Volume 7.02: January 23, 2023

Publications of the Week

Structural Basis of Broad-Spectrum β-Lactam Resistance in *Staphylococcus aureus*

First Authors: J. Andrew Alexander *(pictured, far left, back row)* and Liam Worrall *(third from left, back row)* | Senior Author: Natalie Strynadka *(front row, seated)*
Nature | Centre for Blood Research and UBC

Broad-spectrum β-lactam antibiotic resistance in *Staphylococcus aureus* is a global healthcare burden. In clinical strains, resistance is largely controlled by BlaR1, a receptor that senses β-lactams through the acylation of its sensor domain. This study provides a structure of a two-component signalling receptor that mediates action — in this case, antibiotic resistance — through the direct cleavage of a repressor. **Profile | Abstract**

A Universal Sequencing Read Interpreter

First Author: Yusuke Kijima | Senior Author: Nozomu Yachie *(pictured)*
Science Advances | UBC

Massively parallel DNA sequencing has led to the rapid growth of highly multiplexed experiments in biology. The authors report INTERSTELLAR (interpretation, scalable transformation, and emulation of large-scale sequencing reads) that decodes data values encoded in theoretically any type of sequencing read and translates them into sequencing reads of another structure of choice.
Abstract

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Awards

Dr. Elizabeth Rideout Wins 2022 End Diabetes Research Award

Life Sciences Institute

Diabetes Canada has announced $9M in funding for 30 new research projects focusing on new developments in diabetes management, care, and risk-reduction. Dr. Elizabeth Rideout *(pictured)*, an Associate Professor in the Department of Cellular and Physiological Sciences at UBC, will receive support for a project focused on understanding why women are protected from type 2 diabetes more so than men. **Read More**

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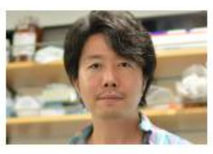

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CLIC-01 Clinical Trial: Building BC Cancer's Capabilities in Cutting-Edge Immunotherapy

BC Cancer

BC Cancer's immunotherapy team, led by Drs. Kevin Hey *(pictured)*, Rob Holt, and Brad Nelson, has developed the expertise and infrastructure to create genetically engineered immune cells (called CAR T cells) for the treatment of life-threatening blood cancers. BC Cancer was the first academic group to produce and deliver CD19 CAR T cells to cancer patients in Canada. **Read More**

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Upcoming Events in Vancouver

January 26 8:00 AM	**Global Health Conference 2023** BC Children's Hospital Research Institute & Online
January 26 9:30 AM	**Blakes Speaking Series: Current Trends in Private and Public Finance** Online
January 26 10:00 AM	**Mind the Gap: Hormonal Contraceptives and Brain Health** Online
January 26 4:00 PM	**D.R.I.N.K.S. Vancouver** Mahony and Sons
February 2 8:30 AM	**Precision Health Symposium** AMS Student Nest

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