

Research

Vice-President Research

David Castle, Vice-President Research

Lisa Kalynchuk, Associate Vice-President Research

Rachael Scarth, Associate Vice-President Research Operations

The Office of the Vice-President Research (through the Office of Research Services) assists the University research community in:

- Obtaining funding from external agencies and administers research.
- Conference and travel funds through internal support programs.
- Regulation of research activities through
 - the Animal Care Committee, Animal Care Units and Aquatic Research Facility in accordance with the Guidelines of the Canada Council on Animal Care, and
 - the Human Research Ethics Board.
- Grants facilitation: assistance in applications for research grants including identifying potential funding agencies, providing information on application procedures and advising on the preparation of proposals.
- Research Partnerships and Knowledge Mobilization: supports collaboration with industry and the community by providing a comprehensive suite of services related to intellectual property protection, commercialization, partnership development, and negotiation of research contracts and agreements.

The Office of the Vice-President Research also works in close collaboration with the following groups and oversees the activities of the University's interdisciplinary research centres.

Website: <www.uvic.ca/research>.

OCEAN NETWORKS CANADA OBSERVATORY (ONC)

<www.oceannetworks.ca>

Ocean Networks Canada (ONC) is an inter-national facility hosted and owned by the University of Victoria (UVic), and managed and operated by the ONC Society, a not-for-profit established by UVic in 2007. ONC operates world-leading NEPTUNE and VENUS ocean observatories with no other equivalent in Canada. ONC collects and provides essential data required to address pressing scientific and policy issues. The innovative cabled infrastructure supplies continuous power and Internet connectivity to a broad suite of subsea instruments from coastal to deep-ocean environments.

ONC also supports sensors installed on ferries, gliders and moorings, coastal radar, and community-based observatories located in remote locations (e.g. the Arctic, along the BC coast, and in the Bay of Fundy). They are a crucial investment for Canada because these observatories collect data on physical, chemical, biological, and geological aspects of the ocean over long time periods, supporting research on complex Earth processes, including climate change, in ways not previously possible. ONC is unique on the global stage because the infrastructure makes these data available, free and in realtime, from hundreds of instruments distributed across the most diverse ocean environments found anywhere on Earth. ONC also has an Innovation Division that commercializes these advanced ocean observing technologies.

THE PACIFIC CLIMATE IMPACTS CONSORTIUM (PCIC)

<www.PacificClimate.org>

PCIC is a regional climate service centre that conducts quantitative studies on the impacts of climate change and climate variability in the Pacific and Yukon region. Results from this work provide regional climate stakeholders with the information they need to develop plans for reducing the risks associated with climate variability and change. In this way, PCIC plays an important bridging function between climate research and the practical application of that knowledge by decision makers.

PCIC program is organized into three interrelated applied research themes:

- Regional Climate Impacts: making available future projections of regional climate change.
- Hydrologic Impacts: quantifying the hydrologic impacts of climate change and variability.
- Climate Analysis and Monitoring: delivering climate observations.

PCIC maintains strong internal resident expertise grouped around its major programs. PCIC's staff includes experts in the areas of: climatology, climate change scenarios, hydrology, scientific computing, geographic information systems, and communications.

Centre for Indigenous Research and Community-Led Engagement (CIRCLE)

Dr. Charlotte Loppie, MSc (Dalhousie), PhD (Dalhousie), Director

Dr. Heidi Kiiwetinepinesik Stark - Associate Director

The goal of the Centre for Indigenous Research and Community-Led Engagement (CIRCLE) is to facilitate, engage in and produce research and scholarship that is informed and driven by Indigenous peoples' priorities and needs. Previously named the Centre for Aboriginal Health Research (CAHR), CIRCLE continues to engage with Indigenous and other stakeholders in BC, across Canada and internationally, to provide a supportive environment for researchers, communities and students to engage in research-related activities that address the needs of First Nations, Inuit, Métis and other Indigenous peoples.

