

# 2021 GRANTS & AWARDS COMPETITION Announcement

Research Manitoba and our partners are pleased to announce the recipients for the 2021 Grants & Awards Competition:

## Master's Studentship Competition

Partnered with the CancerCare Manitoba Foundation, Children's Hospital Research Institute of Manitoba, George & Fay Yee Centre for Healthcare Innovation, Health Sciences Centre Foundation, Manitoba Lung Association, and University of Manitoba WM Ross Scholarship

### Social Sciences and Humanities

All Studentships are valued at \$12,000

**Julie Brodeur**, Faculty of Kinesiology and Recreation Management, University of Manitoba, *'Obsessive passion in youth sport parents: Relationships with need satisfaction and abuse of sport officials'*

**Christina Parsons**, Faculty of Kinesiology and Recreation Management, University of Manitoba, *'No fun, no games- Recreation and Accessibility through Perspectives of Poverty'*

**Katharine Zinger**, Department of Psychology, Faculty of Arts, University of Manitoba, *'Awareness and Analysis: How Morphological Processes Predict Growth in Early Reading Comprehension'*

### Natural Sciences and Engineering

All Studentships are valued at \$12,000

**Nanxi Huang**, Department of Biological Sciences, Faculty of Science, University of Manitoba, *'The effect of environmental clutter on the use of metric information from landmark arrays by pinyon jays'*

**Quintin Litke**, Department of Biosystems Engineering, Faculty of Engineering, University of Manitoba, *'Development of Smart and Biodegradable, Multilayered Food Packaging'*

**Tiffany Penner**, Department of Microbiology, Faculty of Science, University of Manitoba, *'Biochemical and functional characterization of Legionella pneumophila core effectors, Lpg1356, Lpg2832 and Lpg3000'*

**Jillian Reimer**, Department of Environment and Geography, Faculty of Environment, Earth, and Resources, University of Manitoba, *'Macroalgae distribution in varying glacial fjords as an indicator of light and nutrient availability (Disko Bay, Greenland)'*

**Volodymyr Shyianov**, Department of Electrical and Computer Engineering, Faculty of Engineering, University of Manitoba, *'Massive Unsourced Wireless Access for Next-Generation Communication Systems'*

**Adam Snyder**, Department of Geological Sciences, Faculty of Environment, Earth, and Resources, University of Manitoba, *'The Jaw Mechanics of Dimetrodon (Synapsida: Sphenacodontidae): Using Finite Element Analysis'*

**Bamelak Tadele**, Department of Electrical and Computer Engineering, Faculty of Engineering, University of Manitoba, *'Investigating Age and Quality of Information in Internet of Things through massive MIMO'*

**Emma Traynor**, MSc in Bioscience, Technology and Public Policy, Faculty of Graduate Studies, The University of Winnipeg, *'Exploring Carbon dioxide responses within the Salmonidae family'*

## Health

All Studentships are valued at \$12,000 unless otherwise specified below

**Oluwaseun Ajibola**, Department of Immunology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Cellular mechanisms that drive HIV-1 latency in T-cells'*

**Mehrfarin Ashiri**, Department of Biochemistry and Medical Genetics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Using an engineered human hexosaminidase as an enzyme replacement therapy (ERT) into treat a mouse model of Tay-Sachs Disease'*

Funded by the Children's Hospital Research Institute of Manitoba (\$17,850)

**Rilwan Azeez**, Department of Immunology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Prevalence and Persistence of SARS-CoV-2 Antibodies among Families in the Canadian CHILD Cohort Study'*

Funded in partnership with Research Manitoba (\$12,000) and the Children's Hospital Research Institute of Manitoba (\$5,850)

**Kevin Balkaran**, Department of Community Health Sciences (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Is home care safe? Evaluating the effectiveness of current violence policies in Manitoba home care settings'*

**Jocelyn Elias**, College of Nursing, Rady Faculty of Health Sciences, University of Manitoba, '*A Leadership Development Program for Long-Term Care Leaders: A Qualitative Exploratory Study*'

**Lucas Evangelista de Lima Terceiro**, Department of Pathology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, '*Delineating the role of prolactin-inducible protein (PIP), a breast cancer biomarker, in promoting lung metastasis.*'

