

Publications of the Week

Cell-Surface Xyloglucan Recognition and Hydrolysis by the Human Gut Commensal *Bacteroides uniformis*

First Author: Julie Grondin (pictured) | Senior Author: Harry Bruner Applied and Environmental Biology | Michael Smith Laboratories and UBC



Xyloglucan (XyG) is a ubiquitous plant cell wall hemicellulose that is targeted by a range of syntenic, microheterogeneous xyloglucan utilization loci (XyGUL) in Bacteroidetes species of the human gut microbiota, including *Bacteroides uniformis* (Bu). Complimentary enzymatic product profiles and bacterial growth curves showcase the notable preference of BuXyGUL2 surface glycan-binding proteins to bind full-length XyG. [Profile](#) | [Abstract](#)

Molecular Strategies for Antibody Binding and Escape of SARS-CoV-2 and Its Mutations

First Author: Mohamed Hendy | Senior Author: Mauricio Ponga (pictured) Scientific Reports | UBC



Human neutralizing antibodies are an effective method to fight SARS-CoV-2 infection. However, the recent discovery of new strains that substantially change the spike protein sequence has raised concern about vaccines and antibodies' effectiveness. The authors used molecular simulations to investigate the binding mechanisms between the spike protein and several antibodies. [Abstract](#)

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Awards

Dr. Dana Devine Inaugurated as AABB President, Recognized for Her Leadership

UBC Centre for Blood Research



Congratulations to Dr. Dana Devine (pictured), the Director of the Centre for Blood Research and the Canadian Blood Services' Chief Scientist, who was recently inaugurated as President of the Association for the Advancement of Blood and Biotherapies (AABB). The official start of Dr. Devine's term was marked by a virtual inauguration ceremony on the final day of the 2021 AABB Annual Meeting in October. [Read More](#)

Dr. Stephen Chia Appointed Head of Department of Clinical Research

BC Cancer Research



Dr. Stephen Chia (pictured) was recently announced as the new Head of Clinical Research at the BC Cancer Research Institute. In addition to this role, he retains his position as a medical oncologist at BC Cancer – Vancouver, a Professor of Medicine within the Department of Medicine at UBC, and the Division Head for Medical Oncology in the Department of Medicine at UBC. [Read More](#)

Canadian Scientist Awarded International Prize for COVID Vaccine Technology

NanoMedicines Innovation Network



Canadian scientist Dr. Pieter Cullis (pictured), together with his peers Drs. Katalin Kariko and Drew Weissman, has been honoured with the 2021 Prince Mahidol Award for his contribution to the development of COVID-19 mRNA vaccines. Through over 40 years of work in his UBC laboratory, Dr. Cullis and his UBC colleagues developed the 'made in Canada' linchpin technology essential to the successful use of mRNA vaccines: lipid nanoparticles. [Read More](#)

Abigail Chapman Awarded S. H. Zbarsky Scholarship

UBC Department of Biochemistry & Molecular Biology



UBC Biochemistry and Molecular Biology students have chosen Abigail Chapman (pictured) to be the newest Zbarsky recipient. The Sidney Howard (S. H.) Zbarsky Scholarship is awarded to an outstanding PhD student in the Department of Biochemistry and Molecular Biology. The scholarship has been endowed by the friends and colleagues of Dr. S. H. Zbarsky in recognition of his outstanding contributions to Biochemistry and UBC. [Read More](#)

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Local News

DNA Analysis Confirms 2,000-Year-Old Sustainable Fishing Practices of Tsleil-Waututh Nation

Genome BC



Working with the Tsleil-Waututh Nation and using new palaeogenetic analytical techniques developed in SFU Archaeology's ancient DNA lab, directed by Professor Dr. Dongya Yang, the results of a new collaborative study featured in *Scientific Reports* provides strong evidence that prior to European colonization, Coast Salish people were managing chum salmon by selectively harvesting males. [Read More](#)

Lung Cancer Research Advancements in B.C. Part I: Refining the Tools Used to Definitively Diagnose Lung Cancer

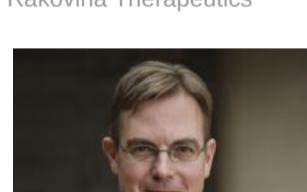
BC Cancer



After a patient is referred or diagnosed with lung cancer, further testing may be required for a definitive diagnosis. These tests can include the use of imaging tools inside the airways. Dr. Pierre Lane (pictured), Senior Scientist at the BC Cancer Research Institute, is formally trained in engineering physics, and is one of the pioneers at BC Cancer noted for inventing and adapting to clinical practice the use of autofluorescence imaging for the early detection of cancer. [Read More](#)

