

2021-2022

# Centres and Institutes Annual Report



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Research and Graduate Studies

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Message from the Associate Vice President  
Research & Graduate Studies

UFV's research institutes, centres and labs are strategic partnerships that facilitate interdisciplinary collaboration and enable faculty to work on larger and more complex projects than if they worked as individual researchers. As a result, they are able to apply for larger external research grants, engage with more external partners and stakeholders, and support more student research assistants. Approximately two thirds of external funding and regional partnerships are associated with research centres and institutes. UFV's ten centres and two institutes make significant contributions to UFV's mission of engaging learners, transforming lives and building community.

Students are the primary focus at UFV and they comprise a significant proportion of the research labour and in turn greatly benefit from experiential learning. This past year, UFV research institutes, centres and labs provided paid research assistant positions for 82 UFV undergraduate students. In addition, they were joined by an additional 25 Masters and PhD students from both regional universities and abroad. In many cases, these graduate students provide excellent mentoring opportunities for UFV undergrads. The students work with and are supervised by 74 UFV Faculty Associates and other external Research Associates.

The student positions and the costs of the research activities are made possible primarily by funding from external sources. In the past year alone, UFV research centres and institutes were awarded more than \$2.8 million in funding from government agencies, foundations, and industries. The newly awarded funding is associated with 71 different projects.

Currently, UFV's institutes, centres and labs worked with 131 current partners, and while some are international partnerships, the majority of them are located within the lower mainland. These partnerships are key to meeting the needs of UFV's communities, and for providing excellent networking and work experience opportunities for students that want to find employment within their area of study. Partnerships also demonstrate to the community, industry and government, that UFV's teaching and research activities are current, valued and responsive.

The 74 UFV Faculty Associates also find a variety of ways to communicate research results that include conventional peer reviewed publications (20), film, presentations (117), reports (51), books (3), podcast episodes (7), and media interviews in newsprint and television (16).

Overall, UFV's research centers and institutes have put UFV on the academic map through their partnership building, investment in student learning, and nationally recognized expertise. The success of this past year is due to years of building a strong foundation, and I invite you to read further to learn of the ambitious plans for each institute, centre and lab in the coming year.

Respectfully submitted,



Dr. Garry Fehr  
AVP, Research & Graduate Studies  
<https://www.ufv.ca/research/>

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## Food and Agriculture Institute (FAI)

Lenore Newman, Director

May 2021 – April 2022

<https://www.ufv.ca/food-agriculture-institute/>

### Purpose

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The Food and Agriculture Institute (FAI) at the University of the Fraser Valley is an interdisciplinary organization that focuses on issues, challenges, and sustainability solutions related to food and farm systems. FAI partners with a diversity of researchers, industry leaders, and governments to build knowledge and tools for moving toward sustainable, resilient food systems for communities and regions in British Columbia, Canada, and across the globe. To this end, FAI conducts research under two major themes: (1) agricultural technology and innovation, and (2) food systems planning and policy. The mission and vision of FAI are as follows:

**Mission:** FAI conducts research in the areas of food policy and agricultural innovation to foster sustainable intensive agricultural systems. We specialize in research that is regionally based and globally applicable, partnering with researchers, industry leaders, and governments to ensure that British Columbia's food and agricultural systems continue to thrive. We involve students in our research programs, contributing to the development of tomorrow's food and agricultural leaders.

**Vision:** Building tomorrow's food system.

At a practical level, the institute currently addresses its two major themes through research into cellular agriculture, vertical agriculture, emerging technologies, and agricultural policy.

### Membership

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FAI is proud to announce that our Associate Director, Dr. Robert Newell, has taken up a Tier II Canada Research Chair at Royal Roads University. In addition, Dr. Addisalem Benyam joined us as a MITACS postdoctoral scholar and then moved into the vertical agriculture industry. Dr. Evan Bowness continues as a postdoctoral scholar until December 2022 and will then become a tenure track Assistant Professor at Trent University. FAI gained several graduate scholars: Kat Newman and Colin Dring continued in their roles, joined by Sarah-Louise Ruder, Mohaddese Ghadiri, Jofri Isaac, and Alesandros Glaros.

The internal associate list currently includes Cherie Enns, Mariano Mapili, Jonathan Hughes, Stefania Pizzirani, Renee Prasad, and Michelle Superle. The external advisory includes Dr. Evan Fraser (Guelph), Isha Datar (New Harvest), Bill Vanderkooi (Nutriva), and Brian Coombs (CEPCO). This external advisory was consulted on a as-needed basis over the last year.

### Partnerships

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- Arrell Food Institute / University of Guelph: Dr. Lenore Newman and Dr. Evan Fraser of the Arrell Institute are co-leading a CFREF application to study the future of the food system
- ACARN: FAI is a member of the BC Agricultural Adaptation to Climate Change Steering Committee
- BC Food Web: FAI is a member of the BC Food Web Advisory Committee

- Dr. Newell is actively involved in two network initiatives focused on improving local food systems: the Abbotsford FRESH Network and the Mission Food Coalition
- Dr. Newell and Dr. Bowness are part of the PARC Community of Practice focus refugee issues (led by Dr. Geetanjali Gill)
- Partnership with the NGO New Harvest on the FSC-supported project: Emerging Agricultural Technologies and the Future of Food
- Collaboration with the SynBioApps program at Concordia University; served as project partners and mentors for students working on a synthetic biology challenge (in this case, one related to FAI's FSC-supported project)
- Collaboration with Ontario Genomics in the Cellular Agriculture in Canada Whitepaper project
- Partnership with QuantoTech and i-Open Technologies in the Mitacs-supported research project: The Potential Role of Vertical Agriculture in Sustainable and Resilient Community Food Systems
- Collaboration with the University of Victoria, Royal Roads University, and Island Health on a SSHRC Insight Grant project that explores food systems through an integrated climate-biodiversity-health lens
- Collaboration with the Fraser Valley Regional District and Royal Roads University on a SSHRC Partnership Engage project that explored food systems vulnerabilities and integrated approaches for addressing these vulnerabilities
- Partnership with Waterlution in the World Water Journeys project, which explores creative methods for disseminating research and information on water sustainability issues
- Collaboration with the Public Health Association of BC in the Reimagining Food Systems for a Sustainable and Equitable Future project
- Partnership with iOpen Technologies, Archway Community Services, and Fraser Health on an Abbotsford food asset mapping project
- FAI assisted Archway Community Services with their successful Vancouver Foundation Convene grant for their project: Accessing Food for People with Lived or Living Experience of Homelessness, and is part of the project advisory team
- FAI is partnering with Dr. Michelle Superle in her Flood Stories research project, which engages people and families affected by the November 2021 extreme flooding events (<https://www.ufv.ca/food-agriculture-institute/the-research/agricultural-land/the-flood-stories/>)
- FAI is partnering with Dr. Stefania Pizzirani in her project: Comprehensive Review of Gaps and Opportunities in the Sustainable Fashion Sector in the Lower Mainland

- FAI is partnering with Dr. Saeed Rahman in his research project: Innovations Shaping Urban Agriculture in Canada: Case Studies of Agri-business Companies in the Lower Mainland

## **Students**

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- Evan Bowness - Post-doc (UFV Post-doctoral researcher); Emerging agricultural technologies and the future of food
- Addis Benyam - Post-doc (UFV Post-doctoral researcher); Vertical agriculture in sustainable and resilient community food systems
- Colin Dring - RA (UBC PhD student); Vulnerabilities and the future of food
- Sarah-Louise Ruder - RA (UBC PhD student); Emerging agricultural technologies and the future of food
- Kat Newman (UVic PhD student); Assistance with the cellular agriculture Codex project and impacts of plant-based foods
- Alex Glaros - RA (U of Guelph MA student); Emerging agricultural technologies and the future of food & Vertical agriculture in sustainable and resilient community food systems
- Fatemeh Fazel - RA (U of Guelph MSc student); Emerging agricultural technologies and the future of food
- Jofri Issac - RA (Royal Roads MA student); Climate-biodiversity-health nexus & Emerging agricultural technologies and the future of food
- Mohaddese Ghadiri - RA (UVic PhD student); Climate-biodiversity-health nexus
- Hayley Katan - RA (UFV undergraduate student); Bertrand Creek watershed group environmental farm plan & Vulnerabilities and the future of food
- Donovan Toews - RA (UFV recent graduate); Bertrand Creek watershed group environmental farm plan
- Alanna Clempson - Directed Studies Student (UFV undergraduate student); Abbotsford food asset mapping
- Lisa Horton - Practicum Student (UFV undergraduate student); Vertical agriculture in sustainable and resilient community food systems
- Farhan Rahman Chowdhury - SynBioApps student (Concordia University MSc student); Emerging agricultural technologies and the future of food
- Kailen Kroeger - SynBioApps student (Concordia University MSc student); Emerging agricultural technologies and the future of food

- Aaliya Naaz - SynBioApps student (Concordia University MSc student); Emerging agricultural technologies and the future of food
- Maria Orozco Hidalgo - SynBioApps student (Concordia University MSc student); Emerging agricultural technologies and the future of food
- Jacob Sicheri - SynBioApps student (Concordia University MSc student); Emerging agricultural technologies and the future of food

### **Community Engagement**

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As FAI focuses on applied research, the institute engages extensively with different stakeholders and communities. This past year included:

Abbotsford FRESH Network	Agriculture Research and Development Corporation
Archway Community Services	Arrell Institute Guelph
Artisan Sakemaker	BC Agricultural Climate Adaptation Research Network
BC Food Web	BC Ministry of Agriculture
City of Abbotsford	City of Mission
Community Connections Revelstoke Society	Comox Valley Regional District
Concordia University	Cowichan Green Community
EcoDairy	Fraser Valley Regional District
Fraser Health	Island Health
Genome BC	Genome Ontario
i-Open Technologies	Mission Skills Centre
Mission Food Coalition	New Harvest
Perfect Day Foods	Public Health Association of BC
QuantoTech	Royal Roads University
Simon Fraser University	Stó:lō Research and Resource Management Centre
University of Victoria	Waterlution
Wildtype	

FAI also had significant media exposure this year, including interviews with Radio Canada, Financial Post, RRU News, Washington Post, The Current, CBC News, Maclean, National Post, BCIT News, Globe and Mail, iOpenTech News, and Le cafe show (Radio Canada). In addition, Newman and Newell have been featured on multiple podcasts, including the Race Against Climate Change, National Environmental Treasure's What the F\*\*\* is Biodiversity? podcast, the ACARN podcast, Financial Post Down to Business podcasts.

Other community outreach activities include FAI's presence at the 2022 Pacific Agriculture Show, giving handouts on the Institute's projects such as the Vulnerabilities and the Future of Food & the Abbotsford Food Asset Mapping Project.

Dr. Newman also worked as a member of the BC Food Security Task Force to advise government on amendments to the ALR Use Regulations to support the indoor agriculture industry.



