

UM Sustainability Research 2020-2021

Last Name	First Name	Department	Faculty	Project Title
Alfaro	Marolo	Biosystems Engineering	Faculty of Agricultural and Food Sciences	Vertical tillage and vertical seeding for conservation agriculture
Ali	Genevieve	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	BaySys - contributions of climate change and hydroelectric regulation to the variability and change of freshwater-marine coupling in the Hudson Bay system
Anderson	Judith	Biological Sciences	Faculty of Science	Conservation aquaculture of lake sturgeon, acipenser fulvescens
Anderson	W. Gary	Biological Sciences	Faculty of Science	Conservation aquaculture of lake sturgeon, acipenser fulvescens
Appadoo	Srimantoorao	Supply Chain Management	I. H. Asper School of Business	Sustainability in supply chain management
Arino	Julien	Mathematics	Faculty of Science	Ecological and epidemiological modeling across multiple spatial scales
Asadzadeh	Masoud	Civil Engineering	Faculty of Engineering	Integrated water management modelling of Manitoba's river-reservoir system under changing climate
Ashraf	Ahmed	Civil Engineering	Faculty of Engineering	Threat assessment for northern civil infrastructure affected by climate change using an AI-based geomechanical model
Azad	Meghan	Pediatrics and Child Health	College of Medicine	Atopic sensitization and environmental exposures among urban vs rural children in the CHILD Cohort Study
Bagry	Hema	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Bakker	Matthew	Microbiology	Faculty of Science	Microbiome management for sustainable agriculture
Ballard	Myrle	Chemistry	Faculty of Science	Three-eyed holistic ecosystem approach: Nagaji-dida
Barber	David	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	BaySys - contributions of climate change and hydroelectric regulation to the variability and change of freshwater-marine coupling in the Hudson Bay system
Bassuoni	Mohamed	Civil Engineering	Faculty of Engineering	Improving the process for cold weather concreting: Novel concrete mixtures and innovative curing methods

UM Sustainability Research 2020-2021

Becker	Allan	Pediatrics and Child Health	College of Medicine	How do early-life environmental exposures and health influence school readiness? A sub-study of the Canadian Healthy Infant Longitudinal Development (CHILD) Study
Beddoes	Jonathan	Dean's Office - Faculty of Engineering	Faculty of Engineering	NSERC Chair in Design Engineering for Sustainable Development and Enhanced Design Integration
Berkes	Fikret	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Understanding social learning and change in disaster management for building resilience
Bernstein	Charles	Internal Medicine	College of Medicine	The urban exposome and Inflammatory Bowel Disease: Determining environmental factors that increase the risk of IBD and the cost of care
Beta	Trust	Food and Human Nutritional Sciences	Faculty of Agricultural and Food Sciences	Canada Research Chairs in Grain-Based Functional Foods
Bibeau	Eric	Mechanical Engineering	Faculty of Engineering	Biomass combined heat and power systems for aboriginal remote communities
Blanchard	James	Community Health Sciences	College of Medicine	Landscaping of HIV prevention product delivery ecosystems
Boerma	Ties	Community Health Sciences	College of Medicine	Population and global health
Bonnycastle	Colin	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Bonnycastle	Marleny	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Brassinga	Ann	Microbiology	Faculty of Science	Microbial pathogenesis and resistance at the 68th Annual Canadian Society of Microbiologists Conference
Brewin	Derek	Animal Science	Faculty of Agricultural and Food Sciences	Perennial forage grain for fall grazing of beef cattle
Brink	Kirstin	Earth Sciences	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Environmental nano-geoscience facility

