BCCH BioBank Newsletter

BCCHB WEBSITE

Have you seen our new BioBank video?

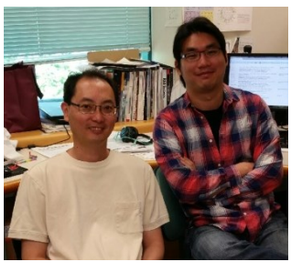
The BC Children's Hospital BioBank is a collection of biological samples available for researchers, interested in improving medical treatments for children and families.

WE CURRENTLY COLLECT:

- Blood
- Bone Marrow
- Tissue
- Saliva
- Stem cells
- Placenta
- Urine
- Cerebral Spinal Fluid
- Amniotic fluid
- Cord blood

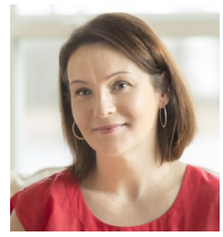
The Hamilton StarLET - BioBank's Newest Helper

Recently the BioBank has acquired a new robotic instrument to help us speed up processing times for blood samples. Blood can be separated into three different layers which have different uses in research projects. In simple terms the three layers are plasma, white blood cells and red blood cells. Before the robot we had to manually separate these layers, which was ok when we only received a small number of samples. Recently, we have been processing an upward of 7 blood samples a day and we plan to continue to grow in numbers! The robot has a camera that allows it to differentiate the different layers in a blood tube and only pick up one layer at a time. This will free up staff time to process other samples that may require other specialized techniques. We are very excited about the robot as it means that we will be able support even more research!



Stimulation of the Immune Response to Eliminate Cancer Cells

Not all anticancer drugs are created equal. Certain forms of chemotherapy do more than just kill the tumor cells. For example, doxorubicin is a drug that induces a type of tumor cell death that also produces an immune response. This is beneficial because the patient's immune system may be stimulated to recognize and subsequently eliminate the cancer cells. Dr James Lim has been working with the BioBank to obtain bone marrow samples from patients with acute lymphoblastic leukemia. In the Lim laboratory, UBC PhD student, Mr. Chi-Chao Liu is interested in understanding how certain proteins called integrins are involved in the body's immune response to drugs like doxorubicin. Dr Lim and Mr. Liu's recent work adds an important piece to our understanding about the effect of chemotherapy treatments. A paper about this work was recently published in an international scientific journal, Cell Death and Disease.



Meet Sarah Gray: Parent and Biobank Advocate

We recently had the pleasure of being "e" introduced to Sarah Gray. Sarah works for the American Association of Tissue Banks but before becoming pregnant with her twin boys, she knew little about tissue banks (otherwise known as biobanks). Sarah has recently presented in a TEDMED Talk an incredible story about her son Thomas who was born with anencephaly (How my son's short life has made a lasting difference) and has also written a book about this experience titled A Life Everlasting available on September 27th, 2016.

At the BioBank we are very interested in public education and engagement. What this really means is that we want to understand what you (the public) want to be done with your or your children's samples and/or your opinions about participating in research. We are now working with a group of international biobankers including Sarah to develop a platform to educate families such as Sarah's about biobanks. We will update you as this project progresses.

BREAKING NEWS: Dr. Vercauteren, Director of the BioBank just received a Canadian Institute of Health Research grant alongside Dr. Kimberlyn McGrail at PopData BC and other distinguished investigators for a project entitled "Filling the void: Public engagement around a new model for access to research resources". We will be working even harder to understand what the public wanted in terms of research participation.

Collaboration Between Canadian Blood Services and The BioBank

We are excited to announce that the BioBank is collaborating with Canadian Blood Services (CBS) to collect and bank cord blood. CBS recruits women during pregnancy with the opportunity to donate their cord blood to the Canadian Blood Services' Cord Blood Bank for clinical purposes such as stem cell transplants. Approximately 15 to 20 percent of collected cord blood units meet the qualifying criteria. Non-qualifying units are returned to BC Women's Hospital where they can be made available for research studies. The BioBank is now working closely with CBS so that these non qualifying units can be designated to the BioBank and can be used to study maternal and fetal health, providing patients also consent to participate in the BioBank. We are very excited about this collaboration as it is a great example of our ability to support each other and achieve our end-goal of helping to make improvements to treatments and therapies for others.

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