



UPEI Researcher Highlight Booklet Human Health



Office of COMMERCIALIZATION,
INDUSTRY, and INNOVATION



The **Office of Commercialization, Industry, and Innovation** (OCII) helps facilitate research partnerships between UPEI researchers and local companies, community organizations, and government agencies.

Our Business Development Officers are available to answer questions about partnerships, funding, and beyond.



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October 2024



Dr. Sarah Finch

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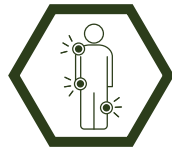
Department of Applied Human Sciences,
Assistant Professor

Dr. Finch's research program centres on the role of nutrition in the prevention and treatment of chronic disease, with an emphasis on vitamin D.

Her current focus includes the impact of diet on inflammation and the role of food environments on child health. As a registered dietitian with a research background in basic and clinical science she is able to collaborate on nutrition focused research across a broad spectrum of populations and conditions.



Nutrition



Inflammation



Vitamin D

www.islandscholar.ca/people/safinch-0



Office of COMMERCIALIZATION,
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Dr. Sarah Hewko

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Department of Applied Human Sciences,
Associate Professor;
Associate Editor, Journal of Human Nutrition and Dietetics

Dr. Hewko studies the allied health workforce, including dietitians, physiotherapists, and occupational therapists (among others).

Specifically, she studies the factors that enhance their retention in their jobs and in the health care system, their job satisfaction and optimal management of their performance. She is well-versed in both quantitative and qualitative health research methods and has shared the results of her research provincially, nationally and internationally through journal articles and presentations.



Allied Health Professionals



Health Human Resources



Gender at Work

www.islandscholar.ca/people/shewko



Office of COMMERCIALIZATION,
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Dr. William Montelpare

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Department of Applied Human Sciences, Professor;
Cross-appointed to the Faculty of Nursing;
Margaret and Wallace McCain Research Chair in Human Development and Health

As part of his responsibilities as the Margaret and Wallace McCain Research Chair in Human Development and Health, Dr. Montelpare is the PI for the PEI node of the Canadian Primary Care Research Network (an extension of the CIHR SPOR Network), and the lead researcher for the UPEI Health Research Network (HRN).

The HRN conducts person-centered research that promotes health and well-being across the lifespan, with a vision to create a vibrant, productive, and collaborative research community in PEI. The HRN focuses on innovative evidence-based initiatives that promote efficient and effective research methodologies to address the wicked problems arising in Gestalt of health.



Evidence-Based



Collaborative



Person-Centered

www.islandscholar.ca/people/wmontelpare

www.projects.upei.ca/hcrc/



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Dr. Étienne Myette-Côté

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Department of Applied Human Sciences,
Assistant Professor

Dr. Myette-Côté's research focuses on how nutrition and exercise influence physical function and cardiometabolic health, with a particular emphasis on preventing and managing age-related conditions such as diabetes and Alzheimer's disease.

He employs randomized clinical trials to gather detailed data using tools such as glucose monitors, blood assays, and DEXA scans, analyzing both acute and chronic physiological responses to various lifestyle interventions. Additionally, Dr. Myette-Côté explores how tailored exercise and dietary strategies can enhance physical performance for both athletes and active individuals.



Aging



Exercise Physiology



Physical Performance

www.scholar.google.ca/citations?user=zIE6K7YAAAAJ&hl=en&oi=ao

www.islandscholar.ca/people/emyette-cote



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Dr. Rebecca Reed-Jones

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Department of Applied Human Sciences,
Associate Professor

Dr. Reed-Jones' research focuses on sensory system integration and its role in the execution of gait and posture.

Her research has both clinical and basic science components combining the fundamentals of neuroscience with the techniques of biomechanics. Her research to date has involved clinical populations such as athletes with concussions and individuals with Parkinson's disease. Dr. Reed-Jones also works with older adults to understand the healthy aging process and its role in mobility issues and the risk of falling. In addition to this health-related research, Dr. Reed-Jones has also conducted a number of studies in the field of ergonomics and human-computer interaction examining postural adaptation to virtual reality simulators.



Motor Control



Balance



Sensory Systems

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Dr. Travis Saunders

(he/him)

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Department of Applied Human Sciences,
Professor;
Former Levesque Chair in Nutrisciences and Health

Dr. Saunders studies the health impacts of sedentary behaviour and physical activity across the lifespan.

