

## Projects Supported with Blood Products at netCAD Blood4Research

The Centre for Innovation provides researchers at our netCAD Blood4Research facility in Vancouver with blood products to conduct their discovery research. The blood for research is collected from donors who cannot donate blood for patient use due to certain conditions. The table below outlines the current research projects supported by blood products.

Last updated: October 23<sup>rd</sup>, 2018

Project ID	City	Project Title	Use of Animals	Canadian Blood Services Mandate
NC0001	Québec City	Understanding the invasion of red blood cells by malaria parasites	No	Transfusion medicine
NC0002	Vancouver	Understanding the quality of stored red blood cells	No	Transfusion medicine
NC0003	Vancouver	Investigating degradation of stored red blood cells using Raman Spectroscopy	No	Transfusion medicine
NC0005	Winnipeg	Understanding how HIV efficiently spreads in the body	Yes	Transplantation medicine
NC0009	Toronto	The use of Blood Donations for Teaching Purposes at the Michener Institute for Applied Health Sciences – Cardio Vascular Perfusion and Laboratory Science Programs	No	<ul style="list-style-type: none"> <li>• Transfusion medicine</li> <li>• Transplantation medicine</li> </ul>
NC0014	Hamilton	Effects of storage time and toxin exposure on red blood cells	No	Transfusion medicine

**Email:** [researchdonations@blood.ca](mailto:researchdonations@blood.ca) **Phone:** 604-221-5515

**Address:** University Marketplace (at UBC) 207-  
2150 Western Parkway  
Vancouver, BC V6T 1V6

<b>Project ID</b>	<b>City</b>	<b>Project Title</b>	<b>Use of Animals</b>	<b>Canadian Blood Services Mandate</b>
NC0016	Vancouver	Study and optimization of immune regulation in transplantation and autoimmunity	No	Transplantation medicine
NC0017	Ottawa	Understanding factors that influence bacterial proliferation and biofilm formation in platelet concentrates	No	Transfusion medicine
NC0018	Vancouver	Establishing the blood clotting profile of stored platelets	No	Transfusion medicine
NC0019	Edmonton	Role of blood component manufacturing on red cell damage and changes in white blood cells	No	Transfusion medicine
NC0020	Prince George	Medical Laboratory Technology Science Diploma Program: Transfusion Medicine Course labs	No	Transfusion medicine
NC0022	Vancouver	Using molecular biology to increase the lifespan of platelets	No	Transfusion medicine
NC0024	Halifax	Using natural killer cells for universal cancer and infection control	No	Transplantation medicine
NC0031	Vancouver	Inactivation of Zika virus in Blood Components	No	Transfusion medicine
NC0032	Hamilton	Preparing platelet factor 4 (PF4) from outdated donor platelets	No	Transplantation medicine
NC0039	Toronto	Therapeutics in the treatment of an autoimmune bleeding disease (ITP)	No	Transfusion medicine
NC0040	Ottawa	Improving the Cryostorage of Blood Products Using Novel Small Molecule Cryoprotectants	No	Transfusion medicine

NC0041	Ottawa	Recreating the milieu of the human immune system within plastic plates to be able to evaluate candidate drug molecules (Continuation of NRC Therapeutic Antibodies approved by NetCad 2011.027)	No	Outcomes may benefit transfusion medicine
NC0045	Winnipeg	Preparation of control samples to be used in the quality assurance of specimen analysis for the Provincial Newborn Screening Program	Yes	Outcome does not benefit Canadian Blood Services
NC0047	Vancouver	Cellular immunology assays	No	Transfusion medicine
NC0048	Toronto	Effects of the liver x receptor in human blood-derived cells	Yes	Outcome does not benefit Canadian Blood Services
NC0049	Toronto	Study on How to Eliminate Cancer with our Immune Cells	Yes	Transplantation medicine
NC0051	Waterloo	A compact friendly use of device for heart failure monitoring	Yes	Transfusion medicine
NC0052	Toronto	Improving Human Lung Transplantation	No	Transfusion medicine
NC0053	London	Use of immune cells from blood to develop HIV vaccine and cure strategies	No	<ul style="list-style-type: none"> <li>• Transfusion medicine</li> <li>• Transplantation medicine</li> </ul>
NC0055	Markham	New method for identifying cell types in Whole blood	No	Transfusion medicine
NC0056	Vancouver	New techniques for freezing RBC	No	Transfusion medicine
NC0057	Toronto	Role of rare cell types in food allergy	No	Outcome does not benefit Canadian Blood Services

