Unravelling the mechanism behind beta-glucans metabolism by Bateroidetes
November 6, 2017
The great quantity of microbes that call our large intestine home have far-reaching influences on our overall health. Dietary fiber, known to scientists as complex polysaccharides, drive gut homeostasis by providing a food source to the intestinal microbiome. Prof. Harry Brumer established an international collaboration with Prof. Eric Martens, at the University of Michigan, and Prof. Gideon Davies, at the University of York, to unravel the intricate strategy adopted by the gut symbiont B. ovatus and other Bacteroidetes species to utilize dietary fiber. Together, they combined their expertise...
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Creature no larger than a grain of rice colours BC forests a deathly red
October 30, 2017
Aided by climate change, the Mountain Pine Beetle has already spread into BC's forests and threatens forests in eastern Canada. A quiet battle is being fought in the forests of western North America, and millions of pine trees are dying in its wake. Shades of green that once permeated the flora of British Columbia's forests are disappearing. The insides of lodgepole pines are turning blue with a fungus — it is aptly named the blue stain fungus. The trees' needles are shifting to shades of dull brownish-red. Aerial surveys have observed rolling hills of northwestern pine forests stretching...
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How do your allergies develop?
October 10, 2017
Lisa A. Reynolds and B. Brett Finlay - both from the Michael Smith Laboratories at the University of British Columbia in Vancouver, Canada - explain in an article published in the journal Nature Reviews Immunology how the immune system reacts to foreign substances. Our immune cells are always on the lookout for dangers, such as bacteria, viruses, parasites, and toxic substances. When these molecules enter the body - through the lungs, mouth, intestine, or skin - the immune system can react by labeling them as either harmless or dangerous. Most of the time, our bodies accept or...
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Dr. B. Brett Finlay among the new 2018 laureates inducted into the Canadian Medical Hall of Fame
October 3, 2017
Dr. Bryce Taylor, Chair of the Canadian Medical Hall of Fame (CMHF) announced today that Dr. B. Brett Finlay was among six new laureates who have been selected for induction into the Canadian Medical Hall of Fame. Finlay is a Professor in the Michael Smith Laboratories, with joint appointments in the Department of Microbiology & Immunology, and the Department of Biochemistry and Molecular Biology. He is internationally recognized in the field of host-microbe interactions and a major leader in efforts to improve Canadian health. Finlay's research interests are focused on understanding how...
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Why Dirt and Microbes Could Be Good for Us – Finlay speaks at The Royal Institution
September 13, 2017
Dr. Finlay speaks at The Royal Institution, an organisation devoted to scientific education and research, based in London England. Let Them Eat Dirt: Raising our kids with their microbes Q&A period
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Genome BC: Cannabis traits unlocked for better regulation
August 16, 2017
Medical cannabis production is one of the fastest growing agri-biotech industries in BC, a province which is home to over 20% of Canada's licensed producers of medical cannabis. The federal Cannabis Act, which is currently before parliament, will legalize the non-medical use of cannabis and further expand cannabis production and distribution into a regulated, multibillion-dollar industry. However, a major issue for the industry is access to well-defined cannabis varieties, with supporting scientific information on their select traits. "Hundreds of different small molecules contribute to the...
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Single step emulsification for mammalian cell encapsulation in alginate beads using a simple stirred vessel
July 10, 2017
Dr. Corinne Hoesli, a former PhD in the research lab of Dr. James Piret, devised an emulsion-based method to encapsulate mammalian cells in 0.5 -10% alginate beads using a simple stirred vessel. Their protocol is described in a recent publication in the Journal of Visualized Experiments (JoVE): “Mammalian cell encapsulation in alginate beads using a simple stirred vessel”. Dr. Corinne Hoesli is now an Assistant Professor at McGill. Find the protocol and video here. Cell encapsulation has been widely studied to protect transplanted cells from immune rejection or to provide support for...

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- The Michael Smith Laboratories welcomes a new Director
  July 4, 2017

The Michael Smith Laboratories is delighted to announce the newly appointed Professor Peter Zandstra as its Director. Zandstra is a pioneer in the field of stem cell bioengineering, applying engineering principles to stem cell biology. His research group aims to understand the complex communication networks between stem cells and their progeny and how they affect self-renewal and differentiation. Zandstra’s research has led to the design of novel technologies capable of controlling cell fate and improving growth and differentiation of stem cells. This work has direct application to the fields...

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- MSL celebrates faculty promotions for Drs. Joanne Fox, Christian Kastrup and Nobu Tokuriki
  June 29, 2017

The Michael Smith Laboratories celebrates the successful promotions of three MSL Faculty members: Drs. Joanne Fox, Christian Kastrup, and Nobuhiko Tokuriki. These promotions are the result of rigorous reviews both internal and external to UBC, and are bestowed in recognition of the outstanding academic contributions and achievements of these faculty members. Dr. Joanne Fox Professor of Teaching – Michael Smith Laboratories and Microbiology & Immunology. Dr. Fox completed her PhD in Genetics from UBC, and was then appointed Head of support and training at the UBC Bioinformatics Centre. She...

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- Yes, Getting Dirty Can Act as a Natural Antidepressant—Here’s Why
  June 29, 2017

Yes, you read that right: Getting dirty may reduce your risk of depression. But before you start rolling in the mud or even worse, eating it, let’s take a step back. The hygiene hypothesis has been bandied about for ages. In a nutshell, it suggests that we are too clean, which is why we get sick. Early childhood is the time when we should be exposed to all sorts of germs that will educate our immune system. When this doesn’t occur (because of our overly sanitized environments), the immune system doesn’t learn to recognize friend from foe and then tends to overreact to perceived threats, upping...

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