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Publications of the Week

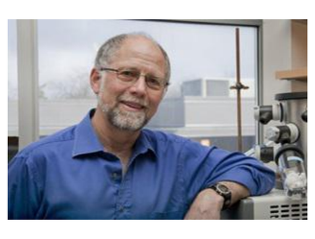
Stability of the Gut Microbiota in Persons with Pediatric-Onset Multiple Sclerosis and Related Demyelinating Diseases

First Author: Geoffrey Liang | Senior Author: Helen Tramlett *(pictured)*
Multiple Sclerosis Journal | Djavad Mowafaghian Centre for Brain Health and UBC

The authors examined if the gut microbiota composition changes across repeated samples in pediatric-onset multiple sclerosis (MS) or monophasic-acquired demyelinating syndromes (monoADS). Stool sample-derived DNA was sequenced. The gut microbiota composition in pediatric-onset MS and monoADS exhibited stability, suggesting that single stool sample procurement is a reasonable first approach. **Abstract**

Carbohydrate-Active Enzymes in the Gut Microbiome

First Authors: Jacob Wardman and Rajneesh Bains | Senior Author: Stephen Withers *(pictured)*
Nature Reviews Microbiology | Michael Smith Laboratories and UBC



The 10^{13}–10^{14} microorganisms present in the human gut dedicate substantial percentages of their genomes to the degradation and uptake of carbohydrates, indicating the importance of this class of molecules. The authors focus on the diversity of carbohydrate-active enzymes (CAZymes), how gut microorganisms use them for carbohydrate degradation, the different chemical mechanisms of these CAZymes, and the roles that these microorganisms and their CAZymes have in human health and disease. **Abstract**

View All Publications

Awards

UBC Biochemist Wins Gairdner Award for Role in COVID-19 Vaccines

CTV News

When he established his lab at UBC in the 1980s, Dr. Pieter Cullis *(pictured)* says he never could have fathomed that his "curiosity-based" research would eventually play a critical role in the development of vaccines that have benefited hundreds of millions of people across the globe. The Vancouver Biochemistry Professor was named among the winners of the prestigious Canada Gairdner Awards for his contributions to the development of mRNA COVID-19 vaccines. **Read More**

UBC Medicine Researchers Awarded Nearly $1 Million from New Frontiers in Research Fund

UBC Faculty of Medicine

Four researchers in UBC's Faculty of Medicine are leading projects that received nearly $1 million from the Government of Canada's New Frontiers in Research Fund. Dr. Joanne Matsubara's *(pictured)* project is titled: "*In Vivo* Imaging for Investigating Neurodegenerative Diseases of the Brain and Eye Cell simulator: a computer-driven approach to genetically programming cells." **Read More**

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Local News

Applications Open: 2022 Convening & Collaborating and Reach Competitions

Michael Smith Health Research BC

Competitions for the Michael Smith Health Research BC 2022 Convening & Collaborating and Reach Programs have opened. These awards fund research teams whose activities support knowledge translation (KT). Known by many names (e.g. knowledge mobilization, research to action, knowledge exchange) in health research, KT is ultimately about using health research to improve health.
Read More

Study Shows Strong Link Between Erectile Dysfunction Medications and Vision Problems

UBC Faculty of Medicine

The risk of developing one of three serious eye conditions increases by 85 per cent for regular users of common erectile dysfunction medications such as Viagra, Cialis, Levitra, and Stendra, new UBC research has found. "These are rare conditions, and the risk of developing one remains very low for any individual user. However, the sheer number of prescriptions dispensed each month in the US — about 20 million — means that a significant number of people could be impacted," said Dr. Mahyar Etminan *(pictured)*. **Read More**

Autophagy Machinery Contributes to Stress-Induced Secretion of Proteins and Extracellular Vesicle Populations

Canada's Michael Smith Genome Sciences Centre

The role of autophagy in recycling debris and supporting cell survival is well known and implicated in cancer development. Other functions of autophagy, including cellular secretion, are less explored. In their most recent study, Dr. Sharon Gorski's *(pictured)* lab sought to assess the impact of lysosomal and, by extension, autophagy inhibition on secretion, and identified new secretory functions of the autophagy machinery. **Read More**

Aspect Biosystems Announces Partnership with JDRF to Advance Development of a Bioengineered Tissue Therapeutic to Treat Type 1 Diabetes

Aspect Biosystems

Aspect Biosystems has announced a partnership with JDRF, the leading global type 1 diabetes research and advocacy organization. The JDRF-Aspect partnership supports Aspect's focus on developing a bioengineered tissue therapeutic for type 1 diabetes that will provide insulin independence and control of blood sugar without the need for chronic immune suppression. **Read More**

A Novel Antibiotic-Host Defense Peptide Conjugate with Multiple Talents

The Centre for Blood Research

Current therapeutic approaches based on antibiotics are under severe threat due to the increasing prevalence of antibiotic resistant bacteria, rendering existing therapies ineffective. In a recent study by Dr. Bob Hancock's *(pictured)* lab, Dr. Hashem Etayash and colleagues identified a novel vancomycin-innate defence regulator conjugate (V-IDR1018) as a promising candidate for the treatment of bacterial infections. **Read More**

How Does Translational Control Impact Neurodevelopment and Reproductive Potential?

Life Sciences Institute

Dr. Ethan Greenblatt *(pictured)* became an autism researcher via an interest in aging and fertility. His postdoctoral work, published in 2018 in *Science* and recognized with an innovation and excellence award from Carnegie University, focused on translation, the last step in gene expression in which RNA molecules gets translated into proteins. **Read More**

BC Cancer's Jiang Lab Renamed Following $1 Million Donation

BC Cancer

The BC Cancer Foundation has announced the renaming of Dr. Xiaoyan Jiang's *(pictured)* lab as the Collings Stevens Chronic Leukemia Research Laboratory in recognition of Allan Collings' and Hilary Stevens' significant contributions to BC Cancer. This is the largest healthcare gift to date for the Collings Stevens Family Foundation, and represents their deep belief that research is crucial to creating better cancer outcomes. **Read More**

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Upcoming Events in Vancouver

April 13 3:00 PM	**Discovery to Commercialization | Precision Drug Design: Unlocking a New Era in Therapeutics Discovery** Online
April 14 9:00 AM	**SFU Molecular Biology and Biochemistry Colloquium 2022** Burnaby Mountain Clubhouse
April 22 1:00 PM	**Exploring Careers in Industry** Paetzold Auditorium
April 27 12:00 PM	**How to Effectively Communicate Your Science to the General Public** Online
April 30 10:00 AM	**Soapbox Science Vancouver** Riley's Park Farmer's Market

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UBC

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