Funding - Department of Laboratory Medicine & Pathology (July 1, 2021 to June 30, 2022)

| Person | Title | Funding Source | Research Role | Annual Report Scope | Date From | Date To | Funding Status | Funding Amount Attributed |
|-----------------------|--|---|---------------------------|---------------------|-----------|---------|------------------|------------------------------|
| van Landeghem, Frank | A multicentre, randomized controlled trial of pre- operative versus post-operative stereotactic radiosurgery for patients with surgically resectable brain metastases | Other | Co-investigator | International | 2020-01 | 2025-01 | New - successful | \$9,999.75 |
| Li, Xing-Fang | Analytical and Environmental Toxicology (CRC TIER1 232168 Li) 3.0 | Canada Research Chairs | Principal investigator | National | 2018-10 | 2025-09 | Awarded | \$1,190,000.00 |
| Le, Xiao-Chun | Analytical Techniques, Exposure Assessment, and Environmental Health (AHW 010837 Le) 3.0 | AB Health | Principal investigator | Provincial | 2020-04 | 2025-03 | Awarded | \$1,000,000.00 |
| Charlton, Carmen Lynn | Antenatal COVID-19 Seroprevalence Study (UBC F21- 03765 Charlton) 3.0 | University of British Columbia | Principal investigator | National | 2021-10 | 2024-04 | Awarded | \$634,000.00 |
| Tyrrell, Gregory John | Antimicrobial resistance-One Health Consortium | Other | Co-principal investigator | Local - university | 2019-02 | 2023-12 | New - successful | \$185,500.00 |
| Le, Xiao-Chun | Arsenic and the Human Genome: Susceptibility and Response to Exposure (UCHIC Le) 3.0 | University of Chicago | Principal investigator | International | 2018-11 | 2021-12 | Awarded | \$77,709.00 |
| Li, Xing-Fang | Bioanalytical development and applications to drinking water safety (NSERC RGPAS-2017-507842 Li) | Natural Sciences and Engineering Research Council of Canada (NSERC) | Principal investigator | National | 2021-04 | 2025-03 | New - successful | \$848,785.56 |
| Li, Xing-Fang | Bioanalytical development and applications to drinking water safety (NSERC RGPIN-2017-05857 Li) 3.0 | NSERC | Principal investigator | National | 2016-04 | 2026-03 | Awarded | \$530,000.00 |
| Li, Xing-Fang | Characterization of undesirable water-soluble organics in source and drinking water using advanced analytical technology (AB Innovat WIP G2019000356/AI) 3.0 | AB Innovates | Principal investigator | Provincial | 2020-01 | 2023-06 | Awarded | \$680,000.00 |
| Le, Xiao-Chun | Chemical Contaminants in Traditional Foods from Fort McKay and Fort Chipewyan: Before and after the wildfires (CIHR OGHEAW 151030 Le) 3.0 | Canadian Institutes of Health Research | Principal investigator | National | 2016-11 | 2023-03 | Awarded | \$365,000.00 |

| Chui, Linda Wai-Ling | Comparison of PCR and Enzyme Immune assays for the detection of Shiga Toxin-producing Escherichia coli (TECHLAB Chui) 3.0 | TECHLAB, Inc. | Principal investigator | Corporate/industry | 2020-06 | 2023-12 | Awarded | \$38,775.00 |
|-------------------------|---|---|---------------------------|-------------------------------|---------|---------|------------------|--------------|
| Zhang, Hongquan | Construction of deoxyribonucleic acid motors enabling single-molecule detection (NSERC RGPIN- 2019-06363 Zhang) 3.0 | NSERC | Principal investigator | National | 2018-04 | 2025-03 | Awarded | \$180,000.00 |
| Thiesen, Aducio Leonel | Contribution of the immune system and bacteria in children with inflammatory bowel disease | Other | Other | Local - university | 2020-08 | 2022-07 | New - successful | \$60,000.00 |
| Acker, Jason Paul | Deep Supercooling of Red Blood Cells: Towards Practical Long Term Storage (MGH 1R01HL145031- 01A1 Acker) 3.0 | Massachusetts General Hospital | Principal investigator | International | 2020-04 | 2022-03 | Awarded | \$428,295.00 |
