
Campus Alberta Innovation Program (CAIP) Chairs

Dr. Monireh Faramarzi, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Watershed Sciences



Dr. Faramarzi, Ph.D. from ETHZ-Swiss Federal Institute of Technology, came to the University of Alberta in July 2016. Her research seeks to address water supply and demand issues; water availability, reliability and scarcity; and water demand of different sectors (e.g. agriculture, oil and gas, industry, and environment). Applying models to analyze alternative management options will allow the realization of opportunities and risks during periods of water scarcity. These topics are understudied and increasingly important for the development of sustainable resource management not only in Alberta and Canada, but also in other jurisdictions around the world.

Dr. Casey Hubert, CAIP Chair in Energy and Environment

Website: [Click here](#)
Institution: University of Calgary
Chair Project: Geomicrobiology



Dr. Hubert's CAIP Chair commenced in July 2014, coinciding with an Associate Professorship in Biological Sciences. Prior to coming to Alberta, Dr. Hubert was a Reader and EPSRC Research Fellow in the School of Civil Engineering and Geosciences at Newcastle University (U.K.). Dr. Hubert's Ph.D. was awarded in 2004 from the University of Calgary in the Department of Biological Sciences, which was followed by a post-doctoral fellowship at the Max Planck Institute for Marine Microbiology in Germany. The Geomicrobiology Group at the University of Calgary is investigating different aspects of petroleum geomicrobiology to help position Alberta and Canada as leaders in achieving greater sustainability in the geoenery industry.

Dr. Alex McGirr, CAIP Chair in Neuroscience and Prions

Website: [Click here](#)
Institution: University of Calgary
Chair Project: Neurostimulation



Dr. McGirr was recruited to the University of Calgary in 2017 as an emerging leader in the field of neurostimulation and mood disorders. He is a graduate of the Faculty of Medicine, Department of Psychiatry at the University of British Columbia, and a recipient of the prestigious Vanier Scholarship from the Canadian Institutes of Health Research. Dr. McGirr's primary research interest focuses on using non-invasive brain stimulation in humans and animal models to better understand neural changes in mood disorders, and depressive disorders in particular. His research is aimed at enhancing the quality of patient care through better understanding of how our current treatments impact network alterations in depression, and how novel strategies can be utilized to address residual changes.

Dr. Kelly Munkittrick, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Calgary
Chair Project: Aquatic Ecosystem Health



Joining the University of Calgary in 2019, Dr. Munkittrick was most recently at Wilfrid Laurier University where he was the executive director, cold regions and water initiatives, and a professor in the Department of Biology. Before that, he held a Tier 1 Canada Research Chair in Ecosystem Health Assessment at the University of New Brunswick and spent five years in Calgary as director, environmental monitoring and risk assessment at Canada's Oil Sands Innovation Alliance (COSIA). His aquatic ecosystem health research is developing a framework to link monitoring data in one accessible system.

Dr. Michael Overduin, CAIP Chair in Neuroscience and Prions

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Structural Biology of Protein Mis-Folding Diseases



Dr. Overduin, recruited from the University of Birmingham in 2014, is using his expertise of nuclear magnetic resonance facilities, and experience with industry and government partnerships to determine on how certain proteins affect cancer, infection, neurodegenerative disorders and cardiovascular conditions. He is extending his collaborative research to tackle these diseases, develop tools and partnerships to better understand the mechanisms involved and to discover novel drug molecules. By launching CureCancer, DiscoveryLab, SMALP networks and expanding NANUC, this program is enhancing the University of Alberta's leadership position in biomedical research and innovation.

Dr. Bruce Pike, CAIP Chair in Neuroscience and Prions

Website: [Click here](#)
Institution: University of Calgary
Chair Project: Healthy Brain Aging



Dr. Pike is a world leader in structural and functional imaging of the human brain using Magnetic Resonance Imaging (MRI), and has made a multitude of landmark contributions in his field. In September 2013, Dr. Pike joined the University of Calgary as the CAIP Chair in Healthy Brain Aging and Head of Image Science, Department of Radiology. He is also a Professor of Clinical Neurosciences and a Scientist at the Hotchkiss Brain Institute. Dr. Pike is building a large multi-disciplinary research program that will attract top scientists from around the world and build close collaborations across Alberta. This will increase Alberta's medical research capacity, foster economic activity, and address critical medical issues facing Alberta's population.

