

Vancouver Island University

Faculty Symposium 2021  
April 16, 2021

# Abstracts



VANCOUVER ISLAND  
UNIVERSITY

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## Symposium Schedule


Time:	Presenters:	Title:
9:00am	<b>Welcome!</b>	Welcome, land acknowledgement, purpose and agenda of the day etc.
9:10am	Dr. Shannon Dames	Establishment of First Integrated Psychedelic Medicine Assisted Therapies (PMAT) Program in BC's Healthcare System
9:30am	Dr. Bob Eslinger	Providing Equitable and Accessible Educational Programs During a Pandemic: Leadership Structures and Instructional Practice
9:50am	Dr. Tehmina Khwaja & Melissa Lyon	Building an Equity, Diversity and Inclusion Community of Practice
10:10am	Dr. Georgina Martin	The newly established tri-agency national Reference Group for the Appropriate Review of Indigenous Research.
10:30	Robin Davies	Conversations - In the Arts & Humanities
10:50am	Dr. Don Alexander	Ingredients for University Leadership in Fostering Climate Resilience: Using Royal Roads as a Case Study
11:10am	Stacie Chappell	Classroom As Organization
11:30am	Danielle Alphonse	Language of the Land
11:50pm	Dr. Gillian Anderson	"Who Cares?": Women's Employment Trends on Vancouver Island-Coast During the First Wave of COVID-19
12:10pm	Dr. Leigh Blaney	Pivot the project: How the 'Indomitable Spirit in Nursing' flipped to comply with COVID research guidelines
<b>12:30pm</b>	<b>LUNCH BREAK</b>	<b>LUNCH BREAK</b>
1:00pm	Video: Dr. Jamie Gorrell	Genomic diversity and relatedness in captive and wild Vancouver Island marmots
1:10pm	Dr. Pam Shaw	The Kómoks First Nation Community Pulse 2020 Project
1:30pm	Dr. Patrick Brouder	Changing TAC? The evolution of Tourism, Arts, & Culture (TAC) and what it means for BC post-COVID-19
1:50pm	Video: Dr. Sylvie Lafrenière	The creation of a Vital Signs report for the Mount Arrowsmith Biosphere Region
2:00pm	Dr. Timothy Green	Future-proofing the shellfish industry in British Columbia against climate change
2:20pm	Dr. Russell Campbell & Eli Landa	Real-time Level-Surface Volumetric Simulation Reductions
<b>3:00 pm</b>	<b>Close</b>	Reflections on the day, feedback, thank-you etc.

Sessions are organized around themes in [VIU's Strategic Plan: Scholarship, Research and Creative Activity 2017 - 2022](#):

- Health, Resilience and Well-Being

- Integrated Sciences, Technology and Environment
- Resilience of Island, Coastal and Rural Regions
- Innovation, Entrepreneurship and Social Change
- Cultural, Heritage and Creative Expression
- Equity, Diversity and Social Justice
- Teaching and Learning

## Presenter Abstracts

<b>Dr. Shannon Dames</b>	<b>Establishment of First Integrated Psychedelic Medicine Assisted Therapies (PMAT) Program in BC's Healthcare System</b>
<p>Healthcare providers routinely exhibit high rates of workplace induced/exacerbated mental illness. Unmitigated mental illness in healthcare workers is costly in terms of sick leave, WorkSafe BC claims, recruitment, and retention expenses and ultimately, in terms of patient safety. VIU has partnered with Island Health, Cedars Addiction Treatment Centre, Numinus, Indigenous Elders, and researchers from UBC and the University of Victoria to explore the use of Ketamine Assisted Psychotherapy (KAP) in combination with a resiliency program to treat PTSD and depression in healthcare providers. Ketamine is touted as the most significant advance in the treatment of depression in over 50 years. Using Patient Oriented (POR) and Reconciliation-focused methodologies, the objectives of the project are 1) to convene key stakeholders to research the regulatory and methodological framework for using Psychedelic Medicine Assisted Therapies (PMAT) within the public healthcare system on Vancouver Island, and 2) to design and pilot test the use of KAP concurrent with the Roots to Thrive resilience curriculum in a small population of patient-providers.</p>	

<b>Dr. Bob Eslinger</b>	<b>Providing Equitable and Accessible Educational Programs During a Pandemic: Leadership Structures and Instructional Practice</b>
<p>The coronavirus (COVID-19) pandemic has amplified differences among learners and presented many unique challenges to the leadership of British Columbia's 60 K-12 public school districts. The urgency to respond to the pandemic has led to school closures, complex reopening procedures, and the necessity for new safety protocols, all of which have taken priority leaving little time to contemplate equitable and accessible instructional delivery for students.</p> <p>The health issues brought about by the COVID-19 pandemic have necessarily derailed change efforts in school districts; however, it does provide the opportunity to gain a new perspective regarding school district leadership structures and frameworks that best provide for the needs of all learners.</p> <p>This research project is a partnership between Vancouver Island University and the BC Council of Administrators of Inclusive Supports in Education (BCCAISE) and the goal is to investigate what has worked, and what didn't, in supporting all students' access to equitable education in BC during this pandemic. Never before has the relationship between a pandemic crisis and the delivery of educational programs been so closely connected to the organization and leadership of a school district. Outcomes will impact leadership competencies of district leaders as well as school district structures and frameworks.</p>	

