

Publications of the Week

Meis1 Establishes the Pre-Hemogenic Endothelial State Prior to Runx1 Expression

First Author: Patrick Coulombe | Senior Author: Aly Karsan *(pictured)*
Nature Communications | Michael Smith Genome Sciences Centre, Terry Fox Laboratory, and UBC



Hematopoietic stem and progenitor cells originate from an endothelial-to-hematopoietic transition during embryogenesis. Using cellular indexing of transcriptomes and epitopes by sequencing, the authors define the early subpopulation of pre-hemogenic endothelial cells based on both surface markers and transcriptomes. They identify the transcription factor Meis1 as an essential regulator of hemogenic cell specification in the embryo prior to *Runx1* expression.

[Abstract](#)

Eras of Designer Tregs: Harnessing Synthetic Biology for Immune Suppression

First Author: Karoliina Tuomela | Senior Author: Megan Levings *(pictured)*
Immunological Reviews | BC Children's Hospital Research Institute and UBC



Since their discovery, CD4⁺CD25^{hi}FOXP3^{hi} regulatory T cells (Tregs) have been firmly established as a critical cell type for regulating immune homeostasis through a plethora of mechanisms. With the advent of new genetic engineering tools, it is now possible to create bespoke “designer” Tregs that not only overcome possible limitations of polyclonal Tregs but also introduce new features. [Abstract](#)

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Awards

July 2023 Award Winners

Science in Vancouver



Dr. Sharon Gorski *(pictured)* and co-investigator Dr. Gregg Morin received a Canadian Institutes of Health Research Project Grant to investigate caspase regulation of cellular stress responses in breast cancer. See which other Vancouver researchers received grants, awards, fellowships, and scholarships in July.

[Read More](#)

DMCBH Members Awarded Spring 2023 CIHR Project Grants to Support Health Research

Djavad Mowafaghian Centre for Brain Health (DMCBH)



The Canadian Institutes of Health Research (CIHR) recently announced the results of its Spring 2023 project grant competition. Congratulations to all the Djavad Mowafaghian Centre for Brain Health members who were awarded grants, with 12 projects receiving over \$9 million in funding. Dr. Piotr Kozlowski's *(pictured)* project will use multi-modal, multi-parametric liver imaging for ultrasound-based stratification of patients with non-alcoholic fatty liver disease. [Read More](#)

Eight New Projects Empower BC Researchers to Solve Climate Change Challenges in Food and Fisheries

Genome BC



Eight new projects have received a combined \$1.84 million in funding from the Genomic Innovation for Regenerative Agriculture, Food and Fisheries program — a collaboration between Genome BC and the Investment Agriculture Foundation of BC with support from the BC Ministry of Agriculture and Food. Drs. Gurcharn Singh Brar *(pictured)* and Guus Bakkeren's project will investigate patterns in how cereal pathogens move into Canada with the goal of developing fast, DNA-based diagnostic tests. [Read More](#)

Congratulations to the 2023 Recipients of the Faculty of Science Research Awards

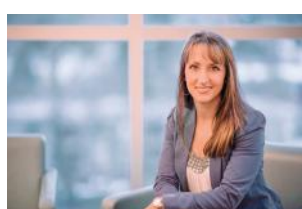
SFU Faculty of Science



SFU Faculty of Science is proud to announce this year's recipients of the second annual Faculty of Science Research Awards recognizing excellence in research accomplishments in early career and beyond. Dr. Amy Lee *(pictured)* received an Early Career Faculty Research Award for her impressive funding and publication record, and international presence in her field, particularly at this early career stage. [Read More](#)

Congratulations CIHR Spring 2023 Project Grant Recipients

BC Children's Hospital Research Institute



Congratulations to the BC Children's Hospital Research Institute, Women's Health Research Institute, and Vancouver Coastal Health Research Institute investigators and their teams who were awarded funding through the Canadian Institutes of Health Research (CIHR) Spring 2023 Project Grant competition. Dr. Lori Brotto's *(pictured)* project will investigate the use of virtual reality exposure for vaginismus. [Read More](#)

Congratulations to LSI Researchers Awarded Funding through the Spring 2023 CIHR Project Grant Competition!

Life Sciences Institute (LSI)



Ten LSI researchers were awarded funds in the Canadian Institutes of Health Research (CIHR) Spring 2023 Project Grant competition. In total, these grants were awarded more than \$8 million from this competition. Dr. Kota Mizumoto *(pictured)* received a Bridge Grant to elucidate the novel role of calcium/calmodulin-dependent protein kinase II in presynaptic assembly. [Read More](#)

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Local News

Targeted Vaccines Are Needed to Combat Antimicrobial Resistance

BC Children's Hospital Research Institute



Ten million people — equivalent to approximately one-quarter of the Canadian population — are expected to die annually due to antimicrobial resistance worldwide by 2050. Researchers in Dr. Manish Sadarangani's *(pictured)* lab at the Vaccine Evaluation Center at BC Children's argue that targeted vaccines are needed to help reduce such loss of life. [Read More](#)

Identifying At-Risk Patients After Heart Transplant

Centre for Heart Lung Innovation (HLI)



A team of HLI and PROOF (Prevention of Organ Failure Centre) researchers have previously developed HEARTBIT, a minimally-invasive, blood-based gene expression “signature” to monitor for ACR after heart transplant. Dr. Ji-Young Kim *(pictured)* led the team to improve HEARTBIT's performance by creating a signature to monitor T cells in heart transplant patients. [Read More](#)

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Upcoming Events in Vancouver

- August 11 7:00 PM **Space Telescopes with Chris Gainor**
West Vancouver Memorial Library
- September 12 7:30 PM **Back to Science Slam**
Fox Cabaret
- September 14 5:00 PM **25th Annual Life Sciences BC Awards Presented by Farris**
Vancouver convention Centre West
- September 21 10:00 AM **Pars for Prostate Fundraiser**
Westwood Plateau
- October 2-4 8:00 AM **Healthcare Summit: The Future of Innovation, Personalized Medicine and Genomics**
Coast Coal Harbour Hotel

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Amgen
- Research Associate, Bioprinting Innovation**
Aspect Biosystems
- Research Lab Manager**
UBC
- Clinical Research Educator**
Providence Research

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