Dr. Carla Prado, CAIP Chair in Food and Nutrition

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Nutrition and Food Health



Dr. Prado is an expert in the impact of food and nutrition on health and wellness throughout an individual's life. She has trained in research centers in Canada, United States, United Kingdom, and Brazil, and is bringing those international collaborative ties to Alberta. As Director of the Human Nutrition Research Unit, she is ensuring Alberta's worldwide leadership in assessing people's nutritional needs. Dr. Prado will be building on the University of Alberta's excellence in nutrition, with the goal of enhancing research on health and wellness and promoting, integrating, and disseminating knowledge in nutrition in Alberta. She has been awarded the Avenue Edmonton's Top 40 Under 40, an award that celebrates Alberta's most exceptional young community and corporate leaders.

Dr. Gregory Pyle, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Lethbridge
Chair Project: Aquatic Health



Dr. Pyle arrived at the University of Lethbridge in 2013 after spending five years as head of the Aquatic Biotechnology and Ecotoxicology Laboratory at Lakehead University in Thunder Bay, Ontario. His established expertise in the effects of environmental contaminants on chemical communication systems in aquatic animals greatly adds to the already comprehensive research portfolio at the University of Lethbridge's Water Institute for Sustainable Environments.

Dr. Marc Strous, CAIP Chair in Energy and Environment

Website: [Click here](#)
Institution: University of Calgary
Chair Project: Energy Bio-Engineering



Dr. Strous is a Professor of Microbiology in the Department of Geoscience at the University of Calgary. Dr. Strous has published many papers in high impact journals with national and international recognition and was awarded the ISME young investigators award. At the University of Calgary, he is leading the CO₂ conversion research of the Global Research Initiative in Sustainable Low Carbon Unconventional Resources and is one of the team leads of the International Microbiome Center. His research focuses on reducing carbon dioxide emissions and diminishing the environmental impact of electricity power plants and oil sands mining operations, contributing to Alberta's vision to reduce emissions while enhancing economic prosperity and diversification of the Alberta economy.

Dr. Christopher Glover, CAIP Chair in Water

Website: [Click here](#)
Institution: Athabasca University
Chair Project: Hydroecology and Environmental Health



Dr. Glover joined Athabasca University as a CAIP Chair in November 2015. Dr. Glover holds a Ph.D. in Environmental Science from King's College (London, U.K.) and has worked as senior lecturer and researcher at the School of Biological Sciences, University of Canterbury, in Christchurch, New Zealand. During his tenure at the University of Canterbury, he collaborated with colleagues, both from within the university and externally, to advance the knowledge of the Athabasca River Basin and watershed biology.

Dr. Chris Hopkinson, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Lethbridge
Chair Project: Terrestrial Ecosystems Remote Sensing



Dr. Hopkinson was appointed as a CAIP chair in 2013 after working as an environmental scientist with the Commonwealth Scientific and Industrial Research Organisation in Canberra, Australia. His research focuses on ecosystems forest resource and carbon mass balance monitoring, boreal mapping, and remote sensing of water levels. His research informs Alberta's water and forest management, oil and mineral resource extractions, land reclamation and infrastructure development in environmentally sensitive locations.

Dr. Majid Mohajerani, CAIP Chair in Neuroscience and Prions

Website: [Click here](#)
Institution: University of Lethbridge
Chair Project: Brain Health/Dementia



Dr. Mohajerani was recruited to the University of Lethbridge in 2013, where he is now an Assistant Professor and member of the Canadian Centre for Behavioral Neuroscience. His primary research interest focuses on the mechanisms of brain plasticity and reorganization after stroke and other neurodegenerative diseases. He is widely recognized for his unique, multidisciplinary approach for understanding brain function at the system and cellular level.

