type of tumour and increase childhood survival. [Read More](#)

Potential 'Achilles' Heel' of SARS-CoV-2 Virus Captured on Video

UBC Faculty of Medicine



Proteins known as lectins can bind to the spike protein on the SARS-CoV-2 virus and prevent it from accessing human cells; an international team of researchers led by the UBC's Dr. Josef Penninger (pictured) has demonstrated. They have captured the action on the pathogen's spike protein via video. The researchers developed the largest lectin library in the world to find two lectins that are particularly adept at binding to glycans on the SARS-CoV-2 spike protein. [Read More](#)

AbCellera Breaks Ground on Global Headquarters in Vancouver and Expects to Hire Hundreds of Scientific and Tech Professionals

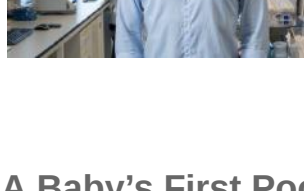
AbCellera



AbCellera has announced it has broken ground on an expanded global headquarters in its home city of Vancouver in anticipation of adding hundreds of employees to its current 250-person workforce over the next few years. "We're building state-of-the-art facilities in Vancouver to accelerate the development of new antibody therapies with biotech and pharma partners from around the world," said CEO and President Dr. Carl Hansen (pictured). [Read More](#)

A Baby's First Poop Can Help Predict Risk of Developing Allergies

UBC News



A team of UBC researchers has shown that the composition of a baby's first poop — a thick, dark green substance known as meconium — is associated with whether or not a child will develop allergies within their first year of life. Lead author Dr. Charisse Petersen (pictured) explains, "This work shows that the development of a healthy immune system and microbiota may actually start well before a child is born." [Read More](#)

Vancouver-Based Alpha-9 Theranostics Announces \$11 Million Series-A Financing to Advance Portfolio of Radiotherapeutics and Diagnostics

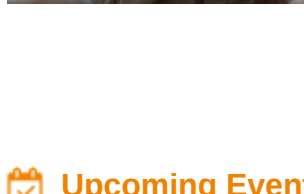
BC Tech News



Alpha-9 Theranostics has announced an \$11 million Series-A financing to advance a portfolio of novel radiotherapeutics and diagnostics. Longitude Capital led the financing with participation from Biotechnology Value Fund Partners and insiders. Alpha-9 was founded by researchers from UBC and BC Cancer with the goal of improving the lives of patients affected by metastatic cancers. [Read More](#)

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Upcoming Events in Vancouver



May 11 5:00 PM **Science Made Casual with Dr. Connie Eaves**
 Online

May 12 11:00 AM **Hemoglobin Bart's Hydrops Fetalis: A Curious Journey from Fetal Therapy to Adult Care**
 Online

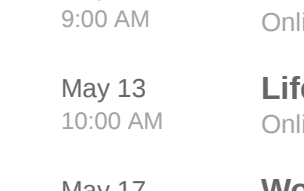
May 13 9:00 AM **Stem Cell Talks 2021**
 Online

May 13 10:00 AM **LifeSciences BC Showcase Series: Surrey**
 Online

May 17 9:00 AM **Women's Brain Health Conference – Hot Topics Symposium**
 Online

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STEMCELL Jobs in Vancouver



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 STEMCELL Technologies

Senior Process Development Scientist
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Research Technologist, Pluripotent Stem Cell Biology
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Scientific Support Coordinator
 STEMCELL Technologies

Senior Research Technologist, Immunology & Cell Separation
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Other Science Jobs in Vancouver



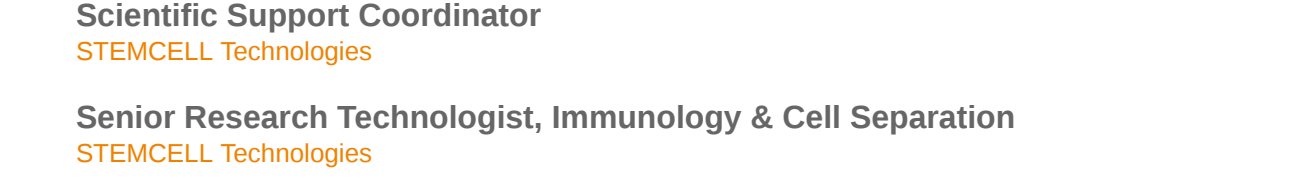
Research Scientist, Biophysical Characterization
 AbCellera

Research Assistant/Technician 4
 UBC

Quality Assurance Associate
 Canada's Michael Smith Genome Sciences Centre

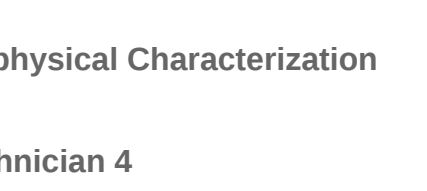
Research Assistant (Mixed Methods)
 Providence Health Care Research Institute

Process Development Manager
 Precision NanoSystems

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