Dr. Tehmina Khwaja & Melissa Lyon	<b>Building an Equity, Diversity and Inclusion Community of Practice</b>
<p>Vancouver Island University recently hosted a two-day Equity, Diversity and Inclusion (EDI) symposium that brought together 14 small and medium sized institutions to collaboratively learn about EDI action planning. The symposium was funded by a Social Sciences and Humanities Research Council (SSHRC) Connection Grant submitted in 2020. The grant application was for an in-person event with intentionality around relationship-building. However, due to the COVID-19 pandemic, the organizers re-designed it as a virtual event with session formats ranging from a large open-to-all webinar, to limited workshops and small group discussions. The symposium was conceptualized, organized and coordinated by a team of researchers and students including a CRC, a postdoc and six graduate students. The symposium is envisioned as the beginning of a community of practice, hence, relationship building was front and centre in its planning and organization. In this presentation we will highlight how we planned and managed this event to serve as a catalyst for long term collaboration to build an EDI Community of Practice rather than a one-off event.</p>	

Dr. Georgina Martin	<b>The newly established tri-agency national Reference Group for the Appropriate Review of Indigenous Research.</b>
<p>Georgina Martin was appointed for a two year commitment to provide input on to this National Tri-Agency Reference Group. She will share her insights thus far.</p>	

Robin Davies	<b>Conversations - In the Arts &amp; Humanities</b>
<p>Conversations - in the Arts &amp; Humanities is a podcast which introduces you to the people and passions of the Faculty of Arts &amp; Humanities at Vancouver Island University, and shares stories about events and projects happening on campus. Since 2009, the Faculty of Arts &amp; Humanities has been presenting the Colloquium, lectures that bring our Faculty's practices and research to the public. Conversations is an informal and tangential aural companion to the Colloquium presentations.</p> <p>Episodes of Conversations are aired on CHLY monthly during the school year, and also collected at <a href="http://conversationspodcast.ca">conversationspodcast.ca</a>. The episodic podcast format allows for informal dialogue about research, teaching, island life, and the Colloquium series itself. VIU's relationship with CHLY makes possible knowledge mobilization and community building in an accessible, popular format. This presentation will explore the audio and web production behind the podcast, and show how the associated tools can provide an alternative to traditional academic publishing avenues.</p>	

With regard to the climate crisis, every university in B.C. is approaching its responsibilities differently. Royal Roads University on Vancouver Island presents an interesting case based on a number of its initiatives (and this is not a comprehensive list):

- It has established a Climate Action Task Force that is developing a comprehensive Climate Action Plan for the entire institution;
- is in the process of launching an M.A. in Climate Action Leadership;
- has launched a Graduate Certificate in the Science and Policy of Climate Change;
- has hosted numerous climate-related webinars – ones focusing on “The Case for Climate Action in Economic Recovery”; “Leadership in Climate Action, Governance Issues,” and “Changing the Narrative: Stories that motivate climate action.”
- It is also leading the “Climate Adaptation Network,” involving other universities, in B.C. to develop courses for professionals on all aspects of the climate crisis, on ways of mitigating it, and on what adaptation measures can be adopted.

Based on the Royal Roads experience, here are four things that seem to potentially enable universities to demonstrate climate leadership:

- The drive of individual faculty members and administrators;
- Political will at an administrative level ensuring the necessary resources to create programming and initiatives around sustainability and climate action;
- Governance structures that help concentrate resources and facilitate cooperation so that faculty and administrators can build momentum and awareness, and
- A self-reinforcing reputation as a place where students can acquire the knowledge and skills needed to tackle the climate crisis and related sustainability issues.

Royal Roads has all of these things and is showing exemplary leadership.

I will use this information to analyze the leverage points to promote more engagement with the climate crisis at Vancouver Island University, given its unique strengths and limitations.

