

Publications of the Week

Single-Cell Genomic Variation Induced by Mutational Processes in Cancer

First Author: Tyler Funnell, Clara O'Farrell, and Marc Williams | Senior Author: Samuil Aparicio (pictured)
 Nature | BC Cancer Research Centre, Michael Smith Genome Sciences Centre, and UBC



By applying scaled single-cell whole-genome sequencing to wild-type, TP53-deficient and TP53-deficient/BRCA1-deficient or TP53-deficient/BRCA2-deficient mammary epithelial cells (13,818 genomes), and to primary triple-negative breast cancer and high-grade serous ovarian cancer cells (22,057 genomes), the authors identify three distinct 'foreground' mutational patterns that are defined by cell-to-cell structural variation. **Abstract**

Allosteric Potentiation of GABA_A Receptor Single-Channel Conductance by Netrin-1 during Neuronal-Excitation-Induced Inhibitory Synaptic Homeostasis

First Author: Elizabeth Chan | Senior Author: Yu Tian Wang (pictured)
 Cell Reports | Cleveland Molecular Centre for Brain Health and UBC



The authors report the identification of netrin-1 as an endogenous allosteric modulator of A-type gamma-aminobutyric acid receptors (GABA_AR_A). Following increased neuronal excitability, netrin-1 is secreted and binds to the extracellular domains of GABA_AR subunits, thereby inducing homeostatic upscaling of GABA_AR-mediated synaptic efficacy and currents. **Abstract**

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Awards

Annika Schulz Wins Award in Biomaging North America's 2022 Contest

Life Sciences Institute



A fast learner with a flair for telling detail, Annika Schulz (pictured) took third place in the highly competitive Biomaging North America Imaging Contest. The affirmation is a welcome one for Schulz, who states that "capturing intricate details of biological processes in a predominantly non-invasive manner will certainly continue to be central to my work as a future clinician and scientist." **Read More**

Kilham Doctoral Scholarship Recipients Announced

UBC: Graduate and Postdoctoral Studies



Twenty-six UBC doctoral candidates have received Kilham Doctoral Scholarships for the 2022-2023 academic year. The Kilham Doctoral Scholarships are provided each year from the Izaak Walton Kilham Memorial Fund for Advanced Studies and are awarded to the top doctoral candidates in the annual Tri-Agency/Affiliated Fellowships competition. One recipient, Katherine Balile (pictured), is using protein trapping to target the replication stress response in cancer. **Read More**

Outstanding Achievement Award by a Postdoctoral Student: Dr. Sarai Racey

BC Children's Hospital Research Institute



Dr. Sarai Racey (pictured) has always been fascinated by the world of viruses and bacteria, their evolution, and how much infectious diseases have shaped human history and the world. She is thrilled to be the recipient of the Outstanding Achievement Award by a Postdoctoral Student in recognition of her exceptional accomplishments in research. **Read More**

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Local News

\$2 Million Gift Helps Seed New Ideas at SFU Science

SFU Science



An exceptional \$2 million gift from SFU Professors Emeriti Drs. Claire and William Cupples will help empower researchers in the Faculty of Science at SFU. The Cupples' generous commitment will support the creation of the Life Science Innovation Fund, which will provide an annual award to help researchers initiate proof-of-concept research projects. They will donate \$500,000 over the next five years, and leave the balance in their wills. **Read More**

The Invisible Lightness of Healing

Vancouver Coastal Health Research Institute



Benefits of exposing skin to ultraviolet light for people with atopic eczema far outweighs the risk, according to a study that will leave clinicians to rest easy, knowing that prescribed phototherapy does more good than harm. The study, published in the *Journal of the American Academy of Dermatology*, was authored by Dr. Teshneeta Ahad (pictured), a clinician-scientist within the Skin Research Program at Vancouver Coastal Health Research Institute. **Read More**

How Biobanks Can Advance Atherosclerosis Research

Heart Lung Institute (HLI)



The best way to fully understand how atherosclerosis develops and progresses is by studying plaques from human tissues. In a review published in *Frontiers in Cardiovascular Medicine*, Dr. Ying Wang (pictured), a Principal Investigator at HLI and Director of the Bruce McManus Cardiovascular Biobank, discussed how to leverage biobank resources for translational research. **Read More**

2023 Scholar and Research Trainee Competitions: Applications Now Open

Michael Smith Health Research BC



Michael Smith Health Research BC's Scholar and Research Trainee awards provide funding to support BC's next generation of health researchers in advancing science and improving the health of British Columbians. Applications are now open for their 2023 competitions. The Scholar awards help BC researchers build leading-edge health research programs, train the next generation of scientists, and make significant contributions to their field. **Read More**

HUSHing Repetitive-Like Elements Contributes to Normal Brain Development and Function

Life Sciences Institute



The human silencing hub (HUSH) complex might be involved in complex disorders affecting the brain and neurons. However, its mechanism of action remains unclear. Researchers from Dr. Josef Paninger's (pictured) lab at the Institute of Molecular Biotechnology of the Austrian Academy of Sciences have uncovered the *in vivo* targets and physiological functions of a component of the HUSH gene-silencing complex and one of its associated proteins. **Read More**

📅 Upcoming Events in Vancouver

- November 16
7:30 AM **Blakes Breakfast Speaking Series: Cell and Gene Therapy**
Terminal City Club
- November 17
9:00 AM **Vancouver Diabetes Research Day 2022**
BC Children's Hospital Research Institute
- November 22
7:45 AM **Earl W. Davie Symposium 2022**
UBC Robson Square
- November 23
11:00 AM **Position Your Health Technology for Success: How Early Health Technology Assessment Can Quantify the Potential Value and Uptake of Your Novel Technology**
Online
- November 24-26
7:30 AM **BC Cancer Summit**
Sheraton Vancouver Wall Centre & Online

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📄 STEMCELL Jobs in Vancouver

- Scientist, Immunology and Immunotherapies**
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- Senior Scientific Support Representative**
STEMCELL Technologies
- Associate Director/Director, Product Management Life Science Products**
STEMCELL Technologies
- Scientific Support Specialist, Immunology**
STEMCELL Technologies
- Senior Program Associate, Content Editing**
STEMCELL Technologies

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📄 Other Science Jobs in Vancouver

- Research Associate**
Canada's Michael Smith Genome Sciences Centre
- Director, Medicinal Chemistry**
Chiesek Therapeutics
- Project Coordinator**
ADCellera
- Senior Research Assistant**
UBC
- Research Associate II, Antibody Discovery and Engineering**
Zymeworks

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