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.research.uvic.ca>.

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 in-novative cabled infrastructure supplies con-tinuous power and Internet connectivity to a broad suite of subsea instruments from coastal to deep-ocean environments.

ONC also supports sensors installed on fer-nies, 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 Kiwetepinesiik Stark - Associate Director

The mission of the Centre for Addictions Research of BC (CARBC) is to create an internationally recognized centre, 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, CARBC has developed relationships with a large network of addictions-related agencies in BC and has formal partnerships with other universities in British Columbia. CARBC sits at arms length from government while working on shared concerns with
multiple government departments, including health, police, education and liquor licensing.

**Guiding Principles**

The work of CARBC 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 Centre for Addictions Research of BC is working to realize its mission in the following ways:

**Building new capacity while complementing existing strengths:** CARBC added to its multi-disciplinary faculty by helping UVic to recruit Dr Karen Urbanoski as a Canada Research Chair in Substance Use, Addictions and Health Services Research. CARBC scientists now span the disciplines of sociology, nursing, health information sciences, anthropology, epidemiology, criminology, psychology and public health.

This team of talented scientists is supported by over 30 graduate students and a similar number of staff. In collaboration with multiple collaborators and community partners, we collectively compete for and win between $3 million and $4 million in external research funding per annum.

**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 Centre’s programs is on the psycho-social aspects of substance use and addictions, we promote collaboration among researchers drawn from a broad range of disciplinary areas including biomedical, psychological, social, epidemiological and historical perspectives.

**Networking and Partnerships:** Research centres at the University of Victoria have a strong record of fostering collaboration among a variety of institutional partners and community stakeholders. To this end, the Centre, 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 Centre 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 Centre’s research priorities and projects.

**Knowledge Translation and Knowledge Brokering:** CARBC 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 Centre seeks to ensure policy makers from all levels of government have access to practice and policy-relevant evidence provided in a clear manner.

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Blog: <oac.uvic.ca/carbc>
Facebook: <www.facebook.com/carbc.uvic>
Twitter: <www.twitter.com/carbc_uvic>
YouTube: <www.youtube.com/user/carbcuvic>

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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, 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.camtec.uvic.ca>
Email: CAMTEC@uvic.ca
Telephone: 250-721-7736

Centre for Asia-Pacific Initiatives (CAPI)

Director: Andrew Marton, MA (UVic) PhD (UBC)
Helen Lansdowne, MA (UVic), Associate Director
Robyn Fila, MA (Linkoping), Program Manager
Mary Yoko Brannen, MBA and PhD (Massachusetts at Amherst), Janislowsky
CAPI East Asia (Japan) Chair
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, 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 Centre. Landscapes of Injustice is a collaborative, interdisciplinary project hosted by the Centre in partnership with the University of British Columbia and the University of California, Berkley. The project investigates the history, politics, and social consequences of 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.capi.uvic.ca>.

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Centre for Biomedical Research

Dr. E. Paul Zehr, PhD (University of Alberta), Professor (Neuroscience & Kinesiology), Director
Dr. Leigh Anne Swayne, PhD (University of Calgary), Assistant Professor (Cell Biology & Neuroscience), Associate Director
Dr. Stephanie Willerth, PhD (University of Washington), Associate Professor (Mechanical Engineering & Medical Sciences), Associate Director
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, media engagement and the UVIC Speaker’s Bureau. With research trainees, a key focus is developing communication and presentation skills and abilities.

Centre for Biomedical Research
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Website: <www.uvic.ca/cbr>
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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 Forest 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 gene expression; functional genomics of natural product synthesis; biochemistry of plant-pest and plant-pathogen interactions; microbial ecology; and carbon sequestration by forests and soils.

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 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

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.

Website: <web.uvic.ca/forbiol>
The Centre’s activities in Victoria, and abroad are designed to promote critical citizenship in a complex and rapidly changing global environment. CFGS’s 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 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 ranges from climate change strategy to health and wellness, poverty 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 faculty 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 in all their business decisions. Specific courses in sustainability are required in the BCom and MBA programs. Topics on sustainability are also included in Master of Global Business and PhD course offerings. The Centre supports faculty teaching as well as student activities such as Carrotmob and Mission Impossible, the BCom sustainability challenge.

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 Sedgwick 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.csrs.uvic.ca> 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.youth.society.uvic.ca>
Email: cys@uvic.ca
Twitter: @UVic_CFYS
Facebook: Centre for Youth & Society
Phone: (250) 472-5414
Location: University House 3

Institute for Integrated Energy Systems (IESVic)

Peter Wild, BASc (UBC), PhD (UVic), Director

The Institute for Integrated Energy Systems at the University of Victoria (IESVic) promotes feasible paths to sustainable energy systems. Founded in 1989, IESVic conducts original research to develop key technologies for sustainable energy systems and actively promotes the development of practical, clean energy alternatives.

Specific areas of expertise are hydrogen and fuel cell systems, renewable energy systems, sustainable transportation, energy systems analysis, energy efficiency and 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 promote energy systems education at all levels, formally and informally, to support this 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. A fuel cell systems laboratory with hydrogen production and fuel cell testing equipment is available for research use. This lab is designed primarily for prototyping and testing new fuel cell designs. 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.

Website: <www.iesvic.uvic.ca>
Victoria Subatomic Physics and Accelerator Research Centre (VISPA)

Dean Karlen, BSc (U Alberta), PhD (Stanford), 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 world leading 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, thanks to substantial funding from the Canadian Foundation for Innovation and the Province of British Columbia.

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