**Email:** researchdonations@blood.ca **Phone:** 604-221-5515

**Address:** University Marketplace (at UBC) 207-  
2150 Western Parkway  
Vancouver, BC V6T 1V6

NC0058	Toronto	The application of image flow cytometry to investigate the shape of red blood cells from stored blood bags	No	Transfusion medicine
NC00062	Vancouver	Novel Blood Cells surface modifications for cell-based therapies	No	Transfusion medicine
NC0063	Burnaby	BCIT Medical Laboratory Science Program – student training	No	Transfusion medicine
NC0064	Vancouver	Use of whole blood for forensic drug testing	No	Does not benefit Canadian Blood Services
NC0065	Vancouver	Using HIV-negative blood to provide quality assurance for HIV-related testing.	No	Does not benefit Canadian Blood Services
NC0066	Okotoks	Analysis of blood for drugs of abuse	No	Does not benefit Canadian Blood Services
2017.030nc	Toronto	Investigating the ex vivo growth of various blood cell populations	No	Transfusion medicine
2017.031nc	Vancouver	Creation of quality control blood samples for nutritional biomarker analysis	No	Does not benefit Canadian Blood Services
2017.035b4r	Vancouver	Metabolism and Transport of Arsenic by Human Red Blood Cells	Yes	Does not benefit Canadian Blood Services
2017.036b4r	Vancouver	Biomechanical characterization of malaria infected red blood cells	No	Does not benefit Canadian Blood Services
2017.038b4r	Vancouver	Good cholesterol functions in brain vessel health	No	Transfusion medicine
2017.040b4r	Vancouver	To Study immune response against intracellular pathogenic organisms	No	Transplantation medicine
2017.041b4r	Hamilton	Analysis of Protein Adsorption on Starch Hydrogel-Based Biomaterial Coatings	No	Transfusion medicine

2017.043b4r	Vancouver	Virus-Dependent Changes to Blood Cells and Proteins	No	Transfusion medicine
2017.048b4r	Vancouver	Determining Novel Functions of Blood Proteins	No	Transfusion medicine
2017.049b4r	Toronto	Ex Vivo Assessment and repair of Liver Grafts	No	Transplantation medicine
2017.050b4r	Toronto	Detecting blood pathologies using photoacoustics	No	Transfusion medicine
2018.002b4r	Toronto	Investigation of Potential for Stored Platelets to Cause Lung Injury	No	Transfusion medicine
2018.003b4r	Vancouver	Evaluation of Cold Stored Platelets in Transfusion	No	Transfusion medicine
2018.004b4r	Burnaby	The Improvement of Cost Efficiency for Detecting Dengue Virus	No	Transfusion medicine
2018.018b4r	Toronto	Investigating human immune tolerance in humanized mouse model	Yes	Transplantation medicine
2018.020b4r	Toronto	Understanding the interactions between macrophages and tumour cells	No	Does not benefit Canadian Blood Services
2018.021b4r	Vancouver	Targeting cancer cells by engineered immune cells in the blood	Yes	Does not benefit Canadian Blood Services
2018.028b4r	Ottawa	Mechanisms of Lipid Metabolism and Lipophagy in Vascular Disease	Yes	Does not benefit Canadian Blood Services
2018.033b4r	Vancouver	Measuring effects of biological stress signals on immune function	No	Transplantation medicine

**Email:** [researchdonations@blood.ca](mailto:researchdonations@blood.ca) **Phone:** 604-221-5515

**Address:** University Marketplace (at UBC)

207-2150 Western Parkway

Vancouver, BC V6T 1V6