UM Sustainability Research 2020-2021

Brownlie	Robin	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Brule-Babel	Anita	Plant Science	Faculty of Agricultural and Food Sciences	Innovation in biofuel research
Buchanan	Sean	Business Administration	I. H. Asper School of Business	People and planet before profits: Theory and best practices in social and ecological thought organizations
Budahan	Gordon	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Bugden	Shawn	College of Pharmacy	College of Pharmacy	Manitoba prescribing practices environmental scan
Bullock	Paul	Food and Human Nutritional Sciences	Faculty of Agricultural and Food Sciences	Influence of genotype, weather and the growing environment, and crop management on gluten strength and the sustainability of CWRS as a premium wheat class in the Prairie region
Burgess	Jacob	Physics and Astronomy	Faculty of Science	Residual gas analysis of ultra high vacuum environments for surface science
Cardona	Silvia	Microbiology	Faculty of Science	Evaluation of the antimicrobial activity of hop aqueous extracts
Cariou	Warren	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Carlberg	Jared	Animal Science	Faculty of Agricultural and Food Sciences	Economic and environmental impacts associate with removal of productivity-enhancing technologies in the Canadian beef cattle industry
Cattani	Douglas	Animal Science	Faculty of Agricultural and Food Sciences	Perennial forage grain for fall grazing of beef cattle
Cha	Young Jin	Civil Engineering	Faculty of Engineering	Developing an advanced hybrid system of structural health monitoring
Chen	Ying	Biosystems Engineering	Faculty of Agricultural and Food Sciences	Vertical tillage and vertical seeding for conservation agriculture

UM Sustainability Research 2020-2021

Chipperfield	Judith	Psychology	Faculty of Arts	Attribution-based motivation treatments and mind mapping: A curriculum intervention program to facilitate academic engagement for college students in online learning environments
Cicek	Nazim	Biosystems Engineering	Faculty of Agricultural and Food Sciences	Converting waste oat hulls to value-added products: Cattle feed pellets and single-use biodegradable plates
Coar	Lancelot	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Northern sustainability teaching lodges in remote First Nation Communities
Cohen	Benita	Nursing	College of Nursing	Social justice and health equity in the teaching and learning environment: Perspectives of academic leadership in health profession programs
Collins	Benjamin	Anthropology	Faculty of Arts	Refining the middle-to-later stone age transition: The perspective from Grassridge Rockshelter, South Africa
Collins	Eric	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Arctic marine microbial biodiversity initiative
Connor	M. Laurie	Soil Science	Faculty of Agricultural and Food Sciences	Advancing the Canadian swine sector through environmental footprint analyses
Cossar	Roisin	History	Faculty of Arts	To everything there is a season: Seasonality and the history of late medieval Christianity
Costamagna	Alejandro	Entomology	Faculty of Agricultural and Food Sciences	Effects of landscape complexity on the functional diversity of natural enemies and the provision of pest control ecosystem services in agricultural landscapes
Cowley	Kristine	Occupational Therapy	College of Rehabilitation Sciences	Providing essential technology access to the hospital and home environment throughout the continuum of care
Cunha Cordeiro	Marcos	Animal Science	Faculty of Agricultural and Food Sciences	Advanced Research Computing (ARC) to drive forth the digital agriculture revolution in Canada
Curnow	Joe	Educational Administration, Foundations and Psychology	Faculty of Education	Learning racial justice in the environmental movement

UM Sustainability Research 2020-2021

Currie	Robert	Entomology	Faculty of Agricultural and Food Sciences	Increased sustainability managing bee pests (Varroa Mites and Nosema)
Dahl-Jensen	Dorthe	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Canada Excellence Research Chair in Arctic Ice, Freshwater Marine Coupling and Climate Change
Davies	Katherine	Statistics	Faculty of Science	Censoring methodologies and censored data analysis with applications in the engineering and environmental sciences
Davoren	Gail	Biological Sciences	Faculty of Science	The ecology of forage fish and interactions with marine predators
Daya	Jayesh	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Dean	Heather	Pediatrics and Child Health	College of Medicine	Genetic and environmental influences on development of type 2 diabetes in childhood: The next generation longitudinal birth cohort
Deane	Lawrence	Dean's Office - Faculty of Social Work	Faculty of Social Work	Nisichawayasihk - a future net-zero First Nation?: Integrated development in a Northern community
Deer	Frank	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Northern sustainability teaching lodges in remote First Nation Communities
Desai	Radhika	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Desmarais	Annette	Sociology	Faculty of Arts	Transitioning to agroecology in the Canadian Prairies: A research and visual methods pilot project
Detwiler	Jillian	Biological Sciences	Faculty of Science	Parasite-modified behaviour in freshwater systems: Context dependence and the ecological role of signaling molecules
Dibrov	Pavel	Microbiology	Faculty of Science	Structure, function and dynamics of the cation-proton antiporter Vc-NhaP2 in Vibrio cholerae

