



# BCCHB NEWSLETTER

OFFICIAL UPDATES FROM THE BC CHILDREN'S HOSPITAL BIOBANK

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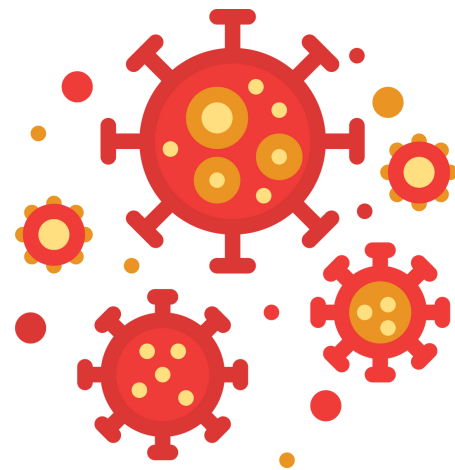
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**WE CURRENTLY COLLECT:**

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- STEM CELLS
- URINE
- PLACENTA
- CEREBROSPINAL FLUID
- CORD BLOOD



## STUDY HIGHLIGHT: COUNTERMEASURES FOR COVID-19 PANDEMIC

In collaboration with the BCCDC and researchers at UBC, the BioBank has been working to recruit adults who have recovered from a COVID-19 infection. By obtaining a new blood sample, researchers have the ability to pair it with their original diagnostic sample from when they had COVID-19. Using both of these samples and a questionnaire, researchers are hoping to synthetically re-create the antibodies that can potentially be used as treatment in the future. This project is led by Dr. Mel Krajden and sponsored by AbCellera Biologics Inc, US Department of Defense, and the Government of Canada.



**BC** CHILDREN'S HOSPITAL  
**BioBank**

# SAMPLE RELEASE

**BCCHB has released 126 salivary swabs from OCD patients to Dr. Evelyn Stewart for her study *Epigenetics of OCD in response to CBT treatment***

**Study summary:** To date, available treatments for obsessive-compulsive disorder (OCD) are poorly understood. This study aims to identify if Cognitive Behavioural Therapy (CBT) causes any dynamic changes in childhood and adolescent patient epigenetic markers. Dr. Stewart's study seeks to extract DNA from the buccal swabs of participants throughout CBT therapy in order to identify potential changes in epigenetic loci. The results of this study will allow an examination of deviations in patients' epigenetic age to be associated with CBT interventions.

**Dr. Kevan Jacobson was granted 50 control plasma (blood) samples for his study *Biomarker development for clinical diagnosis of stage and response to treatment in inflammatory bowel diseases.***

**Study summary:** Patients affected by Inflammatory Bowel Disease (IBD) face a condition which is currently not curable, and often very unpredictable. Current therapies for IBS do not provide every patient with the same remission times or reduction of symptoms. This study seeks to identify biomarkers that could be used as an assessment of disease activity in order to provide more personal and strategic therapies. Dr. Jacobson's study will use plasma samples to identify novel biomarkers for IBD using HPLC/Mass Spectroscopy that would predict disease stage and progression, in a minimally invasive way for patients.

## HELP US WELCOME OUR NEW STAFF!



Mackenzie Sturn is the BioBank's newest Co-op student. She is currently in her fourth year at Simon Fraser University where she is completing a degree in Biological Sciences with a minor in Education. She is excited for the opportunity to work in a hospital and contribute to medical research, in addition to developing her laboratory skills and interacting with patients. During her Co-op, Mackenzie will help with sample processing and patient consenting. Mackenzie enjoys learning about the various research projects supported by the BioBank, and promoting BioBank awareness and education! Her hardworking nature and desire to learn will make her a great addition to the team.



Marissa Song is a recent undergraduate from UBC with a bachelor's degree in Biology. She previously worked at BC Cancer Foundation Terry Fox Laboratory as a clinical lab assistant and at Vancouver General Hospital as a research assistant for the National Covid-19 Registry. She has always had interest in research and healthcare and thus is super excited to be joining the Biobank team here at BC Children's! Marissa looks forward to learning about the Biobank and how it contributes to research projects.