He leads both community-based and clinic-based studies, and is the former Levesque Chair in Nutriscience and Health. He has led industry-funded projects to:

- Validate the use of accelerometers and pedometers for assessing physical activity
- Evaluating natural products' impact on glycemic control
- Develop clinical trial protocol for assessing impact of nutritional supplementation on hunger/satiety



Human Movement



Hunger



Glycemic Control

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Dr. Pat Murphy

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Department of Biology,
Assistant Professor;
Adjunct Professor, Department of
Pathology, Dalhousie University;
Associate Member of the Beatrice
Hunter Cancer Research Institute

Dr. J Patrick Murphy aims to identify new therapies for cancer by studying how certain cellular nutrients affect tumour biology.

To do this, the Murphy Laboratory at UPEI is focused on developing and applying cutting-edge mass spectrometry-based approaches to understand the metabolic underpinnings of tumours. These approaches are mostly applied to cell line and animal models of tumours as well as human tumour biopsies in partnership with the Marathon of Hope Cancer Centers Network. The group also has developed a significant side-interest in helping industry develop safer and more efficacious biologics.



Metabolism



Cancer



Metabolomics & Proteomics

www.islandscholar.ca/people/jpmurphy

www.projects.upei.ca/murphylab/



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Dr. Joel Ross

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Department of Biology,
Associate Professor

The Ross laboratory uses stem cells and genetic tools like CRISPR to understand how mammalian genes are switched off and on to regulate biological processes like neurodevelopment and cell communication.

Health applications of Dr. Ross' research include the production of human cells "in-a-dish" for disease modeling and for testing cellular responses to therapeutics. Examples include generation of donor-matched stem cells to model developmental disorders and industry-partnered projects to test how human cells respond to exogenous mRNA/DNA, biologics, and small molecules.



Stem cells



Gene Regulation



Neurodevelopmental Disorders

www.islandscholar.ca/people/pjross

www.projects.upei.ca/rosslab/



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Dr. Désirée Seib

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Department of Biology,
Assistant Professor

Dr. Desiree Seib is interested in the effects of diet and the microbiome on the brain and behaviour during early life, pregnancy, and adulthood.



Brain & Behaviour

Currently, her lab is examining sex differences in hormones, the brain and physiology in the offspring of rat mothers who were exposed to highly palatable diets or altered microbiomes during gestation.



Neuroendocrinology



Immune Activation

www.islandscholar.ca/people/dseib

www.projects.upei.ca/seiblab/



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Dr. Marva Sweeney-Nixon

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Department of Biology,
Professor;
AVP Research & Dean of Graduate
Studies

Dr. Sweeney is a biomedical researcher with expertise in cellular and animal models of disease, and testing the effect of bioactive compounds.

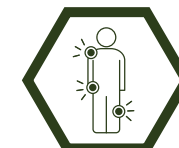


Nutrisciences

Her main disease areas involve inflammation, such as cardiovascular diseases (hypertension, stroke, atherosclerosis), diabetes, and more recently inflammatory bowel disease. She has worked with rodents and tissue culture models.



Cardiovascular Disease



Inflammation

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Dr. Paul Bernard

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Atlantic Veterinary College,
Department of Biomedical Sciences,
Associate Professor

Dr. Bernard and his research team explore the impact of ultrasonic noise, which is present in most buildings, on animal models of human neurological disorders.

Typical animals used in health-related research (rodents) can hear into the ultrasonic range and are therefore susceptible to adverse health-related outcomes upon exposure to ultrasonic noise. Ultrasonic noise introduces unpredictable/undetected confounding variables into rodent research, compromising the validity of experimental results. The Bernard lab also assesses the association between early-life neurological perturbations (toxins, seizures, etc.) and chronic neurological disorders that impact communication/socialization (i.e. autism).



Ultrasonic



Rodent models



Neurological Disorders

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Dr. Joseph Gordon

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Atlantic Veterinary College,
Department of Biomedical Sciences,
Associate Professor;
Cross-appointed to the Faculty of
Medicine

Dr. Gordon's research focuses on the regulation of mitochondrial function and metabolism during diabetic cardiomyopathy, muscle insulin resistance, and how modern obesity medication impacts muscle function.

