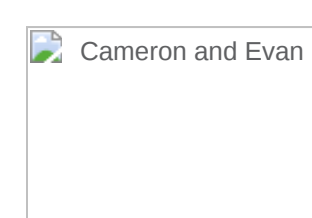


Publications of the Week

BRCA2, ATM, and CDK12 Defects Differentially Shape Prostate Tumour Driver Genomics and Clinical Aggression

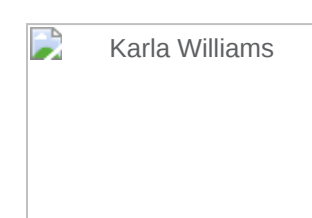
First Author: Evan Warner (pictured, left) | Second Author: Cameron Herberts (right) | Senior Author: Alexander Wyatt
Clinical Cancer Research | The Vancouver Prostate Centre, BC Cancer, the Michael Smith Genome Sciences Centre, and UBC



DNA damage repair (DDR) defects are common across cancer types and can indicate therapeutic vulnerability. Optimal exploitation of DDR defects in prostate cancer requires new diagnostic strategies and a better understanding of associated clinical genomic features. The authors performed targeted sequencing of 1,615 plasma cell-free DNA samples from 879 patients with metastatic prostate cancer. [Profile](#) | [Abstract](#)

Nanoscale Flow Cytometry for Immunophenotyping and Quantitating Extracellular Vesicles in Blood Plasma

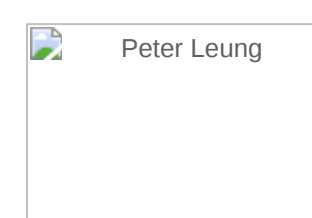
First Author: Nikki Salmond | Senior Author: Karla Williams (pictured)
Nanoscale | The Centre for High Throughput Phenogenomics and UBC



The molecular profile of cancer cells is distinct as compared to healthy cells of the same tissue type, and this distinct profile should be reflected by the extracellular vesicles (EVs) they release. This makes EVs desirable candidates for blood-based biopsy diagnosis of cancer. The authors use nanoscale flow cytometry to analyze EVs in whole, unpurified, plasma samples from healthy individuals and breast cancer patients. [Profile](#) | [Abstract](#)

Roles of TGF-β Superfamily Proteins in Extravillous Trophoblast Invasion

First Author: Yan Li | Senior Author: Peter Leung (pictured)
Trends in Endocrinology & Metabolism | BC Children's Hospital Research Institute and UBC



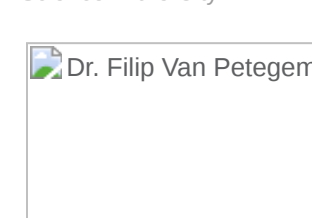
Although sharing a similar protein structure, the transforming growth factor-β (TGF-β) superfamily members exert divergent functions in regulating extravillous trophoblasts (EVT) invasion. This review details recent advances in our understanding of the functions of TGF-β superfamily members and their corresponding receptors, signaling pathways, and downstream molecular targets in regulating human EVT invasion from studies using various *in vitro* or *ex vivo* experimental models. [Abstract](#)

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Awards

January 2021 Award Winners

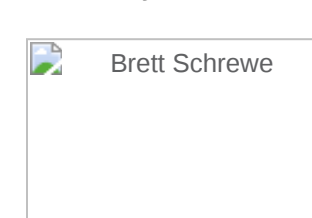
Science in the City



Dr. Filip Van Petegem (pictured), Professor in UBC's Department of Biochemistry and Molecular Biology, has been awarded a CIHR Team Grant that will go towards funding research on using ion channel modulators to treat itch. Find out which other Vancouver researchers were awarded grants and awards in our January awards summary! [Read More](#)

Faculty of Medicine Researchers Awarded COVID Initiative Grants

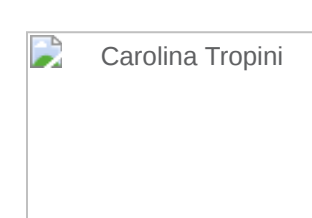
UBC Faculty of Medicine



Two Faculty of Medicine researchers, Drs. Brett Schrewe (pictured) and Suzanne Huot, are successful co-applicants on the Social Sciences and Humanities Research Council Partnership Engage Grants special COVID initiative grants. These grants provide short-term and timely support for partnered research activities to inform decision-making from the public, private or not-for-profit sector. [Read More](#)