# RECENT PRESENTATIONS

## DIGITAL HEALTH WEEK 2022 - ELECTRONIC CONSENT

Our former BioBank team member, Iryna Kayda, recently gave a great presentation at Digital Health Week 2022, hosted by the WHRI, BCCHR, and PHSA. She spoke about the development of our e-consent platform. She highlighted the new features and learnings of this project funded by the BC Children's hospital Research Institute's Clinical Research Development Award, and the future directions we hope electronic consent can take. Check out the presentation titled 'Development of a multimedia electronic consent platform for biobanking and research' [here](#).

## SPP & CTOS 2022 - PEDIATRIC OSTEOSARCOMAS

This past fall, previous co-op student Sebastian Kondratowski, currently completing his BSc. in Biology at UBC, had the honour of presenting his co-op project at two different international conferences. In October, Sebastian ventured to Rochester, NY to give a platform presentation at the Society for Pediatric Pathology's Fall Meeting. In November, Sebastian presented his project's findings as a poster at the Connective Tissue Oncology Society's annual meeting in Vancouver. At both conferences, he discussed his preliminary work on pediatric osteosarcoma. Osteosarcoma, the most common bone tumour, is an aggressive cancer that has not revealed significant improvements to overall survival rates in many years. Under the supervision of our co-director, Dr. Jon Bush, Sebastian created a grid of tumour tissue cores that were stained with markers to investigate DNA accessibility. These markers can point to the replication activity of particular tumour cells. One of the markers was found to be related to poor response to chemotherapy and if more substantial work is conducted, may determine patient groups that require more intense treatments.

## ISBER 2023 - COVID-19 SCHOOL SURVEY FINDINGS

Our current BioBank research assistant, Qudrat Aujla, presented findings from a research project called "Survey of Adolescents Regarding Their Opinion of Research and Vaccination During the COVID-19 Pandemic" at the International Society for Biological and Environmental Repositories (ISBER) 2023 Annual Meeting in Seattle on May 4th. The BioBank recently conducted a survey among students across high schools in BC, where they were asked whether their perceived importance of research and biobanking had changed after living through the pandemic. We received a total of 1,022 completed survey responses, from 13 school districts. The majority of participants (94%) agreed that COVID-19 is a serious disease and 95% stated that the pandemic has shown them how important medical research is. The desire to contribute to research was reflected by the 80% of participants willing to donate an extra blood sample for biobanking purposes during the COVID-19 pandemic, compared to 64% from a 2016 school survey conducted among the same age group. Considering the current public health climate, 92% of participants stated that they will be vaccinated, for reasons such as knowing vaccines are safe, allowing them to engage in social activities, and protecting them from COVID-19.



*Qudrat Aujla, BioBank Research Assistant, at ISBER 2023 in Seattle, WA.*

# DR. BUSH AWARDED UBC CO-OP SUPERVISOR AWARD!

After supervising a productive 8-month co-op, Dr. Jon Bush, our Co-Director, was nominated and selected for the UBC Science Co-op Supervisor Recognition Award. This award recognizes supervisors that provide exceptional mentorship to their students, support their student's professional development aspirations, and foster the exploration of new career and educational opportunities. His nomination comes after supervising Sebastian Kondratowski, who he pushed to expand his knowledge on pediatric osteosarcoma while also igniting his interest in cancer research. In a pool of over 1800 co-op supervisors, Jon shone as one of the brightest and continues to be a strong mentor!

≡ YAY! ≡



## PATHOLOGY & LAB MEDICINE PATIENT-FAMILY ADVISORY COMMITTEE

The Pathology & Lab Medicine Patient-Family Advisory Committee at BC Children's and Women's Hospital officially formed in October of 2022 and meets quarterly. The current responsibilities include providing feedback based on lived experiences as patients, parents and caregivers, reviewing study consent forms, providing insight on this newsletter, and suggesting additional content for a future Pathology department website to improve patient experience. This group consists of patients and families from the BioBank as well as BC Children's and Women's Hospitals.

We are extremely grateful for the members' time and contributions to research! Our hope is that this group will help shape the way research is conducted and how findings are shared. Additionally, this group will support the BioBank and Department of Pathology and Lab Medicine in moving towards more patient-centered care.

If you are interested in finding out more about participating in the Patient Advisory Committee, please contact [biobank@cw.bc.ca](mailto:biobank@cw.bc.ca). Any and all lived experience is valuable!