

Publications of the Week

Control and Recalibration of Path Integration in Place Cells Using Optic Flow

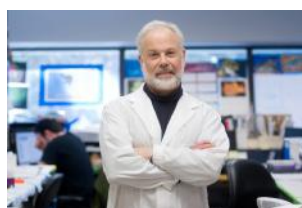
First Authors: Manu Madhav (*pictured*) and Ravikrishnan Jayakumar | Senior Authors: James Knierim and Noah Cowan
Nature Neuroscience | Djavad Mowafaghian Centre for Brain Health and UBC



Hippocampal place cells are influenced by both self-motion (idiothetic) signals and external sensory landmarks as an animal navigates its environment. To continuously update a position signal on an internal 'cognitive map', the hippocampal system integrates self-motion signals over time. Researchers demonstrate both recalibration of path integration gain and systematic control of place fields by pure optic flow information in freely moving rats. [Abstract](#)

Amyloidogenic Regions in Beta-Strands II and III Modulate the Aggregation and Toxicity of SOD1 in Living Cells

First Author: Luke McAlary | Senior Author: Neil Cashman (*pictured*)
Open Biology | Djavad Mowafaghian Centre for Brain Health and UBC



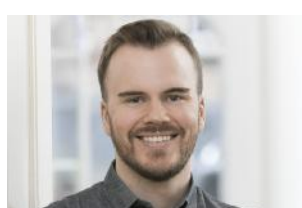
Mutations in the protein superoxide dismutase-1 (SOD1) promote its misfolding and aggregation, ultimately causing familial forms of the debilitating neurodegenerative disease amyotrophic lateral sclerosis (ALS). Using *in silico* tools, researchers predicted amyloidogenic regions in the ALS-associated SOD1-G85R mutant, finding seven regions throughout the structure. [Abstract](#)

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Awards

Over \$36M Awarded to UBC Researchers Through NSERC 2024 Discovery Research Program

UBC Research + Innovation



More than \$554 million is being invested in research over five years through the Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Research Program. A total of 157 new programs and projects led by UBC researchers, including Dr. Brett Hilton (*pictured*), were awarded more than \$36 million through the 2024 NSERC Discovery Research Program competition. [Read More](#)

Four FHS Students Secure Scholarships for Graduate Research

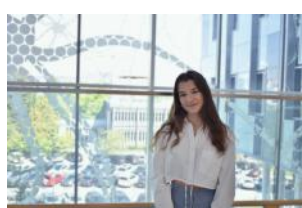
SFU Faculty of Health Sciences (FHS)



FHS has highlighted the work of four students who received funding from the Canadian Institutes of Health Research and the Social Sciences and Humanities Research Council in support of their graduate research. Among the four recipients is PhD candidate Maggie Duncan (*pictured*). Duncan studies the viral 'reservoir' in people with HIV. [Read More](#)

Ninon Freidel Awarded the Syd Vernon Graduate Student Award

Djavad Mowafaghian Centre for Brain Health



Ninon Freidel (*pictured*) is a first year UBC Neuroscience graduate student and was awarded the Syd Vernon Graduate Student Award this year. The Syd Vernon Fund for the Disabled was established in 1989, supporting the betterment of persons with mental, physical, or sensory disabilities ever since. Freidel is a trainee in the Beasley Lab at BC Children's Hospital Research Institute. [Read More](#)

Dr. Annie Ciernia Receives a 2024 Faculty of Medicine Distinguished Achievement Award for Equity, Diversity, and Inclusion

Djavad Mowafaghian Centre for Brain Health



Dr. Annie Ciernia (*pictured*) has received a 2024 Faculty of Medicine Distinguished Achievement Award for Advancement of Equity, Diversity, and Inclusiveness (EDI). As the Chair of the EDI Committee within the Department of Biochemistry and Molecular Biology for the past four years, Dr. Ciernia is dedicated to promoting a more positive environment where each individual is empowered to achieve their full potential. [Read More](#)

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Local News

9th Annual Invest in BC Presented by Lumira Ventures

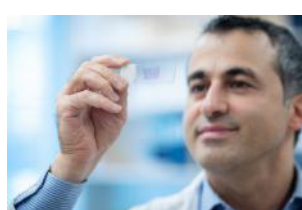
Life Sciences BC



Life Sciences BC provides companies with a unique opportunity to showcase their groundbreaking projects and innovations, garner support, and secure vital investments to propel their growth trajectory. They are inviting life science organizations in the discovery, development, or commercialization stage of business to submit applications. [Read More](#)

Scientists Discover High-Risk Form of Endometrial Cancer — and How to Test for It — Using AI

UCB Faculty of Medicine



Dr. Ali Bashashati (*pictured*) and his team are using artificial intelligence (AI) to power precision diagnostic tools for endometrial cancer. Using AI to spot patterns across thousands of cancer cell images, the researchers have pinpointed a distinct subset of endometrial cancer that puts patients at much greater risk of recurrence and death, but would otherwise go unrecognized by traditional pathology and molecular diagnostics. [Read More](#)

adMare BioInnovations Expands with New Wet Laboratory Space in Vancouver

adMare BioInnovations



adMare BioInnovations has announced the location of its new wet laboratory facility to support emerging life sciences companies in Vancouver, made possible through the support of the Ministry of Jobs, Economic Development and Innovation (JEDI). As part of BC's Life Sciences and Biomanufacturing Strategy, the Province is investing \$10 million in this new facility with adMare to help grow early-stage, local biotech companies. [Read More](#)

BC Study to Pave the Way for Tailored Treatment of Depression

Genome BC



A new research initiative in British Columbia is exploring ways for the BC healthcare system to tailor depression treatments to the unique needs of each person, moving towards a more effective and patient-centred approach. Dr. Jehannine Austin (*pictured*), a Professor of Medical Genetics and Psychiatry at UBC, is one of the project co-leaders. [Read More](#)

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Upcoming Events in Vancouver

July 3 11:30 AM	Pathways in Science: Exploring Majors and Careers Online
July 12 8:30 AM	Frontiers in Biophysics 2024 SFU Harbour Centre
August 15 12:00 PM	CBR/LSI Research Day 2024 Life Sciences Institute
July 8 2:30 PM	SBME Seminar Life Sciences Institute
July 9 4:00 PM	UBC Faculty of Medicine Alumni & Friends Summer Socials UBC Medical Student & Alumni Centre

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Science Jobs in Vancouver

- Research Assistant/Technician 2**
UBC
- Medical Geneticist**
The Fraser Health Authority
- Pathologist, Anatomical or General**
Vancouver Coastal Health
- Medical Science Liaison, Vaccines Specialty Care**
GSK
- Laboratory Instructor, Brewing and Brewery Operations**
Kwantlen Polytechnic University

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Free Wallchart: Bone Marrow Niches and HSC Fates [REQUEST A COPY >](#)

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