ONE HEALTH RESEARCH SYMPOSIUM PRESENTED BY THE UNIVERSITY OF CALGARY

CALGARY TELUS CONVENTION CENTRE





Biographies

Dr. Herman Barkema, Faculty of Veterinary Medicine, University of Calgary



Dr. Herman Barkema completed his DVM degree at Utrecht University, The Netherlands, in 1988. He spent 2½ years as manager of a large dairy and beef herd in Costa Rica, then taught bovine herd health at Utrecht University, and worked as an epidemiologist for the Dutch Animal Health Service while completing his PhD. In 2001, Dr. Barkema moved to the University of PEI. He subsequently moved to the University of Calgary, where he founded UCVM's Department of Production Animal Health. He currently is Professor in Epidemiology of Infectious Diseases at UCVM and NSERC Industrial Research in Infectious Diseases of Dairy Cattle, with a joint appointment in the Department of Community Health Sciences of the Cumming School of Medicine. He is also a Guest Professor at Ghent University (Belgium) and Foreign Expert at the China Agricultural University in Beijing. Dr. Barkema's research program focuses on prevention and control of diseases in cattle herds, including antimicrobial resistance. He has published > 400 scientific manuscripts and has lectured all over the world. He leads the UCalgary

Biostatistics Centre, the One Health at UCalgary, the Environment research theme in the Canadian Bovine Mastitis Research Network, the Alberta Johne's Disease Initiative, and the Antimicrobial Resistance - One Health Consortium.

Dr. William Ghali, Vice-President (Research), University of Calgary



Dr. William Ghali was appointed Vice-President (Research) effective March 1, 2020.

Dr. Ghali is a world-class researcher and Professor in the Departments of Medicine and Community Health Sciences at the University of Calgary. Dr. Ghali is also a physician, specializing in General Internal Medicine (MD (1990) - University of Calgary, FRCP(C) (1994)) - Queen's University, Kingston, Ontario), and completed methodological training in health services research and epidemiology at the Boston University School of Public Health (MPH, 1995). Dr. Ghali was the scientific director of the O'Brien Institute for Public Health at the University of Calgary.

Dr. Ghali has held millions of dollars of peer-reviewed research funding from a

number of agencies through his research program, focused on evaluating and improving health system performance for better patient outcomes and improved system efficiency. He has held a Tier II Canada Research Chair in Health Services Research for two five-year periods and has published more than 420 papers in peer-reviewed journals.

He is a Fellow of both the Canadian Academy of Health Sciences and the Royal Society of Canada. He was featured by the Globe and Mail in April 2012 as the Canadian public health researcher with the highest publication H-index, and has also been named in the Thomson-Reuters listing of the top 1% of most highly cited researchers by discipline. He is co-director of the University of Calgary World Health Organization (WHO) Collaborating Centre in Disease Classifications and Health Information.

Dr. Reg Crowshoe, Senate, University of Calgary

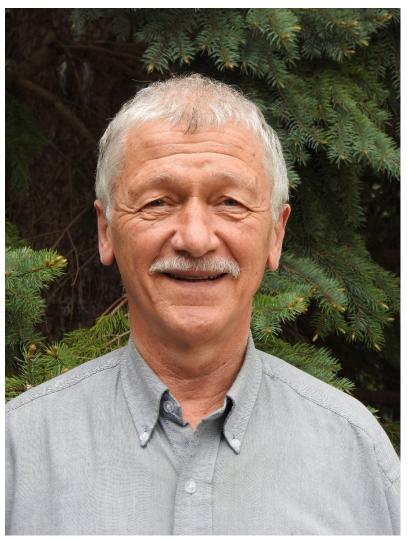


Reg Crowshoe is a newly appointed member of the University of Calgary Senate, and a prominent cultural and spiritual leader from Piikuni First Nation in Southern Alberta, where he formerly served as chief.