UM Sustainability Research 2020-2021

Docker	Margaret	Biological Sciences	Faculty of Science	Environmental DNA ("eDNA"), meta-barcoding and transcriptional profiling to improve sustainability of freshwater fisheries and fish culture
Dyck	Bruno	Business Administration	I. H. Asper School of Business	A study of Social and Ecological Thought (SET) organizations in Manitoba
Ehn	Jens	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Automatic water samplers and salinometer for Arctic coastal oceanography research and training
Elias	Brenda	Community Health Sciences	College of Medicine	Advancing positive medical student academic learning environments to enhance student well-being (J.Gruber, Masters Thesis Project)
Entz	Martin	Plant Science	Faculty of Agricultural and Food Sciences	Effect of conservation agriculture on soil health and crop productivity in East Africa
Ethans	Karen	Occupational Therapy	College of Rehabilitation Sciences	Providing essential technology access to the hospital and home environment throughout the continuum of care
Farenhorst	Annemieke	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Scaling climate change adaptation knowledge and technologies for empowering women and for enhancing social equity and disaster resilience in Bangladesh
Fayek	Mostafa	Earth Sciences	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Methane in the environment (MITE): Navigating risk and security on the Black Sea
Ferguson	Ian	Earth Sciences	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Electromagnetic imaging of lithospheric and environmental targets
Ferguson	Philip	Mechanical Engineering	Faculty of Engineering	Lunar Threat Environment (LTE) forecasting
Ferguson	Steven	Biological Sciences	Faculty of Science	Adaption of Arctic marine mammals to climate change
Filizadeh	Shaahin	Electrical and Computer Engineering	Faculty of Engineering	Grid-forming techniques for converter-dominated power systems
Fiorillo	Graziano	Civil Engineering	Faculty of Engineering	Multi-hazard probabilistic risk assessment of bridge networks in cold regions

UM Sustainability Research 2020-2021

Fraser	Kevin	Biological Sciences	Faculty of Science	Investigating avian resiliency to environmental change using new migratory tracking technologies and statistical modelling
Fricke	Monica	Nursing	College of Nursing	Social justice and health equity in the teaching and learning environment: Perspectives of academic leadership in health profession programs
Friesen	Marcia	Dean's Office - Faculty of Engineering	Faculty of Engineering	NSERC Chair in Design Engineering for Sustainable Development and Enhanced Design Integration
Funk	Laura	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Gagnon	Suzanne	Business Administration	I. H. Asper School of Business	Social inclusion and institutional environment of organizations
Gallacher	Guillermo	Economics	Faculty of Arts	Applied economic research in the areas of development, international economics, macroeconomics, economic growth, inequality and sustainability
Gao	Jijun	Business Administration	I. H. Asper School of Business	Evolving pattern of food consumption: Sustainability and health perspectives
Garroway	Colin	Biological Sciences	Faculty of Science	Tests of the predictability of population genetic structure and change in wild animal populations
Ge	Wenxia	Accounting and Finance	I. H. Asper School of Business	An investigation into climate risk, analyst forecast , and corporate sustainability
Gibbs	Jason	Entomology	Faculty of Agricultural and Food Sciences	Systematic and biodiversity surveys of wild bees (Hymenoptera: Apoidea: Anthophila)
Gillis	Darren	Biological Sciences	Faculty of Science	The impact of ecological dynamics and statistical properties in fisheries data on the sustainability of fish populations and harvest
Greenfield	Haskel	Anthropology	Faculty of Arts	Provisioning early complex society in the southern Levant: domestic livestock production, management (mobility, feeding and watering), and transport during the early Bronze Age
Gulden	Robert	Plant Science	Faculty of Agricultural and Food Sciences	Improving nitrogen use efficiency and soil sustainability - K. Liddle

