

Publications of the Week

## Structural Insights into Binding of STAC Proteins to Voltage-Gated Calcium Channels

First Author: Siobhan Wong King Yuen (*not pictured*) | Senior Author: Filip Van Petegem (*third from left*)  
PNAS | The Life Sciences Centre and UBC



Excitation-contraction (EC) coupling in skeletal muscle requires functional and mechanical coupling between L-type voltage-gated calcium channels and the ryanodine receptor. Recently, STAC3 was identified as an essential protein for EC coupling and is part of a group of three proteins that can bind and modulate L-type voltage-gated calcium channels. The authors report crystal structures of tandem-SH3 domains of different STAC isoforms up to 1.2-Å resolution. [Profile](#) | [Abstract](#)

## Mass Cytometric Analysis Reveals Viable Activated Caspase-3<sup>+</sup> Luminal Progenitors in the Normal Adult Human Mammary Gland

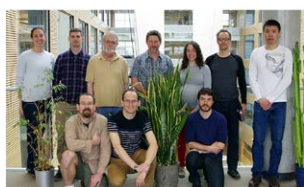
First Author: David Knapp | Senior Author: Connie Eaves (*pictured*)  
Cell Reports | The Terry Fox Laboratories and the BC Cancer Agency



The normal adult human female mammary gland is a bilayered structure consisting of an outer basal layer and two readily distinguished subsets of cells within the inner luminal layer. The authors present a validated methodology for undertaking large-scale multi-parameter mass cytometric analyses of these cell types at single-cell resolution. [Profile](#) | [Abstract](#)

## Microbiome-Driven Allergic Lung Inflammation Is Ameliorated by Short-Chain Fatty Acids

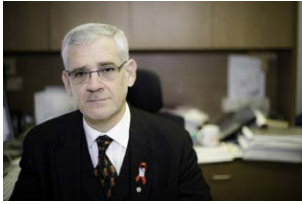
First Author: Allisa Cait (*back row, left*) | Senior Author: Bill Mohn (*back row, middle*)  
Mucosal Immunology | The Life Sciences Centre, Biomedical Research Centre, Michael Smith Laboratories, and UBC



Mice treated with vancomycin have an altered microbiome and metabolite profile, exhibit exacerbated T helper type 2 cell responses, and are more susceptible to allergic lung inflammation. The authors showed that dietary supplementation with short-chain fatty acids ameliorates this enhanced asthma susceptibility by modulating the activity of T cells and dendritic cells. [Profile](#) | [Abstract](#)

## Immediate Antiretroviral Therapy Decreases Mortality among Patients with High CD4 Counts in China: A Nationwide, Retrospective Cohort Study

First Author: Yan Zhao | Senior Author: Julio Montaner (*pictured*)  
Clinical Infectious Diseases | BC Centre for Excellence in HIV/AIDS and UBC



Clinical trials have demonstrated that immediate initiation of antiretroviral therapy (ART) reduces AIDS-related morbidity and mortality. The authors tested the hypothesis that initiating ART  $\leq 30$  days after human immunodeficiency virus (HIV) diagnosis would be associated with reduced mortality among people living with HIV with CD4 counts  $> 500$  cells/ $\mu\text{L}$ , and found a 63% reduction in overall mortality.

[Abstract](#)

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### Awards

## BioLytical Laboratories Named BC Export Award Finalist

BioLytical Laboratories



BioLytical Laboratories has been announced as a finalist of *Business in Vancouver's* 2017 BC Export Awards in the Emerging Exporter category. BioLytical is the developer and manufacturer of INSTI, an HIV test that provides results in one minute. The BC Export Awards are the province's most prestigious awards paying tribute to the success and innovative approaches of B.C. export companies.

