SCIENCE in VANCOUVER

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Publications of the Week

Brain Pericytes and Perivascular Fibroblasts Are Stromal Progenitors with Dual Functions in Cerebrovascular Regeneration After Stroke

First Authors: Louis-Philippe Bernier *(pictured)* and Jasmin Hefendehl | Senior Author: Brian MacVicar
Nature Neuroscience | UBC

Stromal progenitor cells (SPCs) are critical for tissue regeneration following injury in many organs, yet their identity in the brain remains elusive. Here, researchers show that the perivascular niche of brain SPCs includes pericytes, venular smooth muscle cells, and perivascular fibroblasts that together help cerebral microvasculature regenerate following experimental stroke. **Abstract**

Type-2 Innate Signals Are Dispensable for Skeletal Muscle Regeneration and Pathology Linked to Duchenne Muscular Dystrophy

First Author: Melina Messing *(pictured)* | Senior Authors: Fabio Rossi and Kelly McNagny
EMBO Reports | UBC

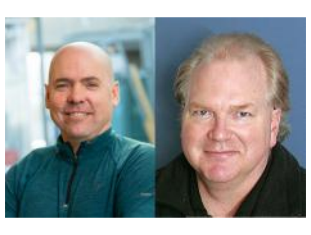
In the genetically inherited muscle disease Duchenne muscular dystrophy, muscle regeneration is disrupted, leading to chronic inflammation, fibrosis, and early mortality. Previously, it has been suggested that type-2 innate immune cells, particularly eosinophils and their production of IL-4, play an essential role in effective muscle regeneration after acute injury. Here, researchers re-investigate the role of eosinophils in skeletal muscle repair. **Abstract**

View All Publications

Awards

Two Projects Led by MSL Faculty Receive CIHR Fall 2024 Priority Announcement Funding

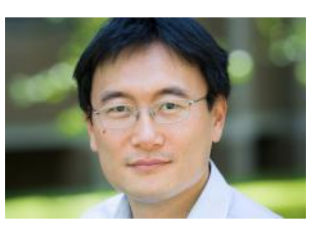
UBC Michael Smith Laboratories



Two collaborative research projects by Drs. Leonard Foster *(pictured, left)* and Wilfred Jefferies *(right)* have received priority announcement funding through the Canadian Institutes of Health Research (CIHR) Project Grant: Fall 2024 competition. Both projects focus on disease prevention, developing and testing new approaches to protect against Mpox and malaria. **Read More**

LSI Researchers Awarded Funding in Fall 2024 CIHR Project Grant Competition

UBC Life Sciences Institute (LSI)



LSI congratulates all researchers awarded funds in the Fall 2024 Canadian Institutes of Health Research (CIHR) Project Grant competition. In total, these grants were awarded over $7.7 million from this competition. Among the awardees is Dr. Hongshen Ma *(pictured)*. His study will investigate the potential to estimate the longevity of donor blood from the deformability, or softness, of individual red blood cells. **Read More**

UBC Medicine Researchers Awarded More Than $26M for Transformative Health Research

UBC Faculty of Medicine

UBC Faculty of Medicine researchers have been awarded more than $26 million in federal funding to lead critical health research aimed at improving people's lives. The funding was awarded through the Canadian Institutes of Health Research Project Grant: Fall 2024 competition. Forty-six projects led by Faculty of Medicine researchers were awarded funding, including Dr. Angela Devlin *(pictured)*. **Read More**

Leaders in Diversity: Recognizing the 2024-2025 I.D.E.A.L. Bioscience Employers™

BioTalent Canada

Canada's bio-economy is being reshaped by the forward-thinking organizations recognized today as 2024-2025 I.D.E.A.L. Bioscience Employers™. Their unwavering dedication to inclusivity, diversity, equity, and accessibility is driving meaningful change and paving the way for a more equitable future. Among the sixteen awardees is Vancouver's STEMCELL Technologies. **Read More**

