

Publications of the Week

Coxsackievirus B3 Targets TFEB to Disrupt Lysosomal Function

First Author: Yasir Mohamad (pictured, right) | Senior Author: Honglin Luo
Autophagy | Centre for Heart Lung Innovation and UBC



Coxsackievirus B3 (CVB3) is a prevalent etiological agent for viral myocarditis and neurological disorders, particularly in infants and young children. Virus-encoded proteinases have emerged as cytopathic factors that contribute to disease pathogenesis in part through targeting the cellular recycling machinery of autophagy. The authors identified transcription factor EB (TFEB) as a novel target of CVB3 proteinase 3 C. [Profile](#) | [Abstract](#)

Insights on Autophagosome–Lysosome Tethering from Structural and Biochemical Characterization of Human Autophagy Factor EPG5

First Author: Sung-Eun Nam | Senior Author: Calvin Yip (pictured, second from right)
Communications Biology | Life Sciences Institute and UBC



EPG5 is a large-sized metazoan protein proposed to serve as a tethering factor to enforce autophagosome–lysosome/late endosome fusion specificity, and its deficiency causes a severe multisystem disorder known as Vici syndrome. This study reveals new insights into how human EPG5 recognizes the mature autophagosome and establishes a platform for examining the molecular effects of Vici syndrome disease mutations. [Profile](#) | [Abstract](#)

COVID-19 Highlights the Model Dilemma in Biomedical Research

First Author: Partho Prodim Adhikary | Senior Author: Sarah Hedtrich (pictured)
Nature Reviews Materials | UBC



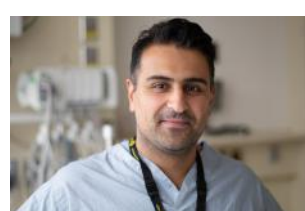
Scientists worldwide struggle to identify suitable animal models to study SARS-CoV-2 infections. Interspecies-related differences, such as host specificity, divergent immune responses, or the unavailability of species-specific reagents hamper the research. Human-based models, such as micro-engineered multi-organs-on-chip, may hold the solution. [Abstract](#)

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Local News

Rethinking Research through the Cytokine Storm

Vancouver Coastal Health Research Institute



Widespread efforts to combat COVID-19 have underscored a need for a personalized medicine approach in research. “With COVID-19, there were two camps of thought: one believed that the virus was causing severe illness, while another believed patients’ immune systems were the main culprit, but the answer was that patients have different responses to the virus for various and complex reasons,” explains Dr. Mypinder Sekhon (pictured). [Read More](#)

Alongside COVID-19, the Clock Is Ticking on a Syndemic Partner: The Global TB Epidemic

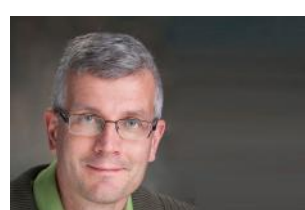
UBC Life Sciences Institute



UBC’s Dr. Yossef Av-Gay (pictured) highlights that COVID-19 and tuberculosis (TB) now pose “a deadly, dual threat — a syndemic that feeds on social inequities and poverty.” His research focuses on the unique capability of *Mycobacterium tuberculosis* to infect, replicate and hide within macrophages, the front-line cells of our immune system. [Read More](#)

SFU Lab One Step Closer to Understanding How Life Started on Earth

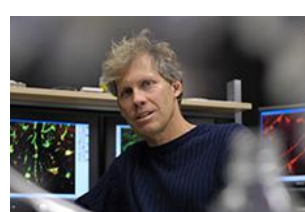
SFU Faculty of Science



How did life begin on Earth and could it exist elsewhere? Researchers at SFU have isolated a genetic clue — an enzyme known as an RNA polymerase — that provides new insights about the origins of life. Researchers in SFU Molecular Biology and Biochemistry Professor Dr. Peter Unrau’s (pictured) laboratory are working to advance the RNA World Hypothesis to answer fundamental questions on life’s beginnings. [Read More](#)

DMCBH Members Leading Four UBC Research Excellence Clusters

Djavad Mowafaghian Centre for Brain Health



UBC’s Office of the Vice-President, Research and Innovation recently announced 35 emerging and established research excellence clusters that will be supported with funding in 2021/22. This includes the Dynamic Brain Circuits in Health and Disease cluster at the Djavad Mowafaghian Centre for Brain Health (DMCBH), led by Dr. Timothy Murphy (pictured), which seeks mechanistic insight into normal and dysfunctional brain circuits. [Read More](#)

UBC Incubator/Accelerator Announces Launch of Human Health Venture Studio

Entrepreneurship at UBC



Entrepreneurship@UBC, a leading university incubator and accelerator, has announced the launch of its Human Health Venture Studio, designed to leverage the UBC’s deep pool of research by transforming human health innovations to impact through venture creation. This launch marks the program’s own evolution as an academic incubator/accelerator, creating specialized verticals to work with innovators across industries. [Read More](#)

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Interesting Articles

Collaboration in Canadian Genomics: Domestic and International Partnerships in Bioengineering and Biomanufacturing

TheFutureEconomy.ca



Bioengineering and biomanufacturing have widespread applications in many key sectors of the Canadian economy, intersecting with the technologies developing today. The government will need to continue to ramp up investments into the bioengineering and biomanufacturing sector to compete with investments made by other jurisdictions. Supports through organizations can provide ample networking opportunities and much needed outlets for collaboration. [Read More](#)

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 Upcoming Events in Vancouver

March 29 10:00 AM	UBC Science Communication Week Online
March 31 12:00 PM	UBC Three-Minute Thesis Competition 2021 Online
March 31 12:00 PM	TI Methods Speaker Series: The Development of a Risk of Bias Tool for Network Meta-Analysis Online
April 1 3:00 PM	From Lab to Life: Translation of Regenerative Medicine Therapies and Technologies Online
April 7 12:00 PM	WiP Seminar: Dr. Chonnetia Jones Online

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Zymeworks
- Postdoctoral Fellow, Biologics**
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Survey Report: Hurdles of Genome Editing Using CRISPR


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