Dr. Crowshoe has a long standing relationship with the University of Calgary and has generously shared and offered his assistance, ceremonial leadership, and traditional knowledge to students, The Native Centre and other faculties for many years. Dr. Crowshoe is widely recognized for his dedication to Piikuni artifacts, traditions, language, culture, and history, and, like his father the late Dr. Joseph Crowshoe, was awarded an honorary Doctorate Degree by the University of Calgary in 2001.

Dr. Crowshoe is also the founder of the Old Man River Cultural Society, and he authored the book "Akak'stiman, A Blackfoot Framework for Decision-Making and Mediation Processes", published by University of Calgary Press in 2002.

Dr. David Waltner-Toews, OC, University Professor Emeritus, University of Guelph



David Waltner-Toews is a veterinary epidemiologist and University Professor Emeritus at the University of Guelph. He was founding president of Veterinarians without Borders / Vétérinaires sans Frontières - Canada (www.vetswithoutborders.ca/) and a founding member of Communities of Practice for Ecosystem Approaches to Health in Canada (www.copeh-canada.org). In 2010 the International Association for Ecology and Health presented him with the inaugural award for contributions to ecosystem approaches to health, and in 2019 he received an award from the World Small Animal Veterinary Association recognizing "veterinarians who have exhibited exceptional acts of valour and commitment in the face of adversity to service the community." In 2022 he was appointed as an Officer in Order of Canada, one of the highest honors given by the Canadian government for citizens who make extraordinary contributions to the country. He

was cited "for his leadership and expertise in ecosystem approaches to health, and for supporting development worldwide."

Besides being an author of many scholarly books and articles, he has published six books of poetry, a collection of recipes and dramatic monologues, a collection of short stories, two novels and various books of popular science including *On Pandemics: Deadly Diseases from Bubonic Plague to Coronavirus; The Origin of Feces: What Excrement Tells Us About Evolution, Ecology and a Sustainable Society; Eat the Beetles: An Exploration into Our Conflicted Relationship with Insects;* and Food, Sex and Salmonella: Why Our Food Is Making Us Sick. His non-fiction books have won awards in the US and Canada, and have been published in Japanese, French, Chinese and Arabic.

Dr. Michael Hart, Vice Provost & Associate Vice President, Research (Indigenous Engagement), University of Calgary



Dr. Michael Hart is the viceprovost (Indigenous engagement). He was appointed for a five-year term (renewable), effective June 1, 2018.

He serves as a key champion and advocate for the Indigenous Strategy, ii' taa'poh'to'p, at the University of Calgary, which was formally launched on Nov. 16, 2017. He is a strong and visible role model for members of the university community on Indigenous

engagement and "being a good relative".

Dr. Hart is a citizen of Fisher River Cree Nation. As a father of two teenage boys who are exploring the world and figuring out how to reach their dreams, he sees the need for and is deeply committed to, creating greater opportunities for Indigenous people. While he spent much time on reserve with his grandparents and extended family, he was raised in Winnipeg at a time when the population of Indigenous peoples was small and stereotypes of the people were numerous.

He personally understands the challenges that come with such contexts, but also knows and supports the resurgence of Indigenous ways of being, knowing, connecting, and doing. His life's work has focused on providing support to his sons and other people on their life journey, creating space for people to reach their dreams, and deepening and sharing his understandings of Indigenous ways of life in today's context. While Michael continues to be supported throughout this work with the guidance of Elders from various nations, he has spent several decades of focused learning about his own peoples' traditional values, beliefs and practices.

Dr. Hart's career has been focused on Indigenous Peoples and ways of helping, supporting and learning. He brings this knowledge and skills to the University of Calgary to realize its indigenization goals and support the transformation of its campuses. His approach is about connecting with and learning from Indigenous Elders and Traditional Knowledge Keepers, exploring how Indigenous philosophies can guide us to transcend boundaries and take the necessary steps to change the conversation between different cultures, and actively supporting people, organizations, and communities to take transformative action based on Indigenous ways of knowing, being, connecting and doing.