His laboratory utilizes both cell culture models and conditional knockout mice.



Diabetic Cardiomyopathy



Mitochondria



Obesity Medication

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Dr. Sunny Hartwig

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Atlantic Veterinary College,
Department of Biomedical Sciences,
Associate Professor;
Chair, KRESCENT Program;
Managing Editor, Canadian Journal
of Kidney Health and Disease

Dr. Hartwig is a kidney developmental biologist with a passion for mentorship.

She teaches physiology and research in the DVM curriculum at AVC. She is chair of the CIHR-funded Kidney Research Scientist Core Education National Training (KRESCENT) program, for early career researchers (allied health, basic and clinician scientists) in the field of nephrology. She is managing editor of the Canadian Journal of Kidney Health and Disease, the flagship journal of the Canadian Society of Nephrology (CSN).



Kidney Development & Physiology



Kidney Health & Disease



Early Career Mentorship

www.islandscholar.ca/people/shartwig www.kidney.ca/Krescent/About-Us/Leadership

www.csnsn.ca/education/canadian-journal-of-kidney-health-and-disease-p1/



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Dr. Jay Penney

(he/him)

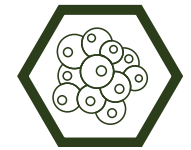
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Atlantic Veterinary College,
Department of Biomedical Sciences,
Associate Professor;
Canada Research Chair in
Biomedical Genetics

Dr. Penney's research uses human induced pluripotent stem cell (iPSC) models to better understand Parkinson's disease genetic risk factors.

Using gene editing techniques and generating different brain cell types from iPSCs, this work seeks to define the cellular functions of Parkinson's disease genes and the specific effects of disease-associated mutations. Dr. Penney's research is most focused on microglia, the innate immune cells of the brain, but will also examine neurons and other brain cell types.



Parkinson's Disease



Induced Pluripotent Stem Cell Models



Gene Editing

www.islandscholar.ca/people/jaypenney <https://projects.upei.ca/jaypenney/>



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Dr. Jonathan Spears

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Atlantic Veterinary College,
Department of Biomedical Sciences,
Professor;
University Veterinarian

Dr. Spears is a research veterinarian with primary training and experience in the health and humane use of animals in the research environment, particularly with large animals and fish.

He is currently involved in the use of various animal models for academic investigation and pre-clinical discovery of pharmaceuticals, nutraceuticals, and naturally occurring toxins, keeping concerns over animal welfare at the forefront. His recent focused interest is implementation of advanced animal imaging in various research animal models. Dr. Spears is also the University Veterinarian for UPEI/AVC, whose role is to serve as the regulatory veterinarian for their Animal Care and Use Program.



Toxicology



**Research
Animal
Imaging**



**Animal
Welfare**

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Dr. Marya Ahmed

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Department of Chemistry,
Associate Professor;
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Sustainable Design Engineering

Dr. Ahmed's research is focused on the development of peptide-based polymeric materials, including hydrogels, nanoparticles, and polymers.

The Ahmed lab also researches the applications of these polymeric materials as drug delivery carriers, antifouling agents, and stabilization agents for protein-based therapeutics.



Biomaterials



Drug Delivery



**Antimicrobial
& Antifouling**

www.islandscholar.ca/people/marahmed

www.ahmedlab.ca



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Dr. Marissa Clapson

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Department of Chemistry,
Assistant Professor;
CIC Green Division Executive Chair

Research in the Clapson Group is focused on the development of sustainable catalytic systems.

Catalysts may be considered green when they are used to improve the sustainability of current industrial processes, are used to tackle global problems such as carbon dioxide remediation, or are synthesized using greener methods. The development of greener processes is paramount for efficient chemical synthesis - for example, in the pharmaceutical industry, making novel drug targets easier to access and safer to synthesize. A current project in the group is focused on developing water soluble base metal catalysts for cross-coupling reactions, an important reaction in the development of drug molecules.



Green Chemistry



Sustainability



Catalysis

www.islandscholar.ca/people/mlclapson www.clapsonresearch.squarespace.com/



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Dr. Trevor Clark

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Department of Chemistry,
Assistant Professor

Dr. Clark explores the metabolic potential of marine microorganisms through untargeted metabolomics.

