



LRCP Biospecimen Lab: Year Two Progress Report – April 2023

Collaboration between health care providers, scientists, and patients is rapidly advancing our knowledge, understanding, detection, and treatment of cancer. Over the past decade, non-invasive diagnostic and monitoring options including liquid biopsy have revolutionized the field of clinical oncology. Liquid biopsies consist of isolating and analyzing tumor-derived substances like circulating tumor cells and circulating tumor DNA from blood and other body fluids to assess diseases prognosis, progression and/or therapy response. As an area of interest and importance to advance clinical and translational research, the London Regional Cancer Program Biospecimen Lab (BSL) was established in March 2021 to support high-impact clinical cancer research.

Located on the 4th floor of LRCP within the Cancer Research Laboratories Program, the BSL is generously supported by donor funding as part of the Baines Centre Clinical Cancer Research/Baines Challenge in partnership with the London Health Sciences Foundation. The objective of the BSL is to provide high-quality sample processing and management for clinical research biospecimens including blood, saliva, urine, bronchial lavage, and tumour tissue to ensure availability for current studies and their downstream applications. This service is available to any oncology investigator in London interested in conducting clinical research involving biospecimens. The BSL is operated under the leadership of Biospecimen Research Coordinator Emma Churchman, with Dr. Alison Allan and Dr. Stephen Welch providing scientific and clinical oversight. Emma is a PhD candidate at Western University, and will be defending in the coming months. She has strong expertise in genomic sequencing and endocrinology, and brings a wealth of laboratory and research experience to her role in the BSL.

In 2021, the BSL successfully achieved quality assurance certification through the Canadian Tissue Repository Network (CTRNet). In the last year, the BSL has processed over 175 samples for investigator-initiated trials, and over 350 samples for sponsored clinical trials in partnership with the LRCP Clinical Research Unit (CRU). The BSL is currently working collaboratively with investigators and clinical research personnel on over 50 currently active and accruing studies. In addition, the BSL also provides support to investigators in the areas of correlative biospecimen research design, budgeting, study initiation, data management, and shipping.

Looking forward, the mission of the BSL is to continue to provide accurate and high quality biospecimen services to support clinical and translational cancer research needs in London. Those interested in learning more about the BSL's services can visit the [BSL website](#) or contact Emma by email: emma.churchman@lhsc.on.ca or phone: 519-685-8600 x53283.