Through research capacity development and networking opportunities, CIRCLE aims to promote and support Indigenous community-relevant and ethical research, which informs public awareness as well as decisions by policy-makers and practitioners. CIRCLE embraces Indigenous Knowledges and Ways of Knowing and seeks to support and contribute to Indigenous self-determination. For more information about CIRCLE, please email us at circle@uvic.ca or visit our website at <www.uvic.ca/research/centres/circle>.

Canadian Institute for Substance Use Research (CISUR)

Previously known as the Centre for Addictions Research of B.C. (CARBC)

Tim Stockwell, MA (Oxford), MSc (University of Surrey), PhD (University of London), FCAHS, Director

CISUR was first established as the Centre for Addictions Research of BC with an endowment from the BC government in 2003. It now comprises over 75 university faculty, graduate students and research specialists with two main offices in BC (Vancouver and Victoria) and a presence in diverse centres across Canada. Recognising the increasing national focus of its

research programs, the Senate of the University of Victoria approved the new name in November 2017. The mission of CISUR is "to be an internationally recognized Institute dedicated to the study of psychoactive substance use and addiction in order to support community-wide efforts to promote health and reduce harm." Main foci of our current research programs include:

- estimating the burden of disease and injury associated with all types of substance use in Canadian jurisdictions, including (but not limited to) alcohol, nicotine, cannabis, opioids, cocaine and other psychostimulants.
- identifying and evaluating both targeted and population-wide strategies to reduce harms associated with substance use.
- studies of special and vulnerable populations at high risk of substance-related harms.

Our research and knowledge translation activities are funded by a combination of peer-reviewed grants (e.g. CIHR, SSHRC, SUAP) and government contracts. We do not accept funding from agencies with a direct commercial vested interest in the production or sale of alcohol, cannabis, tobacco or pharmaceutical products.

Email: cisur@uvic.ca

Web: www.cisur.ca

Blog: oac.uvic.ca/carbc

Facebook: www.facebook.com/UVic.CISUR

Twitter: www.twitter.com/UVic.CISUR

YouTube: www.youtube.com/user/carbcuvic

Centre for Advanced Materials and Related Technology (CAMTEC)

Dr. Alexandre Brolo, PhD, Director

The Centre for Advanced Materials and Related Technology (CAMTEC) at the University of Victoria encourages interdisciplinary research on advanced materials for applications in several areas, including biomedical devices, energy systems and nanotechnology. The scope of the Centre also covers a wide spectrum of fundamental research in the fabrication and characterization of novel materials. CAMTEC coordinates related research among the Departments of Biochemistry, Chemistry, Electrical and Computer Engineering, Mechanical Engineering and Physics. CAMTEC members work in close association with medical doctors, scientists and engineers from the private and public sectors to ensure technology transfer to end-users.

The Centre's key research areas include: crystal growth of semiconductors, dielectric materials characterization, magnetic and superconductive materials, electron and optical microscopy, fabrication of nanopores, optical advanced materials, advanced composites, alloys, ceramics, integrated circuit technology, infrared detectors, microsensors, microfluidic technologies, opto-electronic and micro-electronic devices, piezoelectric actuators, and chemical sensors.

The Centre stimulates the development of new equipment and facilities on campus and also attracts graduate students and visiting scientists interested in advanced materials. As an interdisciplinary centre, CAMTEC manages an impressive array of shared equipment and facilities for both internal (UVic faculties and collaborators) and external (companies and government agencies) users. The knowledge and experience gained from the research into advanced materials at CAMTEC is disseminated throughout the University, to the private and public sectors, and to other Canadian universities and institutions. The Centre accomplishes this through scientific publications, conferences, workshops and seminars, as well as through training courses offered by the members.

