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 Kiwetinopinesik 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, Mètis 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 <circle.uvic.ca>.

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

The mission of the Canadian Institute for Substance Use Research (CISUR) is to create an internationally recognized institute, distributed across BC, that is dedicated to research and knowledge exchange on substance use, harm reduction and addiction.
Established at the University of Victoria in 2003 through an endowment from the BC Addiction Foundation, CISUR has developed relationships with a large network of addiction-related agencies in BC and has formal partnerships with other universities in British Columbia. CISUR sits at arm’s length from government while working on shared concerns with multiple government departments, including health, police, education and liquor licensing.

**Guiding Principles**

The work of CISUR will continue to be guided by the following principles:

- **Collaborative relationships**: Dynamic, collaborative relationships are essential for maintaining relevance to the multi-faceted concerns related to substance use and addictions. Key relationships include those with policy makers, researchers from many disciplines, practitioners and people with personal experience of substance use, addictions and related problems.

- **Independent research**: Protection from vested interests is essential to ensure that rigorous research is conducted and communicated clearly with a view only to furthering the public interest. This will be ensured through excluding representatives of alcohol, tobacco and gaming industries from membership of the Advisory Board and not accepting direct research funding from such sources.

- **Ethics, social equity and justice**: Commitment to solid ethical principles governing internal and external relationships, financial management, the conduct of research and the communication of research findings. A commitment to the promotion of equity and fairness and the pursuit of social justice through attention to the impact of the social determinants that shape substance use and the development of health inequities.

- **Reducing risk and increasing protection**: Attention is required to both immediate factors (e.g., behavioural patterns and contexts) and distal factors (e.g., social, economic and developmental influences) to effectively address the harms from substance use and addictions across the life course.

- **Harm reduction**: Recognition that some people will continue to use psychoactive substances and experience addictions, so that strategies are needed to reduce harmful consequences in addition to those that aim to directly reduce or prevent high risk behaviours.

- **Informed public debate**: Commitment to informing public debate to achieve effective public policy on substance use and addictions through the communication of research findings.

**Realizing Our Mission**

The Canadian Institute for Substance Use Research is working to realize its mission in the following ways:

- **Building new capacity while complementing existing strengths**: Prior to the establishment of CISUR there were already some exceptional strengths in specific research areas relating to addictions. BC researchers were known for their work in relation to preventing problems with injection drug in particular as well as research on the biology of dependence, on fetal alcohol syndrome and on gender issues and addiction. CISUR will strive to complement these existing strengths while filling gaps in areas such as prevention, alcohol policy, program evaluation, treatment systems research and epidemiological monitoring.

- **During the next five-year period, CISUR will need to continue to build capacity in terms of both junior and senior faculty appointed to the University of Victoria with relevant expertise, skilled research staff and increasing numbers of graduate student and postdoctoral fellows engaged in relevant research activities.**

- **Supporting Multidisciplinary Approaches to Substance Use and Addictions**: Problematic substance use stems from a complex mix of biological, psychological and social causes. Research on substance use and addictions, on the other hand, has traditionally been conducted within separate disciplines singularly focused on either the biomedical and clinical or socio-cultural and prevention dimensions of addictions, limiting the exchange of knowledge across the disciplines and to the knowledge users. While the focus of the Institute’s programs is on the psycho-social aspects of substance use and addictions, we will promote collaboration among researchers drawn from a broad range of disciplinary areas including biomedical, psychological, social, epidemiological and historical perspectives. In 2018, CISUR scientists span the disciplines of sociology, nursing, health information sciences, epidemiology, community medicine, psychology and health economics. Affiliated scientists also encompass the disciplines of anthropology, emergency medicine, public health and political science.

- **Networking and Partnerships**: Research Centres at the University of Victoria have strong record of fostering collaboration among a variety of institutional partners and community stakeholders. To this end, the Institute, while located at the University of Victoria, is based on a model of cooperation among the key research-based stakeholders in BC. To ensure the Institute facilitates research activities throughout the Province and that stakeholders have a meaningful voice in the activities, there is a commitment to involving the stakeholders in the development of the Institute’s research priorities and projects. Of particular significance to the forthcoming five-year period is the opportunity for the Institute to contribute to the province’s new 10-year plan to improve responses to mental health and substance use, Healthy Minds, Healthy People (BC Ministry of Health, 2010).

- **Knowledge Translation and Knowledge Brokering**: CISUR is committed to facilitating linkage and exchange between researchers, policy makers, professionals and communities and to developing capacity as a knowledge broker within these relationships. This involves providing easy access to evidence based information that can be used by a range of audiences in various settings (e.g., research, policy, service system, community). In particular, the Institute seeks to ensure policy makers from all levels of government have access to practical evidence provided in a clear manner.

- **Informed public debate**: Commitment to informing public debate to achieve effective public policy on substance use and addictions through the communication of research findings.

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**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 nanoprobes, optical advanced materials, advanced composites, alloys, ceramics, integrated circuit technology, infrared detectors, microsensors,
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 (Linkoping), Program Manager
Victor V. Ramraj, MA, LLB, PhD (Toronto) and LLM (Queen’s University, Belfast), Asia Law Program Chair
Guoquang 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 for recent graduates.

Centre for Biomedical Research
Dr. E. Paul Zehr, PhD (University of Alberta), Professor (Neuroscience & Kinesiology), Director
Dr. Leigh Anne Swayne, PhD (University of Calgary), Associate Professor (Cell Biology & Neuroscience), Associate Director
Dr. Stephanie Willerth, PhD (University of Washington), Associate Professor (Mechanical Engineering & Medical Sciences), Associate Director

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

The Centre for Biomedical Research (CBR) is a collaborative, multidisciplinary group of scientists and clinicians from many faculties, departments, schools, and divisions across campus, including UBC’s Island Medical Program, whose primary research objectives aim to 1) understand the basis of human disease and/or 2) to promote recovery. CBR researchers target a spectrum of disorders including cancer, Rett Syndrome, stroke, African Sleeping Sickness, fetal alcohol syndrome, and spinal cord injury, amongst many others. There are seven research clusters within CBR: biomedical engineering; neuroscience; developmental biology; cell signaling; cardiovascular; genetics; infection and immunity. Some 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 promote community engagement and knowledge dissemination through venues such as Café Scientifique, Pecha Kucha, Industry Partnership Days, media engagement and the Uvic Speaker’s Bureau. With research trainees, a key focus is developing communication and presentation skills and abilities.

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: <web.uvic.ca/forbiol>

Centre for Global Studies
Dr. Oliver Schmidtke, Director
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
Tricia Roche, Associate Director
Karolina Karas, Centre 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: cys@uvic.ca
Twitter: @UVic_CFY
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), MSc, 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, in 1989, IESVic conducts original research on technologies, infrastructure, and policies for energy systems. Specific areas of expertise include: low-carbon transportation, hydrogen and fuel cell systems, renewable energy systems, efficiency, built environment, social license, energy planning, and policies for carbon management.

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>
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, an 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.

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