Using high resolution mass spectrometry coupled with biological assays he aims to rapidly identify and isolate new chemicals from nature that have potential therapeutic use. The other branch of his research looks to create new ways to track microbial interactions and how those interactions effect the overall chemical production of microorganisms.



Natural Products



Metabolomics



High-Resolution Mass Spectrometry

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www.upei.ca/profile?u=tnclark



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Dr. Xander Wang

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School of Climate Change and Adaptation, Professor; Member of the Royal Society of Canada, College of New Scholars

Dr. Wang has successfully developed a multidisciplinary research program in the Canadian Centre for Climate Change and Adaptation, which covers all sectors that are being affected by climate change, such as human health, infrastructure, agriculture, fisheries, and tourism.

Climate change is now becoming an emerging health crisis, therefore human health is one of the key research areas in Dr. Wang's research group. Dr. Wang is currently investigating the mental health impacts of post-tropical storm Fiona in PEI and how climate change is affecting the cancer rates in Canada.



Climate Change



Mental Health



Physical Health

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Dr. Beibei Jia

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Atlantic Veterinary College, Department of Health Management, Assistant Professor

Dr. Jia has been working on epidemiological research targeting aquaculture health management since 2011, including biosecurity, spatio-temporal distribution of health issues, and modelling of risk factors.

Her research experience covers a spectrum of topics, ranging from pond aquaculture to sea-cage farming, from farmed to wild fish, and from zoonotic infectious diseases to wildlife mammal diseases. Dr. Jia pursues problem-solving research questions and aims for well-managed teaching. She is interested in developing community-based methods for tackling health challenges.



Food Safety



Sustainability



Aquaculture

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Dr. J McClure

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Atlantic Veterinary College,
Department of Health Management,
Professor

Dr. McClure's research interests are antimicrobial stewardship & resistance, zoonotic diseases, food safety, and infectious disease issues and neonatal health.

His CL2 laboratories are equipped with standard microbiology equipment, Sensititre antimicrobial MIC, qPCR, ELISA, and three FTIR instruments. His research lab does the culturing and MIC testing for the Canadian Dairy Network for Antimicrobial Stewardship and Resistance. His lab also does infectious diseases of cattle (BLV, Johne's disease, and mastitis). Other interests include failure of transfer of passive immunity and infection control.



Antimicrobial Use & Resistance



Infectious Diseases



Food Safety

www.islandscholar.ca/people/jmcclore



Dr. Laurie McDuffee

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Atlantic Veterinary College,
Department of Health Management,
Associate Dean, Graduate Studies
and Research

Dr. McDuffee's current research focus is on interactions between horses and humans with an emphasis on the use of horses in Equine Assisted Services (EAS) to promote the well-being of humans.

The research methods have included collecting both objective and subjective data to determine the efficacy of EAS. Her most recent research into EAS focused on the creation of standards to promote efficacy, and the methods followed a community based participatory research approach where the community was that of providers of EAS on PEI. She also has an interest in using in vitro models to study the effect of climate change on health and development using cell cultures.



Equine Assisted Services



Human-Animal Bond



Climate Change & Health

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Dr. Karen Overall

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Atlantic Veterinary College,
Department of Health Management,
Professor

Dr. Overall studies and treats anxiety disorders in dogs and cats.

Dogs are natural animal models of human mental illness, suffering from many of the same conditions and reacting better to the same anti-anxiety medications than humans. Dr. Overall is involved in new drug development and identifying biomarkers of mental illness in dogs. She has helped bring multiple medications to market worldwide, and recently, one of these medications was adapted for human use. Dr. Overall's recent collaborative research focuses on early behavioural neurodevelopment in puppies and kittens and identifying the onset of fear, anxieties, and cognitive disorders and the role of epigenetic effects in these disorders.



Epigenetics



Mental Illness



Dogs

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Dr. Caroline Ritter

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Atlantic Veterinary College,
Department of Health Management,
Assistant Professor;
Canada Research Chair in Social
Epidemiology for Health Animals

Dr. Ritter researches mental well-being in veterinary practitioners using quantitative and qualitative methods.

She is especially interested in veterinarian-client interactions and their effect on well-being.



Mental Health



Veterinarians



Client
Communication

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www.vessa.ca



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Dr. Javier Sanchez

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Atlantic Veterinary College,
Department of Health Management,
Professor;
Director of the Centre for Veterinary
Epidemiological Research

Dr. Sanchez conducts applied research in population health, including animal health and the interface of animal, human, and environmental health within the One Health paradigm.