Website: www.uvic.ca/research/centres/camtec

Email: CAMTEC@uvic.ca

Telephone: 250-721-7736

Centre for Asia-Pacific Initiatives (CAPI)

Director: Victor V. Ramraj, MA, LLB, PhD (Toronto) and LLM (Queen's University Belfast)

Helen Lansdowne, MA (UVic), Associate Director

Robyn Fila, MA (Linköping), Program Manager

Victor V. Ramraj, MA, LLB, PhD (Toronto) and LLM (Queen's University Belfast), Asia Law Program Chair

Guoguang Wu, MA, PhD (Princeton), China Program Chair

The purpose of the Centre is to conduct and support the University of Victoria's Asia Pacific research and related initiatives, and to encourage the development of the University's Asia-Pacific programs and resources. The Centre's current research interests include: Southeast Asian law and development, Japan and Asia-Pacific relations, China and Asia-Pacific relations, and migration and mobility. Associates and Research Fellows who share research interests are attached to the Centre. Linkages are established with other units on campus for purposes of collaborative research, as well as with individuals and institutions across Canada and in the Asia-Pacific. In addition to the research activities undertaken by CAPI, a wider role is taken on campus in disseminating information through conferences, workshops, symposiums and publications. The Centre manages an internship program that offers 8-month internships in the Asia-Pacific region for recent graduates.

The Centre is home to Landscapes of Injustice, a seven-year SSHRC funded, collaborative research project (2014-2021) hosted by the University of Victoria and dedicated to recovering and grappling with the forced sale of Japanese Canadian-owned property during the Second World War. For further information on CAPI programs and events, visit the Centre's website at www.uvic.ca/research/centres/capi

Centre for Asia-Pacific Initiatives

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Centre for Biomedical Research

Dr. Stephanie Willerth, PhD (Washington University), Associate Professor (Mechanical Engineering & Medical Sciences), Acting Director

Dr. Leigh Anne Swayne, PhD (University of Calgary), Associate Professor (Cell Biology & Neuroscience), Associate Director

Dr. Olav Krigolson, PhD (University of Victoria), Associate Professor (Neuroscience & Kinesiology), Associate Director

The Centre for Biomedical Research (CBR) consists of a collaborative, multidisciplinary group of scientists, clinicians, and trainees from faculties, departments, schools, and divisions across campus, including UBC's Island Medical Program. Our primary research objectives aim to 1) understand the basis of human disease, 2) to promote recovery and 3) contribute to better health outcomes for Canadian citizens. CBR researchers target a spectrum of disorders including cancer, Rett Syndrome, stroke, African Sleeping Sickness, fetal alcohol syndrome, and spinal cord injury. Our research programs span seven research clusters within CBR: biomedical engineering; neuroscience; developmental biology; cell signaling; cardiovascular; genetics; infection and immunity. Our members also work in collaboration with the B.C. Cancer Agency, Island Health, the International Collaboration on Repair Discoveries (ICORD), as well as other local, national, and international agencies and foundations. CBR actively promotes community engagement and knowledge dissemination through venues such as Café Scientifique, Pecha Kucha, Industry Partnership Days, media engagement and the

UVic Speaker's Bureau. We also work with our research trainees to develop their communication and presentation skills and abilities.

Centre for Biomedical Research
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Centre for Forest Biology

C. Peter Constabel, BSc (Sask), MSc (UBC), PhD (Montreal), Department of Biology, Director

Scientists in the Centre for Forest Biology carry out fundamental and applied research and train graduate students and postdoctoral fellows in Forest Biology, emphasizing the adaptation of trees and their interactions with the environment. Faculty members collaborate and work in close association with scientists from Forestry Canada at the Pacific Forestry Centre (PFC) and in the Provincial Government. Research Centre scientists also maintain connections to the forest industry and the BC Forest Genetics Council to provide access to research expertise and findings. Forest biology research findings are disseminated via peer-reviewed scientific publications, conferences, lectures and through the academic courses offered by the Centre.

Research areas which can be pursued within this Centre include: conifer embryogenesis and seed development; tree stress physiology; plant and fungal molecular biology and genomics; plant biochemistry and natural product biosynthesis; plant-pest and plant-pathogen interactions; microbial and chemical ecology; forest and soil ecology.