UM Sustainability Research 2020-2021

Guse	Lorna	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Gwinner	Gerald	Physics and Astronomy	Faculty of Science	Fundamental symmetry tests with the francium laser trap facility at ISAC
Haberman	Craig	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Halas	Gayle	Family Medicine	College of Medicine	Virtual visits and management of primary care in a pandemic environment
Hanesiak	John	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Summer extreme weather: Improving climatologies, predictions and assessments of future climate
Hanson	Mark	Chemistry	Faculty of Science	Freshwater oil spill remediation study at the IISD-Experimental Lakes Area: (The FOrESt Project)
Haque	C. Emdad	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Scaling climate change adaptation knowledge and technologies for empowering women and for enhancing social equity and disaster resilience in Bangladesh
Harder	Nicole	Nursing	College of Nursing	Psychological safe learning environments in simulation: Nursing students' perspectives
Harris	Steven	Biological Sciences	Faculty of Science	Adaptations of fungi to life in extreme environments
Henhawk	Daniel	Kinesiology and Recreation Management	Faculty of Kinesiology and Recreation Management	Teaching health & physical literacy in culturally sustaining ways in multicultural learning environments: Indigenous community perspectives
Herbert	David	Chemistry	Faculty of Science	Organometallic and coordination chemistry approaches to small molecule activation relevant to renewable energy and resources
Ho	Ngai Man (Carl)	Electrical and Computer Engineering	Faculty of Engineering	A Power-HIL system for power quality evaluation of multiple EV on-board chargers connecting to grid
Hollaender	Hartmut	Civil Engineering	Faculty of Engineering	Estimation of recharge and nutrient leaching at different scales to improve sustainable land and groundwater management

UM Sustainability Research 2020-2021

Hombach-Klonisch	Sabine	Human Anatomy and Cell Science	College of Medicine	Molecular determinants of thyroid cell functional plasticity
House	James	Food and Human Nutritional Sciences	Faculty of Agricultural and Food Sciences	Enhancing the Value of Lentil Variation for Ecosystem Survival (EVOLVES)
Izydorczyk	Marta	Food and Human Nutritional Sciences	Faculty of Agricultural and Food Sciences	The germinating seed-microbe ecosystem of barley malt: It's effect on malting quality and wort fermentability
Jacobsohn	Eric	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Jayas	Digvir	Biosystems Engineering	Faculty of Agricultural and Food Sciences	Climate change and invasive alien species (IAS)
Jeffries	Kenneth	Biological Sciences	Faculty of Science	Environmental DNA ("eDNA"), meta-barcoding and transcriptional profiling to improve sustainability of freshwater fisheries and fish culture
Jiang	Changmin	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	GENICE: Microbial genomics for oil spill preparedness in Canada's arctic marine environment
Johnson	Amanda	Nursing	College of Nursing	The micro- and macro-construction of induced displacement: Experiences, health outcomes and future plans of Little Saskatchewan First Nation
Jones	Meaghan	Biochemistry and Medical Genetics	College of Medicine	Breaking the Link Between Early Life Environment Exposures and Health
Karimi-Abdolrezaee	Soheila	Physiology & Pathophysiology	College of Medicine	Neuroregenerative approaches to enhance white matter repair and functional recovery following traumatic spinal cord injury: reconditioning the injured microenvironment
Katz	Alan	Family Medicine	College of Medicine	Virtual visits and management of primary care in a pandemic environment
Kavgic	Miroslava	Civil Engineering	Faculty of Engineering	Assessment of indoor environment quality in the school building
Kazem Moussavi	Zahra	Electrical and Computer Engineering	Faculty of Engineering	Designing a driving simulator in an immersive virtual reality environment as an engaging driving game for older adults