## Funding

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### External Funding

- SSHRC Partnership engage grant, *Vulnerabilities and the Future of Food*, \$25,000, Year 1 of 1
- Future Skills Centre's Shock proofing the future of work grant, *Emerging Agricultural Technologies and the Future of Food*, \$235,000, Year 1 & 2 of 2
- SSHRC Insight grant, *The Climate-biodiversity-health Nexus*, \$100,000, Year 1 of 2
- Genome Ontario, *Cellular agriculture in Canada Whitepaper*, \$25,000, Year 1 of 1
- *Marine Environmental Observation, Prediction and Response* (MEOPAR), \$35,000, Year 1 of 1
- SSHRC Connections grant, *Learning Exchange: Social Implications of Cellular Agriculture*, \$25,000, Year 1 of 1
- Mitacs Postdoc Accelerate grant, *The Potential Role of Vertical Agriculture in Sustainable and Resilient Community Food Systems*, \$60,000, Year 1 of 2
- SSHRC New Frontiers in Research Fund, \$171,141, *Reimagining Food Systems for a Sustainable and Equitable Future*, Year 1 of 2

### Pending Grant Applications

- CFREF, University of Guelph, *Sustainable Food Systems for Canada: Innovative, Resilient, Equitable*, \$95,580,000, LOI submitted
- SFU AGritech Innovation Sandbox (AGIS) grant, *Rice Growing in the Fraser Valley*, \$50,000, submitted
- Genome BC's Societal Issues grant, *The Social Implications of Cellular Salmon*, \$130,000, LOI approved

## Research

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*Vulnerabilities and the Future of Food* - FAI, in collaboration with the FVRD and Royal Roads University, initiated a community-based participatory research effort which explored food systems vulnerabilities, resiliency, and approaches to integrated planning in the region. The research employs integrated planning and systems perspectives to (1) reflect upon the challenges and vulnerabilities that the COVID-19 pandemic has revealed about local and regional food and farming systems, and (2) explore ways of increasing local/regional resilience to future shocks (e.g., climate change impacts, economic recessions, mass migration) in the Fraser Valley region. The project consisted of a series of online workshops and a survey delivered to Lower Mainland residents.

*Cellular Agriculture in Canada Whitepaper* – Led by Ontario Genomics and conducted in partnership with the FAI, this project explored critical considerations for Canada's emerging cellular agriculture industry. The was done through extensive stakeholder input, involving a series of government and stakeholder interviews, and the outcome was a whitepaper available from here: <https://www.candesyne.ca/cellular-agriculture>

*Learning Exchange: The Social Implications of Cellular Agriculture* – In April 2022, FAI organized a learning exchange (held at the UBC research forest in Loon Lake), which included representatives and members of academia, the cellular agriculture industry, conventional agriculture, Indigenous communities, and NGOs. The purpose of the learning exchange was to discuss sociocultural and sustainability considerations around the emerging cellular salmon and cellular dairy industries.

*The Abbotsford Food Asset Mapping Project* - This project was led by the Food and Agriculture Institute at the University of the Fraser Valley, and it was done in collaboration with an advisory committee of



representatives from the Fraser Health Authority, Archway Community Services, and i-Open Technologies Group. The aim was to create a visual tool to illuminate the locations of food assets in relation to individuals and families in Abbotsford to identify gaps and areas of low access to food assets and services. The main outcome of the projects is an interactive map developed using i-Open's Agrilyze platform: [www.tinyurl.com/abbotsford-food-asset-map](http://www.tinyurl.com/abbotsford-food-asset-map)

## Publications, Presentations and Reports

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### Peer-reviewed publications

Newell, R., Newman, L., & Mendly-Zambo, Z. (2021). The Role of Incubators and Accelerators in the Fourth Agricultural Revolution: A Case Study of Canada. *Agriculture*, 11(11), 1066.

<https://doi.org/10.3390/agriculture11111066>

Green, A. G., Abdulai, A. R., Duncan, E., Glaros, A., Campbell, M., Newell, R., Quarshie, P., KC, K. B., Newman, L., Nost, E., & Fraser, E. D. (2021). A scoping review of the digital agricultural revolution and ecosystem services: implications for Canadian policy and research agendas. *FACETS*, 6(1), 1955-1985.

<https://doi.org/10.1139/facets-2021-0017>

Glaros, A., Marquis, S., Major, C., Quarshie, P., Ashton, L., Green, A. G., KC, K. B., Newman, L., Newell, R., Yada, R. & Fraser, E. D. (2021). Horizon scanning and review of the impact of five food and food production models for the global food system in 2050. *Trends in Food Science & Technology*, 119, 550-564.

<https://doi.org/10.1016/j.tifs.2021.11.013>

Newell, R., Dale, A., & Lister, N. M. (2022). An integrated climate-biodiversity framework to improve planning and policy: an application to wildlife crossings and landscape connectivity. *Ecology and Society*, 27(1), 23.

<https://doi.org/10.5751/ES-12999-270123>

James, D., & Bowness, E. (2021). *Growing and eating sustainably: Agroecology in action*. Black Point, NS: Fernwood Publishing.

### Forthcoming publications (under review, accepted)

Newman, L., Fraser, E., Newell, R., Bowness, E., & Newman, K. (Accepted). Cellular agriculture and the Sustainable Development Goals. In Lopez-Correa, C., & Suarez-Gonzalez, A. (Eds.), *Driving the Global Bioeconomy with Genomics*, Chapter 7. Elsevier.

Ruder, S.-L., James, D., Bowness, E., Robin, T., & Dale, B. (Accepted). A just transition for Canada's corporate food regime. In *Power and Resistance: Critical Thinking about Canadian Social Issues*, 7th Edition. Fernwood Publishing.

Bowness, E., Wittman, H., Desmarais, A., Dring, C., James, D., McIntyre, A., & Robin, T. (Under review). Responsibility and food sovereignty in an urbanizing and risky world. In Preiss, Marsden, Schneider (Eds.) *Food and Agriculture in Urbanized Societies: Pathways for a Better Future*. Emerald Publishing.

Newell, R., Dring, C., & Newman, L. (Revised). Reflecting on COVID-19 for integrated perspectives on local and regional food systems vulnerabilities. *Urban Governance*.

Newman, L., Fraser, E., Newell, R., Dring, C., Mendly-Zambo, Z., Green, A. G., & KC, K. B. (Revised).

*Agriculture for the Anthropocene: Navigating competing visions for the future of food*. *Food Security*.

Issac, J., Newell, R., Dring, C., White, C., Ghadiri, M., Pizzirani, S., & Newman, L. (Submitted). Integrated sustainability planning and local food systems: Examining areas of and gaps in food systems integration in community sustainability plans for municipalities across British Columbia. Sustainability.

### **Presentations**

Newman, L. (moderator), Hoek, R., Smardon, D., Azevedo, D., Jamroz, D., & Ormann, T. (2021, May 17). EU-Canada Tech Business Day: Agri-tech. European Union Chamber of Commerce in Canada.

Newman, L., Woolfert, S., & Fraser, E. (moderator) (2021, June 6). Building agritech clusters (panel). City Age: The Future of Food. <https://www.cityage.com/event/building-agritech-clusters>

Newell, R. (2021, June 6). Incubators, accelerators, and agricultural technology and innovation. In CityAge: Building Agritech Clusters. <https://www.cityage.com/event/building-agritech-clusters>

Newell, R., & Dale, A. (2021, June 22). Building back better: The biodiversity, climate change and human health nexus. Royal Roads University Webinar Series. <https://youtu.be/zveehO5LIRI>

Newman, L., De Martin, E., Peter Dhillon, P., & Dittrich, M. (2021, June 29). Growing British Columbia's agri-tech sector. Greater Vancouver Board of Trade. <https://www.boardoftrade.com/events/individual-events/2024-6756>

Newman, L. (2021, July 15). Advances in agriculture. Duncan PROBUS Club.

Newman, L. (2021, July 15). The future of dairy. Waterwise Program, University of Arizona.

Bowness, E. (moderator) (2021, September 16). Regrowing agriculture. Farm to Globe: Transforming Our Food Systems Series.

Bowness, E. (2021, October 5). Growing and eating sustainably: Agroecology in action. NFU Ontario Meeting.

Newell, R. (panelist) (2021, October 5). Sustainable agriculture: The Fraser Valley for food production and innovation today and into the future (panelist). Lucerne Program - Leadership and Business Development.

Newell, R. (2021, October 17). COVID-19, climate change, and integrated planning for healthy communities. National Academy of Medicine Interest Group Meeting Interest Group 08 — Health of Populations/Health Disparities New Directions Exploring Data Justice and Structural Racism in the Context of COVID and Climate Change.

Newell, R., & Bowness, E. (2022, January 10). Emerging agricultural technologies and sustainable food systems & Responsibility and the implications of new technologies. Concordia: SynBio Training Program, Synthetic Biology and Industrial Applications (BIOL631.07).

Bowness, E., Newell, R., Glaros, A., & Ruder, S.-L. (2022, February 15). Cellular agriculture and social sciences. New Harvest Jam Session.

Bowness, E. (2022, February 17). Cultural implications of cellular salmon. UFV MicroLecture.

Newell, R. (2022, February 26). Emerging agricultural technologies and sustainable food systems. Conference on Sustainability in Engineering.

Bowness, E. (2022, February 26). Responsibility and the implications of new technologies. Conference on Sustainability in Engineering.

Bowness, E. (chair), Ruder, S.-L., Newman, K., & Glaros, A. (2022, March 1). Social implications of cellular agriculture (panel). American Association of Geographers.

Newell, R. (panelist) (2022, March 5). Regenerative food systems & food security (panel). Food Connections (Cowichan Green Community).

Dring, C., & Newell, R. (2022, April 7). Climate impacts and resiliency planning in the Fraser Valley food system. The Fourteenth International Conference on Climate Change: Impacts & Responses. [https://vimeo.com/697069389/e191ca4b5f?embedded=true&source=video\\_title&owner=35580917](https://vimeo.com/697069389/e191ca4b5f?embedded=true&source=video_title&owner=35580917)

Newell, R., & Dring, C. (2022, April 7). Participatory methods for examining vulnerabilities to exogenous shocks. The Fourteenth International Conference on Climate Change: Impacts & Responses. [https://vimeo.com/697077723/fd135551bc?embedded=true&source=video\\_title&owner=35580917](https://vimeo.com/697077723/fd135551bc?embedded=true&source=video_title&owner=35580917)

Horton, L. (2022, March 31). Determining the viability of vertical farming practices in the Fraser Valley: A spatial approach. UFV Student Research Day 2022. <https://static1.squarespace.com/static/60d6345e7bf3657607b297ba/t/625778f07bd29e6392466ded/1649899761735/Horton2022-VerticalFarmingViabilityFraserValley.pdf>

#### **Non-refereed outputs (reports, articles, and posters)**

Dring, C., & Newell, R. (2022). Mapping Food System Impacts, Hazards, and Vulnerabilities in the Fraser Valley Region Workshop: Summary Report. University of the Fraser Valley. <https://doi.org/10.13140/RG.2.2.31197.69604>

Glaros, A., & Newell, R. (2022). Vertical agriculture: Exploring its role in sustainable and resilient community food system (poster). University of the Fraser Valley, Abbotsford, Canada. <https://static1.squarespace.com/static/60d6345e7bf3657607b297ba/t/6271a021a54b371256d7a1d7/1651613731228/VerticalAgricultureCommunityFoodSystems-UFV-May2022.pdf>

