

Publications of the Week

An xQTL Map Integrates the Genetic Architecture of the Human Brain's Transcriptome and Epigenome

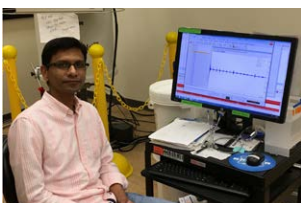
First Author: Bernard Ng (*pictured*) | Senior Author: Philip De Jager
Nature Neuroscience | Centre for Molecular Medicine and Therapeutics and UBC



The authors report a multi-omic resource generated by applying quantitative trait locus (xQTL) analyses to RNA sequence, DNA methylation and histone acetylation data from the dorsolateral prefrontal cortex of 411 older adults who have all three data types. They identified SNPs significantly associated with gene expression, DNA methylation and histone modification levels. [Profile](#) | [Abstract](#)

Rapid Synthesis of Lipid Nanoparticles Containing Hydrophobic Inorganic Nanoparticles

First Author: Jay Kulkarni | Senior Author: Souvik Biswas (*pictured*)
Nanoscale | UBC



A straightforward "bottom-up" synthesis is described for efficient entrapment of inorganic hydrophobic nanoparticles consisting of iron oxide, gold, or quantum dots within the hydrophobic core of lipid nanoparticles (LNPs). These LNPs consist of hydrophobic "core" lipids, such as triolein, surrounded by a monolayer of amphipathic "surface" lipids, such as phosphatidylcholine and polyethylene-glycol-lipid. [Profile](#) | [Abstract](#)

Death by HDAC Inhibition in Synovial Sarcoma Cells

First Author: Aimee Laporte (*left*) | Senior Author: Dr. Torsten Nielsen (*right*)
Molecular Cancer Therapeutics | UBC



Conventional cytotoxic therapies for synovial sarcoma provide limited benefit, and no drugs specifically targeting the causative SS18-SSX fusion oncoprotein are currently available. Histone deacetylase (HDAC) inhibition has been shown in previous studies to disrupt the synovial sarcoma oncoprotein complex, resulting in apoptosis. To understand the molecular effects of HDAC inhibition, RNA-Seq transcriptome analysis was undertaken in six human synovial sarcoma cell lines.

[Profile](#) | [Abstract](#)

Cryoelectron Microscopy Reconstructions of the *Pseudomonas aeruginosa* and *Neisseria gonorrhoeae* Type IV Pili at Sub-Nanometer Resolution

First Author: Fengbin Wang | Senior Author: Lisa Craig (*pictured*)
Structure | SFU



The authors report cryoelectron microscopy reconstructions of type IV pili (T4P) from two important human pathogens, *Pseudomonas aeruginosa* and *Neisseria gonorrhoeae*, at ~ 8 and 5 Å resolution, respectively. These structures provide a framework for understanding T4P assembly, function, and biophysical properties.

[Profile](#) | [Abstract](#)

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Awards

Nine UBC Researchers Awarded \$23.4 Million in CIHR Grants

The Ubyyssey



Nine UBC researchers, including Dr. Lindsey Richardson (*pictured*), have been awarded \$23.4 million in funding through foundation grants from the Canadian Institutes of Health Research (CIHR). Their individual amounts range from approximately \$500,000 to over \$5 million. With a duration of five to seven years, the grants are primarily used to support long-term health research projects, as well as knowledge translation and mentorship of students and trainees. [Read More](#)

BCCHRI Investigators Awarded NSERC Grants

BC Children's Hospital Research Institute



Six BC Children's Hospital Research Institute (BCCHRI) investigators were recently awarded Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery, Engage, and Research Tools and Instruments grants. Recipients include Dr. Christine Tipper (*pictured*), Dr. Todd Woodward, Dr. Wyeth Wasserman, Dr. Deborah Giaschi, Dr. Daniel Goldowitz, and Dr. Guy Dumont. Congratulations to all the winners! [Read More](#)

Allen Eaves of STEMCELL Technologies Wins Lifetime Achievement Award at the 2017 BC CEO Awards