His research focuses on zoonosis and antimicrobial resistance using disease modelling and risk assessment to support policy. Dr. Sanchez was involved in the modelling of Covid-19 and continues to participate in national and international working groups addressing emerging and re-emerging diseases. He has led a national program for Antimicrobial Stewardship and Resistance in dairy cattle in Canada and he is currently involved in developing tools for benchmarking Antimicrobial usage in dairy farms.



Epidemiology



Disease Modelling



One Health

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Dr. Krishna Thakur

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Atlantic Veterinary College,
Department of Health Management,
Assistant Professor

Dr. Thakur uses quantitative, statistical and epidemiological methods to understand infectious disease transmission and identify risk factors in animal populations.

Many infectious zoonotic diseases are also transmittable to humans. Dr. Thakur also conducts risk analyses and runs disease simulations.



Epidemiology



Disease Modelling



Risk Analysis

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Dr. Angelina Weenie

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Faculty of Indigenous Knowledge,
Education, Research and Applied
Studies,
Dean

Dr Weenie's human health research interests are in food sovereignty and land-based learning.

Dr. Weenie has worked extensively with Elders in her homeland of Saskatchewan, and she is in the process of building these connections on PEI. She is interested in how the traditional knowledge of the Mi'kmaq people of the Maritimes can contribute to overall health and well-being.



**Indigenous
Research
Methodologies**



**Indigenous
Epistemology &
Ontology**



**Food
Sovereignty**

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Dr. Andrew Godbout

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School of Mathematical and
Computational Sciences,
Associate Professor

Dr. Godbout's research areas include machine learning, signal processing, human-computer interaction and interactive systems.

He is interested in applications of computer science to areas involving human movement, including sporting and rehabilitation settings.



**Machine
Learning**



**Neural
Networks**



**Time Series
Analysis**

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Dr. Michael Mclsaac

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School of Mathematical and Computational Sciences,
Professor

Dr. Michael Mclsaac's research interests include the development and application of statistical methods for health studies.

Dr. Mclsaac works collaboratively with physicians and epidemiologists in the design and analysis of studies related to, among other things, cancer, rheumatology, vasculitis, retinal diseases, dental readiness, adolescent health, and mental health. His specific areas of interest include statistical methods for efficient two-phase study designs and for the analysis of incomplete data. Dr. Mclsaac is affiliated with the Health Behaviour in School-aged Children Study and the PEI Mental Well-Being Research Advisory Table.



Biostatistics



Incomplete Data



Mental Well-being

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Dr. Christopher Power

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School of Mathematical and Computational Sciences,
Professor;
Associate Dean, Faculty of Science

Dr. Power is a researcher who has spent his career working with and advocating for accessibility in technology for disabled people and older adults.

He has experience designing and evaluating interactive systems variety of different domains, with a focus on delivering meaningful experiences through technology.



User Experience



Accessibility



Usability

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Dania Tamayo-Vera

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School of Mathematical and Computational Sciences,
Assistant Professor

Dania Tamayo-Vera specializes in applying advanced machine learning and deep learning techniques to environmental and climate-related data analysis, with a strong focus on predictive modelling.

Her expertise extends to the integration of high-resolution spatial and temporal datasets to assess the impacts of climate variability on agriculture. Utilizing multi-objective optimization algorithms, she develops robust, interpretable models that enhance decision-making processes and methodologies easily transferable to healthcare analytics for improved resource management and predictive insights.



Machine Learning



Data Modelling



Predictive Analytics

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Dr. Scott Cassidy

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McDougall Faculty of Business,
Assistant Professor

Dr. Scott Cassidy is an industrial psychologist and psychometrician who conducts research on a range of topics broadly pertaining to the future of work.

He is interested in remote/hybrid work models and virtual teaming; employee work attitudes, well-being, and retention; and work transformation due to generative artificial intelligence (AI). Some of his current projects include investigating the effects of remote/hybrid work options on employee work attitudes, retention, and psychological/psychosomatic health within a large Maritime health centre; advising on the development of updated credentialing tests for Canadian paramedic practitioners; and, exploring determinants of user trust in AI within the health sector.