He held a Canada Research Chair in Indigenous Knowledges and Social Work through the University of

Manitoba from 2012 to 2018 when he joined the University of Calgary. Dr. Hart also led the development of the Master of Social Work in Indigenous Knowledges program at the University of Manitoba and was the inaugural director for the program. He was the founder of the Aboriginal Social Workers' Society and a board member for 17 years since its launch in 2001. His work has spanned Canada, including Manitoba, Quebec and Yukon, and includes many internationally based projects and events in such places as United States, Australia, New Zealand, Taiwan and Norway. These projects include being the Editor of the Journal of Indigenous Social Development since 2015. Dr. Hart holds a BSW, MSW and PhD in Social Work from the University of Manitoba, as well as a BA in Psychology from the University of Manitoba.

Among a number of accountabilities in his role, Dr. Hart strives to: build meaningful partnerships and collaborations with faculties, units and Indigenous communities; foster mentorship, research and scholarship and support services for Indigenous students, faculty and staff; and design, develop and implement relevant programming for non-Indigenous students and campus community members. He was appointed the Associate Vice President Research, Indigenous Engagement in September of 2021 where he works to advance Indigenous ways of knowing, being, doing and connecting in all aspects of research.

Dr. Hélène Carabin, Faculty of Veterinary Medicine, Université de Montréal



Dr. Hélène Carabin (DVM, MSc in Veterinary Epidemiology, PhD in Epidemiology and Biostatistics) is a Full Professor in the Department of Pathology and Microbiology at the Faculty of Veterinary Medicine and in the Department of Social and Preventive Medicine at the School of Public Health of the Université de Montréal. She holds the Tier 1 Canada Research Chair in Epidemiology and One Health. Her research programme focuses on the

implementation of large-scale studies and intervention to better understand risk factors and burden of infectious diseases and to evaluate control programmes, with an emphasis on diseases affecting the most vulnerable populations, and zoonotic diseases, always adopting a One Health approach. She coleads two pan-Canadian networks, one on One Health governance of infectious diseases and antimicrobial resistance (Global 1HN) and the other on modeling emerging infections (OMNI-RÉUNIS) while taking into account the One Health approach. She leads the Research group on the epidemiology of zoonoses and public health (GREZOSP), leads the "Global One Health" Pillar of the Centre de Recherche en Santé Publique (CRESP) and is a Commissioner on the One Health Lancet Commission. She has published 148 research articles, five letters to the Editor in peer-reviewed journals and 10 book chapters.

Dr. Arinjay Banerjee, Principal Investigator, Vaccine and Infectious Disease Organization, University of Saskatchewan



Dr. Arinjay Banerjee (PhD) is the Principal Investigator of the Laboratory of Zoonotic Viruses and Comparative Immunology at the Vaccine and Infectious Disease Organization, University of Saskatchewan. Research within his laboratory focuses on three main themes, (1) coronavirus-host interactions in wildlife reservoir species, such as bats, and (2) coronavirus-host interactions in spillover species, such as humans and (3) antiviral vaccine and therapeutic development. Dr. Banerjee is also the co-lead for One Health at the University of Saskatchewan. Dr. Banerjee's laboratory is also a member of Canada's

Coronavirus Variants Rapid Response Network (CoVaRR-Net), and as part of this network, his laboratory investigates emerging SARS-CoV-2 variants. Dr. Banerjee is appointed as an adjunct faculty member at the Universities of Saskatchewan, Waterloo and Toronto. Research within his laboratory is funded by NIAID/NIH, CIHR, NSERC, SHRF and CoVaRR-Net.

Dr. Banerjee's doctoral thesis titled 'Bat coronavirus interactions: role of innate antiviral responses' was awarded Canada's Governor General's Gold medal. Subsequently, Dr. Banerjee was awarded two fellowships during his training at McMaster University – *M.G. DeGroote postdoctoral fellowship* in biomedical science, and *NSERC postdoctoral fellowship*. His postdoctoral research on SARS-CoV-2-host interactions was awarded the Gerard Wright postdoctoral award in Infection Research and the postdoctoral fellow impact award.

