

Publications of the Week

**Granzyme B Inhibition Reduces Disease Severity in Autoimmune Blistering Diseases**

First Author: Sho Hiroyasu | Senior Author: David Granville (pictured)  
Nature Communications | International Collaboration on Repair Discoveries, Vancouver Coastal Health Research Institute, and UBC



Pemphigoid diseases refer to a group of severe autoimmune skin blistering diseases characterized by subepidermal blistering and loss of dermal-epidermal adhesion induced by autoantibody and immune cell infiltrate at the dermal-epidermal junction and upper dermis. The authors explore the role of the immune cell-secreted serine protease, granzyme B, in pemphigoid disease pathogenesis using three independent murine models. [Abstract](#)

**Engineering Plant Disease Resistance against Biotrophic Pathogens**

First Author: Xuetu Liu | Senior Author: Xin Li (pictured)  
Current Opinion in Plant Biology | Michael Smith Laboratories and UBC



The authors review the engineering of disease resistance against biotrophic pathogens using various components of the plant immune system. Recent breakthroughs in immune receptors signaling and systemic acquired resistance, along with innovations in precise gene editing methods, provide exciting new opportunities for the development of improved environmentally friendly crop varieties that are disease resistant and high-yield. [Abstract](#)

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Awards

**Janice Eng Appointed to UBC's Highest Faculty Honour**

Djavad Mowafaghian Centre for Brain Health (DMCBH)



Dr. Janice Eng (pictured), a Professor in the Faculty of Medicine's department of physical therapy and DMCBH associate member, has been awarded with UBC's highest honour conferred on a faculty member. A University Killam Professorship recognizes exceptional teachers and researchers who are leaders in their fields, and who have received international recognition for their talents and achievements. [Read More](#)

**MSFHR Funds 19 Innovators to Advance Made-in-BC Health Research and Discoveries for Improved Patient Care**

Michael Smith Foundation for Health Research (MSFHR)



The Innovation to Commercialization Program supports researchers to advance their discoveries towards practical application, resulting in products or technologies that improve health outcomes and enrich BC's health innovation ecosystem. One of the recipients, Dr. David Vocadlo (pictured), will use the funding to support his research on using fucosylation inhibitors to produce fructose-deficient antibodies. [Read More](#)

**UBC Biologist Wins NAS Gilbert Morgan Smith Medal**

UBC Science



UBC biologist Dr. Patrick Keeling (pictured) will receive the 2021 Gilbert Morgan Smith Medal. The medal, awarded every three years by the National Academy of Sciences (NAS), recognizes excellence in research on marine or freshwater algae. Keeling is a leading expert in the study of single-cell organisms known as protists and in algal diversity. His research has given insights into the role of endosymbiosis in algal evolution. [Read More](#)

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Local News

**Rideout Lab Discovers the Molecular Mechanism of a Sex Difference in Food-Related Changes to Body Size**

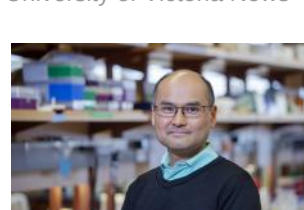
UBC Life Sciences Institute



A new study by the Rideout lab at UBC has identified the molecular basis for differences in how much male and female body size changes in response to food availability. Using strains of flies carrying mutations that blunted how much females could adjust the insulin pathway, the lab found that the females from these strains were also less able to adjust their body size when their diet changed. [Read More](#)

**Food: Friend or Foe in Immunity's Fight against Ovarian Cancer**

University of Victoria News



Inside the tiny micro-environment of a tumour, cancer cells and immune cells are in a battle for nutrients. University of Victoria and BC Cancer researchers, led by Dr. Julian Lum (pictured), have now discovered how to identify the cancer cell byproducts — or metabolites — that effectively cripple the body's T cells, the type of immune cell critical for killing cancer. [Read More](#)

**Just Keep Swarming**

UBC Centre for Blood Research



The Hancock lab at UBC has published a study detailing the multidrug adaptive antibiotic resistance of *P. aeruginosa* swarming cells. Notably, the researchers confirmed that swarming *P. aeruginosa* cells are capable of acquiring increased resistance to multiple antibiotics prior to previous exposure. They explored the genetic mechanisms behind this adaptive resistance, identifying key changes that occur in swarming cells at the transcriptome level. [Read More](#)

**Celebrating 75 Years of Leadership in Pharmacy and the Pharmaceutical Sciences**

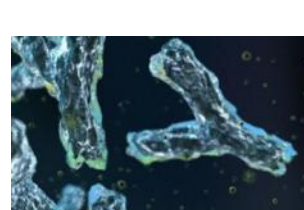
UBC Faculty of Pharmaceutical Sciences



This year marks 75 years since the UBC Faculty of Pharmaceutical Sciences was established as the sixth school of pharmacy in Canada under the leadership of Dean Esli Woods. To commemorate the Faculty's 75<sup>th</sup> anniversary, a number of initiatives will be implemented throughout 2021, including a webinar series featuring UBC Pharmaceutical Sciences alumni. [Read More](#)

