

Publications of the Week

On the Formation and Morphology of Lipid Nanoparticles Containing Ionizable Cationic Lipids and siRNA

First Author: Jayesh Kulkarni | Senior Author: Pieter Cullis (*pictured*)
ACS Nano | Integrated Nanotherapeutics, SFU, and UBC



Lipid nanoparticles (LNPs) containing short interfering RNA (LNP-siRNA) and optimized ionizable cationic lipids are now clinically validated systems for silencing disease-causing genes in hepatocytes following intravenous administration. However, the mechanism of formation and certain structural features of LNP-siRNA remain obscure. [Profile](#) | [Abstract](#)

Engineering Therapeutic T Cells to Suppress Alloimmune Responses Using TCRs, CARs or BARs

First Author: Antoine Sicard (*pictured*) | Senior Author: David Scott
American Journal of Transplantation | BC Children's Hospital Research Institute and UBC



Adoptive cell therapy with therapeutic T cells has become one of the most promising strategies to stimulate or suppress immune responses. Using virus-mediated genetic manipulation, the antigen specificity of T cells can now be precisely redirected. Tailored specificity has not only overcome technical limitations and safety concerns but also considerably broadened the spectrum of therapeutic applications. [Abstract](#)

Microglia's Heretical Self-Renewal

First Author: Fabio Rossi (*pictured*) | Senior Author: Coral Lewis
Nature Neuroscience | The Biomedical Research Centre, UBC, and STEMCELL Technologies



The dogma that self-renewal is a defining characteristic of stem cells, which stemmed from studies of the hematopoietic hierarchy and quickly spread by analogy to all tissues, has been shattered by scientists pointing a microscope at the hematopoietic system itself. A microglial cell is clearly fully differentiated, and yet it self-renews. [Abstract](#)

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UBC Pharmaceutical Sciences Assistant Professor Mohsen Sadatsafavi to Receive New Investigator Research Award

UBC Faculty of Pharmaceutical Sciences



UBC Faculty of Pharmaceutical Sciences Assistant Professor Mohsen Sadatsafavi (*pictured*) will receive the 2018 Association of Faculties of Pharmacy of Canada New Investigator Research Award at an awards banquet to be held in June. Dr. Sadatsafavi is an epidemiologist and health outcomes scientist with UBC's Collaboration for Outcomes Research and Evaluation, where he leads the Respiratory Evaluation Sciences program. [Read More](#)

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Local News

New Glaucoma Treatment Could Ease Symptoms While You Sleep

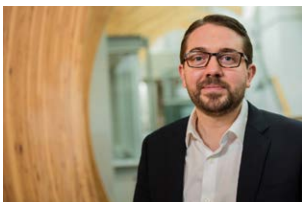
UBC News



Eye drops developed by UBC researchers could one day treat glaucoma while you sleep – helping to heal a condition that is one of the leading causes of blindness around the world. The UBC team developed a hydrogel filled with thousands of nanoparticles containing cannabigerolic acid, a cannabis compound that has shown promise in relieving glaucoma symptoms. [Read More](#)

Look! Down in the Petri Dish! It's a Superplatelet!

UBC Faculty of Medicine



Blood platelets have one main job: Stop bleeding by forming clots. Sometimes, however, these tiny cell fragments fail when they are needed most – when a person is experiencing massive bleeding, usually due to trauma. Dr. Christian Kastруп (*pictured*) at UBC has developed a potential strategy for endowing platelets with extra powers so they can rise to the occasion and continue coagulation. [Read More](#)

Dr. Paul Zehr Explores Superhero Science in “Chasing Captain America”

International Collaboration on Repair Discoveries (ICORD)



Professor, author, comic book enthusiast and ICORD researcher Dr. Paul Zehr (*pictured*) has created a cottage industry using superheroes to share science. Now, after prior books on Batman, Iron Man, and Batgirl, he uses Marvel's Captain America — an ordinary man turned into an extraordinary hero, thanks to a military science experiment — as an entry-point to this brave new world of science, no longer limited to the realm of fiction. [Read More](#)

Renaissance BioScience Partners with Mitacs for \$1.44-Million Project to

Advance Its Next-Generation Yeast Development Platform, Tools and Methods

Renaissance BioScience via Globe Newswire



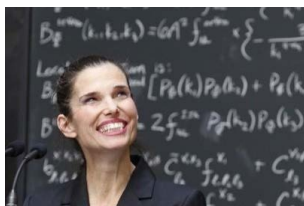
Renaissance BioScience Corp. (RBSC) has announced a new partnership with Mitacs for a multi-year, \$1.44-million research and development project. Mitacs, a national not-for-profit research and training organization, will provide matching funding to the RBSC project to support the development of next-generation, systematic tools and methods for expanding, screening and selecting biodiversity in non-GMO industrial yeast strains. [Read More](#)

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Interesting Articles

'Absolutely Critical' that Scientists Can Speak Freely, Federal Minister Says in TED Talk

CBC News



Canada's Science Minister, Kirsty Duncan, used her TED talk in Vancouver to highlight her government's record on science and blasted those who would silence researchers. The 2018 TED Conference is focused on scientific progress, the issues that come with progress and the discomfort some feel about it. Duncan spoke during the first day of the conference, which is themed, "*Doom. Gloom. Outrage. Uproar.*" [Read More](#)

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Upcoming Events in Vancouver

- | | |
|----------------------|--|
| April 24
7:30 PM | Cafe Scientifique with Dr. James McCormack
Yagger's Downtown |
| April 25
7:00 PM | Nerd Nite
Fox Cabaret |
| April 26
10:00 AM | STEMCELL Technologies Open House (Registration Required)
STEMCELL Technologies |
| April 30
5:00 PM | Discover Your Passion - Medicine
Djavad Mowafaghian Centre for Brain Health |
| May 3
8:00 AM | Nanolytica 2018
Leslie & Gordon Diamond Family Auditorium, SFU |

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Science Jobs in Vancouver

Research Technologist (Part-Time Weekends)

STEMCELL Technologies

Quality Assurance Associate

STEMCELL Technologies

Research Coordinator

Foundry, Providence Health Care Research Institute

Research Toxicologist

Xenon Pharmaceuticals

Post Doctoral Fellow, Formulations

The Centre for Drug Research and Development

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