Dr. Diego Nobrega, MPVM, DVM, PhD, Ontario Veterinary College, University of Guelph



Diego Nobrega is a veterinary epidemiologist in the Faculty of Veterinary Medicine. He received his DVM from the Sao Paulo State University in 2008 and worked in private practice on a full-time basis for 2 years. Diego obtained his MSc in Preventive Veterinary Medicine from the Sao Paulo State University, and his PhD in Infectious Diseases from the University of Calgary. Diego took a 2year postdoctoral position in the Ontario veterinary College where he also worked on a part-time basis for the Public Health Agency of Canada as a veterinary epidemiologist. His research focuses on the One Health aspects of antimicrobial resistance. He integrates empirical data with epidemiological models to study mechanisms leading to the spread of antimicrobial resistant pathogens among animals, humans and the environment. His primary aim is to design effective evidence-based intervention and control strategies to combat antimicrobial resistance.

Dr. Deborah McGregor, Osgoode Hall Law School and Faculty of Environmental and Urban Change, York University



Deborah McGregor, Anishinabe, Associate Professor and Canada Research Chair: Indigenous Environmental Justice. Osgoode Hall Law School and Faculty of Environmental and Urban Change, York University. Professor McGregor's research has focused on Indigenous knowledge systems and their various applications in diverse contexts including environmental and water governance, environmental justice, health and environment, climate change and Indigenous legal traditions. Professor McGregor remains actively involved in a variety of Indigenous communities, serving as an advisor and continuing to engage in community-based research and initiatives. Professor McGregor has been at the forefront of Indigenous environmental justice and Indigenous research theory and practice. Her work has been shared through the IEJ

project website https://iejproject.info.yorku.ca/ and UKRI International Collaboration on Indigenous research https://www.indigenous.ncrm.ac.uk/.

Dr. Emily Jenkins, Department of Veterinary Microbiology, University of Saskatchewan



Dr. Emily Jenkins (PhD, DVM, BScHon), is Professor, Department of Veterinary Microbiology, Western College of Veterinary Medicine at the University of Saskatchewan, Saskatoon, Canada. Her research takes a One Health approach to diseases that transmit among animals and people via food, water, vectors, and the environment. She is head of the Zoonotic Parasite Research unit, which has graduated over 50 undergraduate research and graduate students and produced almost 100 peer reviewed publications since 2008. She co-leads the Canadian Arctic One Health network and the University of Saskatchewan One Health Signature Area. She is currently the Canadian representative to the Terrestrial Working Group of the International Arctic Science Committee. She also serves as Associate Editor of the International Journal for Parasitology -Parasites and Wildlife and on the Editorial Advisory Board of Food and Waterborne Parasitology.

Dr. Malek Batal, Faculty of Medicine, Université de Montréal



Malek Batal is Professor at the Université de Montréal's Faculty of Medicine, Adjunct Professor at the School of Public Health and the Director of the WHO-Collaborating Centre on Nutrition Changes and Development (TRANSNUT). Malek holds the Canada Research Chair in Nutrition and Health Inequalities and is a Fellow of the Royal Society of Canada and of the Canadian Academy of Health Sciences. He conducts participatory research studying the links between environment and food system health and population health, in an effort to redress health inequities.

Equally important to scientific rigor is the relevance and usefulness of his research to society. This is why he collaborates as part of transdisciplinary research teams with First Nations in Canada and Indigenous and rural people internationally, prioritizing engagement with knowledge users from civil society and governments and putting his research findings at the service of public policy.

