

Publications of the Week

**Directional DNA Sequencing for Single Cells Using Nanoliter Biochemistry**

First Author: Vincent Hanlon (pictured) | Senior Author: Peter Lansdorf  
Cell Reports Methods | Terry Fox Laboratory, BC Cancer Agency, Canada's Michael Smith Genome Sciences Centre, and UBC



Strand-seq's directional genomic information is invaluable, but the library preparation protocol is difficult, costly, and slow. Moreover, the libraries typically have low complexity; that is, they capture at most five percent of the genome in a single cell. The authors developed a scalable, high-throughput protocol that is suitable for the centralized production of large numbers of Strand-seq libraries with improved complexity. [Profile](#) | [Abstract](#)

**An *In Vitro* Chronic Damage Model Impairs Inflammatory and Regenerative Responses in Human Colonoid Monolayers**

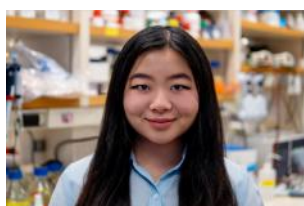
First Author: William Rees | Senior Author: Theodore Steiner (pictured)  
Cell Reports | BC Children's Hospital Research Institute, BC Cancer Agency, and UBC



Acute damage to the intestinal epithelium can be repaired via de-differentiation of mature intestinal epithelial cells to a stem-like state, but there is a lack of knowledge on how intestinal stem cells function after chronic injury, such as in inflammatory bowel disease. The authors developed a chronic-injury model in human colonoid monolayers by repeated rounds of air-liquid interface and submerged culture. [Abstract](#)

**Advances in Sarcoma Molecular Diagnostics**

First Author: Xue Qi Wang (pictured) | Senior Author: Torsten Nielsen  
Genes, Chromosomes, & Cancer | UBC



With over 80 subtypes, which often demonstrate overlapping morphologies, sarcomas often require ancillary testing to enable accurate classification. Pathognomonic driver mutations can often be leveraged for diagnostic purposes, and include fusion genes, amplification events and recurrent point mutations. Recent technological advances have led to the development of more comprehensive assays with higher throughput. [Abstract](#)

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Awards

**Dr. Pieter Cullis and Colleagues Win VinFuture Foundation's First Global Sci-Tech Award**

UBC Faculty of Medicine



Dr. Pieter Cullis (pictured), a Professor in UBC's Department of Biochemistry and Molecular Biology, has been awarded the inaugural VinFuture Grand Prize alongside peers Drs. Katalin Kariko and Drew Weissman. The award recognizes the trio's work on mRNA technology that paved the way for effective COVID-19 vaccines. The three scientists received the award from Vietnam's Prime Minister, Mr. Pham Minh Chinh, at a ceremony held on January 20, 2022. [Read More](#)

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Local News

**UBC Postdoc Identifies over 100,000 New RNA Viruses Using the Power of Cloud Computing**

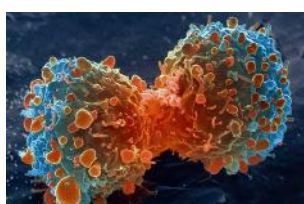
UBC Faculty of Medicine



An international team led by former UBC postdoctoral fellow Dr. Artem Babaian (pictured) has uncovered almost ten times more RNA viruses than were previously known — including several new species of coronaviruses. The planetary-scale database of RNA viruses they developed could help rapidly identify virus spillover into humans, as well as those viruses that affect livestock, crops, and endangered species. [Read More](#)

**Major Scientific and Clinical Milestones in Differentiation Therapy for Myeloid Malignancies**

Canada's Michael Smith Genome Sciences Centre



For the past three decades, myeloid malignancies such as myelodysplastic syndrome and acute myeloid leukemia have been treated with cytotoxic chemotherapy and stem cell transplant. New treatment options that target the cellular differentiation pathway have the potential to reduce toxicity and improve clinical outcomes in myeloid malignancies and other cancers. [Read More](#)

**Canada's Contribution to the Global Effort to Map the Genomes of Complex Life on Earth**

Genome BC



Dr. Steven Jones (pictured), Co-Director and Head of Bioinformatics for Canada's Michael Smith Genome Sciences Centre, and Dr. Maribeth Murray, Director of the Arctic Institute of North America at the University of Calgary, are leading a collaborative effort between scientists, Indigenous peoples, and conservation groups to embark on the task of determining the genetic diversity of Canada's plants and animals through genomic sequencing. [Read More](#)

**'Stem Cell Clinics Are an Area of Risk': A Conversation with Peter Zandstra, Recently Named to the Order of Canada**

Healthing



Dr. Peter Zandstra (pictured) has been at the forefront of stem cell research for years. His latest research is focused on figuring out how stem cells from umbilical cord blood can replace stem cell transplants. Healthing spoke with him about his work, his goal of treating cancer without chemotherapy, and how science can tackle fake news. [Read More](#)

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Interesting Articles

**The Stem Cell Network and Mitacs Partner to Offer Industry-Based Internships in the Regenerative Medicine Sector**

Stem Cell Network



Canada is a world leader in stem cell and regenerative medicine (RM) research — a field poised for tremendous growth with significant health and economic benefits. Recognizing the importance of talent development to advance the sector, the Stem Cell Network and Mitacs are launching a new partnership that will provide tomorrow's life science leaders with the skills and experience required to work within Canada's burgeoning RM sector. [Read More](#)

**New National Wage Subsidy Will Integrate Skilled Newcomers into Canada's Bio-Economy**

BioTalent Canada



BioTalent Canada announced the launch of a new program: the Skilled Newcomer Internships for the Bio-economy program that will provide employers with funds to integrate skilled newcomers and internationally educated professionals into the Canadian bio-economy. The \$2.9 million project helps bio-economy employers access skilled individuals they might not have otherwise considered for roles. [Read More](#)

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**Upcoming Events in Vancouver**

- February 2 11:00 AM **Gamma Fibrinogen and COVID-19; Who Knew?** Online
- February 2 5:00 PM **Connect with Biotech and Life Sciences Professionals: Dr. Lorena Braid** Online
- February 10 7:00 PM **Women in Science** Online
- February 11 9:00 AM **SciCATS Workshop Series Part 2: Communicating Your Science through Podcasting Interviews** UBC & Online
- February 11 10:00 AM **Women in Biotech Panel Discussion** Online

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**STEMCELL Jobs in Vancouver**

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STEMCELL Technologies

**Scientific Marketing Specialist**

STEMCELL Technologies

**Program Manager, Pricing Operations**

STEMCELL Technologies

**Research Technologist, Cell Separation Automation**

STEMCELL Technologies

**Research Associate, Stem Cell Engineering**

STEMCELL Technologies

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**Other Science Jobs in Vancouver**

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UBC Centre for Blood Research

**Computational Biologist, Clinical**

Canada's Michael Smith Genome Sciences Centre

**Executive Director, Biologics Development and Manufacturing**

Chinook Therapeutics

**Research Associate**

UBC

**Research Assistant, Formulations**

Acutas Therapeutics

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