As an Allen Distinguished Investigator Dr. Carolina Tropini to Tackle Unanswered Questions about Metabolism and the Immune System

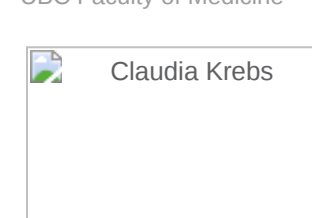
UBC Life Sciences Institute



Dr. Carolina Tropini (pictured), an Assistant Professor in the School of Biomedical Engineering and the Department of Microbiology and Immunology, has been named a Distinguished Investigator by the Paul G. Allen Frontiers Group. Dr. Tropini will use the funding to explore how immune responses, metabolism, gut microbiomes and environments may contribute to widely varied symptoms and responses to treatment among people with inflammatory bowel disease. [Read More](#)

Claudia Krebs Named as Fellow for the American Association for Anatomy

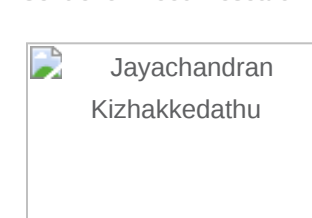
UBC Faculty of Medicine



Drs. Claudia Krebs (pictured) and Wayne Vogl have been recognized by the American Association for Anatomy (AAA) for their excellence in science. Dr. Claudia Krebs has been elected to fellowship in the AAA, and Dr. Vogl has been awarded the Henry Gray Scientific Achievement, which is the AAA's highest scientific honour. [Read More](#)

Dr. Jayachandran Kizhakkedathu Inducted as a Fellow, Biomaterials Science and Engineering

Centre for Blood Research



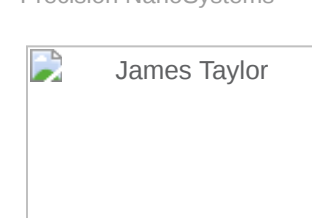
Dr. Jayachandran Kizhakkedathu (pictured) was recently named a Fellow, Biomaterials Science and Engineering at the 11th World Biomaterials Congress in December 2020. Dr. Kizhakkedathu is one of three Canadian professors who have been inducted as Fellows, a recognition that celebrates the researchers' outstanding contributions to biomaterials research, education, and service. [Read More](#)

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Local News

Canada to Build RNA Medicine Biomanufacturing Centre

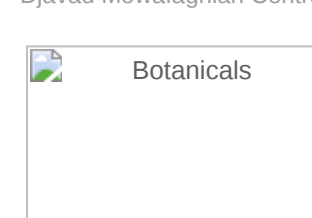
Precision NanoSystems



Precision NanoSystems, a global leader in technologies and solutions for development of genetic medicines, has announced that it has received a contribution of CAD \$25.1 million through the Strategic Innovation Fund. This contribution will support a CAD \$50.2-million project to establish a biomanufacturing centre in Vancouver dedicated to the production of RNA lipid nanoparticle vaccines and genetic medicines. (James Taylor, CEO, pictured). [Read More](#)

Researchers Discover Biological Foundation of Botanical Formulation Used to Prevent Opioid-Related Withdrawal Symptoms

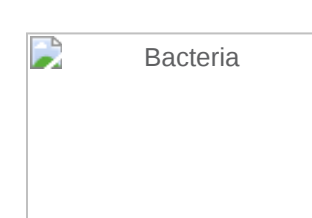
Djavad Mowalaghian Centre for Brain Health



When a person living with an opioid addiction begins the process of detoxifying, they are met with withdrawal symptoms which are often so painful the person relapses. Dr. Anthony Phillips and his team at UBC have made great strides in addressing this issue by studying a botanical formulation shown to reduce withdrawal symptoms. [Read More](#)