Funded by the CancerCare Manitoba Foundation (\$17,850)

**Daryl Fung**, Department of Computer Science, Rady Faculty of Health Sciences, University of Manitoba, '*Develop Innovative Deep Learning Techniques to Improve the Performance of Early Breast Cancer Detection Using Mammography in Manitoba*'

Funded by the CancerCare Manitoba Foundation (\$17,850)

**Nyambura Kahia**, Department of Immunology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, '*Defining CD8 T cell exhaustion development during chronic infection using single-cell RNA sequencing analysis*'

Funded by the Health Sciences Centre Foundation (\$12,000)

**Katherine Li**, Department of Medical Microbiology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, '*Tracking the Genetic Diversity and Antigenic Variations of SARS-CoV-2 During the COVID-19 Pandemic*'

**Stacey Line**, Department of Pharmacology and Therapeutics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, '*Development and validation of a dynamic, microfluidic, blood brain barrier-brain tumor co-culture model for examining alterations in microvessel permeability*'

Funded by the CancerCare Manitoba Foundation (\$17,850)

**Saeid Maghsoudi**, Department of Physiology and Pathophysiology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, '*Inhibition of Adenylyl Cyclase by Cysteine Nitrosylation in Hypoxic Pulmonary Hypertension Confirming a Target For Therapeutic Options*'

Funded in partnership with Research Manitoba (\$6,000) and the Children's Hospital Research Institute of Manitoba (\$11,850)

**Jessica Meza Resillas**, College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba, '*Brain pericyte calcium signaling during vasomotion and neurovascular coupling*'

**Olha Myhalatyuk**, Department of Pharmacology and Therapeutics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, '*Role of microglial NMDA receptors in synaptic plasticity*'

**Braydon Nault**, Master of Science (Environmental and Life Sciences), Faculty of Science, Brandon University, '*Systematic analysis of the cell secretome to decipher the mechanisms of miRNA regulating tumor microenvironment*'

**Nicole Neudorf**, Department of Biochemistry and Medical Genetics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Evaluating the impact reduced SKP2 expression has on chromosome instability in human epithelial cells'*

Funded by the CancerCare Manitoba Foundation (\$17,850)

**Janelle Poiron**, MDP in Indigenous Development, Faculty of Graduate Studies, The University of Winnipeg, *'Determining Community Indigenous Epidemiologist Needs and Priorities'*

**Mir Sohayeb Rabbi**, Faculty of Engineering, University of Manitoba, *'Mechanisms of Feed-Forward inhibition in the Prefrontal Cortex'*

**Grace Seo**, Department of Medical Microbiology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Whole genome sequencing of Canadian SARS-CoV-2 strains and its application to help inform the Canadian public health response'*

**Madhumita Suresh**, College of Pharmacy, Rady Faculty of Health Sciences, University of Manitoba, *'Vessel-On-A-Chip Model: Nanoparticle Trafficking in Blood Vessels'*

Funded in partnership with Research Manitoba (\$6,000) and the Children's Hospital Research Institute of Manitoba (\$11,850)

**Olivia Tefft**, Faculty of Kinesiology and Recreation Management, University of Manitoba, *'New athletic therapy graduates perspectives and beliefs on chronic pain and their relevant training experiences'*

**Michelle Wuzinski**, Department of Medical Microbiology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Rapid Mycobacterium tuberculosis detection directly from patient sputa and prediction of antimicrobial resistance using whole genome sequencing'*

Funded by the Lung Association, Manitoba (\$12,000)

## **PhD in Health Research Studentship Competition**

Partnered with the CancerCare Manitoba Foundation, Children's Hospital Research Institute of Manitoba, and George & Fay Yee Centre for Healthcare Innovation

**Sharon Chou**, Department of Psychology, Faculty of Arts, University of Manitoba, *'Virtual group-based cognitive processing therapy for the treatment of posttraumatic stress symptoms in postpartum women: Development and Mixed Methods Pilot Evaluation'*

Funded by the George & Fay Yee Centre for Healthcare Innovation (\$35,000)

**Ramandeep Kaur**, Department of Physiology and Pathophysiology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Potential role of hydroxyeicosatetraenoic acids in modulating human airway smooth muscle cells physiology in asthma'*