Worker Health & Well-being



Remote Work & Telehealth



Credentialing in the Healthcare Sector

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Dr. Margie Burns

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Faculty of Nursing,
Assistant Professor

Dr. Burns conducts practice-focused health research in the areas of critical care and emergency nursing, family nursing, rural access to health care, and health care for marginalized populations.

She collaborates with researchers locally, nationally and internationally. Her methodological expertise includes mix method and qualitative methodologies with a focus on participatory action research, community partnership engagement and the development and evaluation of complex interventions.



Critical care nursing



Family nursing



Rural access

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Dr. Alyson Campbell

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Faculty of Nursing,
Assistant Professor

Dr. Campbell is an implementation science researcher, focusing on the design, implementation and evaluation of evidence-based practices relating to child health and health service delivery.

She applies innovative research methods, informed by implementation science, to better understand how and why complex health interventions work, or not, and the mechanisms that facilitate or hinder the implementation, uptake and sustainability of these interventions. She actively collaborates and engages with multidisciplinary teams, health consumers and care providers throughout the research process.



Implementation Science



Health Services Delivery



Child Health

www.islandscholar.ca/people/alycampbell



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INDUSTRY, and INNOVATION





Ashton Dougan

(she/her)

aedougan@upei.ca
Faculty of Nursing,
Assistant Professor

Ashton Dougan conducts simulation-based research in a variety of health care settings with an array of patient populations.

She focuses on virtual and in-person simulation. Her portfolio of research also includes development of ICU discharge tools, Anti-Racism allyship in higher level education, and responding to racism in the clinical and classroom settings. Ashton collaborates with research interest groups including the Canadian Alliance for Nurse Educators Using Simulation and the International Nursing Association of Clinical Simulation and Learning. She is a Philosophy of Nursing student at Queen's University focusing in qualitative and mixed-methods research.



Simulation



Virtual Reality



Faculty Development



Dr. Brianna Hughes

(she/her)

brihughes@upei.ca
Faculty of Nursing,
Assistant Professor

Dr. Hughes explores how eHealth technology influences engagement and wellbeing with families of infants and young children.

She began her work by developing an eHealth intervention to educate and empower parents to be involved in pain management strategies when their newborn receives needle-related procedures.

Dr. Hughes has experience in quantitative, qualitative and mixed-method research designs, as well as evidence synthesis and knowledge translation. She is always looking for opportunities to collaborate to optimize the health and well-being of young families.



Family Nursing



eHealth Education



Perinatal Well-being

www.islandscholar.ca/people/brihughes



Dr. Gail Macartney

(she/her)

gmacartney@upei.ca
Faculty of Nursing,
Assistant Professor;
Graduate Studies Coordinator

Gail is a Nurse Practitioner with an extensive nursing background in clinical practice, education and research.

She has expertise in pediatric, adolescent and adult patient populations in the community, ambulatory care and inpatient settings. Gail is a Certified Oncology Nurse with expertise in pediatric and adult oncology. Dr. Macartney is interested in the development and dissemination of evidence-informed guidelines for cancer symptom management, cancer screening and concussion care.



Evidence-Based Practice



Oncology



Concussion Care

www.islandscholar.ca/people/gmacartney

www.webnp.info



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Dr. Trevor Jain

(he/him)

tjain@upei.ca
Faculty of Medicine,
Clinical Assistant Professor,
Emergency Medicine;
Program Director, Bachelors of
Paramedicine

Dr Jain is an emergency medicine specialist whose research focuses on disaster and prehospital medicine.

His research has been featured internationally, including NATO, Europe and Japan, being adopted by organizations to achieve better patient outcomes. His unique research into the use of medical unmanned aerial systems, as well as innovative technology, led to the first randomized comparisons on this topic. Pushing the envelope in technology virtual reality for disaster training has been a passion of his.



Disaster Medicine



Critical Care Transport



EMS

www.islandscholar.ca/people/tjain



Office of COMMERCIALIZATION,
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Dr. Stephanie Shaw

(she/her)

sdshaw@upei.ca

Faculty of Sustainable Design Engineering,
Assistant Professor;
Cross-appointed to the School of Climate Change and Adaptation

Dr. Shaw has a high-level review-based research understanding of how air pollution impacts human health.

She is interested in gaining a better understanding of how sustainability and engineering design impact health and society.