COVID-19 May Forever Alter Our Microbiomes

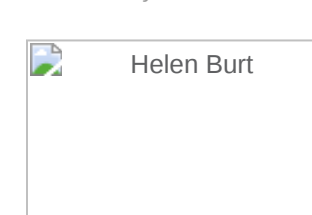
Michael Smith Laboratories



The COVID-19 pandemic has upended the lives of nearly every person on the planet. So in a perspective article published in the *Proceedings of the National Academy of Sciences* in January 2021, members of the Canadian Institute for Advanced Research's Humans & the Microbiome program, including UBC's Dr. Brett Finlay, lay out how the pandemic may impact our microbiomes. [Read More](#)

Alumni Profile: Dr. Helen Burt, PhD '80

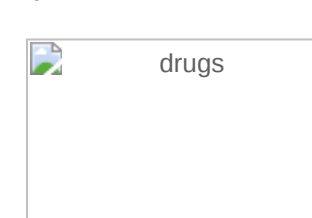
UBC Faculty of Pharmaceutical Sciences



Dr. Helen Burt (pictured), Professor in the UBC Faculty of Pharmaceutical Sciences, is approaching her retirement in a few weeks. In this alumni profile, she discusses her forty year career at UBC, including her inspirations and what she believes future researchers should focus on in order to stand out in the life science space. [Read More](#)

Zymeworks Advances HER2 Bispecific Antibody-Drug Conjugate, ZW49, into Expansion Cohort Stage of Clinical Development

Zymeworks



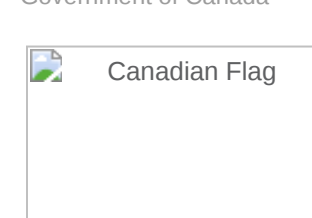
Zymeworks, a clinical-stage biopharmaceutical company developing multifunctional biotherapeutics, has announced that it has begun enrolling patients into the expansion cohort portion of the ongoing Phase 1 clinical trial for ZW49, its novel HER2-targeted antibody-drug conjugate. ZW49 has demonstrated antitumour activity across all regimens and dose levels evaluated to date. [Read More](#)

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Interesting Articles

Government of Canada Invests in Research and Development Collaborations in Diverse Areas from Manufacturing to Agriculture

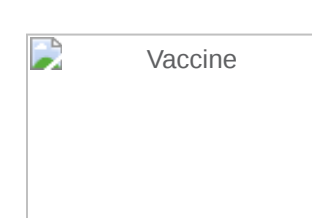
Government of Canada



The Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry, has announced close to \$118M in funding for 414 projects across the country through Alliance grants, the Natural Sciences and Engineering Research Council of Canada's new research partnership program. Alliance grants encourage greater collaboration in research and development by supporting projects between university researchers and partner organizations from the private, public or not-for-profit sectors. [Read More](#)

The Federal Granting Agencies Announce Funding to Encourage Vaccine Confidence in Canada

Government of Canada



The Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council have provided preliminary information on an upcoming launch of a special \$2.25M funding opportunity to support activities that promote vaccine confidence in Canada. [Read More](#)

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Upcoming Events in Vancouver

- February 9 10:00 AM **Bio+tech Connec+ with Gilead Sciences Canada Inc.** Online
- February 10 12:00 PM **CHÉOS Work in Progress Seminar: Dr. Brian Grunau** Online
- February 10 1:00 PM **ONLINE Beaty@Home Live: Women in STEM** Online
- February 11 5:00 PM **Nobel Prize Lectures 2021** Online
- February 19 12:30 PM **Digital Research Infrastructure Showcase** Online

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Product Manager, Pluripotent Stem Cell Biology
STEMCELL Technologies

Senior Research Associate, Bioengineering
STEMCELL Technologies

Research Technologist, Pluripotent Stem Cells
STEMCELL Technologies

Quality Control Operations Specialist
STEMCELL Technologies

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Other Science Jobs in Vancouver

Postdoctoral Fellow
Terry Fox Laboratory

Lab Operations Safety Coordinator
Canada's Michael Smith Genome Sciences Centre at BC Cancer

Field Specialist
Poppy Health

Scientist, Bioassay Development
Zymeworks

Genome Sciences Technologist
Canada's Michael Smith Genome Sciences Centre at BC Cancer

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