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Local News

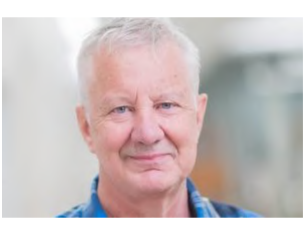
Bringing Indigenous Ways of Knowing to Neuroscience

Djavad Mowafaghian Centre for Brain Health (DMCBH)

Dr. Judy Illes from UBC *(pictured)* and Dr. Melissa Perreault of the Métis Nation and University of Guelph are working with research partners and Indigenous scholars and communities to bring Indigenous knowledge and understandings into brain science. They recently co-authored a seminal paper on integrating Indigenous perspectives with Western approaches in neuroscience. **Read More**

Unconventional Secretion of the SARS-CoV-2 Main Protease Opens the Door for New Extracellular Biology in Viral Infection

UBC Life Sciences Institute



A recent *Cell Reports paper* from Dr. Chris Overall's *(pictured)* lab presents the first evidence of a viral protease being secreted from infected cells. 3C-like viral proteases are utilized by coronaviruses, including SARS-CoV-2, to cleave the viral polyprotein into individual functional proteins necessary for viral replication. **Read More**

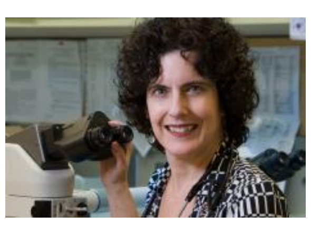
BC Children's Hospital Research Institute Celebrates Black Scientists' Groundbreaking Legacy

BC Children's Hospital Research Institute (BCCHR)

Black scientists are responsible for groundbreaking discoveries and advocacy work that have improved health care globally. Many of their contributions, however, aren't widely known and were even stolen, which has delayed their deserved recognition. In honour of Black Histories and Futures Month, the BCCHR celebrates the legacy of trailblazers that everyone should know. **Read More**

Too Much of a Good Thing? Iron's Role in Accelerating Myelodysplastic Syndromes

The Centre for Blood Research



Iron is essential for life, but in excess, it can become toxic – especially for patients with myelodysplastic syndromes (MDS). In a recent *Blood* commentary, Dr. Heather Leitch *(pictured)* from the CBR highlights groundbreaking research that links iron overload with the worsening of MDS symptoms, including bone marrow failure and increased risk of leukemia. The study also identifies iron restriction as a promising therapeutic approach. **Read More**

'Biology's Cookbook': UBC Team Discovers New Kind of Brain Cell Linked to Memory

Global News

Scientists at UBC have discovered a new type of brain cell they believe plays a critical role in humans' ability to recognize and remember objects. The researchers dubbed the highly-specialized neurons "ovoid cells." UBC's Dr. Mark Cembrowski *(pictured)*, the study's senior author, said the discovery opens exciting doors in the fight against memory-related diseases and disorders. **Read More**

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Interesting Articles

BC Cancer 2025 Summer Research Studentship Competition

BC Cancer Research

The BC Cancer 2025 Summer Research Studentship competition has been announced. Summer research studentships, sponsored by the BC Cancer Foundation, will be available to support senior undergraduate university students and/or junior medical or dental students seeking hands-on training in cancer research in BC during the period of May 1 – August 31, 2025. **Read More**

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Upcoming Events in Vancouver

February 26 8:00 AM	**10th Annual Access to Innovation** Vancouver Convention Centre West
February 28 1:30 PM	**Three Minute Thesis: VCHRI Heat 2025** Gordon and Leslie Diamond Health Care Centre
March 5 5:00 PM	**IGNITE: STEM Networking Night** SFU Goldcorp Centre for the Arts
March 11 10:00 AM	**Communicating Science: Simplifying the Complex** Online
March 14 12:00 PM	**Lectureship Honouring Dr. Nelly Auersperg** BC Cancer Research Centre

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Science Jobs in Vancouver

Research Associate, Bohlmann Lab
UBC

Laboratory Scientist, Cancer Genetics and Genomics Laboratory
BC Cancer

Associate Scientist, Product Development
Cytiva

Public Health Technologist Parasitology
PHSA

Medical Science Liaison, Oncology
GSK

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