

Publications of the Week

β1 Integrin, ILK and mTOR Regulate Collagen Synthesis in Mechanically Loaded Tendon Cells

First Author: Rouhollah Mousavizadeh (pictured) | Senior Author: Alex Scott
Scientific Reports | UBC and BC Cancer



Habitual mechanical loading or targeted exercise causes tendon cells to increase the stiffness of the extracellular matrix; this adaptation may occur in part through collagen synthesis or remodelling. The authors found that repetitive stretching of tendon cells activated the AKT and mTOR pathways, which in turn regulated mRNA translation and collagen expression. [Profile](#) | [Abstract](#)

The Stringent Stress Response Controls Proteases and Global Regulators under Optimal Growth Conditions in *Pseudomonas aeruginosa*

First Author: Daniel Pletzer | Senior Author: Robert Hancock (pictured)
mSystems | UBC Centre for Microbial Diseases and Immunity Research



Microorganisms need to adapt rapidly to survive harsh environmental changes. The authors showed the broad influence of the highly studied bacterial stringent stress response under nonstressful conditions that indicate its general physiological importance, and might reflect the readiness of bacteria to respond to and activate acute stress responses. [Abstract](#)

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Awards

UBC's Dr. Mel Krajden Awarded Order of B.C.

UBC Medicine



UBC's Dr. Mel Krajden (pictured), a Professor in the Department of Pathology and Laboratory Medicine, is one of 13 individuals being recognized for this year's Order of British Columbia, one of the province's highest honours. Dr. Krajden has been central to helping B.C. build a global reputation in the field of communicable disease control and innovative scholarship in public health sciences. [Read More](#)

2020 Tri-Agency Award Recipients

SFU Faculty of Health Sciences



The Tri-Agency Awards are awarded by the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). These awards support outstanding students pursuing a doctoral or master's degree in a health-related field, like Aniqah Shahid (pictured), a PhD candidate in the Faculty of Health Sciences at SFU. [Read More](#)

Newly Named Global Scholar to Further Study 'How Stress Gets Under Skin' of Children

SFU News



Dr. Nadine Provençal (pictured), an Assistant Professor in SFU's Faculty of Health Sciences and an investigator at BC Children's Hospital, is among 13 researchers named to the 2020-2022 cohort of CIFAR Azrieli Global Scholars. Provençal will further her study of how social stress early in life "gets under the skin" of young children and changes children's brain and behavioural development. [Read More](#)

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Local News

SFU Chemist's New Process Fast-Tracks Drug Treatments for Viral Infections and Cancer

SFU Faculty of Science



Discovering antiviral and anticancer drugs will soon be faster and cheaper thanks to new research from SFU chemist Dr. Robert Britton (pictured) and his international team. Using the new process, scientists can create new nucleoside analogues months earlier than with previous methods, paving the way for quicker drug discoveries. [Read More](#)

BC Collaborations Open Up a World of Possibilities in Cardiovascular Research

Vancouver Coastal Health Research Institute



The Centre for Cardiovascular Innovation – Centre d'Innovation Cardiovasculaire (CCI-CIC) is a new research centre at the Vancouver Coastal Health Research Institute that gives BC's cardiovascular researchers the chance to develop research projects aimed at improving patient care. Launched with the inclusion of 47 cardiovascular co-investigators, CCI-CIC investigates 16 major domains within cardiovascular medicine. [Read More](#)

Research in the Time of COVID-19: Q&A with Dr. Zabrina Brumme

Providence Health Care



The COVID-19 pandemic has transformed how we all live and work. It's also changed how we do science. The research community at Providence Health Care (PHC) has been faced with shuttered labs and offices, financial uncertainty, and a rapid shift to virtual research environments. In this Q&A, PHC researcher Dr. Zabrina Brumme (pictured) reflects on her experience over the past few months, and how she's adapting to the new world we live in. [Read More](#)

Code of Life Podcast: How Genomics Is Helping Eradicate Cervical Cancer

Genome BC



Every year, cervical cancer kills about 400 Canadian women. Worldwide, cervical cancer kills one woman every two minutes. But cervical cancer is a completely preventable illness. The HPV vaccine, offered to all students in Grade 6, and an accurate test that women can take themselves is enough to eliminate the disease altogether. Two Vancouver-based scientists are working hard to bring the tools and awareness to the world to eliminate this deadly disease forever. [Read More](#)

New Study Finds Sex Differences in Adult Neurogenesis in the Hippocampus

Djavad Mowafaghian Centre for Brain Health



Previous research into neurogenesis has largely focused on male subjects, which has prevented researchers from understanding how this process might differ in females. In a new paper, Dr. Lisa Galea (pictured) and UBC Neuroscience PhD candidate Shunya Yagi have found there is in fact a difference in the regulation of neurogenesis in the hippocampus between male and female rats. [Read More](#)

COVID-19: 'Like Finding the Right Book in Massive Library,' Says UBC Researcher Testing Antibodies for a Treatment

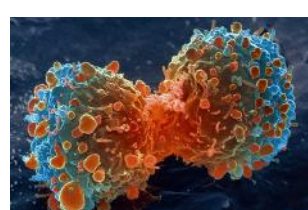
The Province



Researchers at UBC are testing antibodies in an attempt to develop an inhaler that could be used to treat COVID-19 patients. They also hope that the inhaler can be used as a preventive measure. Dr. Horacio Bach and his team at the UBC Faculty of Medicine are working around the clock, testing millions of antibodies to find ones that neutralize and block the entrance of the coronavirus into cells. [Read More](#)

Cervical Cancer Tumours Correlate to HPV Types

BC Cancer



An analysis of cervical cancers in Ugandan women from scientists at UBC and Canada's Michael Smith Genome Sciences Centre at BC Cancer has uncovered significant genomic differences between tumours caused by different strains of human papillomavirus (HPV), indicating that HPV type may impact cervical cancer characteristics and prognosis. [Read More](#)

Novateur Ventures Explores New Strategy to Reduce the Hyperinflammatory Response Caused by COVID-19

Novateur Ventures



A novel strategy has been developed by Novateur Ventures, which provides new hope in the battle against COVID-19. The strategy analyzes lipid mediators, known as leukotrienes, as the cause for hyperinflammatory response manifested in severe COVID-19 cases. Patients with severe COVID-19 develop an overwhelming state of inflammation with multi-organ dysfunction, and leukotrienes have been overlooked. [Read More](#)

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Upcoming Events in Vancouver

- August 23 5:00 PM **Whole Human Summit Session: Let's Talk About Access** Online
- August 26 1:00 PM **How I Found My Job in SciComm – a Choose Your Own Adventure Panel** Online
- August 26 2:00 PM **Women's Health Research Institute Summer Social Media Series** Online
- August 27 10:00 AM **Stem Cells from the Sofa Speaker Series: Dr. Peter Zandstra** Online
- September 2 12:00 PM **Brown Bag: Applied Genome Analysis in Rare Disease Diagnostics** Online

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- Project Manager**
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- Project Manager**
AbCellera
- Lecturer, Biomedical Engineering (1-Year Term)**
UBC School of Biomedical Engineering
- Research Coordinator**
St Paul's Hospital Hematology/Oncology Research Group
- Senior Scientist, Protein Technologies Team Lead**
Amgen

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