Chowdhury, F. R., Kroeger, K., Naaz, A., Hidalgo, M. O., & Sicheri, J. (2022). Towards creating a sustainable cellular dairy industry in the Fraser Valley. Concordia University, University of the Fraser Valley. <https://static1.squarespace.com/static/60d6345e7bf3657607b297ba/t/61fc2509ef89e4572a986d88/1643914506789/TowardsSustainableCellularDairyIndustryFraserValley-Feb2022.pdf>

Bowness, E., Newell, R., & Ruder, S.-L. (2022, January 12). Milk without the cow: Cellular agriculture could be the future of farming, but dairy farmers need help (article). The Conversation. <https://theconversation.com/milk-without-the-cow-cellular-agriculture-could-be-the-future-of-farming-but-dairy-farmers-need-help-173898>

Fraser, E., Newman, K., Newman, L., von Massow, M., & Newell, R. (2021, December 15). Lab-grown meats and cow-free dairy can meet the demand for protein and help address climate change (article). The Conversation. <https://theconversation.com/lab-grown-meats-and-cow-free-dairy-can-meet-the-demand-for-protein-and-help-address-climate-change-173404>

Fraser, E., & Newman, L. (2021, June 21). Food is poised to get a lot more expensive, but doesn't have to (article). The Conversation. <https://theconversation.com/food-is-poised-to-get-a-lot-more-expensive-but-it-doesnt-have-to-162206>

Dring, C., & Newell, R. (2021). Fraser Valley Food System Vulnerability Workshop: Summary Report. University of the Fraser Valley. <https://doi.org/10.13140/RG.2.2.34634.08648>

Clempson, A., & Newell, R. (2021). The Abbotsford food asset map (poster). University of the Fraser Valley. <https://static1.squarespace.com/static/60d6345e7bf3657607b297ba/t/620346db1c91aa72e4ed41bd/1644381916568/AbbotsfordFoodAssetMap-DescriptionInstructions-Dec2021.pdf>

Ontario Genomics (2021). Cellular agriculture – Canada's \$12.5 billion opportunity in food innovation. Written in partnership with the Food and Agriculture Institute at the University of the Fraser. [https://www.ontariogenomics.ca/wp-content/uploads/2021/11/CELL\\_AG\\_REPORT\\_FULL-FINAL.pdf](https://www.ontariogenomics.ca/wp-content/uploads/2021/11/CELL_AG_REPORT_FULL-FINAL.pdf)

White, C., & Newell, R. (2021). Bertrand Creek Watershed Group Environmental Farm Plan: Project summary. University of the Fraser Valley. [https://static1.squarespace.com/static/60d6345e7bf3657607b297ba/t/612e8bcd3fcb0769cd17d74f/1630440404328/Bertrand+Creek+Watershed+Group+Environmental+Farm+Plan\\_Project+Summary.pdf](https://static1.squarespace.com/static/60d6345e7bf3657607b297ba/t/612e8bcd3fcb0769cd17d74f/1630440404328/Bertrand+Creek+Watershed+Group+Environmental+Farm+Plan_Project+Summary.pdf)

### **Plans for the Upcoming Year**

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In the coming year FAI will continue to focus on creating excellence in applied research in the area of vertical agriculture, cellular agriculture, and agricultural policy. Of particular note will be the submission of the CFREF in partnership with Guelph if the LOI is successful. Dr. Newman, as Agricultural Advisor to the Provost, is also exploring better engagement with other FAI institutes and centres. FAI will also be settling into a newly renovated space in B building.

## South Asian Studies Institute (SASI)

Satwinder Bains, Director  
<https://www.ufv.ca/sasi/>

May 2021 – April 2022

### Purpose

The South Asian Studies Institute (SASI) at the University of the Fraser Valley (UFV), brings together South Asia scholars and students from diverse backgrounds and disciplines to create a nexus point for programs and activities that support the Institute's vision. The Institute fosters interdisciplinary scholarly research, community, and public engagement on issues of South Asia and the Canadian South Asian Diaspora. [www.southasiancanadianheritage.ca](http://www.southasiancanadianheritage.ca)

### Membership

#### New members of the South Asian Community Advisory Committee (SACAC):

- Shruti Parkash Joshi
- Ansh Seth (student)

#### New Faculty Associates of SASI:

- Dr. Karun Karki
- Dr. Geetanjali Gill
- Dr. Surinder Jodhka
- Dr. Chanwahn Kim
- Dr. Seongheui Kim

### Partnerships

#### National Partners:

Abbotsford Community Foundation	Abbotsford Historical Book Association
Baltej Singh Dhillon	BC Historical Federation
BC Labour Heritage Centre	Chetna Association
Cowichan Valley Museum and Archives	Cross Connect Media
Dr. Kanwal Singh Neel	Fraser Valley India
Henna Mann Films	Fraser Valley Indo Canadian Business Association
Heritage BC	Ismaili Centre, Burnaby
Khalsa Diwan Society, Abbotsford	Lantern Films
Museums and Heritage Services Anvil Centre	National Trust for Canada
OMNI TV	Open School BC
Poetic Justice Foundation	Rogers Media
Simon Fraser University Library	Surrey Art Gallery
The Reach Gallery Museum Abbotsford	The Royal BC Museum
UBC Sociology Department	Vancouver Maritime Museum
BC Museums, Libraries, Archives and Galleries	West Coast Coalition Against Racism

#### International Partners:

- Guru Nanak Dev University (GNDU)
- Hankuk University, Korea
- Northumbria University, Newcastle, UK

- Panjab University, Chandigarh
- Punjabi University, Patiala
- Sanatan Dharma College, Chandigarh (UFV campus) St. Bede's College, Shimla
- Shastri Indo-Canadian Institute
- The University of Mumbai's Centre for Indo-Canadian Studies

### **Students**

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- Sadhvi Suri - BBA, co-op student for South Asian Canadian Digital Archive (SACDA)
- Varshaa Kashyap - BA Psychology, research and cataloguing assistant for SACDA
- Jahnvi Chawla - BCIS student research assistant for Joan Mayo Fonds, and other different archives projects for SACDA
- Ansh Seth - BBA, research and cataloguing assistant for SACDA
- Shivam Vashist: BCIS research assistant for multiple archival collections at SACDA, mainly digitization and workflows
- Ankit Nirankari - BBA, research assistant and event planner for the Bajwa Dhama Building Bridges Golf Tournament
- Megan McGinnis - DIS practicum student for SACDA analyzing, digitizing, cataloguing, and records
- Tania Teixeira - LIBIT practicum student for SACDA archival digitizing, cataloguing and thesaurus construction
- Ireland Bellsmith - BA, criminal justice research assistant for researching the exploitation of international students in Canada
- Ekam Sandhu - BA, criminal justice research assistant in researching the exploitation of international students in Canada
- Harla Sidhu - BA, criminal justice research assistant in researching the exploitation of international students in Canada
- Henna Mann - BA York University, Film School research partner for the documentary on the Farmer's Movement
- Tushar Malhotra - BCIS student and event planner for the UFV Golf Tournament
- Arshdeep Sandhu - BCIS student and assistant web developer for SACDA and SASI
- Landon Kaetler - BA, criminal justice research assistant for SACDA digitizing, cataloguing, and records

### **Community Engagement**

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- Historic Sites of BC - Two short film premieres
- Open School BC - Consultations with teachers and administrators in the K-12 system
- Crime Reduction Research Program - Report on sports prevention programs for youth from getting engaged in crime
- SASI Symposium 2021 - Building a Diasporic Roadmap through Inquiry and Engagement (cancelled due to Fraser Valley flooding)
- SASI Lecture Series on Caste - Farmers' Movement and Emerging Solidarities in Rural Punjab with Dr. Surinder Jodhka
- SASI is hosting the travelling installation of *An Ocean of Peace* at the Sikh Heritage Museum
- Haq and history travel exhibit that went to K-12 schools in Abbotsford, Fraser Valley Regional Library and the Surrey Central Library
- Rajesh Vora's exhibit *Everyday Monuments* at the Surrey Art Gallery
- SASI signed an MoU with Hankuk University and brought in two visiting scholars
- South Asian Canadian Legacy Project Launch was shared with the community in Surrey

- UFV INDIA created a humanities and social sciences internship program with six student interns learning research survey methods
- SASI initiated an MoU with the Vancouver Maritime Museum
- Dr. Gagandeep Kaur was hired as a Post Doc in partnership with Dr. Cindy Jardine, Tier 1 Canada Research Chair in Health and Community

### Funding

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CIHR Project Grant 2021-22	319,148.00
Youth Canada Works (SACDA)	7,000.00
BC Arts Council 2021	24,000.00
BC Arts Council 2021 COVID supplement	18,000.00
MITACS Business Strategy 2021	10,000.00
BC Arts Council COVID supplement 2021	2,000.00
Heritage BC 2021	5,300.00
Ministry of Multiculturalism 2021	13,000.00
Canadian Heritage MAP 2022	10,000.00
Canadian Heritage DAH 2022	254,148.00
CIHR COVID -19 2021	348,000.00
CIHR Mothers with Covid 2022	159,574.00

### Research

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- History of Abbotsford's Fraser River Crematorium – *Dying with Dignity*
- Documentary Film – *Diaspora's Response to Farmers Movement*
- South Asian Canadian Legacy Project six projects – [www.threadingourstories.ca](http://www.threadingourstories.ca)
- BC Historical Foundation's Women Stories Project – *Where Are The Women: Love, Solace, and Courage*
- SASI Fellowship Dr. Yvon Dandurand and Dr. Jon Heidt – *Youth, Crime Prevention and Sports*
- Permanent exhibit at the Sikh Heritage Museum – *Komagata Maru: Challenges and Injustices – Discrimination meets Determination* in January 2021
- UFV Peace and Reconciliation Centre visiting scholar project – *Farmer's Movement: effect from diaspora involvement*

### Publications, Presentations and Reports

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#### Publications and Reports:

- Youth, Crime Prevention and Sports – Report (Book Publication in Press – Bristol University Press)
- Bains, S. (March 2022). Editor. Union Zindabad. South Asian Studies Institute
- Bains, S. (April 2022). South Asian Canadian Legacy Project impact and influence. BC History, BC Historical Federation
- Bains, S. Journal Review: Sikh Formations. March 2022
- Bains, S. & Gurm, B. (March 2022). Editor. Social History of South Asians in BC. South Asian Studies Institute