| Pang, Xiaoli Lilly | Detection and quantitation of SARS-CoV-2 in wastewater to conduct surveillance on burden of community infection, identify outbreaks and support public health decision-making on control measures for prevention COVID-19 transmission (CIHR COVID19MAY 172701 Pang) 3.0 | Canadian Institutes of Health Research | Principal investigator | Provincial | 2020-05 | 2023-03 | Awarded | \$487,859.00 |
| Tsui, Albert King-Yeung | Developing rapid chest pain protocol using next generation high sensitivity troponin assay | Other | Co-principal investigator | Local - city | 2019-09 | 2023-08 | New - successful | \$115,962.76 |
| Acker, Jason Paul | Development of a Porcine Equivalent RCC Unit for Translatable Ex Vivo Organ Perfusion Research (CBS IG2020-JA Acker) 3.0 | Canadian Blood Services | Principal investigator | National | 2020-11 | 2022-10 | Awarded | \$121,834.00 |
| Chui, Linda Wai-Ling | Development of a rapid typing assay for tracking C. difficile infection at the Universsiyt of Alberta Hospital (UHF TKFC Chui) 3.0 | University Hospital Foundation | Principal investigator | Alberta Health Services (AHS) | 2018-09 | 2021-08 | Awarded | \$24,967.79 |
| Chui, Linda Wai-Ling | Development of chemical-free sanitizing antimicrobial surfaces based on microfabrication technology for prevention of hospital acquired infections | Other | Other | Local - university | 2020-11 | 2022-05 | New - successful | \$10,000.00 |
| Charlton, Carmen Lynn | Early warning and rapid public health response to prevent COVID-19 outbreaks in long-term care facilities (LTCF) by monitoring the presence and levels of SARS-CoV-2 RNA in LTCF site-specific sewage samples (COVID19ITF 2021-HQ-000133 Pang) 3.0 | COVID-19 Immunity Task Force | Co-principal investigator | National | 2020-11 | 2023-03 | Awarded | \$38,000.00 |
| Acker, Jason Paul | Enabling liver cryopreservation by controlling ice recrystallization with small molecule inhibitors (CIHR PS 159847 Acker) 3.0 | Canadian Institutes of Health Research | Principal investigator | National | 2018-10 | 2022-03 | Awarded | \$100,000.00 |
| Acker, Jason Paul | Enabling liver cryopreservation by controlling ice recrystallization with small molecule inhibitors (CIHR PS 175283 Acker) 3.0 | Canadian Institutes of Health Research | Principal investigator | International | 2021-04 | 2025-03 | Awarded | \$300,606.00 |

| Acker, Jason Paul | Enabling the cryopreservation of embryos from aquatic species using ice recrystallization inhibitors (NSERC RGPIN-2020-04924 Acker) 3.0 | NSERC | Principal investigator | National | 2020-04 | 2026-03 | Awarded | \$165,000.00 |
|------------------------|--|-------------------------|---------------------------|--------------------|---------|---------|------------------|--------------|
| Acker, Jason Paul | Evaluating the performance and readiness to adopt a non-invasive test of fetal blood type (UOFAB WCHRICRISP 2989 Acker) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Provincial | 2020-05 | 2023-04 | Awarded | \$20,000.00 |
| Acker, Jason Paul | Evaluating the role of donor characteristics and blood component manufacturing on the quality of red cell concentrates (CBS IG2018-JA Acker) 3.0 | Canadian Blood Services | Principal investigator | National | 2018-10 | 2022-09 | Awarded | \$263,522.00 |
| Acker, Jason Paul | Evaluating Unintentional Warming of Glycerolized Red Cell Concentrates (CBS BEAP202001-JA) 3.0 | Canadian Blood Services | Principal investigator | National | 2020-03 | 2023-03 | Awarded | \$25,000.00 |