Cooperating University departments are: Biology, and Biochemistry and Microbiology. Graduate students wishing to carry out research in association with the Centre must register with an appropriate University department, and may also conduct a large part of their thesis research working with personnel and equipment of a cooperating agency. Personnel from the agencies participate in giving appropriate course work. Both master's and doctoral research can be conducted through the Centre.

Website: <www.uvic.ca/research/centres/forestbiology>

Centre for Global Studies

Dr. Oliver Schmidtke, Director

Building on the University's existing base of interdisciplinary expertise, the Centre for Global Studies (CFGS) is uniquely poised to bridge academic research, and student mentoring with knowledge mobilization and effective community engagement.

CFGS strives to produce quality and practical research with tangible benefits to both the local and international community. It has established itself as a key hub for public debates on critical issues in world politics.

The Centre's activities in Victoria, and abroad are designed to promote critical citizenship in a complex and rapidly changing global environment. CFGS' research and public engagement build upon the University of Victoria's intellectual expertise in four core themes: governance, environmental challenges, social justice, and culture and identity.

The breadth of the Centre's activities provides fellowship, employment, and volunteer opportunities for several students and interns each year.

Current projects housed at the Centre for Global Studies include:

- Borders in Globalization
- European Union Centre of Excellence
- Polis Project on Ecological Governance
- Water Innovation and Global Governance

CFGS was established in 1998 through the generosity of local community donors. The Centre continues to enhance its already extensive network of international research and funding partners, with whom it collaborates on a project-to-project basis.

For more information, please visit our website at <www.globalcentres.org>.

Centre for Social and Sustainable Innovation (CSSI)

Monika Winn, MA (Tuebingen, Germany), MBA, PhD (UCI), Professor and Francis G. Winspear Scholar, Sustainability Champion, Director

Heather Ranson, BA (UBC), MBA (U of Guelph), Assistant Teaching Professor, Associate Director

The Centre for Social and Sustainable Innovation is an intra-faculty centre of the Gustavson School of Business. It exists to facilitate, support and report on the work of Gustavson faculty, staff and students in the areas of sustainability and corporate social responsibility as they relate to business.

CSSI work focuses on three areas: research, education and operations. Faculty research can range from climate change strategy to social entrepreneurship; sustainability reporting in higher education to multi-country comparative corporate social responsibility. Adding post-doctoral fellows to our team aims to strengthen our research networks and output. CSSI hosts regular presentations to share research and practitioner expertise within the school, on campus and with the business community.

Integrating sustainability into Gustavson's courses and specializations is the emphasis of the education arm of CSSI. In addition to an annual commitment to the United Nations Global Compact Principles for Responsible Management Education (PRME), faculty share cases, guest speakers and readings to encourage students to consider the triple bottom line—that is, financial, social and environmental implications—in all their business decisions. Specific courses in sustainability are required in the BCom, MBA and PhD programs. Topics on sustainability are also included across other courses in these and the Master of Global Business program. The centre also supports and implements carbon and waste management activities throughout Gustavson, including an annual greenhouse gas emissions report, extensive waste reduction initiatives, and awareness campaigns.

As well, we facilitate and finance student participation in case competitions, conferences, and other events at UVic, within BC, and around the world.

The Gustavson School of Business is committed to sustainability in all its operations, so the CSSI operations committee undertakes an annual inventory of the school's carbon footprint. In addition, the faculty, staff and students participate in activities such as Bike to Work Week and extensive waste-reduction programs such as composting or UVic-run recycling pilot projects.

Strong links to local and international communities allow CSSI to share best practices, recruit guest speakers for the classroom, and further develop the three arms of CSSI to bring sustainability at Gustavson (one of the school's four value pillars) to life.

