

Publications of the Week

Lipid Nanoparticles to Silence Androgen Receptor Variants for Prostate Cancer Therapy

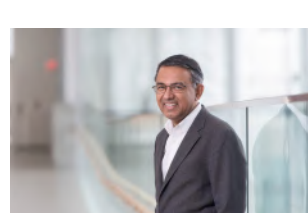
First Author: Joslyn Quack | Senior Author: Pieter Cullis (pictured)
Journal of Controlled Release | BC Cancer Research Institute and UBC



Advanced-stage prostate cancer remains an incurable disease with poor patient prognosis. There is an unmet clinical need to target androgen receptor (AR) splice variants, which are key drivers of the disease. The authors explore the use of RNA interference to target a universally conserved region of all AR splice variants for cleavage and degradation, thereby eliminating protein level resistance mechanisms. [Abstract](#)

Three-Dimensional Visualization of Viral Structure, Entry, and Replication Underlying the Spread of SARS-CoV-2

First Author: James Saville | Senior Author: Sriram Subramaniam (pictured)
Chemical Reviews | UBC and Gandeveva Therapeutics



The authors provide a detailed review of the structural biology and pathobiology of SARS-CoV-2 as it relates to all facets of the viral life cycle, including cell entry, replication, and 3D packaging based on insights obtained from X-ray crystallography, cryo-electron tomography, and single-particle cryo-electron microscopy. [Abstract](#)

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Awards

DMCBH Members Awarded Spring 2022 CIHR Project Grants to Support Health Research

Djavad Mowafaghian Centre for Brain Health (DMCBH)



The Canadian Institutes of Health Research (CIHR) has announced the results of its Spring 2022 project grant competition. Congratulations to all the DMCBH members who were awarded project grants, with 11 projects receiving more than \$9 million in funding. Dr. Mark Cembrowski's (pictured) project will focus on a specialized neural circuit representing novelty on behavioural timescales. [Read More](#)

Faculty of Medicine Researchers Awarded More than \$36M through CIHR Project Grants

UBC Faculty of Medicine



Faculty of Medicine researchers were awarded more than \$36 million in funding through the Canadian Institutes of Health Research (CIHR) Project Grants: Spring 2022 competition. Drs. Purang Abolmaesumi (pictured), Michael Tsang, and Teresa Tsang will investigate the automatic assessment of aortic stenosis with point of care ultrasound. [Read More](#)

LSI Researchers Draw More than \$8M in CIHR Spring 2022 Project Grants

Life Sciences Institute (LSI)



Congratulations to the successful applicants in the Canadian Institutes of Health Research (CIHR) Spring 2022 Project Grant competition! LSI Director Dr. Josef Penninger and Deputy Director Dr. James Johnson described the results as a remarkable success: 42% of the LSI applications were approved, whereas the Canadian national and UBC averages are 19% and 22%, respectively. Dr. Ethan Greenblatt (pictured) will investigate the role of FMRP complexes in autism-relevant gene expression. [Read More](#)

CBR Researchers Draw In More than \$2.8M with CIHR Spring 2022 Project Grants

Centre for Blood Research (CBR)



Several CBR projects received funding from the Canadian Institutes of Health Research (CIHR), as part of the CIHR Spring 2022 Project Grants competition. Drs. Hongshe Ma (pictured) and Aly Karsan received funding, drawing in more than \$2.8 million. Dr. Ma's project is titled, "Behaviour-Based Cell Separation to Interrogate Host Cell Heterogeneity in CAR-T Cell Therapies." [Read More](#)

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Local News

Bacteria Could Help Capture Greenhouse Gases

Canadian Light Source



With the help of the Canadian Light Source at the University of Saskatchewan, researchers from SFU are investigating how organisms sense and respond to CO₂. "It's very important for organisms to be able to sense local CO₂ concentrations and respond because it's such an essential gas," said Dr. Dustin King (pictured), a postdoctoral researcher in Dr. David Vocolio's lab in the SFU Department of Chemistry. [Read More](#)

With Just a Tablespoon of Blood, BC Researchers Aim to Transform Cancer Treatment