Rakovina Therapeutics Partners with St. Baldrick's Foundation to Research and Develop New Treatments for Childhood Bone Cancer

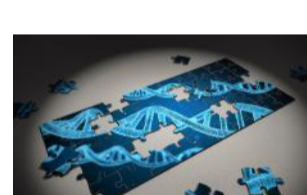
Rakovina Therapeutics



Rakovina Therapeutics, a biopharmaceutical company committed to advancing new cancer therapies based on novel DNA-damage response technologies, has been selected to join a three year \$975,000 USD research program funded by the St. Baldrick's Foundation Martha's Better Ewing Sarcoma Treatment Grant for All. Dr. Mads Daugaard (pictured), Rakovina Therapeutics President and Chief Scientific Officer, is a principal researcher in the project along with Dr. Paul Sorensen at UBC. [Read More](#)

Pitching In: Raising Money for the BC Cancer Foundation

The Globe and Mail



Last month, Tony Zwig and wife Thea Caplan donated \$750,000 to the BC Cancer Foundation to support the Genome Sciences Centre project to help personalized oncogenomics become more available across Canada. The couple have both recovered from cancers and they hope their donation will help change how the disease is treated. [Read More](#)

UBC Team Wins Gold Medal at iGEM International Competition with Tumour Biosensor Project

Life Sciences Institute



Congratulations to Team British Columbia for their winning diagnostics project, detectME, at the International Genetically Engineered Machine competition. Their entry, a bacteria-based biosensor, relies on engineered salmonella bacteria to enter and profile immune activity within tumours in real time. This non-invasive, cost effective platform aims to improve targeting of immunotherapy in individual patients. [Read More](#)

Epigenetic Blood Biomarkers of Aging and Mortality in COPD

Centre for Heart Lung Innovation



Chronic Obstructive Pulmonary Disease (COPD) is an age-related condition that is linked to cellular deterioration. In COPD, contributors to cell deterioration include environmental factors such as cigarette smoking and persistent lung inflammation. Environmental factors can alter the effects of genes through epigenetic modifications. These factors can also increase replicative senescence, an age-related process. [Read More](#)

Selective Breeding to Help the Western Redcedar Thrive in British Columbia

Genome BC



Western redcedar has tremendous economic and cultural significance to First Nations and all British Columbians, and faces significant challenges due to the changing climate. To address this, UBC Professor Dr. Joerg Bohlmann and the Forest Improvement and Research Management branch of BC's Ministry of Forests, Lands, Natural Resource Operations, and Rural Development have developed innovative genomic selection models, with funding from Genome BC and Genome Canada, to identify elite western redcedar genotypes. [Read More](#)

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Interesting Articles

Harmonization of Tri-Agency Policy on the Use of Funds for Federal Government Employees Applying to Granting Agency Programs

National Sciences and Engineering Research Council 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 of Canada have harmonized their policy to align more clearly with the Treasury Board Policy on Transfer Payments with regard to the eligibility and funding of research projects or programs submitted by applicants who are formally affiliated with a Canadian postsecondary institution, but who are employed by the federal government. [Read More](#)

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Upcoming Events in Vancouver

November 23 11:00 AM	Praxis Fireside Chat on Indigenous Disability Awareness Month #IDAM2021 Online
November 25 12:00 PM	FHS Research Seminar – Dr. Emma Griffiths – Pandemic Viral Surveillance in Canada and Around the World: Strategies for Data Harmonization and Integration to Fight COVID-19 Online
November 25 4:00 PM	Science Slam Canada Virtual Grandslam Online
November 25 5:00 PM	How Genome Research Is Influencing Our Understanding of B-Cell Lymphomas Online
November 30 9:00 AM	Townhall on the Future of Genomics in Canada Online

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Operations Coordinator
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STEMCELL Technologies

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Other Science Jobs in Vancouver

Laboratory Research Assistant, Biobank of Predictive Biomarkers in Genitourinary Cancers
Vancouver Prostate Centre

Associate Scientist, Cell Sciences (12 Month Contract)
Amgen

Research Assistant
UBC

Assistant Professor, Molecular Biology and Biochemistry
SFU

Genome Sciences Technologist, Library Core
Canada's Michael Smith Genome Sciences Centre

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