Website: <www.uvic.ca/gustavson/cssi>

Centre for Studies in Religion and Society

Paul Bramadat, MA (McGill), PhD (McMaster), Director

The Centre for Studies in Religion and Society (CSRS) is an interdisciplinary research centre located in the Sedgewick Building on the University of Victoria campus. Its mission is to foster the scholarly study of religion in relation to any and all aspects of society and culture, both contemporary and historical. Since its formation in 1991, the CSRS has established itself as a leading centre in Canada for the investigation of themes and issues at the intersection of religion and public policy. It has been especially engaged in discussions and research related to the environment, globalization, ethnicity, ethics, health care, culture, science and technology, and the arts. The centre hosts collaborative research and publishing projects with Canadian and international scholars, sponsors fellowships for graduate students and visiting scholars, and hosts a dynamic annual program of lectures, seminars and conferences for the campus and local community.

Current areas of focus in the centre include research examining:

- religious diversity
- the role of religious groups in the provision of social services
- the role of illuminated or illustrated translated sacred texts in contemporary religious groups
- religious and cultural roots of vaccine hesitancy
- the governance of religious diversity in China, India and Canada
- religious radicalization and securitization in Canada and beyond
- spirituality in hospice palliative care

The CSRS has a fundamental commitment to pluralism and dialogue, encouraging participation from scholars and others from a wide range of academic perspectives.

The CSRS is neither a teaching nor degree or diploma-granting unit. For further information please visit <www.uvic.ca/research/centres/csrs> or contact the centre at 250-721-6325.

Centre for Youth and Society

Frederick Grouzet, PhD (UQAM), Director

Jessica Tegar, Administrative Assistant

The Centre for Youth and Society, formally established at the University of Victoria in 2002, designs and conducts research anchored by collaborative partnerships with local, national, and international youth serving educational and youth led organizations. Research fellows of the Centre are scholars from diverse faculties united by their interest in catalyzing the well-being of youth, public interest and research impact. Our efforts are concentrated in interdisciplinary research, graduate student training and knowledge mobilization on the relationship between youth and society.

The mission of the Center for Youth and Society is to promote the health and well-being of youth from diverse social, economic and ethnic backgrounds in evolving societal circumstances. The Center facilitates university-community partnerships to generate and mobilize knowledge regarding youth strengths, challenges, and opportunities. Current research clusters include: youth physical and mental health; transitions in work, family, and education; Indigenous youth; youth in international contexts; inclusion and engagement; digital youth and literacy; and knowledge mobilization (KM) tools for youth and other audiences.

Our efforts:

- Address the concerns, assets and priorities of youth, in dialogue with society as a whole, so that programs, research and training initiatives are responsive, innovative and well-designed.

- Advance inter-disciplinary community based research and training on a wide array of current issues and events affecting youth.
 - Provide strong evidence based recommendations and advocate with youth to influence policy-makers.
 - Facilitate research impact by taking scholarly research to places where it can foster new public programs and social innovation.
 - Shape educational practice and policy frameworks in ways that harness the tremendous strengths and capacities of youth.
- Website: <www.uvic.ca/research/centres/youthsociety>
 Email: cfysassistant@uvic.ca
 Twitter: @UVic_CFYS
 Facebook: Centre for Youth & Society
 Phone: (250) 472-5414
 Location: University House 3

Institute on Aging and Lifelong Health (formerly Centre on Aging)

Scott M. Hofer, BSc (SDSU), PhD (USC), CAHS, Director

The Centre on Aging at the University of Victoria is a multidisciplinary research centre established to promote and conduct basic and applied research that is relevant to the needs of an aging community. Much of our work is rooted in a broad orientation to health that includes attention to the social, psychological, environmental, and cultural contexts in which people live, as well as the institutions responsible for the health of our population. We recognize aging is a life-long process requiring attention to developmental influences and changes that occur across the life course; and, within this general framework, we focus on the longitudinal and cross-sectional study of clinical, population health and well-being, and health services. Efforts to address these areas of aging research necessarily draw on the expertise and experiences from faculty across and within many university departments including anthropology, biology, business, child and youth care, computer science, economics, engineering, exercise science, geography, health information science, history, Island Medical Program, law, nursing, philosophy, political science, psychology, public administration, public health and social policy, social work, and sociology, as well as researchers in the community and from other universities.