| Izevbaye, Iyare | Evaluation of a Molecular Classification of Thyroid Nodules with Indeterminate Cytology | Private foundation | Principal investigator | Local - city | 2019-08 | 2021-08 | New - successful | \$80,000.00 |
| Dingle, Tanis | Evaluation of isavuconazole gradient strips for antifungal susceptibility testing of pathogenic fungi. | Other | Principal investigator | Local - university | 2019-11 | | New - successful | \$7,500.00 |
| Le, Xiao-Chun | FOMD Contribution - NSERC CREATE for Research in Environmental, Analytical Chemistry and Toxicology (REACT) (UOFAB FOMD NSERC CREATE) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Local - university | 2014-04 | 2023-12 | Awarded | \$30,000.00 |
| Pang, Xiaoli Lilly | Genomic testing of wastewater to promote public health and safeguard economic performance | Other | Co-principal investigator | Provincial | 2022-09 | 2025-08 | New - successful | \$300,000.00 |
| Croxen, Matthew A | Identification of etiological agent(s) in undiagnosed respiratory infections and microbial encephalitis (UOFAB UHFMRC Croxen) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Local - university | 2020-01 | 2021-12 | Awarded | \$35,000.00 |
| Charlton, Carmen Lynn | Identification of etiological agents in undiagnosed respiratory infections and microbial encephalitis | Private foundation | Co-investigator | Provincial | 2019-12 | 2021-12 | New - successful | \$10,000.00 |
| Dijke, Ilona Esmeralda | Immunogenicity of Therapeutic Allogeneic Regulatory T Cells Derived from Human Thymus (UOFAB UHFMRC Dijke) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Local - faculty | 2020-01 | 2022-05 | Awarded | \$35,000.00 |
| Charlton, Carmen Lynn | Improving diagnosis and linkage to care for patients infected with Hepatitis C in the prenatal population of Alberta (MSI 901 Charlton) 3.0 | MSI Foundation | Principal investigator | Provincial | 2019-09 | 2022-08 | Awarded | \$70,210.00 |
| Charlton, Carmen Lynn | Improving the diagnosis and linkage to care for pregnant women with hepatitis C in Alberta (UOFAB WCHRIGS 3439 Thompson/Ch) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | International | 2021-09 | 2023-08 | Awarded | \$36,000.00 |

| Charlton, Carmen Lynn | Improving the diagnosis and linkage to care of chlamydia and gonorrhea infection in prenatal women and their infants in Edmonton Alberta (UOFAB WCHRIIG 3133 Charlton) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | International | 2021-01 | 2022-12 | Awarded | \$60,000.00 |
|-----------------------------|---|---------------------------------|---------------------------|--------------------|---------|---------|------------------|----------------|
| Acker, Jason Paul | Into the Unknown: Defining the optimal cryopreservation conditions for therapeutic thymic regulatory T Cells | Other | Co-investigator | National | 2020-08 | 2022-08 | New - successful | \$10,000.00 |
| Dijke, Ilona Esmeralda | Into the Unknown: Defining the Optimal Cryopreservation Conditions for Therapeutic Thymic Regulatory T Cells (CLF Dijke) 3.0 | Canadian Liver Foundation | Principal investigator | National | 2020-07 | 2022-07 | Awarded | \$30,000.00 |
| Charlton, Carmen Lynn | Is a third dose of MMRV vaccine beneficial for the adult population in Alberta? | Private foundation | Principal investigator | National | 2022-06 | 2025-06 | New - successful | \$132,675.00 |
| Pang, Xiaoli Lilly | Localized node-based collection of wastewater samples for molecular monitoring of public health markers | Other | Co-principal investigator | National | 2022-09 | 2024-08 | New - successful | \$135,000.00 |
| Lew, Kristi | Medical Laboratory Science/Somagen collaboration | Other | Co-principal investigator | Local - university | 2022-05 | | New - successful | \$1,500.00 |
