

Publications of the Week

**Optimized Photoactivatable Lipid Nanoparticles Enable Red Light Triggered Drug Release**

First Author: Nisha Chander (pictured, top right) | Senior Authors: Pieter Cullis (bottom left), Dirk Trauner (bottom right), and Dominik Witzigmann (top center)  
Small | UBC and NanoMedicines Innovation Network



Encapsulation of small molecule drugs in long-circulating lipid nanoparticles (LNPs) can reduce toxic side effects and enhance accumulation at tumor sites. A fundamental problem, however, is the slow release of encapsulated drugs from these liposomal systems. The authors demonstrated that incorporation of ultraviolet or red-light photoswitchable-phosphatidylcholine analogs in conventional LNPs generates photoactivatable LNPs. [Profile](#) | [Abstract](#)

**Parallel Functional Reduction in the Mitochondria of Apicomplexan Parasites**

First Author: Varsha Mathur (pictured) | Senior Author: Patrick Keeling  
Current Biology | UBC



Gregarines are an early-diverging lineage of apicomplexan parasites that hold many clues into the origin and evolution of the group, a remarkable transition from free-living phototrophic algae into obligate parasites of animals. Using single-cell transcriptomics targeting understudied lineages to complement available sequencing data, the authors characterized the mitochondrial metabolic repertoire across the tree of apicomplexans. [Abstract](#)

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Awards

**Canadian Cancer Society Honours Dr. Nadine Caron for Groundbreaking Achievements and Visionary Leadership in Cancer Research**

UBC Faculty of Medicine



Dr. Nadine Caron (pictured), Co-Director of UBC's Centre for Excellence in Indigenous Health at the Faculty of Medicine, has been awarded the Canadian Cancer Society's inaugural Inclusive Excellence Prize. She is one of seven prominent Canadian researchers recognized by the Canadian Cancer Society (CCS) with a 2020 CCS Award for Excellence for bold leadership and trailblazing contributions to drive progress in multiple areas of cancer research. [Read More](#)

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Local News

**Single Cell 'Omics Will Offer Big Insights**

Genome BC



Genome BC has funded four cutting-edge human health projects in the field of single-cell 'omics. This field of study includes disciplines across the 'omics space from genomics to metabolomics, as well as the technologies enabling these single-cell 'omics approaches. "Genome BC is investing in BC-based researchers who are using transformative technologies which promise to have a high impact on health care," says Dr. Federica Di Palma (pictured). [Read More](#)

**Podcast Diabetes: From Beta Cells to Bicycles: Dr. Sarah Gray**

BC Diabetes Research Network



Podcast host Krista Lamb is joined by BC Diabetes Research Network researcher Dr. Sarah Gray (pictured). Dr. Gray is an Associate Professor in the Northern Medical Program at the University of Northern British Columbia and an Affiliate Associate Professor in the Department of Cellular & Physiological Sciences at UBC. Her work examines the biological mechanisms of metabolism as it relates to obesity and type 2 diabetes. [Read More](#)

**Canadian Researchers Lead Development and Testing of Promising Treatment for COVID-19 Variants**

UBC News



A new anti-viral drug could improve COVID-19 outcomes and survival rates — and is highly effective against multiple variants — according to a new study led by researchers at the University of British Columbia and Université de Sherbrooke. "In this study, we report a novel and highly potent small-molecule drug called N-0385, that acts as the most effective entry inhibitor to date," says Dr. François Jean (pictured). [Read More](#)

**New Theory May Revolutionize Treatment of Endometriosis**

SFU News



A new theory developed by researchers at Simon Fraser University suggests a previously overlooked hormone — testosterone — has a critical role in the development of endometriosis. "Low testosterone in early development is the strongest known correlate of endometriosis, and its effects can explain the majority of endometriosis symptoms," says SFU Biological Sciences Professor Dr. Bernard Crespi (pictured). [Read More](#)

**UBC Researchers Find How Plants Can Actively Recruit Beneficial Microbes to Help Protect Them against Future Pathogen Attack**

UBC Microbiology & Immunology



Upon sensing pathogens, plants can actively recruit beneficial microbes to help protect them against future pathogen attacks. New research from Dr. Yi Song (pictured) and other members of the Haney lab at UBC, with contributions from scientists at Duke University, is the first clear example of how recruiting beneficial microbes in plants is actually done. [Read More](#)

**BC's Life Sciences Sector Aims for Key Policy Changes in Push for Growth**

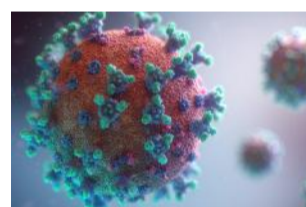
Business in Vancouver



A new report commissioned by the Greater Vancouver Board of Trade outlines both the economic benefits of the life sciences sector as well as challenges it's facing. "Given the momentum experienced due to COVID-19 response initiatives, continued rapid growth is anticipated, and this sector is tracking to become increasingly important to the BC and Canadian economy," the report states. [Read More](#)

**BC's 'World-Class' Biotech Sector Plays Key Role in Developing COVID-19 Treatments and Vaccines**

Vancouver Sun



BC's biotech is punching above its weight, with key vaccine developments and helping develop treatments to ease the suffering of those infected. By early 2020, concern was mounting about a new, deadly coronavirus first detected in Wuhan, China. The World Health Organization had declared the coronavirus outbreak a global health emergency just days before. There had been more than 400 deaths and more than 20,000 cases, most of those in China. [Read More](#)

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**Upcoming Events in Vancouver**

May 18 8:00 AM	<b>Norman Bethune Symposium</b> Online
May 18 1:00 PM	<b>UBC Experimental Medicine Career and Research Expo</b> Online
May 19 9:00 AM	<b>BCRegMed 5<sup>th</sup> Annual Symposium</b> Online
May 20 1:00 PM	<b>Five Days in May - The Latest Developments in COVID-19 Vaccine Research</b> Online
May 26 12:00 PM	<b>TI Methods Speaker Series: What's Counted and What Counts: Metrics in Scholarly Publishing</b> Online

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