UM Sustainability Research 2020-2021

Kelly	Christine	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Kelly	Debbie	Psychology	Faculty of Arts	Mechanisms of age-related spatial decline in large scale environments: A comparative study of pigeons and humans
Koper	Nicola	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Ecology and conservation of grassland songbirds in the Waterton Park front area
Kulchyski	Peter	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Kuo	I fan	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Kuzyk	Zou Zou	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Automatic water samplers and salinometer for Arctic coastal oceanography research and training
Labine	Lisa	Family Medicine	College of Medicine	Virtual visits and management of primary care in a pandemic environment
Landrum	Lisa	Architecture	Faculty of Architecture	Canadian architecture forums on education: Toward an architecture policy for Canada
Larson	Paul	Supply Chain Management	I. H. Asper School of Business	Assessing the impact of modal shifts and electrification on mobility and the environment – before, during and after the pandemic
Lawley	Chad	Agribusiness & Agricultural Economics	Faculty of Agricultural and Food Sciences	Returns on land conservation investment in Canada
Lengyel	Christina	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Levin	David	Biosystems Engineering	Faculty of Agricultural and Food Sciences	Floating Wetland Treatments to Enhance Remediation (FLOWTER) Project

UM Sustainability Research 2020-2021

Liao	Chi	Business Administration	I. H. Asper School of Business	People and planet before profits: Theory and best practices in social and ecological thought organizations
Lin	Francis	Physics and Astronomy	Faculty of Science	Investigation of immune cell trafficking in complex cellular environment
Linton	Janice	Nursing	College of Nursing	The micro- and macro-construction of induced displacement: Experiences, health outcomes and future plans of Little Saskatchewan First Nation
Liu	Mingzhi	Business Administration	I. H. Asper School of Business	Climate risk and financial quality: International evidence
Lobb	David	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	BaySys - contributions of climate change and hydroelectric regulation to the variability and change of freshwater-marine coupling in the Hudson Bay system
Lobchuk	Michelle	Nursing	College of Nursing	Caregiver research environment (CARE): A naturalistic setting for empathic communication
Lorway	Robert	Community Health Sciences	College of Medicine	Landscaping of HIV prevention product delivery ecosystems
MacDonald	Laura	Nursing	College of Nursing	Social justice and health equity in the teaching and learning environment: Perspectives of academic leadership in health profession programs
Maghoul	Pooneh	Civil Engineering	Faculty of Engineering	Advanced coupled geomechanical tool for design and performance analysis of infrastructure affected by frost action
Mallory-Hill	Shauna	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Manchanda	Rajesh	Business Administration	I. H. Asper School of Business	People and planet before profits: Theory and best practices in social and ecological thought organizations
Mann	Janelle	Economics	Faculty of Arts	The unintended consequences of ethanol: Fuel market competitiveness and climate change
Marcoux	Marianne	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Supporting sustainable development of community Greenland halibut fisheries in the Eastern Canadian Arctic (Project number: 47)

UM Sustainability Research 2020-2021

Marini Marson	Juliana	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Icebergs' ecological impacts on the northern oceans: A numerical perspective
Markham	John	Biological Sciences	Faculty of Science	Ecosystem engineers in the subarctic
Marrie	Ruth	Internal Medicine	College of Medicine	Demographic and environmental risk factors for neuromyelitis optica spectrum disorder
Martin	Donna	Natural Resources Institute	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Northern sustainability teaching lodges in remote First Nation Communities
McAllister	Timothy	Animal Science	Faculty of Agricultural and Food Sciences	Assessment of the impact of Canadian beef production on biodiversity
McGavock	Jonathan	Pediatrics and Child Health	College of Medicine	Genetic and environmental influences on development of type 2 diabetes in childhood: The next generation longitudinal birth cohort
McGeough	Emma	Animal Science	Faculty of Agricultural and Food Sciences	Assessing forage-based feeding scenarios for methane mitigation in beef cattle
McKinnon	Lyle	Medical Microbiology and Infectious Diseases	College of Medicine	Genetic regulation of the vaginal immune and microbial environment and its impact on HIV susceptibility
McLachlan	Stephane	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Pangnirtung land and climate program
McLaren	Paul	Medical Microbiology and Infectious Diseases	College of Medicine	Genetic regulation of the vaginal immune and microbial environment and its impact on HIV susceptibility
Menec	Verena	Community Health Sciences	College of Medicine	Age-friendly community initiatives: Impact and sustainability
Milgrom	Richard	Community Health Sciences	College of Medicine	Age-friendly community initiatives: Impact and sustainability
Milliken	Eveline	Dean's Office - Faculty of Social Work	Faculty of Social Work	Creating culturally safe learning environments for SAS registered students
Milne	Brooke	Anthropology	Faculty of Arts	Southampton Island Marine Ecosystem Project (SIMEP)

