

Publications of the Week

Modulating Cell State to Enhance Suspension Expansion of Human Pluripotent Stem Cells

First Author: Yonatan Lipsitz | Senior Author: Peter Zandstra (*pictured*)
PNAS | UBC



The application of human pluripotent stem cells (hPSC) in cell-based therapies requires overcoming yield limitations in large-scale hPSC manufacturing. The authors explored methods to convert hPSC to alternative states of pluripotency with advantageous bioprocessing properties, identifying a suspension-based small-molecule and cytokine combination that supports increased single-cell survival efficiency, faster growth rates, higher densities, and greater expansion than control hPSC cultures. [Abstract](#)

Basal-like Breast Cancers: From Pathology to Biology and Back Again

First Author: Barry Gusterson | Senior Author: Connie Eaves (*pictured*)
Stem Cell Reports | The Terry Fox Laboratory and the BC Cancer Agency



Elucidating the mechanisms responsible for the profiles of basal-like tumours is an active area of investigation. More refined molecular analysis of patients' samples and genetic strategies to produce breast cancers *de novo* from defined populations of normal mouse mammary cells have served as complementary approaches to identify relevant pathway alterations. However, both also have limitations. [Abstract](#)

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Awards

MSFHR Funds 17 Exceptional Early-Career Researchers in 2018 Scholar Competition

Michael Smith Foundation for Health Research (MSFHR)



Since 2001, the MSFHR Scholar Program has supported more than 400 early-career health researchers as they establish independent research careers, build leading health research programs and train the next generation of scientists to support the long-term success of the BC health research landscape. This year, 17 exceptional BC researchers, including Dr. Faranak Farzan (*pictured*) of SFU, join this distinguished group. [Read More](#)

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Local News

New Study Launches in St. Paul's Hospital Emergency Department

Centre for Health Evaluation and Outcome Sciences



An innovative new interventional clinical trial has launched in the St. Paul's Hospital emergency department. The Rapid Agitation Control with Ketamine in the Emergency Department Study (RACKED) will compare the effectiveness of intramuscular ketamine to a standard combination of intramuscular medications in patients presenting to the emergency department with agitation and violent behaviour. [Read More](#)

Feeding the Spore: A Molecular Structure of the SpoIIAG Channel from *Bacillus subtilis*

The Centre for Blood Research



Natalie Zeytuni (*pictured*) and colleagues in the Strynadka Lab at UBC's Centre for Blood Research have determined the structure of SpoIIAG, a key protein contributed by the mother cell of the sporulation channel from the Gram-positive bacterium, *Bacillus subtilis*. SpoIIAG is proposed to assemble within the inter-membrane space between the spore and mother cell membranes, where it forms a large ring-like structure. [Read More](#)

Dr. Suzanne Lewis Takes a Personalized Approach to Understanding Autism

BC Children's Hospital Research Institute



For BC Children's Hospital investigator Dr. Suzanne Lewis (*pictured*), the future of diagnosing and treating children with autism spectrum disorder (ASD) lies in the power of personalized medicine. In personalized medicine, patients receive therapies uniquely tailored to their biological and genetic makeup. It's an individualized approach that, according to Dr. Lewis, may be the key to advancing care for ASD, a complex condition that varies greatly from child to child. [Read More](#)

Listening to the Silent Pain of Endometriosis

Vancouver Coastal Health Research Institute



In collaboration with Dr. Michael Anglesio and Dr. David Huntsman, Dr. Paul Yong and colleagues have been hard at work building genomic profiles of the sub-types of endometriosis, with research grants and access to the state-of-the-art gynaecological tissue bank at Vancouver General Hospital. Yong says identifying genomic patterns in endometriosis could improve the surgical staging system for women with the disorder. [Read More](#)

A Decades-Long Science Experiment, with 300,000 Volunteers

UBC Faculty of Medicine



More than 300,000 Canadians volunteered for the Canadian Partnership for Tomorrow Project (CPTP), which is tracking the development of cancers and chronic diseases in the population over several decades to better understand the risk factors. Dr. Trevor Dummer (*pictured*), Associate Professor in the School of Population and Public Health at UBC, is co-National Scientific Director of the CPTP. [Read More](#)

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Interesting Articles

Getting the Ball Rolling on Basic Research

Research2Reality



Investments are a critical component in innovation. Without funding, it would be impossible to carry out the research that leads to the next breakthrough to grow our economy, and it's government-funded basic research that gets the ball rolling. Government-funded basic research is the foundation of a nation's knowledge-based economy. These early investments can give rise to huge economic opportunities even if only a few ideas make it to market. [Read More](#)

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Upcoming Events in Vancouver

- June 26
7:00 PM

The Truth About Everyday Plastics
Vancouver Aquarium
- June 28 - 30
8:00 AM

Canadian College of Neuropsychopharmacology Annual Meeting
UBC Robson Square
- June 28
3:00 PM

3 Minute Postdoc Slam
Michael Smith Laboratories
- July 8
1:00 PM

Coral Reefs Are Way Cool because...
Beaty Biodiversity Museum
- July 20
4:00 PM

D.R.I.N.K.S. (Discussions Relevant to Inspiring New Knowledge and Science)
Mahony and Sons, Stamps Landing

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