Business in Vancouver



Six winners have been announced for the 2017 BC CEO Awards, including Dr. Allen Eaves of STEMCELL Technologies (*pictured*), who has been awarded the Lifetime Achievement Award. Winners will be honoured on November 8th at a gala dinner where each winner will share their leadership lessons to an audience of Vancouver's business community. [Read More](#)

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Local News

SFU Welcomes Tania Bubela as New Dean of Health Sciences

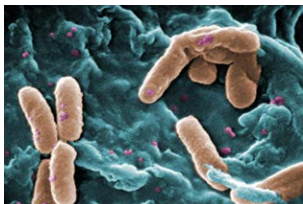
SFU Faculty of Health Sciences



SFU welcomes Dr. Tania Bubela as the new dean of health sciences. A unique combination of legal training, a PhD in biology, and expertise in genetics and molecular biology underpins Bubela's accomplished scholarship. She holds several multi-million-dollar grants focused on the ethical, legal and social implications of novel health biotechnologies and barriers to the effective translation of new precision medicine technologies. [Read More](#)

Sepsis Kills Thousands Every Year and B.C. Scientists Are Leading the Fight to Treat It

Global News



B.C. researchers are leading a new offensive against sepsis, one of the leading causes of death in Canada. Sepsis is a condition that's caused by an "overwhelming immune response to an infection," according to Statistics Canada. That can lead to "widespread inflammation, swelling and blood clotting," as well as organ damage. When not treated quickly, it can result in organ failure and death. [Read More](#)

B.C.'s Hot Springs Could Be Key Player in New Biomaterials

Genome BC



A team of researchers at UBC is working towards identifying new enzymes from B.C.'s biomass rich hot springs that naturally degrade lignin. These 'biocatalysts' could unlock the enormous economic potential of B.C.'s forest biomass if they can be harnessed to transform woody biomass in a manufacturing setting. The technologies arising from this project will have the potential to help B.C. capture a significant share of global markets. [Read More](#)

Sepset Biosciences Initiates Multicentre Human Clinical Study for Sepsis Treatment

The Centre for Drug Research and Development



Sepset Biosciences Inc. has announced the commencement of a multi-country, multicentre human clinical study that will validate and refine Sepset's proprietary gene signature to quickly and accurately identify patients with sepsis. A spin-out of The Centre for Drug Research and Development, Sepset Biosciences is developing a novel rapid diagnostic test that will enable healthcare professionals to provide early and targeted treatment of sepsis. [Read More](#)

Biosynthesis Technology Could Transform Cannabinoid Production

Network Newswire

InMed Pharmaceuticals, Inc., a Vancouver-based biopharmaceutical company, has developed a robust, high-yield biosynthesis process capable of enabling the



manufacture of all 90+ naturally-occurring cannabinoids found in the cannabis plant. This could be a game changing development for companies operating within this burgeoning sector. [Read More](#)

Interesting Articles

43% of Canadians Believe Scientific Findings Are ‘a Matter of Opinion’

Global News



Almost half of Canadians – 43 per cent – believe scientific findings are ‘a matter of opinion,’ a poll released by the Ontario Science Centre shows. At the same time, 81 per cent said that scientific findings were ‘objective facts,’ which means that over a third of the poll’s respondents, 38 per cent, believe both. The Ontario Science Centre surveyed about 1,500 Canadians about their perceptions of science in August. [Read More](#)

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Upcoming Events in Vancouver

- September 25
4:00 PM
Spirit of Society for Canadian Women in Science and Technology Fundraiser
Steamworks Brewery
- September 26
8:00 AM
LifeSciences BC Annual General Meeting
Royal Bank Tower, 36th floor
- September 27
8:00 AM
Current Issues in Life Sciences Patenting
Gowling WLG
- September 27
7:00 PM
Nerd Nite: Fractions And Ratios and Proportions, Oh My!
Telus World of Science
- September 28
6:00 PM
Building Biotech
Coast Coal Harbour Hotel

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Science Jobs in Vancouver

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STEMCELL Technologies

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STEMCELL Technologies

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Aquinox Pharmaceuticals

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