UM Sustainability Research 2020-2021

Mizuno	Tooru	Physiology & Pathophysiology	College of Medicine	Collaborative work on the effect of environmental factors on glycemic control between Dutch and Canadian investigators
Mundy	Christopher	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Automatic water samplers and salinometer for Arctic coastal oceanography research and training
Muthukumarana	Saman	Biological Sciences	Faculty of Science	Investigating avian resiliency to environmental change using new migratory tracking technologies and statistical modelling
Mutter	Thomas	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Narvaez Bravo	Claudia	Food and Human Nutritional Sciences	Faculty of Agricultural and Food Sciences	Shiga toxigenic E coli persistence in food processing environments
Ng	Koi Yu Adolf	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	GENICE: Microbial genomics for oil spill preparedness in Canada's arctic marine environment
Nyachoti	Charles (Martin)	Animal Science	Faculty of Agricultural and Food Sciences	Improving competitiveness and sustainability of pork production through increase in feed efficiency, improved carcass quality and higher animal welfare standards by innovative application of microbiome profiling, computed tomography and genomics
Okhmatovski	Vladimir	Electrical and Computer Engineering	Faculty of Engineering	Novel methodologies for electromagnetic characterization of complex power cable systems situated in realistic environment
Ominski	Kimberly	Animal Science	Faculty of Agricultural and Food Sciences	A regionalized life cycle assessment model for the quantification of Canadian beef production impacts of biodiversity
Ormiston	Scott	Mechanical Engineering	Faculty of Engineering	Computational fluid dynamics modelling aerosol removal in a strongly condensing environment

UM Sustainability Research 2020-2021

Palace	Vince	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Expanding chemical oxygen demand (COD) profiles to validate contaminant specific degradation in freshwater environments and indicators of ecosystem function
Papakyriakou	Timothy	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Automatic water samplers and salinometer for Arctic coastal oceanography research and training
Park	Jason	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Pascoe	Chris	Physiology & Pathophysiology	College of Medicine	Environmental exposures influence airway smooth muscle function through changes in DNA methylation
Paterson	Michael	Entomology	Faculty of Agricultural and Food Sciences	pELastic: a whole-ecosystem experiment to understand the fate and effects of microplastics
Peng	Qingjin	Biosystems Engineering	Faculty of Agricultural and Food Sciences	Vertical tillage and vertical seeding for conservation agriculture
Perry	Raymond	Psychology	Faculty of Arts	Attribution-based motivation treatments and mind mapping: A curriculum intervention program to facilitate academic engagement for college students in online learning environments
Peyton	Jonathan	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Energy imaginaries: The social and environmental legacies of unbuilt megaprojects in Canada's north
Pickles	Mike	Community Health Sciences	College of Medicine	Spatial modeling of infectious diseases: Environment and health
Porter	Michelle	Centre on Aging	Vice-President (Research and International)	The impact of renovations in long-term care living spaces on residents with dementia, their families and the staff that care for them
Rachul	Christen	Nursing	College of Nursing	Social justice and health equity in the teaching and learning environment: Perspectives of academic leadership in health profession programs