Sustainability



Engineering



Air Pollution

www.islandscholar.ca/people/sdshaw



Office of COMMERCIALIZATION,
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Dr. Sundeeep Singh

(he/him)

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Faculty of Sustainable Design Engineering,
Assistant Professor

Dr. Singh's research is primarily focused on advancing Thermal Therapies in the field of Biomedical Engineering.

His expertise lies in modeling and simulations to optimize Minimally Invasive Thermal Therapies, particularly for the treatment of cancer, cardiac arrhythmias, and chronic pain. His current work focuses on developing digital twin technology to enable precision therapies, improving patient-specific outcomes.



Computational Modeling & Simulations



Thermal Therapies



Biomedical Engineering

www.islandscholar.ca/people/sunsingh



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Dr. Stephen Butler

(he/him)

stbutler@upei.ca

Department of Psychology,
Professor;
Honorary Associate Professor,
University College London

Dr. Butler's research interests are primarily in studying the mental health and well-being of children and young people, including recent work on their social media use.



Youth



Mental Health & Well-being



Capitalism

His publications include quantitative and qualitative methods, secondary data analyses, and empirically-based conceptual papers. His empirically based conceptual models seek to understand how young people can adapt and thrive in complex, modern market cultures.

www.islandscholar.ca/people/stbutler



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Dr. Annabel Cohen

(she/her)

acohen@upei.ca

Department of Psychology,
Professor;
Adjunct Professor, Dalhousie
University

Dr. Annabel Cohen takes a lifespan approach to brain plasticity underlying music learning and retention.

With the assumption that musical engagement contributes to well-being, she and a multidisciplinary team are exploring issues of equal access to music education in the public school system. With UPEI students, current projects include examining the vocal control of persons with Parkinson's Disease who participate in a weekly singing group; the benefits to well-being of international and domestic students who participate in a multicultural choir, and, with postdoctoral fellow Lena Heng, emotional communication by music and speech.



Music



Adolescence



Brain Plasticity

www.islandscholar.ca/people/acohen

www.musicog.discoveryspace.ca/



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Dr. Martha Giraldo O'Meara

(she/her)

mgomeara@upei.ca

Department of Psychology,
Assistant Professor

Dr. Giraldo O'Meara clinical research interests are focused on anxiety and obsessive-compulsive and related disorders.

She has a special interest in transdiagnostic factors and processes. Dr. Giraldo O'Meara aims to understand the cognitive, emotional, and behavioural manifestations and mechanisms involved in the development and maintenance of these disorders. As a clinical psychologist, she specializes in cognitive behaviour therapy for obsessive-compulsive disorder, body image and anxiety disorders.



Anxiety Disorders



Obsessive Compulsive Disorder

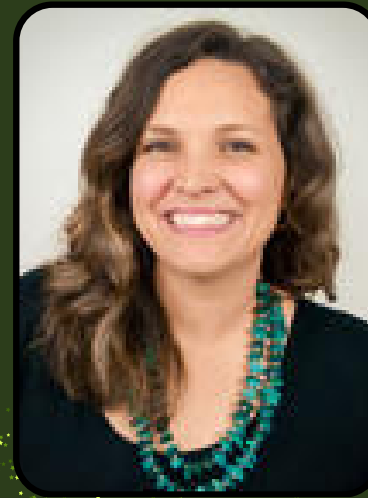


Body Image

www.islandscholar.ca/people/mgomeara



Office of COMMERCIALIZATION,
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Dr. Raquel Hoersting

(she/her)

rhoersting@upei.ca

Department of Psychology,
Associate Professor
Doctor of Clinical Psychology

Dr. Raquel Hoersting is an associate professor in the Department of Psychology at UPEI, teaching and supervising in the Doctor of Clinical Psychology program.

Her research focuses on immigration, culture, and mental health on PEI, with a particular interest in cultural identity and immigrant retention. A registered clinical psychologist and EMDR Therapy full trainer, she has over 15 years of experience working with complex trauma and other mental health issues with individuals and international community development.



Immigration



Community Development



Intercultural Competence

www.islandscholar.ca/people/rhoersting

<https://projects.upei.ca/intercultural/>



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Dr. Brent Macdonald

(he/him)

brent.macdonald@upei.ca
Department of Psychology,
Assistant Professor;
Supervisor at the UPEI Psychology
Training Centre

Dr. Macdonald has an active research interest in the application of mental toughness in neurodivergent adults, along with an overall interest in strength-based approaches to individuals with ADHD.



