

Publications of the Week

Phase Separation and Clustering of an ABC Transporter in *Mycobacterium tuberculosis*

First Author: Florian Heinkel | Senior Author: Jörg Gsponer (pictured)  
PNAS | Michael Smith Laboratories and UBC



The authors revealed that an ABC transporter from *Mycobacterium tuberculosis* (*Mtb*), which is important for its growth in mice, compartmentalizes in the bacterial membrane. They demonstrated that the cytoplasmic region of this transporter has an intrinsic ability to phase-separate into mesoscale assemblies, and that this process is controllable via the action of the signal-integrating serine/threonine protein kinases and phosphatase in *Mtb*. [Profile](#) | [Abstract](#)

Sex Differences in Maturation and Attrition Rate of Adult Born Neurons in the Hippocampus of Rats

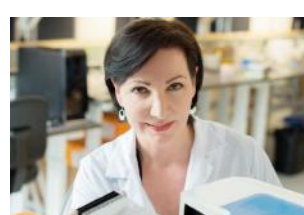
First Author: Shunya Yagi | Senior Author: Lissa Galea (pictured)  
bioRxiv | Djavad Mowafaghian Centre for Brain Health and UBC



Sex differences exist in the regulation of adult neurogenesis in the hippocampus in response to hormones and cognitive training. The authors investigated the trajectory and maturation rate of adult-born neurons in the dentate gyrus of male and female rats. Males had a greater reduction in neurogenesis between one and two weeks after mitosis, while females showed similar levels of neurogenesis throughout. [Abstract](#)

Cerebral Microvascular Injury: A Potentially Treatable Endophenotype of Traumatic Brain Injury-Induced Neurodegeneration

First Author: Asma Bashir | Senior Author: Cheryl Wellington (pictured)  
Neuron | Djavad Mowafaghian Centre for Brain Health



The authors describe evidence of microvascular dysfunction in human and animal traumatic brain injury (TBI), explore the role of vascular dysfunction in neurodegenerative disease, and discuss potential opportunities for vascular-directed therapies in ameliorating TBI-related neurodegeneration. They discuss the therapeutic potential of vascular-directed therapies in TBI and the use and limitations of preclinical models to explore these therapies. [Abstract](#)

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Awards

Five SFU-Led Research Projects Share \$840,000 from CFI's John R. Evans Leaders Fund

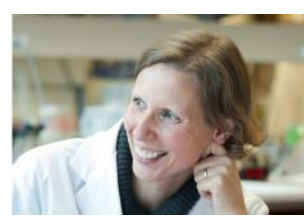
SFU News



Five SFU research projects—from personalized treatment for cancer patients led by Dr. Caterina Ramogida from the Department of Chemistry (pictured), to advancing our ability to predict and mitigate geological hazards, such as earthquakes—have been awarded \$840,000 from the Canadian Foundation for Innovation's (CFI) John R. Evans Leaders Fund. [Read More](#)

Six UBC-Led Projects Supported by Collaborative Health Research Projects Program

UBC Medicine



UBC researchers have received an investment of nearly \$2.4 million for six collaborative health research projects. Their projects leverage the latest in technology to improve patient diagnosis, treatment and quality of life. Dr. Megan Levings (pictured) is leading one of the funded projects, which involves multiple researchers from UBC's faculties of medicine and applied science, highlighting the strength of the newly founded School of Biomedical Engineering. [Read More](#)

Award Supports Moving Innovative Research into Practice

Vancouver Coastal Health Research Institute



Vancouver Coastal Health Research Institute contributes to visionary research with their annual Innovation and Translational Research Awards. This year's five recipients, including VGH stroke neurologist Dr. Thalia Field (pictured), are putting new knowledge into practice, implementing research outcomes and turning discoveries into commercial opportunities. [Read More](#)

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Local News

Breaking Down Barriers in Indigenous Education

Medium



The Pacific Institute for the Mathematical Sciences has been running the annual *Emerging Indigenous Scholars Summer School* Program since 2007. Internships are a key component of the program, giving students a unique experience working on real-world projects alongside prominent mentors in various science-related departments and institutes at UBC, including the Department of Biomedical Engineering and TRIUMF. [Read More](#)

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Interesting Articles

Coalition Launches 'Vote Science' Election Campaign

Canada's National Observer



A coalition of science groups is pushing for candidates in the upcoming federal election to back evidence-informed policy, more transparent communication of that decision-making and more funding for scientific research. The "Vote Science" campaign includes a toolkit to help Canadians engage with candidates directly, and questionnaires will be sent to political parties to identify their positions on the importance of science. [Read More](#)

Future of Life Sciences Research in Canada Seriously Threatened by Federal Government's New Patented Drug Pricing Regulations

Life Sciences Ontario



The federal government's new regulations for setting the maximum allowable price of patented medicines in Canada pose a serious threat to the future of life sciences across Canada. Regional life sciences organizations are gravely concerned that the new regulations will make Canada unattractive for research investments in the life sciences, resulting in a loss of jobs and economic activity but also of progress in medical research and access to new therapies by Canadian patients. [Read More](#)

Minister Bains Announces \$39 Million Investment in Jobs of the Future

Government of Canada



Innovative small-and medium-sized enterprises across Western Canada are creating jobs of the future. By supporting their success, the Government of Canada is investing in the future of middle-class Canadians and all those working hard to join them. The Honourable Navdeep Bains (pictured), Minister of Innovation, Science and Economic Development, has announced investments through the Business Scale Up and Productivity for 17 companies. [Read More](#)

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Upcoming Events in Vancouver

August 19 - 23 8:00 AM	<b>TRIUMF Science Week</b> TRIUMF
August 29 11:00 AM	<b>Career Spotlight: Research in Big Pharma</b> Centre for Heart Lung Innovation
August 29 4:00 PM	<b>D.R.I.N.K.S. (Discussions Relevant to Inspiring New Knowledge and Science)</b> Mahony and Sons, Stamps Landing
September 11 9:00 AM	<b>WordPress Training Workshop</b> UBC Life Sciences Centre
September 11 6:00 PM	<b>Open Science Network Open Lab</b> MakerLabs

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STEMCELL Jobs in Vancouver

**Product and Scientific Support Specialist, Stem Cell Biology**  
STEMCELL Technologies

**Scientist, Particle Chemistry**  
STEMCELL Technologies

**Regional Sales Manager, Northern China**  
STEMCELL Technologies

**Product Manager, Immunology**  
STEMCELL Technologies

**Senior Quality Assurance Specialist**  
STEMCELL Technologies

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Other Science Jobs in Vancouver

**Assistant Professor, Tenure Track**  
UBC Department of Chemistry

**Project Manager, CMC**  
Xenon

**Tissue Engineer, Therapeutic Cell Delivery**  
Aspect Biosystems

**Research Associate, Pharmacogenomics**  
UBC Faculty of Pharmaceutical Sciences

**Research Associate II, Pharmacokinetics**  
Zymeworks

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