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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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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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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Celebrating Prof. Jim Kronstad’s tenure as the MSL Director (2008-2017)
June 2, 2017
Prof. Jim Kronstad was honoured on Thursday May 4th in a celebration commemorating his 9 years as the MSL Director. In the words of his predecessor, Prof. Phil Hieter, the event was for a man “with a lot of honour and integrity”. These heartfelt sentiments resonated throughout the afternoon as Prof. Kronstad received praise for his creativity, wisdom, strength, hard-working nature and leadership as Director of the MSL. Each of these were reflected in the presentation of a traditional First Nation talking stick, carved by artist Jim Yelton of the Coastal Salish Nation. The talking stick bared...

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- **Use of a microfluidic chip for whole genome library preparations of single-cell DNA without preamplification**
  
  June 1, 2017

  Hans Zahn, a PhD student in the research lab of Dr. Carl Hansen, and Adi Steif, a PhD student in the BC Cancer Agency, are the joint first authors on a recent publication in Nature Methods: “Scalable whole-genome single-cell library preparation without preamplification”. The protocol describes a direct library preparation (DLP) method for downstream sequencing that is robust, scalable and reliable. The described method uses nanoliter-volume transposition reactions for single-cell whole genome library preparation without preamplification. Tumors consist of heterogeneous cell populations...

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- **Innovative researcher honoured as Fellow of the National Academy of Inventors**
  
  May 2, 2017

  Dr. Terrance (Terry) Snutch was recently inducted as a Fellow in the National Academy of Inventors, receiving the highest professional distinction accorded to academic inventors in recognition of his work as a “luminary of innovation and invention.” Dr. Snutch, Director of Translational Neuroscience at the Djavad Mowafaghian Centre for Brain Health and Canada Research Chair in Biotechnology and Genomics – Neurobiology, holds 28 US patents and 87 foreign patents licensed to biotech and pharma companies and has made pioneering contributions to molecular neurobiology.”In addition to Dr. Snutch’s...

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- **Dr. Harry Brumer receives prestigious UBC Killam Research Prize**
  
  April 17, 2017

  Prof Harry Brumer, Department of Chemistry and Michael Smith Laboratories, was recently awarded a prestigious UBC Killam Research Prize for his outstanding work on carbohydrate enzymology.Prof. Brumer was recruited to UBC in 2011 from the Royal Institute of Technology, Stockholm, Sweden. Since then his lab has grown to a team of 20, with significant funding support from CIHR, NSERC, Engage/Engage Plus, Strategic Network, NCE and Genome Canada. Throughout his career, Prof. Brumer has maintained an interest in the intersection of synthetic chemistry and biological problems. Currently, the...

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- **Leonard Foster awarded the 2017 Genome BC Award for Scientific Excellence**
  
  April 28, 2017

  Dr. Leonard Foster, Professor in the Michael Smith Laboratories and Interim Head of the Department of Biochemistry and Molecular Biology, has been named the recipient of the 2017 Genome BC Award for Scientific Excellence. The formal presentation of this award took place during the Annual LifeSciences BC Awards ceremony.This award honours an individual, group or company in B.C. whose work has had a significant impact on advancing the fields of genomics, proteomics, bioinformatics or systems biology.Dr. Foster’s research is focused on quantitative proteomics using LC-ESI-MS to study...

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