Mental Toughness



Neurodivergence



ADHD

www.islandscholar.ca/people/brentmacdonald

www.onwardpsychology.ca



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Dr. Jessica Strong

(she/her)

jvstrong@upei.ca
Department of Psychology,
Assistant Professor,
Director of Clinical Training;
Research Ethics Board Chair

Dr. Strong's current research program is focused in three broad areas, all related to aging and geriatrics.

Her first focus is on aging and cognition, in particular, how lifetime experiences impact brain function. Specifically, she's interested in lifestyle factors that increase or decrease the risk of dementia. Second, as a clinical psychologist, she conducts program evaluations of late-life interventions for mental health, cognition, and well-being. Finally, she explores factors that may influence students' likelihood to pursue a career working with older adults, including ageism, and exposure to positive experiences



Geriatrics



Aging



Mental Health

www.islandscholar.ca/people/jvstrong

www.agestrongpei.com



Office of COMMERCIALIZATION,
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Dr. Olive Bryanton

(she/her)

obryanton@upei.ca
UPEI Health Research Network,
Research Assistant

Dr. Bryanton conducts research related to the well-being of older people living in the community, challenges and successes of age in place, technology and older people, ageism and its impact on older people, and the oldest old.

She collaborates with researchers locally, nationally and internationally. Her methodologies include qualitative, photovoice, and mixed methods. The main focus is on participatory action research, networks and marginalized populations.



Older People



Aging in Place



Ageism



Dr. Kate Kelly

(she/her)

kjkelly@upei.ca
Centre for Health and Community
Research (CHCR) & Secure Island
Data Repository (SIDR),
Research Scientist

Dr. Kate Kelly is an interdisciplinary researcher with experience in the development and evaluation of community-based programs that aim to support positive health outcomes.

Kate provides expertise on public/patient engagement, knowledge translation, and principles of EDIA in CHCR supported projects. Working closely with the Maritime SPOR SUPPORT Unit (MSSU) and Health Data Research Network (HDRN) Canada, Kate is committed to promoting data access and collaboration among researchers, knowledge users, and the public to support equity-informed decision making.



Patient/Public
Engagement



EDIA



Health Services
Research

www.sidrpei.ca

www.chcresearch.ca



Robyn Kydd

(she/her)

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Centre for Health and Community Research (CHCR), Senior Research Scientist;
Secure Island Data Repository (SIDR), Manager

Robyn is an epidemiologist who provides scientific support to faculty, government, and community on projects aimed at enhancing health care delivery, policy making, and community well-being.

She supports the design, execution, and management of research and evaluation projects using administrative health data held in the Secure Island Data Repository (SIDR). She also facilitates PEI data access requests from researchers requiring multi-regional administrative health data through her role with Health Data Research Network (HDRN) Canada's Data Access Support Hub (DASH).



Epidemiology



Administrative Health Data



Applied Health Research

www.sidrpei.ca

www.chcresearch.ca



Office of COMMERCIALIZATION,
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Mary-Ann Standing

(she/her)

mmmacswain@upepei.ca

Centre for Health and Community Research (CHCR) & Secure Island Data Repository (SIDR), Director

Mary-Ann Standing is an applied health researcher with experience in diverse areas such as agriculture, mental health and addictions, public health, and corrections.

She focuses on research that informs policy and practice, particularly within the healthcare system, and specializes in the use of administrative data for research purposes. Her work involves collaboration with various groups, including decision-makers and individuals with lived experience.



Learning Health Systems



Administrative Health Data



Patient/Public Oriented Research

www.sidrpei.ca

www.chcresearch.ca



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This booklet was made possible thanks to the
support of
Springboard Atlantic.

UPEI is a proud member institution of Springboard Atlantic; a network of 19 post-secondary institutions in Atlantic Canada working to commercialize academic & industry-led research.

Springboard connects industry with researchers to solve real-world problems.

The logo for Springboard Atlantic, featuring the word "Springboard" in a bold, sans-serif font. The letter "b" is stylized with several overlapping, curved lines that resemble a spring or a stack of papers. The word "ard" follows in the same font style. The entire logo is rendered in a light green color.

Springboard