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### Local News

## Can a Simple Smartphone App Stop Pneumonia in Its Tracks?

BC Children's Hospital Research Institute



Despite pneumonia being easy to prevent and treat with antibiotics, oxygen, and fluids, many children in remote areas and developing countries die from lack of treatment. BC Children's Hospital and UBC researchers are working to change that with an easy-to-use, low-cost smartphone tool called *Pocket Doc for Pneumonia*, which will help health care workers in remote areas accurately diagnose pneumonia and provide life-saving treatments. [Read More](#)

## Peterson's Lab Inc. Entered Strategic Cooperation with Shanghai Corday Biotech Ltd.

Peterson's Lab Inc. via PR Newswire

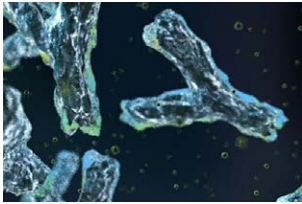
Peterson's Lab Inc., a developer of bioactive recombinant protein, announced that the company entered into a strategic cooperation with Shanghai Corday Biotech Ltd. under which Shanghai Corday will assume responsibility, on an exclusive basis, for Peterson's Lab's brand promotion and branded prestige skin care



products to consumers in China, Japan and South Korea. [Read More](#)

## Zymeworks Announces License Agreement with Johnson & Johnson Innovation to Develop and Commercialize Next Generation Bispecific Antibody Therapeutics

Zymeworks



Zymeworks Inc., a clinical-stage biopharmaceutical company dedicated to the discovery, development and commercialization of next-generation multifunctional biotherapeutics, has announced that it has executed a licensing agreement with one of the Janssen Pharmaceutical Companies of Johnson & Johnson to research, develop, and commercialize up to six bispecific antibodies directed to Janssen therapeutic targets using Zymeworks' Azymetric™ and EFECT™ platforms.

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## DelMar Pharmaceuticals Appoints Saïd Zarrabian as Interim Chief Executive Officer

DelMar Pharmaceuticals



DelMar Pharmaceuticals, Inc., a biopharmaceutical company focused on the development of new cancer therapies, has announced the appointment of Mr. Saïd Zarrabian as interim Chief Executive Officer. Jeffrey Bacha, cofounder of DelMar, will continue in his senior management role as President and in the newly created position of Chief Operating Officer. [Read More](#)

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### Interesting Articles

## Connecting Canada's Research and Innovation Agendas

The Vancouver Sun



Dr. Alejandro Adem, the CEO and scientific director of Mitacs, a national, not-for-profit organization that funds research and training at universities to foster innovation across all sectors, as well as a Canada Research Chair at UBC, discusses the importance of connecting Canada's research and innovation agendas, and offers advice to the Canadian government, including the new federal science advisor, on how to bridge this gap. [Read More](#)

## End Canada's Criminal Ban on Contentious CRISPR Gene-Editing Research, Major Science Group Urges



Canada is among the few countries in the world where working with the CRISPR gene-editing system on cells whose DNA can be passed down to future generations is a criminal offence, with penalties of up to ten years in jail. One major science group announced it wants that changed, calling on the federal government to lift the prohibition and allow researchers to alter the genome of inheritable “germ” cells and embryos. [Read More](#)

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### **Upcoming Events in Vancouver**

- November 22**  
7:00 PM     **Nerd Nite**  
The Fox Cabaret
- November 22**  
8:00 PM     **Collider Cafe: Art. Science. Interwoven.**  
Cafe Deux Soleils
- November 23**  
6:30 PM     **Genome BC: Does Your DNA Hold the Key to Preventing Adverse Drug Reactions?**  
UBC Robson Square
- November 24**  
4:00 PM     **Discussions Relevant to Inspiring New Knowledge and Science**  
Mahony and Sons
- November 25**  
1:00 PM     **20 Years of Brain Health: an Anniversary Symposium**  
Robert H. Lee Alumni Centre

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### **Science Jobs in Vancouver**

- Senior Manager, Primary Cells**  
STEMCELL Technologies
- Research Technologist**  
STEMCELL Technologies
- Scientist, Modelling & Simulations**  
Zymeworks
- Postdoctoral Fellow**  
The Centre for Drug Research and Development
- Laboratory Coordinator**  
Genome Sciences Centre

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