- Bains, S., Berg, M., Suri, S. (2022). The South Asian Canadian Digital Archive Thesaurus: Thesaurus Construction for the South Asian Canadian Diaspora. KULA: Knowledge Creation, Dissemination, and Preservation Studies
- Bains, S. (June 2021). Sikh Migration, Settlement, History and Fraser Valley Connection. A Diverse Tapestry. Abbotsford Historical Book Committee
- Bains, S. (June 2021). The National Historic Site Gur Sikh Temple, Abbotsford. A Diverse Tapestry. Abbotsford Historical Book Committee
- Bains, S. (June 2021). Dr Dalip Singh Gill. A Diverse Tapestry. Abbotsford Historical Book Committee
- Bains, S. (June 2021). Abbotsford's Thandi family. A Diverse Tapestry. Abbotsford Historical Book Committee
- Bains, S. (June 2021). Kelly Chahal. A Diverse Tapestry. Abbotsford Historical Book Committee
- Bains, S. (June 2021). Mo Gill. A Diverse Tapestry. Abbotsford Historical Book Committee
- S. Bains, & Sandhra, S. (Sept 2021). The body politics of gender in Sikhi: shaping, shifting and pushing boundaries. South Asian Diaspora. <https://doi.org/10.1080/19438192.2021.1969517>
- Bains, S. (Winter 2021). Guest editor. BC history. British Columbia Historic Federation
- Bains, S. (April 2022) BCTF Teachers Embedding south Asian Canadian culture, history and heritage in the classroom
- Sandhra, S. (Spring 2022) "Being an Activist Historian." British Columbia History. Vol.55, No 1
- Sandhra, S. (April 2022) "South Asian Histories in British Columbia, 1897-1947." A Social History of South Asians in British Columbia. Editors, Dr. Satwinder Kaur Bains, Dr. Balbir Gurm. South Asian Studies Institute. South Asian Studies Institute

**Presentations:**

- Bains, S. (May 2021). BC Studies 2021 Conference. Relegated to the Margins - Resurrected Sites as Places of Knowing. Online
- Bains, S. (June 9-10). Common Cause? Coalition-building across Asian Canadian communities. National Forum on Anti-Asian Racism. UBC
- Bains, S. (June 16, 2021). "Heritagization from below" – who is listening?
- Association of Critical Heritage Symposium (2021) - The construction and performance of cultural heritage in South Asian Canadian Diaspora communities

- Bains, S. (June 21, 2021). Ethics of Care" for International Students in Canada. BC Council for International Education Conference 2021 Online
- Bains, S. Asian heritage month. Recognition, Resilience, and Resolve. Privy Council Office of Canada. May 31, 2021
- Bains, S. The collision of power and protest in the Farmer's Movement in India. Kwantlen Polytechnic University as part of Family, Diaspora and Resistance: The Indian Farmers Movement Lecture Series. June 2021
- Bains, S. South Asian Canadian contributions to Asian Heritage Month. Film. National Film Board and Canadian Heritage. May 2021. <https://youtu.be/IIcdqagVeXA>
- Bains, S. Punjabi Migrations and BC Histories. Global South Colloquium, UVic. March 2022
- Bains, S. Moderator Ukraine Politalk event. March 2022
- Bains, S. South Asian Canadian Legacy Project. Heritage Commission of Surrey. April 2022
- Sandhra, S. Moderator. "Intersectionality, Feminism, and Power: Writers Who Define our Times." LiterAsian Festival. May 4th, 2021
- Sandhra, S. Co-presenter. "Abbotsford, the KKK and Whitewashed Histories." BC Studies Conference. May 6, 2021
- Sandhra, S. "The Future of BC History." BC Studies Conference. May 8, 2021
- Sandhra, S and Lucy Bell. "Radical Truths and Radical Empathy: Canadian Museums and the Changing Tide." Canadian Museums Association Conference. May 13, 2021
- Sandhra, S. Reconciliation Conference Session. Heritage BC. May 13, 2021
- Sandhra, S. Moderator. "The Elephant in the Room: The Leadership Crisis in Canada's Cultural Sector." BC Museums Association Webinar. May 21, 2021
- Sandhra, S. Invited Speaker. "National Forum on Anti-Asian Racism." UBC. June 10-11, 2021
- Sandhra, S. Invited Speaker. "SFU Sterling Prize in Controversy Award." SFU. October 14, 2021
- Sandhra, S. "British Columbia: Untold History Screening and Conversation." Vancouver Island University. November 2, 2021
- Sandhra, S. "Historical Contributions and a Career in Activism." UFV College of Arts Career Month. November 30, 2021
- Sandhra, S. Moderator. "National Day of Awareness and Action on Violence Against Women." University of the Fraser Valley. December 6, 2021

- Sandhra, S. “Feminine Spirituality: Celebrating International Women’s Day.” Spiritual Path to Awakening. March 8, 2022
- Sandhra, S. “Sacha Ghar: True Home Experience.” Sikh Heritage Month BC Panel. April 10, 2022
- Sandhra, S. “Co-creating Sikh/Punjabi Spaces Through Creative Storytelling.” True Home Experience: An Exhibit. April 10, 2022
- Sandhra, S. Celebrating the Legacy of Activism of Sikh Canadians. Canadian Race Relations Foundation. April 26th, 2022
- Jothilingam, T. The Voices of the Mountains: Indentured Labour, Orality, and the Upcountry Tamil Archives. Upcountry Tamil Cultural Forum. May 29, 2021
- Jothilingam, T. Metadata and Knowledge Infrastructure. Noolaham Foundation. August 14, 2021
- Jothilingam, T. The Orality of the Archive: Folklore, Ethnography, and Auditory Histories. Noolaham Foundation. August 28, 2021
- Jothilingam, T. Multimedia Archives and Visual Histories. Noolaham Foundation. October 23, 2021
- Jothilingam, T. Panelist. Crossing Boundaries: Visual Art, Displacement, and Place-making, University of Toronto. March 24, 2022
- Jothilingam, T. Approaching the Archive workshop, Inventories of Dispossession: 2022 Tamil Studies Symposium. York Centre for Asian Research, York University. April 1, 2022

### **Plans for the Upcoming Year**

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1. “Caste matters” dismantling caste in the diaspora and a partnership with community organizations to construct a caste archive for the BC region
2. Completion of work on the documentary recording the Diasporic response to the Indian Farmer’s Movement in India
3. CIHR Project on COVID-19 –Effects of Outbreaks on Temporary Foreign Agricultural Workers in BC with Dr. Cindy Jardine, Tier 1 Canada Research Chair
4. CIHR Effects of COVID-19 on South Asian Mothers in BC with Dr. Cindy Jardine, Tier 1 Canada Research Chair
5. Online grant application process for the exhibit *Haq and History* to allow communities all across BC to apply for the exhibit to come its region with additional local research
6. Launch of *Oceans of Peace* exhibit at the Sikh Heritage Museum, June 2022
7. Participation in National Film Board Film *Unarchived*

## Centre for Education and Research on Aging (CERA)

Shelley Canning, Director  
<https://www.ufv.ca/aging/>

May 2021 – April 2022

### Purpose

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The mission of CERA is to promote collaboration within UFV and the Fraser Valley community around issues related to ageing. CERA's goals include providing multidisciplinary educational opportunities in ageing studies for both UFV students and the Fraser Valley community. CERA members seek to foster relationships and facilitate ongoing exchange of information on the ageing process between UFV and Fraser Valley communities. Finally, CERA members are actively engaged in collaborative and multidisciplinary studies related to aging research.

### Membership

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#### Director:

- Shelley Canning – Nursing

#### Members:

- Darren Blakeborough (Social, Cultural & Media Studies)
- Michael Corman (Social, Cultural & Media Studies)
- Candace Couse (School of Creative Arts)
- Gillian Hatfield (School of Kinesiology)
- Andrea Hughes (Psychology)
- Lesley Jessiman (Psychology)
- Gabriel Murray (School of Computing)
- Alison Pritchard Orr (School of Kinesiology)

### Partnerships

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- Elder College (Age-Friendly; Pen-Pals study; Nursing Students & Older Adults study - Shelley Canning; Ageing Mythbusters course (Lesley Jessiman))
- Mission Lifetime Learning (Age-Friendly University - all CERA members)
- Abbotsford Lifetime Learning (perceptions of Elder Abuse study - Lesley Jessiman)
- Cycling Without Age, Yarrow Chapter (expanding programme through partnership with CERA UFV - Alison Pritchard Orr lead)
- Compassionate Neighbourhood Health Partners Society Chilliwack (Intergenerational study - Lesley Jessiman & Andrea Hughes)
- BC Cancer (Dementia-Friendly Cancer Care study - Shelley Canning)
- School District #34 (Children's Perceptions & Projections of Ageing study - Shelley Canning, Candace Couse, & Darren Blakeborough)
- Centre for Addiction and Mental Health (Michael Corman)

- Chilliwack Healthy Community (includes 45 partner agencies - Darren Blakeborough is the UFV representative on Housing First Task Team and the Seniors Task Team)
- UFV Community Health and Social Innovation Hub research associates (Shelley Canning, Michael Corman, Andrea Hughes, Lesley Jessiman)
- CANARY (Clinical dAta, NATural language pROcessing and eYe tracking for dementia risk stratification)
- UBC Health Sciences and UBC Department of Computer Science

## **Students**

**The following students, represent all of the disciplines of CERA members, and have worked on projects or studies as research assistants or work study students:**

1. Liya Benny, Cody Berends, Sidney Hoolsema, David Hughes, Varshaa Kashyap; Sanskriti Khurana, Kathleen Paddington, Alanna Sydenham: "Age-Friendly University Initiative"
2. Nicole Cusick & Rosaley Klassen: "Pen-Pals: Supporting intergenerational relationships during COVID19"; "Nursing students and seniors: Using technology to maintain social connections during Covid19"; "Understanding student perceptions to support education promoting ageing & dementia awareness"
3. Zaira Ramirez Luis: "Understanding student perceptions to support education promoting ageing & dementia awareness"
4. Jagmeet Gill: "Is altered muscle activation in knee osteoarthritis associated with balance and proprioceptive deficits and instability"
5. Alanna Sydenham, Sarah Singh, Harnoor Grewal, Hararanvir Brar & Hope Buchanan: Social Isolation & Loneliness in Young & Older Adults, in the face of COVID-19
6. Harp Kang, Amanjot Dhaliwall & Hope Buchanan: "An examination of the efficacy of an Online intergenerational program"
7. Hope Buchanan: "An Examination of Elder Abuse as a function of Ageism & a lack of Age-related Knowledge"
8. Hope Buchanan: "An examination of How to Implicitly measure Ageism using a Verbal Fluency Task"

## **Community Engagement**

CERA is leading an initiative seeking Age-Friendly University status; this has involved significant engagement with internal and external community members including older adults in Chilliwack, Abbotsford, and Mission. Representatives from these local seniors' organizations have been included as part of a task force providing insight and feedback as UFV seeks and establishes AFU status. Members from these groups were important volunteers in our recently completed UFV AFU audit.

Cycling Without Age is a partnership established between the Yarrow chapter of Cycling Without Age (CWA) and CERA. Recently CERA members met with the CWA board of directors to establish a cycling program for older adults and people with limited mobility using one of the Yarrow chapter's trishaws. Plans include the storage of the trishaw in building W on the CEP campus, the training of UFV students to act as trishaw pilots and outreach to the community to identify individuals who will benefit from the freedom of piloted cycling along the Vedder River trails and the intergenerational social connection with UFV students.