**AbCellera, Admare Deliver Capital and R&D Boost for B.C. Cancer Therapy Startup Abdera**

Business in Vancouver



Precision oncology company Abdera Therapeutics Inc. officially launched this month with \$6 million in seed financing for its efforts to use targeted radiation treatments against cancers. Founding partner AbCellera, which had a blockbuster initial public offering last month, will receive equity and research payments as it helps the startup use its antibody discovery platform to develop antibody-based targeted alpha therapies. [Read More](#)

**T-Cells Could Be Used as COVID-19 Immunity Tracking Tools**

Vancouver Coastal Health Research Institute



While a vaccine is the primary medical intervention to prevent the spread of the SARS-CoV-2 virus, tracking and evaluating its effectiveness will be equally important. T-cells could answer important questions about both infection and immunity rates, along with the longevity of immunity protection. Dr. Ted Steiner (pictured) is co-leading a study into T-cell immunity against COVID-19 with immunologist Dr. Megan Levings. [Read More](#)

**Clearing the Path to Pain-Free**

Vancouver Coastal Health Research Institute



Injuries of all kinds set off reactions within the body that can both help and hinder recovery. When it comes to damaged nerves, the sooner the healing process gets underway the better in terms of avoiding acute and potentially chronic pain caused by nerve damage, as found in carpal tunnel or sciatica. Dr. Matt Ramer has published a study that looked at preventing some of the devastating consequences of nerve damage. [Read More](#)

**B.C.'s Critical Role in Building a Healthy Recovery**

Vancouver Sun



B.C. is home to a vibrant and world-renowned life-sciences community. From groundbreaking cancer care to COVID-19, the breadth of treatments and technologies being advanced by B.C.'s homegrown researchers, academic partners and entrepreneurs is staggering. The sector offers tremendous potential for exponential growth and foundational support for B.C.'s economic recovery, and will continue to deliver innovation, attract investment and create high-paying jobs under the right conditions. [Read More](#)

**Medical Psychedelic Mushroom Industry Sprouting**

Business in Vancouver



There are several hundred studies being conducted around the world investigating the medical benefits of magic mushrooms. The studies are proving promising, so much so that Data Bridge Market Research forecasts that the psychedelic therapeutics sector will grow to become a US\$6.8 billion industry in North America by 2027. With billions of dollars on the line, Vancouver-based Havn Life Sciences thinks that B.C. is uniquely positioned to benefit from this emerging industry. [Read More](#)

**Will Earth's 'Rarest Drug' Revolutionize Cancer Treatment?**

Research2Realty



The radioisotope actinium-225 is said to be the "rarest drug on Earth." Connect it to a cancer-targeting molecule, and it has shown incredible potential as a precise treatment for terminal late-stage prostate cancer. But there's only enough of it to treat around 1,700 patients a year, if we could harvest the entire world's supply. Fortunately, researchers at TRIUMF estimate that they will be able to produce 100 times the current annual global supply. [Read More](#)

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**Upcoming Events in Vancouver**

- February 1 6:00 PM Online **Breaking Down Barriers and Strengthening Diversity in STEM**
- February 2 - 3 9:00 AM Online **Build Your Scientific and Technical Writing**
- February 3 12:00 PM Online **Women and Diversity in STEM: A Personal Journey**
- February 4 6:30 PM Online **Paint Along with Bob Ross**
- February 5 9:00 AM Online **6<sup>th</sup> Annual BC Pediatric Diabetes Day**

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**STEMCELL Jobs in Vancouver**

- Sales Development Representative**  
STEMCELL Technologies
- Quality Control Analyst**  
STEMCELL Technologies
- Senior Quality Control Analyst, CELLCore**  
STEMCELL Technologies
- Process Development Media Products Associate**  
STEMCELL Technologies
- Manufacturing Technologist, Labs**  
STEMCELL Technologies

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**Other Science Jobs in Vancouver**

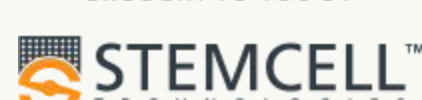
- Principal Medical Writer**  
Zymeworks
- Research Associate, *S. cerevisiae* Molecular Genetics**  
UBC
- Research Coordinator**  
Providence Health Care Research Institute
- Research Technician, Sequencing**  
AbCellera
- Vice President, Translational Science**  
Zymeworks

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