UM Sustainability Research 2020-2021

Rajapakse	Athula	Electrical and Computer Engineering	Faculty of Engineering	Critical assessment of battery energy storage options and development of advanced secondary level controls for hybrid renewable energy systems in Northern Manitoba
Raouf	Afshin	Immunology	College of Medicine	Role of tumor microenvironment in therapy resistance and tumor progression
Renault	Sylvie	Biological Sciences	Faculty of Science	Revegetation of disturbed areas in Northern Manitoba
Restall	Gayle	Nursing	College of Nursing	Social justice and health equity in the teaching and learning environment: Perspectives of academic leadership in health profession programs
Ripat	Jacqueline	Interior Design	Faculty of Architecture	Aging in place ergonomic kitchen design
Rodas Gonzalez	Argenis	Animal Science	Faculty of Agricultural and Food Sciences	Improving competitiveness and sustainability of pork production through increase in feed efficiency, improved carcass quality and higher animal welfare standards by innovative application of microbiome profiling, computed tomography and genomics
Roth	James	Biological Sciences	Faculty of Science	Food web interactions at the Arctic's edge
Rysgaard	Soren	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	BaySys - contributions of climate change and hydroelectric regulation to the variability and change of freshwater-marine coupling in the Hudson Bay system
Saberian	Soodeh	Economics	Faculty of Arts	Links between mental health and environmental factors - start up
Sapirstein	Harry	Food and Human Nutritional Sciences	Faculty of Agricultural and Food Sciences	Influence of genotype, weather and the growing environment, and crop management on gluten strength and the sustainability of CWRS as a premium wheat class in the Prairie region
Schindler	Michael	Earth Sciences	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Environmental nano-geoscience facility
Schreckenbach	Georg	Chemistry	Faculty of Science	Quantum chemistry - fundamental insights and a tool for addressing materials, energy and environmental changes
Sellers	Elizabeth	Pediatrics and Child Health	College of Medicine	Genetic and environmental influences on development of type 2 diabetes in childhood: The next generation longitudinal birth cohort

UM Sustainability Research 2020-2021

Shady	Gary	Civil Engineering	Faculty of Engineering	An AI-based climate impact assessment framework for infrastructure in northern Canada
Shafai	Cyrus	Electrical and Computer Engineering	Faculty of Engineering	Threat assessment for northern civil infrastructure affected by climate change using an AI-based geomechanical model
Shalaby	Ahmed	Civil Engineering	Faculty of Engineering	Threat assessment for northern civil infrastructure affected by climate change using an AI-based geomechanical model
Sharma	Kumar	Physics and Astronomy	Faculty of Science	Fundamental symmetry tests with the francium laser trap facility at ISAC
Shields	Jason	Interior Design	Faculty of Architecture	Virtual, augmented, and mixed reality – pedagogical and communicative methods for interior environments
Silvestre	Bruno	Business Administration	I. H. Asper School of Business	People and planet before profits: Theory and best practices in social and ecological thought organizations
Simons	Elinor	Pediatrics and Child Health	College of Medicine	Longitudinal associations between environmental exposure and childhood asthma
Sinclair	John	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	GENICE: Microbial genomics for oil spill preparedness in Canada's arctic marine environment
Singer	Alexander	Family Medicine	College of Medicine	Virtual visits and management of primary care in a pandemic environment
Singh	Harminder	Internal Medicine	College of Medicine	The urban exposome and Inflammatory Bowel Disease: Determining environmental factors that increase the risk of IBD and the cost of care
Soderstrom	Melanie	Psychology	Faculty of Arts	Audiorecording of infants' home language environments
Sorensen	John	Microbiology	Faculty of Science	Evaluation of the antimicrobial activity of hop aqueous extracts
Sparling	Richard	Microbiology	Faculty of Science	Relating fermentation pathways to energy conservation in lignocellulolytic clostridia and related organisms
Stadnyk	Tricia	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	BaySys - contributions of climate change and hydroelectric regulation to the variability and change of freshwater-marine coupling in the Hudson Bay system

