



Volume 8.23: June 10, 2024

#### Publications of the Week

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

#### The Catabolism of Ethylene Glycol by *Rhodococcus jostii* RHA1 and Its **Dependence on Mycofactocin**

First Author: Raphael Roccor | Senior Author: Lindsay Eltis (pictured) Applied and Environmental Microbiology | UBC



Ethylene glycol (EG) is a widely used industrial chemical with manifold applications and also generated in the degradation of plastics such as polyethylene terephthalate. Rhodococcus jostii RHA1, a potential biocatalytic chassis, grows on EG. This study provides insights into the bacterial catabolism of small alcohols and aldehydes and facilitates the engineering of Rhodococcus for the upgrading of plastic waste streams. Abstract

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#### Awards

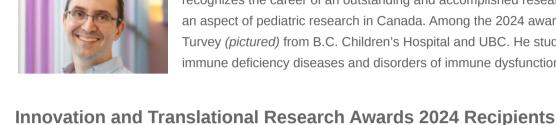
**Lupus Research Alliance Grants Lupus Innovation Awards to Nine International Researchers Pushing the Boundaries of Lupus Research** Lupus Research Alliance



The Lupus Research Alliance has announced that nine international researchers are the recipients of this year's Lupus Innovation Award. Among the nine recipients is Dr. Maria Tokuyama (pictured) from UBC. Dr. Tokuyama will develop a new type of chimeric autoantibody receptor T-cell that specifically eliminates endogenous retroviruses-targeting B cells, leaving healthy B cells intact. Read More

### Career Research Award

Canadian Paediatric Society



Established in 2009, the Career Research Award is a biennial award that recognizes the career of an outstanding and accomplished researcher working on an aspect of pediatric research in Canada. Among the 2024 awardees is Dr. Stuart Turvey (pictured) from B.C. Children's Hospital and UBC. He studies childhood immune deficiency diseases and disorders of immune dysfunction. Read More

## Vancouver Coastal Health Research Institute supports investigators and their

Vancouver Coastal Health Research Institute



groundbreaking health research with the Innovation and Translational Research Awards. This year's recipients are putting new knowledge into practice, implementing research outcomes, and turning discoveries into commercial opportunities. Among the cohort is Dr. Karen Sherwood (pictured). Read More

#### SFU-Led Research Project Awarded \$14.6 Million Funding to Prepare for **Future Pandemics** SFU News



A new research group based at SFU has received a major funding grant totalling \$14.6 million to help support public confidence in and access to vaccines, in preparation for future pandemics. The Social Sciences and Humanities Consortium will be led by Dr. Kelley Lee (pictured, left) alongside co-director Dr. Ève Dubé (pictured, right). Read More

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## Local News

Precision Matching for Kidney Transplants: BC Project Targets Reduced Rejections and Elimination of Need for Lifelong Medication

Genome BC



British Columbia has been selected as the test bed for a potentially game-changing genomics project to improve kidney transplant outcomes across Canada in partnership with Canadian Blood Services. This project is led by Dr. Paul Keown (pictured) and seeks to significantly reduce organ rejection rates, improve patient outcomes, and save millions of dollars in healthcare costs. Read More

#### Igniting Curiosity: The 16<sup>th</sup> Annual Vancouver Brain Bee Djavad Mowafaghian Centre for Brain Health



UBC hosted the 16<sup>th</sup> Annual Vancouver Brain Bee where 42 local high schoolers participated in the regional competition at the Djavad Mowafaghian Centre for Brain Health. The Brain Bee is a spelling bee styled neuroscience competition testing high school students from grades 9 through 12 on their knowledge of the brain and nervous system, prompting investigation and friendly competition. Read More

#### Business in Vancouver Should there ever be another pandemic like COVID-19, Canada is hoping to be

Federal Government Invests in Pandemic Rapid Response Lab at UBC



better prepared with a rapid response team in BC that will be tasked with developing drugs and vaccines within 100 days. The federal government announced \$140 million in funding for Canada's Immuno-Engineering and Biomanufacturing Hub out of UBC. It will support four multi-disciplinary research projects. Read More

# Arming Patients with Well-Being and Independence



ARCEX Therapy is a cutting-edge device engineered to deliver synchronized electrical stimulation to the spinal cord. It is currently under investigation for its potential to enhance arm and hand functions after chronic cervical spinal cord injury. A recent study led by UBC's Dr. Andrei Krassioukov (pictured) and his collaborators has provided promising results. Read More

#### The Story of PedsPOG: Advocates, Collaboration, and Team Science to **Help Kids with Cancer UBC** Michael Smith Laboratories

We have come a long way in the treatment of children with cancer, with cure rates



of over 80%. For the other 20%, we need to think outside of the box and identify novel targeted therapies. Pediatric Personalized Oncogenomics ("PedsPOG") utilizes whole genome and transcriptome sequencing in order to refine diagnosis, uncover genetic predisposition to cancer, and to identify novel therapeutic recommendations for hard-to-cure pediatric cancers. Read More

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#### Interesting Articles **UBC's School of Biomedical Engineering Launches New Micro-Certificate in**

Innovation Leadership: Medical & Bio-Innovations **UBC** School of Biomedical Engineering

UBC's School of Biomedical Engineering is proud to announce the launch of a new



6:00 PM

July 12

educational offering, the Micro-Certificate in Innovation Leadership: Medical & Bio-Innovations. This program is designed to empower professionals in the life sciences and biotech sectors with the strategic skills needed to lead innovation and bring groundbreaking healthcare solutions to market. Read More

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#### June 13 **Effective Science Illustrations** 11:00 AM Michael Smith Laboratories

**Upcoming Events in Vancouver** 

Interconnected: Exploring Indigenous Perspectives on Earth June 19 **Matters** 

Science World **Life Sciences BC Summer Social** June 20 5:00 PM Zymeworks

**Girls and STEAM Summer Livestream** June 25 10:00 AM Online

Frontiers in Biophysics 2024

8:30 AM SFU Harbour Centre

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#### Postdoctoral Fellow, Evgin Lab Canada's Michael Smith Genome Sciences Centre at BC Cancer

Science Jobs in Vancouver

Project Manager, Research and Innovation Genome BC

**Research Assistant** UBC

UBC Medical Science Liaison, Hematology/Oncology

**Research Assistant** 

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