### Funding

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- Shelley Canning: 2022-2025 (\$100,000 - Alzheimer's Society of Canada) PI: "Implementing Dementia-friendly Care Approach for Cancer Patients Living with Dementia"

### Research

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- Gillian Hatfield - "Is altered muscle activation in knee osteoarthritis associated with balance and proprioceptive deficits and instability"
- Shelley Canning - "Pen-Pals: Supporting intergenerational relationships during COVID19"
- Shelley Canning - "Nursing students and seniors: Using technology to maintain social connections during Covid19"
- Shelley Canning & Darren Blakeborough - "Children's Experiences of an Intergenerational Dance Programme: A Follow Up Study"
- Lesley Jessiman & Andrea Hughes "Social Isolation & Loneliness in Young & Older Adults, in the face of COVID-19 (2021)
- Lesley Jessiman - "An examination of the efficacy of an online intergenerational program"
- Lesley Jessiman - "An Examination of Elder Abuse as a function of Ageism & a lack of Age-related Knowledge"
- Lesley Jessiman - "An examination of How to Implicitly measure Ageism using a Verbal Fluency Task"

### Publications, Presentations and Reports

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*UFV students indicated by \**

#### Presentations:

Corman, M. (2022) University of Toronto – Dalla Lana School of Public Health – “Paramedics on and off the streets: towards a Critical Public Health”, March.

Jessiman, L., & Hughes, A. (2021) "Social Isolation & Loneliness in the Face of COVID-19: An Examination of the Outcomes & the Key Protective/Predictive Factors" Adapting to a Pandemic World: Exploring Covid19 Research at UFV, November.

Canning, S. (2021) "Nursing students and seniors: Using technology to maintain social connections during COVID-19" Adapting to a Pandemic World: Exploring Covid19 Research at UFV, November.

Canning, S. E., St-Martin, E., Blakeborough, D., Corman, M., Jessiman, L., & Phinney, A. (2021). Intergenerational “pen pals”: creating meaningful arts-based connections during Covid19. Canadian Association on Ageing Conference, Oct.

Canning, S., Cusick, N\*, Kwidzinski, L., & Blakeborough, D. (2021). Looking back: remembering an intergenerational ballet programme. Canadian Association on Ageing Conference, Oct.

Canning, S., Cusick, N. \*, Klassen, R. \*, Hung, L., Affleck, F., & Phinney, A. (2021). Nursing students and seniors: using technology to maintain social connections during Covid19. Canadian Association on Ageing Conference, Oct.

Canning, S. E., & St-Martin, E. (2021). Navigating Arts-based Artefacts: Exploring Children’s Drawings and Letters in an Intergenerational Pen Pals Project. Thinking Qualitatively International Conference. Virtual Conference, July. (poster)

Murray, G., & Clelland, D. (2022). Computational Models of Linguistic Alignment for Clustering Group Participants and Predicting Task Outcomes. Canadian AI 2022 conference.  
UFV Student Research Day presentations:

Berends, C.,\*, Canning, S., & Pritchard Orr, A. "An Evaluation of UFV's Age-Friendliness Regarding Built Environment". (micro-lecture & poster)

Frankenberger, K. \*, & Hatfield, G. "The Feasibility of an Online Progressive Resistance Training Program with Instability for Individuals with Parkinson’s Disease: A Pilot Study"(micro-lecture & poster)

Cusick, N. \*, & Canning, S. "Exploring D/deaf and Hard of Hearing people’s experiences in the Canadian health care system" (micro-lecture & poster)

Klassen, R.,\* Canning, S. "Social Connections: Assisted Living seniors' experiences during Covid-19" (micro-lecture & poster)

**Publications:**

Hatfield GL, Costello KE, Astephen Wilson JL, Stanish WD, Hubley-Kozey CL. The association between knee joint muscle activation and knee joint moment patterns during walking in moderate medial compartment knee osteoarthritis: implications for secondary prevention. Archives of Physical Medicine and Rehabilitation. 2021;102(10):1910-1917. doi: 10.1016/j.apmr.2021.03.038. (peer-reviewed)

Hatfield GL, Costello KE, Astephen Wilson JL, Stanish WD, Hubley-Kozey CL. Baseline gait muscle activation patterns differ for osteoarthritis patients who undergo total knee arthroplasty 5–8 years later from those who do not. Arthritis Care & Research. 2021; 73 (4): 549-558. doi: 10.1002/acr.24143. (peer-reviewed)

Kearney, G., Corman, M., & Gormley, G. (Under Review). Unstandardizing standardized ways of knowing: Institutional ethnographic perspectives on health professions education.

Seim, J., Corman, M., & McCann, L. (Under Review). Ambulance Labour Across Three Capitalist Nations.



Corman, M. K. (2021). "Using Composites to Craft Institutional Ethnographic Accounts." Pp. 465-482 in The Palgrave Handbook of Institutional Ethnography, edited by P. Luken & S. Vaughan S. Palgrave Macmillan, Switzerland. [https://doi.org/10.1007/978-3-030-54222-1\\_24](https://doi.org/10.1007/978-3-030-54222-1_24)

Canning, S. E., & Drew, C.\* (2022). Exploring the understanding and comfort levels of nursing students with medical assistance in dying (MAiD). *Quality Advancement in Nursing Education*, 8(2).

Canning, S. E., Cusick, N\*., & Blakeborough, D. (2022). Looking back: Remembering an intergenerational ballet programme. *Journal of Intergenerational Relationships*. (under review)

### **Plans for the Upcoming Year**

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- Support achieving Age Friendly University (AFU) status and expand on AFU initiatives and programming (potential events e.g., speaker series, educational offerings, research)
- Continue "guest" lectures in each other's classes sharing individual expertise and extending their multidisciplinary research relationships in their classrooms
- Continue "Gero-Nurses: Tales from the Front" podcast
- Establish a repository of contacts for the "CERA CLUB" from within the local communities where older adults can indicate their willingness to participate in events, research studies, and other opportunities
- Establish Cycling Without Age/CERA chapter providing opportunities for intergenerational social connections between UFV students and older adults, a research study

### **On-going research studies:**

- Gillian Hatfield: "Is altered muscle activation in knee osteoarthritis associated with balance and proprioceptive deficits and instability" study will continue
- Shelley Canning: Implementing Dementia-friendly Care Approach for Cancer Patients Living with Dementia (in partnership with BC Cancer and UBC School of Nursing)
- Shelley Canning, Candace Couse, & Darren Blakeborough: Understanding student perceptions to support education promoting ageing & dementia awareness
- Lesley Jessiman & Gabriel Murray: Exploring Linguistic Patterns of Young Adults to Detect Ageist Attitudes

## Centre for Global Development (CGD)

Edward Akuffo, Director

May 2021 – April 2022

<https://ufv.ca/centre-global-development/>

### Purpose

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The Centre for Global Development's vision is to work collaboratively and extend the practice of community development beyond the Fraser Valley region into the global context. To this end, the CGD promotes and encourages research and programs on sustainable human and community development in order to facilitate positive change. In concert with Canada's development priorities, the United Nations Sustainable Development Goals, and international human rights standards, the Centre focuses on these key areas:

1. Good governance, peace, justice and strong institutions
2. Children and development
3. Environmental sustainability
4. Education and Training
5. Food Security
6. Gender equality

### Membership

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The Centre for Global Development is managed by the director and the management committee comprised of one associate of the CGD and an external member who provides oversight to ensure transparency and accountability. The director is appointed by the AVP Research, Engagement and Graduate Studies. The management committee provides advice and guidance on the CGD's activities, programs, strategic planning and plans for seeking funding for research activities. Associates of the CGD are UFV faculty and staff who are committed to teaching and research in the area of development in both local and global contexts.

#### Director:

- Edward Akuffo

#### Associates:

- Catherine Smith
- Cherie Enns
- Darrell Fox
- Geetanjali Gill
- Hayli Millar
- Jeffery Orr
- Jessica Price
- Satwinder Bains
- Stefania Pizzirani
- Stephen Piper

## **Partnerships**

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- International Centre for Criminal Law Reform & Criminal Justice Policy
- The World Scout Bureau – African Regional Office (Kenya)
- Institute of Human Settlements at Ardhi University (Tanzania)
- Developing Indigenous Resources (India)
- Shastri Indo-Canadian Institute (Delhi-Calgary)
- Radford University College (Ghana)
- Masinde Muliro University of Science and Technology (Kenya)
- Sri Lanka Centre for Development Facilitation (Sri Lanka)
- University of Ruhuna (Sri Lanka)
- Shanghai University of Finance and Economics (China)
- East Asian Institute (Singapore)
- Aga Khan University – East Africa Institute (Nairobi)
- UN Habitat (Nairobi)
- UNOPS(Nairobi)
- University of Nairobi

## **Students**

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CGD has recently hired two students, Adam Magalhaes and Lisa Laplante, as research assistants for the Center for Global Development (CGD) Abbotsford Food Bank Exploratory project. These students will take the TCPS2 course in research ethics, and will assist in drafting interview questions, collecting data, data analysis, report writing and a report presentation. The CGD expects to complete this project in the fall semester of 2022.

## **Community Engagement**

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The CGD organized an interdisciplinary panel discussion on the Russia-Ukraine War on March 11, 2022. The panelists were Edward Akuffo (Political Science), Scott Sheffield (History), Larissa Horne (History/ Experiential Education Coordinator), Michael Batu (Economics), Rita Atake (Communications) Rashad Mammadov (Communications), and Sharanjit Sandhra (History/South Asian Studies Institute Coordinator).

The panelists discussed a wide variety of issues including historical Russia-Ukraine relations, humanitarianism and refugees, media and communication, militarization, racism, economic sanctions, cybersecurity, nuclear weapons, geopolitics, and international diplomacy.

The moderators of the panel were Satwinder Bains (Director of the South Asian Studies Institute), Jessica Price (Political Science), and Catherine Liao (Nursing).

The event was held on zoom and was open to the public with over 80 people in attendance. The video is available on YouTube at <https://www.youtube.com/watch?v=aOxInc2ZFpY>.

## **Funding**

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The CGD received \$4000 in internal funding from the Research Office for the Center for Global Development (CGD) - Abbotsford Food Bank Exploratory Project. The project is planned to begin this summer (2022) and is expected to be completed in the early fall. The exploratory research project seeks to find ways to strengthen the existing services of the Abbotsford Food Bank and identify innovative

ways by which the Food Bank can expand its services into new areas of support for its clientele and other groups, such as the Indigenous community, new Canadians, temporary residents, international students, and refugees. The project will produce these tangible deliverables:

- organizational activities report for joint use in the University and the Abbotsford Food Bank
- a model for community-university partnerships
- a road map for exploratory engagement with community groups, including organizational assessment points, engagement strategies and interview materials

The project steering committee is comprised of Edward Akuffo, Jeffery Orr, Stefania Pizzirani, and Jessica Price.

## **Research**

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Edward Akuffo presented two research papers as indicated below:

- Canada in Africa: The Elsie Initiative and Closing the Gap in Peace Operations (Canadian Political Science Association Conference, May 30 to June 3, 2022)
- Maritime Security Governance in West and Central Africa: Conflicting Principles, Norms, and Challenges (Centres, Peripheries, Interstices: Towards an Eclectic Political Economy of Global Development, Phase II Workshop – June 9 to 11, 2022, Ottawa)

Jeffery Orr engaged in the following activities:

### *Invited Speaker*

- MISinformation, DISinformation, and Rhetoric's role in combatting them. Rhetoric Society of Canada, Roundtable panel presentation. Congress June 2021.