| Dingle, Tanis | MIF Antimicrobial Resistance - One Health Consortioum | Other | Team grant investigator | Provincial | 2019-03 | | New - successful | \$90,000.00 |
| Leng, Roger | Molecular Basis of RING E3 Ligase Pirh2 and HECT E3 Ligase Itch Interaction. (NSERC RGPIN-2017-06582 Leng) 3.0 | NSERC | Principal investigator | National | 2017-04 | 2023-03 | Awarded | \$27,999.97 |
| Leng, Roger | Molecular Basis of RING E3 Ligase Pirh2 and HECT E3 Ligase Itch Interaction. (NSERC RGPIN-2017-06582 Leng) 3.0 | NSERC | Principal investigator | Other | 2017-04 | 2023-03 | Awarded | \$142,500.00 |
| Adam, Benjamin Alexander | Molecular Characterization of Antibody-Mediated Rejection in Formalin-Fixed Paraffin-Embedded Lung Transplant Biopsies (UHF TKFC Adam) 3.0 | University Hospital Foundation | Principal investigator | Local - university | 2019-09 | 2021-08 | Awarded | \$50,000.00 |
| Adam, Benjamin Alexander | Molecular characterization of microvascular inflammation in early post-transplant renal allograft biopsies | Other | Principal investigator | Local - university | 2022-05 | 2022-08 | New - successful | \$6,000.00 |
| Adam, Benjamin Alexander | Molecular Injury and Repair Assessment in Ex Vivo Perfused Solid Organ Transplants (EDT RCP-19-004- SEG Adam) 3.0 | AB Jobs, Economy and Innovation | Principal investigator | Provincial | 2017-12 | 2022-03 | Awarded | \$60,000.00 |
| Dingle, Tanis | Mycobiome Characterization in Cystic Fibrosis Patients (UOFAB UHFMRC Dingle) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Local - university | 2019-01 | 2021-12 | Awarded | \$34,230.00 |
| Pang, Xiaoli Lilly | Pan-Alberta Framework for Monitoring and Predicting COVID-19 Through Wastewater Testing | Other | Co-principal investigator | Provincial | 2022-07 | 2023-06 | New - successful | \$1,720,000.00 |

| Le, Xiao-Chun | Point-of-care diagnostics of COVID-19 using isothermal amplification and CRISPR technology (TIPS NFRFR-2019-00008 Le) 3.0 | Tri-agency Inst Programs Secretariat | Principal investigator | National | 2020-03 | 2023-02 | Awarded | \$828,046.00 |
|----------------------|--|---|---------------------------|--------------------|---------|---------|------------------|----------------|
| Drews, Steven J | Population-based seroprevalence of prior infection with COVID-19 in Canada: implications for testing, economic revitalization and population health. (CIHR COVID19MAY 172723 Drews) 3.0 | Canadian Institutes of Health Research | Principal investigator | National | 2020-05 | 2023-03 | Awarded | \$1,005,694.00 |
| Bigras, Gilbert | Predicting biomarkers in invasive breast cancer using a weakly supervised machine learning algorithm based on convolutional neural network (CNN) and Whole Slides Images. | Natural Sciences and Engineering Research Council of Canada (NSERC) | Co-investigator | National | 2021-01 | 2022-12 | New - successful | \$63,000.00 |
| Acker, Jason Paul | Preservation of red blood cells by the novel Isochoric Oil-sealing Supercooling System (CBS Zhao/Acker) 3.0 | Canadian Blood Services | Principal investigator | National | 2022-09 | 2025-08 | Awarded | \$167,600.00 |
| El Hallani, Soufiane | Quality Improvement Project: Customized web- application to automate analysis and database management of molecular pathology testing in a province wide institution (AZ El Hallani) 3.0 | AstraZeneca Canada Inc. | Principal investigator | Provincial | 2020-09 | 2021-09 | Awarded | \$10,000.00 |
| Croxen, Matthew A | Rapid RNA sequencing of coronavirus for public health surveillance and transmission (AB Innovat G2020000267 Croxen) 3.0 | AB Innovates | Principal investigator | National | 2020-03 | 2022-02 | Awarded | \$157,608.00 |