Stacie Chappell	<b>Classroom As Organization</b>
<p>Classroom as organization (CAO) is an approach at the extreme end of the experiential learning intensity (Sleeth &amp; Brown 1984). As described by Cohen (1976), the objective of the CAO: "...is not to simulate an organization, but rather to create genuine organizational issues for students, to put them in the position of an organizational member who must deal with such problems as: how does work get allocated; how does one work with others who bring different expertise to tasks; how does one influence and motivate subordinates, peers and superiors; how does one cope with ambiguity in solving difficult tasks which do not have any obviously correct single answer; how can disagreements among coworkers be resolved; and how will decisions be made (p. 14)."</p> <p>Proponents of CAO speak passionately about the process and impact of this approach and suggest they would never go back to 'regular' teaching. And yet, CAO has not become widely adopted. The limited adoption rate may be influenced by faculty/facilitators feeling unsure of how to make CAO work given how different it is from traditional teaching. This session will present key elements of the research that resulted in the recently published book Classroom as Organization (CAO) including: an overview of the literature on this transformative pedagogy and design principles critical to successful adoption, The authors have distilled the common considerations that need to be taken into account when implementing CAO. Given the complexity of CAO designs, whether you are designing your own CAO, or implementing an existing design from the literature, there are important considerations for educators: 1) basic parameters, 2) teaching philosophy and competencies, 3) cognitive and affective learning objectives, 4) Institutional context, 5) the meta organizational design, 6) team descriptions, 7) peer teaching, 8) peer assessment, 9) assessment structures, and 10) end of semester evaluation.</p>	

Danielle Alphonse	<b>Language of the Land</b>
<p>Living courageously and kindly are perhaps among the deepest human callings of our times. The courage to open our hearts and minds to 'what is'. The courage and kindness towards ourselves and others that is needed to engage truthfully together about how we can live our best human lives in these times. <i>What is to be given up? What is to be taken up?</i> Through COVID19 mother Earth has sent yet another clear and potent reminder. It's time to come home, to live in our best integrity with all the other kin – human and more than human - who are also part of the only home we have. As children of <i>Papatūānuku</i> (The Earth Mother), we humans are part of a large family - our humble place is as the <i>Pōtiki</i> or youngest. In Te Ao Māori, the Māori world, it is said, that the <i>pōtiki</i> however, also often has a special gift for the future. Well, let's apply that gift – let's bring the hearts and minds of our human generations together, in Council. (Quote:Lewis Williams AIR Director, February 5, 2021)</p> <p>The Alliance for Intergenerational Resilience partnered with BC Regional Innovation Aboriginal Early Childhood Development Chair at Vancouver Island University to run a Multi-Generational Wisdom Councils. In this session will be a reflection as an educator and remembering our ancestors and reclaiming our memories of how land and language are linked in resurgence of cultural ways on knowing and being, and to ask the question "How do you experience the language of the land?"</p>	

Dr. Gillian Anderson	<b>“Who Cares?”: Women’s Employment Trends on Vancouver Island-Coast During the First Wave of COVID-19</b>
<p>In the weeks and months following the WHO’s declaration of a global pandemic, COVID-19 disrupted world economies, transformed local workplaces and greatly affected workers. Amid the volatility of employment, and the economic repercussions of the COVID-19 pandemic, we ask: where are the women? What shifts and changes are occurring to women’s paid labour in pandemic times? And how are Island and coastal women faring in British Columbia?</p> <p>Theoretically grounded in a feminist political economic (FPE) framework, our study (Anderson and Lafrenière 2021) offers a high-level analysis of the gendered impact(s) of COVID-19 on women’s employment experiences during the first wave of the pandemic. Drawing on Statistics Canada Labour Force Survey data for the Economic Region (ER) of Vancouver Island-Coast, we first examine working women’s relationship to the paid labour market. We then take a closer look at women employed in so-called “caring” or “pink collar” industries, tracing their employment trends in four “caring industries” including health, education, retail, accommodation and food service sectors. Our findings not only reveal “who cares” (Ruderman et al.) and who performs caring labour for a living, but point to the persistence of gendered care work experienced by Island and coastal women. Further, these results demonstrate the ongoing need for the formulation of an action plan that includes a “gender lens” (Enarson) in preparation for future disease outbreaks and for the second and anticipated third waves of COVID-19.</p>	

Dr. Leigh Blaney	<b>Pivot the project: How the ‘Indomitable Spirit in Nursing’ flipped to comply with covid research guidelines</b>
<p>This presentation overviews the seemingly never-ending ‘pivots’ that were needed in order to proceed with a research project that had been funded and had received all necessary approvals prior to covid. The process felt overwhelming and there were times when it seemed easier to give up and cancel the project. However, with support from many resources at VIU, Island Health, and Nanaimo Regional General Hospital, everyone involved in this project demonstrated the resilience that is the topic of the research. We will discuss how we worked our way through approvals, adaptations, and the inherent challenges to launching research, and pay homage to the relationships that supported the project’s pivots.</p>	



Dr. Jamie Gorrell  
(Video)

**Genomic Diversity and Relatedness in Captive and Wild Vancouver Island Marmots**

Approximately 30-50% of vertebrate species worldwide are experiencing severe population declines as a result of environmental change and human impact. Safeguarding species for the future requires a clear understanding of population-level ecological, demographic and genetic processes. The Vancouver Island marmot (*Marmota vancouverensis*) is one of the most endangered mammals in Canada and, similar to other species, the strategy currently employed to save these animals involves captive breeding and reintroduction. While this strategy has shown short-term success by increasing the number of marmots in the wild, we do not know how these reintroduced marmots are contributing to the ecological and evolutionary potential (i.e., fitness effects) for long-term recovery of the species.