### *Conference papers*

- From Rigor to Dissemination, Acts in Narrative Research and Storytelling. (Panel discussion) presented to the 2nd Annual Communication Ethics Conference, Royal Roads University – February 2022
- Feeling Better: Affect and Public Health in Dr. Bonnie Henry's Covid-19 Communication. Presented to the Rhetorical Society of Canada, Congress – June 2021

## **Publications, Presentations and Reports**

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Andrews, Nathan, Edward Akuffo, and J. Andrew Grant (2022). "Reflections on Natural Resource Based Development in Africa in the 2020s," in Andrews et al. (eds)., *Natural-Resource Based Development in Africa: Panacea or Pandora's Box?* University of Toronto Press.

## **Plans for the Upcoming Year**

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The center will complete the Abbotsford Food Bank project and begin to develop a long-term partnership with the organization. We plan to draw on the outcomes of the project to apply for external funding to pilot our "model for community-university partnership" in support of the food bank programme in the Fraser Valley Region. The Associates of the center will also be strongly encouraged to generate several research proposals and expand the scope of the center's activities. Potential external funding agencies include Global Affairs Canada, SSHRC, IDRC and other local sources.

In collaboration with other faculty and the Political Science Department, the CGD will organize interdisciplinary panel discussions on topical national and international issues and events. We will leverage on the food bank project and interdisciplinary panel discussions to engage the UFV community and beyond, with the hope of contributing to the wellbeing of our society. We will also continue our membership drive as new faculty will be joining the university in the fall of 2022.

## Centre for High Pressure Research (CHPR)

Jacob Spooner, Director

May 2021 – April 2022

### Purpose

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The mission of the UFV Centre for High Pressure Research (CHPR) is to foster and coordinate collaborative research and disseminate the acquired knowledge in the field of high pressure effects on condensed-phase systems. Its main objective is a development of a sustainable program of multi-faceted high pressure research of international standing with active involvement of undergraduate students. This program will include, but not be limited to, such areas of high pressure research as synthetic applications of high pressures, experimental and theoretical studies of kinetics and thermodynamics of physical, chemical, and biochemical processes under elevated pressures, mechanistic studies using high pressure techniques, spectroscopic studies of physical, chemical, and biochemical systems under high pressures. Further extension of the program at a later stage may include biological applications of high pressures and their use in food processing and drug manufacturing. The versatility and potential of pressure as a synthetic tool stems from the fact that, as opposed to temperature which accelerates indiscriminately all process – wanted and unwanted, pressure can selectively accelerate one (the desired) process while suppressing all other. Pressure is also an indispensable instrument for mechanistic studies since high pressure measurements of chemical and biochemical kinetics generates useful information about volumetric properties of transient reactive states and reaction intermediates.

### Membership

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#### Faculty Associates:

- Cory Beshara
- David Fenske
- Pedro Montoya-Pelaez
- Jacob Spooner
- Jason Thomas
- Noham Weinberg

### Partnerships

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#### External Collaborations:

- Dr. Heather Wiebe (VIU Nanaimo) - High pressure biochemistry and deep-sea marine biology
- Dr. Robert Britton (SFU Burnaby) - High pressure synthesis of tetrahydrofurans
- Dr. Roger Linnington (SFU Burnaby) - High pressure ring-closing metathesis
- Dr. Peter Wilson (SFU Burnaby) - High pressure synthesis of dodecahedrane
- Dr. Vance Williams (SFU Burnaby) - Investigation of high pressure effects in the context of studies of liquid crystals, conjugated polymers, and molecular recognition

### Students

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- Sukhleen Chane - Study of cycloaddition reactions under high pressures
- Anmol Brar - Study of cycloaddition reactions under high pressures

## Plans for the Upcoming Year

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### Research projects:

Mechanistic studies of high pressure reactions and biochemical transformations

1. Diels-Alder and other cycloaddition and cyclization reactions.
2. Pressure dependence of racemization kinetics of 1,1'-binaphthyl
3. Pressure induced unfolding of a diazo-bridged polypeptide helix.

### High pressure biochemistry and deep-sea marine biology:

1. Pressure effects on lipid bilayers and its relation to depth adaptation.
2. Volume change ( $\Delta V$ ) of unfolding for pressure-resistant proteins.



## Centre for Philosophy for Children (CP4C)

Anastasia Anderson, Director

May 2021 – April 2022

<https://www.ufv.ca/centre-philosophy-children/>

### Purpose

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The mission of the Centre for Philosophy for Children is to support education, community outreach, research, and the dissemination of research in philosophy for children and in the related areas of children's rights, child development, and childhood studies.

### Membership

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During this first year of the Centre for Philosophy for Children's existence, we have established an advisory council and group of research associates. The addition of research associates is very recent so their contributions to the Centre will not begin until next academic year.

#### Faculty Associates:

- Shelley Liebembuk
- Cherie Enns
- Michelle Superle
- Christine Slavik
- Vanessa Radzimski

### Partnerships

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- SFU (High School Ethics Bowl and BCSSTA conference organizing)
- BC Social Studies Teacher's Association (conference organizing and leading workshops)
- Vancouver Institute for Philosophy for Children (Thinking Playground summer camps)

### Students

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UFV student volunteers for the Thinking Playground summer camps:

- Karla Toro-Chacon
- Dale Braybrook
- Nicole Biernicik

Students in PHIL 365 completed fieldwork in four local elementary schools facilitating communities of philosophical inquiry.

### Community Engagement

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August 23 to September 3, 2021: Thinking Playground Summer Camps

June 2021: A team from the Centre participated in Elon University's Design Forge 2021

August 2021 to Present: Centre Coordinator is serving on the Canadian High School Ethics Bowl Case Development Committee

October 5, 2021: Science Talks: Small Children, Big Ideas: Teaching Children Philosophy

October 23, 2021: Presentation: The Thinking Playground, Public Philosophy Network Conference, George Mason University (convened online)

Fall 2021: Liaised with four local elementary schools to organize nine classrooms hosting fieldwork opportunities for UFV students engaging in philosophy for children's sessions.

Feb. 20, 2022: BC Regional High School Ethics Bowl (Hosted by SFU. Two judges provided by CP4C.)

May to June 2022: PHIL 365 offered by Centre Coordinator and Associate Coordinator with student fieldwork placement in local elementary schools

### **Publications, Presentations and Reports**

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#### **Presentations:**

Anastasia Anderson (October 23, 2021), Presentation (peer reviewed proposal): "The Thinking Playground", Public Philosophy Network Conference, George Mason University (convened online)

Anastasia Anderson (October 5, 2021), Invited presentation: "Science Talks: Small Children, Big Ideas: Teaching Children Philosophy"

#### **Invited Chapter:**

Anderson, A., 2021. Paradox, Friendship, and Philosophy for Children. In: Dina Mendonça and Florian Franken Figueiredo (Eds.), *Conceptions of Childhood and Moral Education in Philosophy for Children* (pp. 127-143). Springer.

### **Plans for the Upcoming Year**

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- May 28: Canadian National High School Ethics Bowl Judging
- June 7: Webinar: Indigenous Story Telling and Philosophy for Children
- July 2022: Thinking Playground summer camps
- September 2022: Centre Launch Event
- September 2022: Elementary School Teacher Workshop
- October 21, 2022: BCSSTA Conference: Teaching for Inquiry: Philosophy, Pedagogy and Praxis
- November 2022: High School Teacher Workshop
- Winter 2023: Events highlighting work of Centre Research Associates

## Centre for Public Safety and Criminal Justice Research (CCJR)

Irwin Cohen, Director  
<https://cjr.ufv.ca/>

May 2021 – April 2022

### Purpose

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The purpose of the Centre for Public Safety and Criminal Justice Research is to provide research and consulting expertise to criminal justice agencies, governments, public safety agencies, municipalities, and community organizations on issues related to improving the efficiency and effectiveness of public safety operations, programs, partnerships, and initiatives in crime reduction.

More broadly, the mission of the Centre for Public Safety and Criminal Justice Research is to: assist government agencies related to public safety to evaluate crime reduction programs, policies, strategies; propose evidence-based initiatives to the criminal justice system and agencies of public safety to reduce crime; provide a full range of analytic solutions to allow public safety agencies and the criminal justice system to be information and intelligence led; evaluate emerging hardware and software solutions and to make recommendations on their adoption by public safety agencies; develop solutions to share with police and other public safety agencies to increase their efficiencies and effectiveness in preventing, responding, and reducing crime; provide learning opportunities for students, including applied and research skills; and train students and researchers in the latest crime and intelligence analysis software. The Centre for Criminal Justice Research is firmly established as the place for independent data analysis, program and policy evaluations, and criminal justice/public safety technology assessments.

### Membership

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The Director, Dr. Irwin Cohen, is responsible for the leading the Centre.

#### Faculty Associates

- Dr. Amanda V. McCormick (School of Criminology and Criminal Justice)
- Dr. Zina Lee (School of Criminology and Criminal Justice)
- Dr. Erin Osterberg (School of Criminology and Criminal Justice)

### Partnerships

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- Federal RCMP
- 'E' Division RCMP
- BC Government Police Service
- Office of Crime Reduction and Gang Outreach
- Municipal police departments in Vancouver, Delta, Abbotsford, and West Vancouver
- The Combined Forces Special Enforcement Unit BC (CFSEU)
- Integrated National Security Enforcement Teams (INSET)
- British Columbia Lottery Commission

### Students

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The Centre had four PhD students from SFU (Stephanie Johnson, Sarah Negrin, Amanda Champion, and Ivana Zdjelar) working on several police-focused research projects. The work involved writing literature reviews, conducting interviews, and interview note taking for three research projects. These students have worked on the Development of Profiles of Dial-A-Dopers in BC, Examination of Police-Based Prolific

Offender Programs and Teams in BC, and Examination of the Impact of Recent Court Rulings on Police Investigation Time and Resources, Elder Abuse and Neglect, and Restorative Justice.

The Centre had two UFV undergraduates (Kia Neilson and Mikela Gratton) who completed data entry, data analysis, and report writing on OCR-GO research projects (Elder Abuse and Neglect & Strangulation Project) as paid research assistants.

### **Community Engagement**

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The activities of the Centre have had several aspects that are relevant to the community. The Centre's website is a source of current police, fire, and public safety research that can be accessed by anyone. Many publications have been posted on the Centre's website this year.

In addition, the website houses a public safety search portal that provides access to thousands of reports, articles, books, legislation, and other data from Canada and around the world. As a result of the website, all the research conducted by the Centre is made available to anyone. All the research projects conducted by and through the Centre have community partners who have received a copy of all final reports.

### **Funding**

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Effects of Pre-Charge Restorative Justice Referrals and the Use of Restorative Justice in Power-Based Crimes - Funded by OCR-GO in the amount of \$132,187.50

Predictive Value of Non-Conviction Information - Funded by OCR-GO in the amount of \$43,312.50

### **Publications, Presentations and Reports**

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#### **Research Reports:**

McCormick, A.V., Cohen, I.M., & Davies, G. (2022). A Review of BCLC's Voluntary Self-Exclusion Program: Client Behaviours, Experiences, and Perceptions. Report for the British Columbia Lottery Commission.