| Croxen, Matthew A | Rapid RNA sequencing of coronavirus for public health surveillance and transmission (CIHR COVID-19 170705 Croxen) 3.0 | Canadian Institutes of Health Research | Principal investigator | National | 2020-03 | 2023-03 | Awarded | \$630,432.00 |
| Drabovich, Andrei | Rational design and standardization of serology diagnostics using immunoaffinity-targeted proteomics assays (AB Innovat 202100452 Drabovich) 3.0 | AB Innovates | Principal investigator | Provincial | 2020-09 | 2022-08 | Awarded | \$182,098.00 |
| Drabovich, Andrei | Rational design and standardization of serology diagnostics using immunoaffinity-targeted proteomics assays (CIHR COVID19MAY 173207 Drabovi) 3.0 | Canadian Institutes of Health Research | Principal investigator | National | 2020-09 | 2023-03 | Awarded | \$215,500.00 |
| Zhang, Hongquan | Rsch, Support (50% XC Le), FoMD (50%) Start-up Zhang (UOFAB SF Zhang) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Other | 2012-10 | 2023-09 | Awarded | \$100,000.00 |
| Chui, Linda Wai-Ling | Self-sanitizing, universal antimicrobial surfaces for application in the agriculture/food industry | Other | Co-principal investigator | Local - university | 2021-06 | 2023-05 | New - successful | \$263,000.00 |
| Acker, Jason Paul | Sex MATTERS: Sex-MAtched Transfusions to Effect Recipient Survival. A Pilot Randomized Controlled Trial | Canadian Institutes of Health Research (CIHR) | Co-investigator | National | 2020-10 | 2022-09 | New - successful | \$50,000.00 |

| Le, Xiao-Chun | Special Response Fund for Trainees - Research on environmental health | Natural Sciences and Engineering Research Council of Canada (NSERC) | Principal investigator | National | 2022-05 | 2023-08 | New - successful | \$25,000.00 |
|-----------------------|--|---|---------------------------|--------------------|---------|---------|------------------|--------------|
| Lai, Raymond Kai Chi | The role of NPM1c in leukemogenesis | Private foundation | Co-principal investigator | Local - university | 2021-09 | 2023-08 | New - successful | \$150,000.00 |
| Leng, Roger | The role of Pirh2 in medulloblastoma and potential therapeutic application | Other | Principal investigator | Local - university | 2022-09 | 2023-09 | New - successful | \$60,000.00 |
| Acker, Jason Paul | The use of ice recrystallization inhibitors (IRIs) and ex vivo lung perfusion to facilitate lung cryopreservation | Other | Principal investigator | International | 2022-09 | 2024-08 | New - successful | \$50,000.00 |
| Acker, Jason Paul | Transfusion and Organ Dysfunction in Pediatric Septic Shock (TROPICS) | Other | Co-investigator | International | 2022-06 | 2027-05 | New - successful | \$10,000.00 |
| Charlton, Carmen Lynn | Treating sexually transmitted infections in pregnant women and preventing infection in their babies | Private foundation | Principal investigator | Provincial | 2020-12 | 2021-12 | New - successful | \$60,000.00 |
| Le, Xiao-Chun | Ultrasensitive assays for specific DNA damage, mutations, and DNA-protein interaction (NSERC RGPIN-2018-06913 Le) 3.0 | NSERC | Principal investigator | National | 2017-04 | 2024-03 | Awarded | \$690,000.00 |
| Purdy, Lisa Eileen | Virtu-WIL Using Virtual Simulations to Enhance Healthcare Education | Other | Co-principal investigator | National | 2021-07 | | New - successful | \$43,500.00 |
| Le, Xiao-Chun | VPR Contribution - NSERC CREATE - Research in Enviromental, Analytical Chemistry and Toxicology (REACT) (UOFAB VPR NSERC CREATE Le,Xiao-Chun) 3.0 | UNIVERSITY OF ALBERTA | Principal investigator | Local - university | 2014-04 | 2023-12 | Awarded | \$30,000.00 |