Funded by the Children's Hospital Research Institute of Manitoba (\$17,850)

**Andrea Klippenstein**, College of Nursing, Rady Faculty of Health Sciences, University of Manitoba, *'Empowering Sibling Voices in Pediatric Hematopoietic Stem Cell Donation'*  
Funded by the Children's Hospital Research Institute of Manitoba (\$17,850)

**Qian Liu**, Department of Biochemistry and Medical Genetics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Interpretable and extendable deep learning models for identifying prognostic radiogenomic biomarkers from multimodal imaging and genomic data'*  
Funded by the CancerCare Manitoba Foundation (\$17,850)

**Emma Martell**, Department of Human Anatomy and Cell Science (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Characterizing the Role of Metabolic and Cellular Plasticity in Chemoradiotherapy Response and Tumor Recurrence in Patient-derived Glioblastoma'*  
Funded by the CancerCare Manitoba Foundation (\$17,850)

**Darrien Morton**, Department of Community Health Sciences (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'A critical policy analysis of Manitoba's Child Welfare System: How do care pathways impact the health trajectories of First Nations and Métis children and youth?'*  
Funded by the Children's Hospital Research Institute of Manitoba (\$17,850)

**Kailee Rutherford**, Department of Biochemistry and Medical Genetics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Determining the Impact of Ubiquitylation and Deubiquitylation on Chromosome Instability and Cancer Pathogenesis'*  
Funded by the CancerCare Manitoba Foundation (\$17,850)

## **Health Research Postdoctoral Fellowship Competition**

Partnered with the CancerCare Manitoba Foundation, Children's Hospital Research Institute of Manitoba, and George & Fay Yee Centre for Healthcare Innovation

**Dr. Charlie Rioux**, Department of Psychology, Faculty of Arts, University of Manitoba, *'Effect of an online multimodal maternal intervention on children's disruptive behaviour disorders: The moderating role of temperament and physiological regulation on asthma'*  
Funded by the Children's Hospital Research Institute of Manitoba (\$44,100)

**Dr. Tamiris Souza**, Faculty of Kinesiology and Recreation Management, University of Manitoba, *'Rejuvenating immune function using extracellular vesicles to reverse cognitive decline'*  
Funded by the Children's Hospital Research Institute of Manitoba (\$44,100)

## **New Investigator Competition**

**Dr. Karen Alley**, Department of Environment and Geography, Faculty of Environment, Earth, and Resources, University of Manitoba, *'Using Remote Sensing to Determine the Drivers of Change on Sydkap Glacier, Southern Ellesmere Island'*

\$46,200

**Dr. Mandy Archibald**, College of Nursing, Rady Faculty of Health Sciences, University of Manitoba, *'A Living Lab for Pediatric Development and Rehabilitation Research: Innovating on Integrated Knowledge Translation for Family-Centered Care'*

\$130,000

**Dr. Matthew Bakker**, Department of Microbiology, Faculty of Science, University of Manitoba, *'Developing a novel biosensor for trichothecene mycotoxins'*

\$50,000

**Dr. Britt Drögemöller**, Department of Biochemistry and Medical Genetics (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Investigating the relationship between drug-induced changes in gene expression in the inner ear and hearing loss caused by chemotherapeutic treatments'*

\$130,000

**Dr. Xiaopeng Gao**, Department of Soil Science, Faculty of Agricultural and Food Sciences, University of Manitoba, *'Exploring mechanisms controlling spring-thaw nitrous oxide emissions from croplands in Manitoba'*

\$50,000

**Dr. Benjamin Lindsey**, Department of Human Anatomy and Cell Science (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Uncovering the properties of neural stem cells and the micro-environment in promoting successful brain repair'*

\$129,750

**Dr. Christopher Pascoe**, Department of Physiology and Pathophysiology (Medicine), Rady Faculty of Health Sciences, University of Manitoba, *'Maternal Diabetes and Smoking As Early Life Risk Factors For Chronic Obstructive Pulmonary Disease'*

\$130,000

**Dr. Patricia Thille**, College of Rehabilitation Sciences, Rady Faculty of Health Sciences, University of Manitoba, *'Storying physiotherapy: Exploring fat stigma and clinical care'*

\$39,955

**Thank you to Our Partners!**