UBC News



Researchers at the Vancouver Prostate Centre and BC Cancer have developed a new blood test that provides unprecedented insight into a patient's cancer make-up, potentially allowing doctors to better select treatment options that will improve patient outcomes. "With only a few drops of blood, we can uncover critical information about a person's overall disease and how best to manage their cancer," says Dr. Alexander Wyatt (pictured). [Read More](#)

Genomic Analysis of Uveal Melanoma Case with Good Response to Therapy

Canada's Michael Smith Genome Sciences Centre



BC Cancer's Personalized OncoGenomics (POG) program is a patient-centric research initiative that aims to better understand cancer formation, evolution, and response to treatment using genomic data. POG analysis can confirm the primary site of a metastatic cancer, support standard treatments for advanced disease, or, in some cases, identify novel therapy options. A new case report from the POG team provides genomic insight into why a patient with metastatic melanoma of the eye had an exceptional response to immune checkpoint inhibitor therapy. [Read More](#)

Life Sciences BC Launches Labour Market Study of Jobs and Skills Needed for BC's Growing Life Sciences Sector

Life Sciences BC



A new labour market intelligence study that will help provide a better understanding of the jobs and skills employers are looking for is underway for BC's dynamic life sciences sector. The project is led by Life Sciences BC with funding provided through the Canada-British Columbia Labour Market Development Agreement as part of the Sector Labour Market Partnerships program with the Ministry of Advanced Education and Skills Training. [Read More](#)

Dr. Govind Kaigala Appointed Senior Research Scientist

Vancouver Prostate Centre



Dr. Govind Kaigala (pictured) has been appointed Senior Research Scientist at the Vancouver Prostate Centre. Dr. Kaigala was also recruited to the UBC School of Biomedical Engineering and the UBC Life Sciences Institute. As a researcher across multiple institutes, Dr. Kaigala will lead and encourage cross-disciplinary collaboration between engineering, life-sciences, and clinical sciences. [Read More](#)

Meet Vanessa Porter

Pathways



Cervical cancer remains one of the deadliest cancers among women around the world. Vanessa Porter (pictured), a PhD candidate in UBC's Department of Medical Genetics, is using a cutting-edge DNA sequencing technology to understand how cervical cancers evolve and how this knowledge can inform future treatments for individual patients. [Read More](#)

The Importance of the Prodromal Stage in Multiple Sclerosis Prevention

Djavad Mowafaghian Centre for Brain Health



Based on previous work by Dr. Helen Tremlett (pictured), there is emerging evidence that a prodromal stage exists in multiple sclerosis (MS), which raises the possibility of intervention at this early stage to delay or prevent the development of classical MS. In a new article published in *Nature Reviews Neurology*, Dr. Tremlett and her team propose a disease framework for MS that includes the prodromal stage, and outline key steps in identifying early disease markers and developing standardized criteria for diagnosis. [Read More](#)

Transcriptome Analysis Provides Genomic Insight into Emu Fat Metabolism

Canada's Michael Smith Genome Sciences Centre



In recent years, emu farming has become popular worldwide as a means of producing emu oil. A new study from Dr. Inanc Birof's (pictured) lab identified differentially expressed genes involved in emu fat storage. This information will be applied to future studies aimed at improving emu fat production for commercial use through selective breeding. [Read More](#)

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Upcoming Events in Vancouver

July 28 11:00 AM	Research Lecture: Wen Li Life Sciences Centre & Online
July 29 12:00 PM	Development & Utilization of <i>In Vivo</i> Systems to Optimize Lipid Nanoparticles for Therapeutic Genome Editing Online
July 30 8:30 AM	Shim's Ride Windsor Park, Victoria
August 4 4:00 PM	D.R.I.N.K.S. Vancouver Mahoney and Sons
August 16 9:00 AM	SBME Synergy Research Day Life Sciences Centre

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Michael Smith Laboratories
- Medical Science Liaison, West**
GSK
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TerraBioGen
- Research Scientist, Immunization**
AbCellera
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UBC

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