McCormick, A.V., Cohen, I.M., Zdjelar, I., & Neilsen, K. (2022). Identifying Trends and Police Responses to Elder Abuse and Neglect in British Columbia. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

Cohen, I.M., Davies, G., & Johnston, Stephanie. (2022). An Evaluation of Situation Tables in British Columbia. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

Zheng, A., Garis, L., & Pike, I. (2022). Fire Severity Outcome Comparison of Apartment Buildings Constructed from Combustible and Non-Combustible Materials. Centre for Public Safety and Criminal Justice Research.

Cohen, I.M., McCormick, A.V., Davies, G., & Champion, A. (2021). Understanding Dial-A-Doping and the Profiles of Dial-A-Dopers in British Columbia. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

Cohen, I.M., Lee, Z., Osterberg, E., & Champion, A. (2021). The Anti-Social Use of Imitations Firearms Among Youth – Phase I. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

De Jager, T. and Cohen, I.M. (2021). Redesigning Community Safety and Wellbeing in the City of Surrey. Report for the City of Surrey. Potus Consulting.

Cohen, I.M., Osterberg, E. & Champion, A. (2021). Developing an Effective and Efficient Police Response to Lower Priority Calls for Service. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

Davies, G., Cohen, I.M., & Champion, A. (2021). Examining Police Protest and Conflict Liaison Practices in Canada. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

Cohen, I.M., Davies, G., Pastia, C., McCormick, A.V., Lee, Z., Osterberg, E., Burk, K., & Schenk, A. (2021). An Examination of the Impact of Court Rulings on Police Investigation Time and Resources. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

Cohen, I.M., McCormick, A.V., Lee, Z., Davies, G., Champion, A., & Burk, K. (2021). An Examination of Police-Based Prolific Offender Programs and Teams in British Columbia. Report for the Office of Crime Reduction and Gang Outreach. Centre for Public Safety and Criminal Justice Research.

**Presentations:**

“Police Investigations of Elder Abuse and Neglect.” Presented by Dr. Amanda V. McCormick and Kia Neilson at the 2022 Annual Academy of Criminal Justice Sciences Conference, Las Vegas, Nevada, USA, March.

“Strangulation in Intimate Partner Violence Files.” Presented by Dr. Amanda V. McCormick and Mikaela Gratton at the 2022 Annual Academy of Criminal Justice Sciences Conference, Las Vegas, Nevada, USA, March.

“To Serve and Protect – Each Other: The Value of Academic, Agency, and Community Collaboration in Policing Research.” Presented by Dr. Irwin M. Cohen at the 2021 UFV ScienceTalks Virtual Science Café, December.

**Plans for the Upcoming Year**

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As in previous years, the Centre will engage in a number of research projects over the next year. At this point, the centre will be focused on working on the various Office of Crime Reduction and Gang Engagement projects, publishing reports and academic articles based on this research, and presenting the findings at national and international conference

## Community Health and Social Innovation Hub (CHASI)

Martha Dow, Director

May 2021 – April 2022

<https://www.ufv.ca/health-and-social-innovation/>

### Purpose

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The Community Health and Social Innovation (CHASI) Hub positions UFV and the communities it serves as leaders in recognizing the integral nature of practitioner, academic, government, and community relationships in developing innovative approaches to current and emerging public issues shaping individual and community experiences of health and wellness. The Hub provides a physical and virtual space for researchers, municipal, provincial, and federal government partners, and community and corporate collaborators to engage in a manner that sparks and fuels out of the box thinking from inception to implementation. CHASI encourages multi-sectoral engagement with a wide range of health and social issues through research, program evaluation, policy analysis, training, and educational opportunities. The Hub initiates these activities and support community partners in the identification and exploration of issues and the development and implementation of innovative approaches to health and social issues.

### Membership

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The following Faculty Associates have been appointed:

- Alyson Seale
- Dr. Keith Carlson
- Dr. Cherie Enns
- Dr. Sharon Gillies
- Dr. Karun Karki
- Catherine Liao
- Dr. Mariano Mapili
- Dr. Kathleen Rodgers
- Dr. Bosu Seo
- Dr. Joanna Sheppard
- Dr. Evan Taylor
- Dr. Katherine Watson

### Partnerships

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- Archway Community Services - Housing
- Archway Community Services - Food Security
- TD - Improved Understanding, Enhanced Access: Utilizing Artificial Intelligence and Machine Learning to Strengthen Social Connections as a Path to Improve Health Outcomes
- SPARC BC - Channeling Youth Voices
- Tamarack Society - Channeling Youth Voices
- MATH - Community Planning Event
- UFV Advising Centre - Academic Advising During the COVID-19 Pandemic: An analysis of students' experiences using UFV's Advising Centre
- National First World War Internment Recognition Fund - Fragments of History: Unearthing the stories and artefacts of Monashee internment camp

- BCCAT - Pandemic-Related Changes in Post-Secondary: An Overview of Students' Surveys and Institutional Responses - BCCAT Dashboard
- White Rock - Wellness and Connectedness in White Rock During COVID-19
- UFV Student Services - Sexualized Violence: Student Experiences of Sexualized Violence and Perceptions of Institutional Responses; Student Engagement at the University of the Fraser Valley: An Analysis of Factors Impacting Student Retention; Food
- Tk'emlúps te Secwépemc - Ground-Penetrating Radar Survey Lot 164
- Chilliwack Research and Social Planning Council - Food (In) Security: An Assessment of Communal Factors Impacting Food Security in Chilliwack
- Mitacs - Sexualized Violence: Student Experiences of Sexualized Violence and Perceptions of Institutional Responses; Student Engagement at the University of the Fraser Valley: An Analysis of Factors Impacting Student Retention; Food

### **Students**

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- Chloe Raible (RA): Early School Leavers; WIL; Tk'emlups GPR Survey
- Michelle Grafton (RA): Community Food Security Assessment for Chilliwack
- Ekaterina Marenkov (RA): Sexualized Violence on Campus
- Gina Dhinsa (RA): Community Food Security Assessment for Chilliwack, Sexualized Violence on Campus
- Jeff Mijo-Burch (Intern): Designed social media graphics; Wrote and posted original social media posts; Managed 4 social media accounts, including shares and responding to comments/requests; Wrote multiple blog posts; Video editing
- Celina Koops (Intern): Designed social media illustrations/animations/graphics for observances and designed team announcements on 4 platforms
- Alexa Murray-Schlitt: Shelter Evaluation
- Andrea Moorhouse: TD (Youth)
- Lysie Beaulieu: TD (Older Adults)
- Mara Haggquist: BCCAT
- Kayla Harvey: Shelter Evaluation

### **Community Engagement**

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- "Faces of Resilience" - Celina Koops' Art Exhibit
- MATH Community Planning Facilitation
- Channeling Youth Voices: Community Conversation Events
- Black Lives Matter video
- International Consortium on Dementia and Wayfinding Project Consultation
- Recreation Department, City of White Rock - Project Consultations
- Presentation to White Rock City Council
- CHASI cast with guest Dr. Jacqueline Nolte
- Archway Community Services - Project Consultations (Housing, Food Security)
- TD - Ready Challenge Consultations
- SPARC BC - Channeling Youth Voices Project Consultations
- Tamarack Society - Channeling Youth Voices Project Consultations
- MATH - Facilitating Community Planning Event
- UFV Advising Centre - Academic Advising During the COVID-19 Pandemic: An analysis of students' experiences using UFV's Advising Centre

- National First World War Internment Recognition Fund - Fragments of History: Unearthing the stories and artefacts of Monashee internment camp
- BCCAT - Pandemic-Related Changes in Post-Secondary: An Overview of Students' Surveys and Institutional Responses - BCCAT Dashboard
- White Rock - Wellness and Connectedness in White Rock During COVID-19
- UFV Student Services - Sexualized Violence: Student Experiences of Sexualized Violence and Perceptions of Institutional Responses; Student Engagement at the University of the Fraser Valley: An Analysis of Factors Impacting Student Retention; Food
- Tk'emlúps te Secwépemc - Ground-Penetrating Radar Survey Lot 164
- Chilliwack Research and Social Planning Council - Food (In) Security: An Assessment of Communal Factors Impacting Food Security in Chilliwack
- Mitacs - Sexualized Violence: Student Experiences of Sexualized Violence and Perceptions of Institutional Responses; Student Engagement at the University of the Fraser Valley: An Analysis of Factors Impacting Student Retention; Food

### **Funding**

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- Archway Community Services - Housing (\$83,599)
- Archway Community Services - Food Security (\$56,125)
- TD - Year 1 of 3 (\$75,000)
- SPARC BC and Tamarack (\$54,400.50)
- UFV Advising Centre (\$5,479)
- National First World War Internment Recognition Fund (\$14,206)
- BCCAT (\$19,898)
- White Rock (\$24,991)
- UFV Student Services (\$15,000)
- Tk'emlups GPR Survey - Lot 164 (\$4291.89)
- Chilliwack Research and Social Planning Council (\$7,825)
- Mitacs (\$22,500)
- UFV Marketing, BLM Video (\$2700)

### **Research**

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- Food (In) Security in Chilliwack BC
- Food (In) Security at UFV - Data Analysis
- Sexualized Violence at UFV - Data Analysis
- Early Leavers at UFV - Data Analysis
- Academic Advising During the COVID-19 Pandemic: An analysis of students' experiences using UFV's Advising Centre
- Wellness and Connectedness in White Rock During COVID-19
- Channeling Youth Voices
- Pandemic-Related Changes in Post-Secondary: An Overview of Students' Surveys and Institutional Responses - BCCAT Dashboard
- Tk'emlups GPR Survey - Lot 164



## **Publications, Presentations and Reports**

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### Reports

- Academic Advising During the COVID-19 Pandemic: An analysis of students' experiences using UFV's Advising Centre
- Monashee Excavation Documentary
- Food (In) Security: An Assessment of Communal Factors Impacting Food Security in Chilliwack
- Food (In)Security at UFV
- Sexualized Violence: Student Experiences of Sexualized Violence and Perceptions of Institutional Responses
- Student Engagement at the University of the Fraser Valley: An Analysis of Factors Impacting Student Retention
- Pandemic-Related Changes in Post-Secondary: An Overview of Students' Surveys and Institutional Responses - BCCAT Dashboard
- Wellness and Connectedness in White Rock During COVID-19
- Tk'emlúps te Secwépemc Ground-Penetrating Radar Survey Lot 164 Presentations
- Channeling Youth Voices: Community Conversations, Screening and Panel Discussion
- Channeling Youth Voices - CERi/SFU Horizons Conference
- Channeling Youth Voices - Cyrus Centre Youth Documentary Screening
- Older Adult Missing Persons - American Society of Criminology
- Community Presentations of Food (In)Security in Chilliwack Report (e.g., Chilliwack Healthier Community)
- Summit on Aging Forum
- Fraser Coast Salish Planning Table

## **Plans for the Upcoming Year**

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1. WIL/BHER Initiative: Data analysis, infographic and report preparation
2. Anti-racism Social Media Initiative
3. Monthly CHASIcasts
4. Improved Understanding, Enhanced Access: Utilizing Artificial Intelligence and Machine Learning to Strengthen Social Connections as a Path to Improve Health Outcomes (TD Year 2)
5. Understanding Food Insecurity within the Context of Housing Needs (ACS)
6. Effects of COVID-19 on South Asian Mothers and Families in British Columbia - CIHR
7. Effects of Epidemic/Pandemic Outbreaks on Temporary Foreign Agricultural Workers in BC - CIHR
8. Tk'emlúps te Secwépemc Ground-Penetrating Radar Surveys (3)
9. Early Leavers and Stop-Outs at UFV
10. Communities of Practice: Experiential Learning Opportunities for Collaborative Action (Proposal submitted to Suncor Foundation, awaiting adjudication)
11. Racial Justice Grant (Proposal submitted to Law Foundation of BC, awaiting adjudication)

## Esposito Family Centre for Innovation and Entrepreneurship (EFCIE)

Jon Thomas, Director

May 2021—April 2022

<https://ufv.ca/innovation-entrepreneurship/>

### Purpose

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The Esposito Family Centre for Innovation & Entrepreneurship (EFCIE) is a research centre at the University of the Fraser Valley launched in 2020. EFCIE will work to foster an inclusive, vibrant, and resilient space for innovation and entrepreneurship initiatives for the UFV and Fraser Valley communities. EFCIE's activities include research, course development, and mentoring both students and local entrepreneurs. We also emphasize community outreach through events and projects that explore the interactions between technology, innovation, and society. This connection between technology, innovation and society is a unique aspect of the centre. The understanding that innovative technologies impact society and society in turn shapes technological progress guides the research and work we do.