Through innovative and transformative research our goals are to contribute to improving the health and quality of life of an increasingly diverse population of older adults, and to assist their families, health care providers, and policy makers in meeting the challenges and potentials of an aging society. To achieve these goals, the Centre pursues and is engaged in activities that:

- contribute to the training of skilled research personnel which includes promoting and facilitating post-doctoral, graduate, and undergraduate training within the area of aging and health.
- facilitate communication and collaboration among scholars, practitioners, policy makers, and older adults.
- mobilize knowledge on aging and health with scientists, practitioners, and the public.
- promote the translation of research findings into interventions, services, products, and policies relevant to older adults.

Location: R Hut

Phone: 250-721-6369

Email: aging@uvic.ca

Web: <www.uvic.ca/research/centres/aging/>

Twitter: @CentreOnAging

Institute for Integrated Energy Systems (IESVic)

Andrew Rowe, BEng (RMC of Canada), MASc, PhD (UVic), PEng, Director

The Institute for Integrated Energy Systems at the University of Victoria (IESVic) charts feasible paths to sustainable energy systems. Established as a Centre in 1994 IESVic conducts original research on technologies, infrastructure, and policies for sustainable energy systems.

Specific areas of expertise include: energy systems, renewable energy, clean transportation, energy technology, sustainable communities, and human dimensions.

Our Activities:

- **Research:** We are committed to developing new technologies to make sustainable energy systems feasible. We also undertake research to investigate the effects that the choice of particular energy systems technologies can have on the world.
- **Service:** We collaborate with industrial partners to provide access to specialized knowledge and equipment, and with government partners to support policy and decision making processes.
- **Communication:** We provide energy systems education at all levels, formally and informally, to support the need for informed energy choices.

IESVic is a multidisciplinary research institute with participation from Engineering, Chemistry, Biology, Economics, Environmental Studies and Earth and Ocean Science. Well-equipped laboratories are available to support a broad range of research activities. IESVic makes extensive use of students at both the undergraduate and graduate levels to assist with research, and IESVic members frequently participate in supervising students whose interests are non-technical but still related to issues surrounding the development of sustainable energy systems.

For more information, please visit our website: <www.uvic.ca/research/centres/iesvic>

Pacific Institute for Climate Solutions

Sybil Seitzinger, Executive Director

The Pacific Institute for Climate Solutions (PICS) is hosted and led by the University of Victoria. PICS is a unique collaboration among BC's four research-intensive universities (the University of British Columbia, the University of Northern British Columbia, Simon Fraser University, and the University of Victoria). PICS harnesses the Province's intellectual resources to develop innovative climate change solutions, seeks new opportunities for decreasing the Province's greenhouse gas emissions, for positive pathways to adapt to the changing climate, and leads the way to a vibrant low-carbon economy. With strong linkages to senior decision-makers in government and industry, it frames the vital questions and provides effective answers to technological, economic and public policy challenges. PICS was established in 2008 by a \$90 million endowment from the BC Ministry of Environment, the single largest endowment to a university in Canadian history; it is, however, independent from the government.

Victoria Subatomic Physics and Accelerator Research Centre (VISPA)

Randall Sobie, Director

The Victoria Subatomic Physics and Accelerator Research Centre (VISPA) brings together an internationally recognized group of particle and accelerator physicists who work to understand the fundamental nature of our Universe. Group members develop new theoretical approaches,

participate in leading particle physics experiments around the world, and advance the technology required to pursue this science. The group shares computing and laboratory resources, supports and manages technical staff, and ensures a high-quality graduate and post-doctoral training environment.

The theoretical group has gained an excellent reputation across Canada and has close ties with the Perimeter Institute, a internationally recognized institute in theoretical physics in Waterloo, Ontario. The experimental projects include ATLAS at CERN, at the energy frontier, T2K in Japan, a world leading neutrino experiment, and Belle-II in Japan at the precision frontier. The University of Victoria is the lead institution on the Advanced Rare Isotope Laboratory (ARIEL) at TRIUMF.

Victoria Subatomic Physics and Accelerator Research Centre

Elliott Building, Room 207

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