Dr. David Olefeldt, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Watershed Management and Wetland Restoration



Dr. Olefeldt, recruited from the University of Guelph in 2014, focuses on the impacts of disturbances, and land management practices on catchment and wetland functions, particular related to issues of water quality, carbon storage, greenhouse gas exchange, and nutrient cycling. Dr. Olefeldt has a strong research focus on northern peatlands and peatland-rich catchments, with current research conducted in northern Alberta and in the Northwest Territories, a region that is currently undergoing rapid change due to both human activities and climate change.

Dr. Emilson Silva, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Innovation Policy & Technology Translation in Water and Energy



Dr. Silva started at the University of Alberta in July 2012 as Chair of Innovation Policy and Technology Translation in Water and Energy, after six years at the Georgia Institute of Technology. His position at the University of Alberta provides an excellent opportunity to study oil and gas producers, innovation agreements (such as COSIA) that reduce environmental impacts, carbon taxation, industry competitiveness and how industry and governments interact in promoting welfare improving regulations.

Dr. João Soares, CAIP Chair in Energy and Environment

Website: [Click here](#)
Institution: University of Alberta
CAIP Project: Interfacial Polymer Engineering for Oil Sands Processing



In 2013, Dr. Soares was recruited from the University of Waterloo. His research focus on the development of novel polymer flocculants for the remediation of tailings ponds resulting from oil sands exploration. Dr. Soares' research aligns with the University of Alberta's Institute of Oil Sands Innovations, which has a vision to enable operations with a reduced environmental footprint by minimizing water use, consuming less energy, lowering greenhouse gas and other emissions, and yielding high quality products at lower cost.

Dr. Suzanne Tank, CAIP Chair in Water

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Aquatic Ecosystem Health



Dr. Tank came to Alberta in 2014 with a proven track record of research excellence both in Alberta and internationally. As CAIP Chair, Dr. Tank is continuing her research to explore how environmental stressors affect the functioning of aquatic ecosystems. Her research program at the University of Alberta is examining the effects of climate change on freshwater ecosystems in northern regions, the impact of wildfire on aquatic ecosystem health, and the effect of agricultural nutrients on the ecological integrity of streams.

Dr. Nehalkumar Thakor, CAIP Chair in Energy and Environment

Website: [Click here](#)
Institution: University of Lethbridge
Chair Project: Synthetic Biology



Dr. Thakor obtained his Ph.D. in microbiology and has an expertise in microbial metabolic engineering. Dr. Thakor's research concentrates on the regulation of gene expression during the formation of cancer. In parallel, he is employing his knowledge in metabolic engineering to capture carbon and to produce microbial biofuels. Dr. Thakor's research will help determine the role of proteins in tumor progression and cancer cell death and aims to contribute to developing next-generation cancer therapeutics.

Dr. Jens Walter, CAIP Chair in Food and Nutrition

Website: [Click here](#)
Institution: University of Alberta
Chair Project: Nutrition Microbes and Gastrointestinal Tract Health



Dr. Walter was recruited from Germany in 2014, bringing background in gastrointestinal microbiology, microbial ecology, evolution, nutrition, genetics, and molecular microbiology. The goal of his research was to translate basic discoveries linking gut microbes and human disease into therapies for prevention and treatment.

Dr. Junye Wang, CAIP Chair in Water

Website: [Click here](#)
Institution: Athabasca University
Chair Project: Computational Sustainability and Environmental Analysis



Dr. Wang joined Athabasca University in September 2013. Dr. Wang holds a Ph.D. from the East China University of Science and Technology, and has an impressive record of working in research areas of environmental and energy system modeling and simulations in the U.K. over the past 14 years. Dr. Wang and his team will develop a modeling framework of integrated terrestrial and aquatic systems in the Athabasca River Basin by using innovative computational technologies and analytical modeling techniques.