Dr. Martyn P. Clark, Associate Director, Centre for Hydrology, Canmore Coldwater Lab, University of Saskatchewan



Martyn is a Professor of Hydrology at the University of Saskatchewan, Associate Director of the University of Saskatchewan's Centre for Hydrology and the Canmore Coldwater Laboratory, and Fellow of the American Geophysical Union. Martyn served as Editor-in-Chief for the American Geophysical Union journal *Water Resources Research* from 2017-2020. Martyn is well known for his research in three main areas: (i) developing process-based terrestrial systems models;

(ii) understanding the sensitivity of terrestrial systems to climate variability and change; and (iii) developing the next generation of environmental forecasting systems. Martyn's research is highly interdisciplinary, including collaborations among biogeochemists, ecologists, geologists, atmospheric scientists, social scientists, computer scientists, applied mathematicians, and other disciplines. Martyn has authored or co-authored over 200 journal articles since receiving his PhD in 1998.

Dr. Maryse Bouchard, School of Public Health & Sainte-Justine University Hospital Research Center, Université de Montréal



Dr. Bouchard is a Professor of environmental health at Université de Montréal School of Public Health. She trained in biology, environmental sciences, and epidemiology in Montreal, Boston, and Berkeley. She holds the Canada Research Chair on Environmental Contaminants and Populations' Health, whose program focus on the characterization of risks arising from exposure to environmental contaminants in food, water, air, and consumer products. As an environmental health scientist, she led several epidemiologic studies investigating the effects of pesticides, metals, and several other chemicals on public health, with a particular attention on vulnerable groups of the population. She serves as a co-principal investigator on the Canadian Maternal-Infant Research on Environmental contaminants (MIREC) Study, an important research platform based on an ongoing nationwide pregnancy cohort. Her work aims at advancing our understanding of adverse health effects arising from multiple toxic exposures, as well as designing

prevention strategies for mitigating these risks. Dr. Bouchard has built productive relationships with policy makers and governmental agencies to translate research findings into tighter environmental standards. She serves on advisory boards of scientific organizations as well as a reviewer for several research funding agencies at the national and international levels.

Dr. Kerry Black, Assistant Professor and Canada Research Chair (Integrated Knowledge, Engineering & Sustainable Communities), Department of Civil Engineering, University of Calgary



Kerry Black is an Assistant Professor and Canada Research Chair (Integrated Knowledge, Engineering & Sustainable Communities), in the Center for **Environmental Engineering Research and** Education (CEERE) and the Department of Civil Engineering, at the University of Calgary. She received her PhD from the University of Guelph with research focused on sustainable water and wastewater management in Indigenous communities. Her focus is to engage in a cross-disciplinary research platform, incorporating technical civil and environmental engineering principles and research, with policy and socio-economic components, focusing on sustainable infrastructure for healthy and resilient communities.

Over the past 13 years, she worked extensively in the academic, public, private and non-profit sectors, employed in technical, scientific, policy, and management roles. The majority of my experience has included working with and for Indigenous communities on urgent and pressing infrastructure issues across Canada. Her cross-disciplinary research has been featured in both engineering and social science journals. Dr. Black is a

strong advocate for increasing diversity in science and engineering, sustainability initiatives and programs, and community development, including her work with Indigenous communities.

Luc Stafford, Associate Vice-President Research, Université de Montréal



Luc Stafford is an Associate Vice-President Research at the Université de Montréal. He leads the Innovation Laboratory Building a Sustainable Future allowing interdisciplinary and intersectoral interactions to reflect and act on major sustainability issues and to contribute to UN Sustainable Development Goals. He also leads the new One Health Initiative that brings together experts from different faculties (medicine, veterinary medicine, public health, nursing, arts and sciences, environmental design, law, dentistry, and pharmacy) to identify new opportunities in research and training to rethink our health and socio-economic systems with a systemic perspective. Prof. Stafford is a physicist by training and holds a Canada Research Chair in plasma science and technology.

Dr. Cathryn Ryan, Interim Vice-Dean, Faculty of Science, University of Calgary



Cathy Ryan is geoscientist and Interim Vice Dean in the Faculty of Science at the University of Calgary. She has worked extensively on groundwater and surface water quality (and their interaction) and greenhouse gases. Community focussed and applied research is integral to her research. She was a key partner in the establishment of inaugural MSc programs in water resources management in six highly groundwater-dependent countries.