UM Sustainability Research 2020-2021

Stern	Gary	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	BaySys - contributions of climate change and hydroelectric regulation to the variability and change of freshwater-marine coupling in the Hudson Bay system
Sutherland	Dawn	Curriculum, Teaching and Learning	Faculty of Education	Teaching pre- and in-service science teachers in informal environments
Tenuta	Mario	Soil Science	Faculty of Agricultural and Food Sciences	Advancing the Canadian swine sector through environmental footprint analyses
Thompson	Genevieve	Nursing	College of Nursing	Supporting family caregivers of persons living with dementia: Effectiveness and sustainability of My Tools 4 Care - In Care
Thompson	Shirley	Civil Engineering	Faculty of Engineering	Sustainable development of solid waste management in the Municipality of Roblin
Thorpe	Jocelyn	Environment & Geography	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Wa Ni Ska Tan: A cross-regional research alliance on the implications of hydro development for environments and Indigenous communities in Northern Canada
Tomy	Gregg	Chemistry	Faculty of Science	Apportionment of polycyclic aromatic compounds in the Canadian environment
Torabi	Mahmoud	Community Health Sciences	College of Medicine	Spatial modeling of infectious diseases: Environment and health
Treberg	Jason	Biological Sciences	Faculty of Science	Canada Research Chair in Environmental Dynamics and Metabolism
Triggs-Raine	Barbara	Biochemistry and Medical Genetics	College of Medicine	Breaking the link between environmental exposures and health
Turcotte	Dana	Nursing	College of Nursing	Social justice and health equity in the teaching and learning environment: Perspectives of academic leadership in health profession programs
Van Winkle	Christine	Kinesiology and Recreation Management	Faculty of Kinesiology and Recreation Management	Festivals and emergency management: Gathering in the face of disaster
Wang	Feiyue	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Arctic environmental chemistry

UM Sustainability Research 2020-2021

Wang	Luming	Supply Chain Management	I. H. Asper School of Business	Climate change and virtual reality: Psychological distance and customer behaviour
Wang	Yang	Statistics	Faculty of Science	Assessing and identifying indoor environmental quality gaps in commercial buildings using wireless sensors and big data analysis tools
Weihrauch	Dirk	Biological Sciences	Faculty of Science	Acid-base regulation and ammonia excretion in aquatic invertebrates with considerations of future environmental changes: Characterization of novel transporters and mechanisms.
Wicklow	Brandy	Pediatrics and Child Health	College of Medicine	Genetic and environmental influences on development of type 2 diabetes in childhood: The next generation longitudinal birth cohort
Wilkins	Olivia	Biological Sciences	Faculty of Science	Climate change resilience plant systems biology laboratory
Wilson	Nicole	Centre for Earth Observation Science	Clayton H. Riddell Faculty of Environment, Earth, and Resources	Bridging the knowledge-policy gap: Linking arctic community-based monitoring to environmental governance and decision-making
Wittenberg	Katherina	Animal Science	Faculty of Agricultural and Food Sciences	Assessment of the potential of Biochar added to beef cattle diets to reduce greenhouse gas emissions in agriculture
Wu	Zhenyu	Business Administration	I. H. Asper School of Business	Climate risk and financial quality: International evidence
Xing	Mengqiu (Malcolm)	Mechanical Engineering	Faculty of Engineering	Development of stabilized environmentally sensitive polymeric nanoparticles
Yang	Chengbo	Animal Science	Faculty of Agricultural and Food Sciences	Improving competitiveness and sustainability of pork production through increase in feed efficiency, improved carcass quality and higher animal welfare standards by innovative application of microbiome profiling, computed tomography and genomics
Yi	Kyoung June (David)	Kinesiology and Recreation Management	Faculty of Kinesiology and Recreation Management	Teaching health & physical literacy in culturally sustaining ways in multicultural learning environments: Indigenous community perspectives
Yuan	Qiuyan	Civil Engineering	Faculty of Engineering	Mapping and mitigating microplastics in built environments

UM Sustainability Research 2020-2021

Zarychanski	Ryan	Internal Medicine	College of Medicine	Tranexamic acid use to reduce transfusion in major non-cardiac surgery (TRACTION): A pragmatic registry-based randomized controlled trial
Zhang	Qiang	Soil Science	Faculty of Agricultural and Food Sciences	Advancing the Canadian swine sector through environmental footprint analyses
Zvomuya	Francis	Animal Science	Faculty of Agricultural and Food Sciences	Perennial forage grain for fall grazing of beef cattle