My long-term research goal is to understand the dynamic interactions between ecological effects and evolutionary potential and how we can influence these processes to rescue endangered populations. Over the next five years, my students and I will determine how captivity and reintroduction has changed genetic diversity and individual fitness of Vancouver Island marmots, and what implications these changes have on the long-term survival of the species. This RIF application is intended to accelerate this project by facilitating research time and funding DNA sequencing.

Dr. Pam Shaw


**K'ómoks First Nation: Community Pulse 2020**

The K'ómoks First Nation Community Pulse document is a collaboration between the K'ómoks First Nation and Vancouver Island University (VIU). Research and collaboration will begin in March 2020 and the final document is anticipated to be completed by August 2020. The primary objectives of the K'ómoks First Nation Community Pulse project are to: [1] Create a Vital Signs style community report, referred to as the Community Pulse document, for K'ómoks First Nation that reflects demographic, economic, social, and environmental indicators; [2] Generate a pass-over document that may be useful in coming years for updating the Community Pulse document; and



[3] Host a short training session with K'ómoks First Nation staff showing them how to use Microsoft Publisher and how to update the document on an annual basis. K'ómoks First Nation will be providing the MABRRI team with data that they have previously collected with regards to their community's current state. The data will be compiled into a final report that can ultimately be updated on an annual basis by K'ómoks First Nation staff and Council. The report will be shared with the K'ómoks First Nation members and surrounding communities, showcasing the current state of the community, the work they are doing, and what they would like to work towards in the future.

Dr. Patrick Brouder	<b>Changing TAC? The evolution of Tourism, Arts, &amp; Culture (TAC) and what it means for BC post-COVID-19.</b>

Dr. Sylvie Lafreniere (Video)	<b>The Mount Arrowsmith Biosphere Region Vital Signs report</b>
<p>The Mount Arrowsmith Biosphere Region (MABR) Vital Signs report is a collaboration between the Parksville-Qualicum Community Foundation (PQCF) and the Mount Arrowsmith Biosphere Region Research Institute (MABRRI). The project will begin in April 2020 and be primarily completed by VIU undergraduate and graduate students. The primary objective, the production of a Vital Signs report, will be achieved through the following stages: acquire and analyze official census and survey data from Statistics Canada; conduct qualitative interviews in the community to enhance the quantitative data; prepare the foundation for future MABR Vital Signs reports; offer opportunities for students to participate in community-based research that will lead to a published Vital Signs report. The MABR is an interesting region to study because its boundaries, based on five watersheds, are natural rather than political or social. At the end of this project, students will have converted the MABR’s natural boundaries into Statistics Canada’s geographical units; identified important indicators to include in the report based on available data; conducted interviews with community members; designed the Vital Signs final report; documented the work in order to facilitate the preparation of future reports. This Vital Signs report will provide a snapshot of the municipalities within the MABR and provide valuable information regarding the population and how they live within this extraordinary region.</p>	

Dr. Tim Green	<b>Future-proofing the shellfish industry in British Columbia against climate change.</b>
<p>Ocean acidification and marine heatwaves have been linked to high-levels of larval and adult mortality of Pacific oysters in British Columbia, respectively. This talk will provide a brief update on the VIU genetic selection program to breed oysters that are more resilient to these environmental stressors. Several student projects have made valuable contributions in understanding larval shell formation in oysters and how ocean acidification is altering the microbiome of oysters and making adult oysters more susceptible to marine heatwaves.</p>	

Dr. Russell Campbell and  
Eli Landa

## Real-time Level-Surface Volumetric Simulation Reductions

<https://www.youtube.com/watch?v=O-uwljuMp7w>

This is a preview of current work toward our selected presentation of research at the Game Developers Conference 2021: Technical Artists Summit in mid-July normally held in San Francisco, but being held digitally due to the pandemic this year.

Real-time volumetric simulations are computationally intensive, and the newest cutting-edge simulations would use up a large portion of platform resources. Including more volumetric simulations in games benefits from approaches that reduce runtime for the calculations involving fluid and gas geometries and particles.

Our approach visualizes volumetric effects using level surfaces. Other 3D geometry can thus interact and the volumetric effects approach a more realistic immersion for the player. We are then also able to manage the simulations for controlled bounds on computational resources. This leaves us with a somewhat banded effect on the simulation, but since we are now rendering less, we will use less computation. Various methods to fill the discontinuity will also be discussed.