### Membership

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#### EFCIE Internal Advisory Council:

- Dr. Garry Fehr, Associate Vice-President (Research, Engagement, and Graduate Studies)
- Dr. Tracy Ryder-Glass, Vice-Provost Academic & Acting Dean - Faculty of Education, Community, & Human Development

#### EFCIE Faculty Associates at UFV:

- Dr. Jon Thomas, Director (EFCIE), BC Regional Innovation Chair, Associate Professor (School of Business)
- Mark Breedveld, MBA (Associate Professor, School of Business)
- Dr. Michael Corman (Assistant Professor, Sociology)
- Dr. Sandra Gillespie (Assistant Professor, Biology)
- Dr. Gillian Hatfield (Assistant Professor, School of Kinesiology)
- Prof. Karin Jager (Associate Professor, Graphic and Digital Design)
- Dr. Mandeep Pannu (Assistant Professor, School of Computing)
- Dr. Saeed Rahman (Assistant Professor, School of Business)
- Dr. Kirsten Robertson (Associate Professor, School of Business)
- Dr. Amir Shabani (Assistant Professor, School of Computing)

#### Industry Mentors at EFCIE:

- Dr. Michael Parr, Former President & Chief Scientific Officer, Sitka Biopharma
- David Leger, CEO (H2Portable), Former-CEO, Loop Energy

### Partnership

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- Community Futures South Fraser - Innovation Partner
- Community Futures North Fraser - Innovation Partner
- Seabird Island Band - Innovation Partner - Cultural entrepreneurship and several other projects under development.

## **Students**

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- Olena Bogdanov (Smart City Project)
- Jasleen Kaur Sandhu (Wildfire Response Project)
- Abdul Aziz Abdul Ghafoor (Clinician entrepreneurship)
- Varshaa Kashyap (Veterinary Industry Study, Cultural Entrepreneurship Project)
- Michaela Jacob (Veterinary Industry Study)
- Michaela Warmerdam (Cultural Entrepreneurship Project)

## **Community Engagement**

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- Invited Talk (July 2021) – “Introduction to Business Models” by Dr. Jon Thomas. Organized by the Nanomedicines Innovation Network (NMIN), UBC. NMIN is a National Centre of Excellence (NCE) focused on the nanomedicine sector in Canada
- Invited Talk (September 2021) – “Design Thinking” by Dr. Jon Thomas. Organized by Community Futures South Fraser, Chilliwack, BC [Virtual Event]
- Invited Panel Member (October 2021) – “Sustainable agriculture & Leadership: The Fraser Valley as a center for food production and innovation today and into the Future” (Dr. Jon Thomas), Organized by the UFV School of Business for students at the University of Applied Sciences and Arts (Lucerne, Switzerland) [Virtual Event]
- Invited Talk (October 2021) – “Meaningfulness of Work” by EFCIE Faculty Associate Dr. Kirsten Robertson, EFCIE and Community Futures South Fraser partnership [Virtual Event]
- Invited Talk (October 2021) – “Design Thinking for Entrepreneurs” by Dr. Jon Thomas, Organized by the Chilliwack Creative Commission (Chilliwack Economic Partners Corporation) [online live stream]
- EFCIE Talk (February 2022) - "How established agricultural firms strategically renew their technology portfolios through Artificial Intelligence", Speaker: Dr. Michael Wustmans - Research Associate, Chair of Technology, Innovation Management, and Entrepreneurship, University of Bonn, Germany, Organizer and Host: Dr. Jon Thomas
- Invited Talk (March 2022) – "The work of the Esposito Family Centre for Innovation & Entrepreneurship" by Dr. Jon Thomas, at the Mission Rotary Club
- EFCIE Talk (March 2022) - "An alternative business model for social innovation in the Fraser Valley", Speaker: Prof. Chris Schinckus, Dean, Faculty of Professional Studies, Organizer & Host: Dr. Jon Thomas
- Invited Talk (March 2022) – The Esposito Family Centre for Innovation & Entrepreneurship by Dr. Jon Thomas, IYOQTHET PESP Virtual Conference 2022
- EFCIE Talk (April 2022) - "The Commercialization Journey of a Fraser Valley Tech-Entrepreneur", Speaker: David Leger, President & CEO H2 Portable Power Corp., Founder & CEO, Loop Energy Inc. (2000-2016), Organizer & Host: Dr. Jon Thomas

### **Publications, Presentations and Reports**

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Corman, M.K. (2021). Using Composites to Craft Institutional Ethnographic Accounts. In: Luken, P.C., Vaughan, S. (eds) *The Palgrave Handbook of Institutional Ethnography*. Palgrave Macmillan, Cham. [Peer-reviewed academic book chapter]

Hannah, D.R. and Robertson, K., (2021), "It's not all Puppies and Sunshine": Veterinary Workers' Emotional Comfort Zones and Companion Animal Euthanasia. *AMD*, 7, 130–154. [Peer-reviewed academic journal publication]

Hatfield, G.L., Costello, K.E., Astephen Wilson, J.L., Stanish, W.D. and Hubley-Kozey, C.L. (2021), Baseline Gait Muscle Activation Patterns Differ for Osteoarthritis Patients Who Undergo Total Knee Arthroplasty Five to Eight Years Later from Those Who Do Not. *Arthritis Care Res*, 73: 549-558. [Peer-reviewed academic journal publication]

Park, A., Goudarzi, A., Yaghmaie, P., Thomas, V. J., Maine, E. (2022) Rapid response through the entrepreneurial capabilities of academic scientists. *Nature Nanotechnology*. Impact Factor (2020): 42.237. [Peer-reviewed academic journal publication]

### **Plans for the Upcoming Year**

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Several discussions related to innovation & entrepreneurship events and activities are ongoing The centre will be adding a postdoctoral fellow in the coming year.

## Peace and Reconciliation Centre (PARC)

Keith Carlson, Director

May 2021 – April 2022

<https://www.ufv.ca/peace-and-reconciliation/>

### Purpose

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The University of the Fraser Valley's (UFV) Peace and Reconciliation Centre (PARC) works from the individual, to the regional, to the global, to engage in interdisciplinary research and transformative action that focuses on enlarging our understanding of the roots of conflict, developing creative approaches to reconciliation, and promoting engagement aimed at transforming conflict into peace; building capacity and sustainability where injustice and tension have resulted in harm and marginalization. Our mission is to "envision and facilitate constructive and innovative processes that promote healthy relationships, transform conflict, and build just communities." Our strategic goals are to a/ Create a safe and supporting space for peacebuilding and facilitating interpersonal and group process for reconciliation locally and beyond; b/ Coordinate among existing services in the community to create civil society and citizen engagement; d/Provide programs, services and resources that contribute to building community, healthy relationships and transform conflict.

### Membership

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Over the past year PARC has grown its Communities of Practice as led by the Centre's team of Commitment Leaders:

- Director Keith Thor Carlson, for a community of practice focusing on Indigenous-Settler Reconciliation
- Professor Steven Schroeder, for a Community of Practice focusing on Trauma Healing and Harm Reduction
- Professor Amanda McCormick, for a Community of Practice focusing on Domestic Violence Reduction
- Professor Lolehawk (Laura Buker), for a Community of Practice that focusing on Indigenous Ecological Justice and Land-based Learning
- Professor Geetanjali Gil, for a Community of Practice focusing on the International Refugee Crisis and Experience

PARC has additionally invited additional individuals from outside of Abbotsford to join our Steering Committee.

In the fall of 2021, Grand Chief Clarence Pennier was elected as PARC's Steering Committee's Community Co-Chair.

### Partnerships

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- Sto:lo Tribal Council; Sto:lo Research and Resource Management Centre: a collaborative community-engaged scholarship (CES) research and consultation project that involves UFV student researchers to develop a comprehensive Allyship and Reconciliation Program for the Fraser Valley region that will include a credentialing component. Prof. Keith Carlson is coordinator of this initiative.
- Abbotsford Police Department: Connection Circle: PARC co-created with the Abby PD a new community Indigenization and EDI committee called "Connection Circle: Re-imagining Community"

to facilitate a process whereby positive relationships between police and community can be formed. PARC Direct Prof. Keith Carlson is the Chair of this committee.

- Sto:lo Research and Resource Management Centre / (Saanich) WSÁNEĆ First Nation / University of Victoria: a SSHRC Insight Grant (Prof. Carlson is PI, Prof. John Lutz from UVic is co-PI) examining the history of, and historical consciousness relating to, smallpox on the Pacific Northwest.
- Abbotsford News - This partnership has seen the newspaper provided PARC with media sponsorship that includes in-kind advertising and media coverage for a three-part series on domestic violence.
- UFV School of Criminology and Criminal Justice, UFV School of Nursing, Abbotsford Community Services and Abbotsford Crown Counsel - Both ongoing partnerships are related to community outreach initiatives PARC leads on Domestic Violence awareness
- Advocates for Change Living Learning Program: PARC is a partner with this student-led and designed initiative to give undergrad students an opportunity to live together in housing and partake in extracurricular activities that incorporate common interest, passions and goals of the group.

## **Students**

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UFV PARC Collaboratorium Student Summer Research Internship Projects, 2021

### **Reach Gallery – Voices of the Valley**

Maaria Zafar worked this summer alongside the Reach Gallery's Curator of Historical Collections to build upon research and community-engaged processes already underway. Maaria contributed to ongoing research to identify local communities and histories that have been minimized, misrepresented, or altogether left out of public record. She also researched how waves of immigration to the Fraser Valley have led to patterns of displacement, opportunity, tension, and complementarity. Maaria employed a variety of research strategies to look through the museum's holdings as well as other local sources in order to gather these histories and begin to piece them together. Skills acquired and applied include database management, report writing, critical thinking and analytical skills, organization of materials, and communication with community members.

### **Kwantlen First Nation Digital Archive**

Olivia Daniel spent time this summer working for the Kwantlen First Nation in creating a digital archive of community materials found in the existing archive, as well as through digital archives across British Columbia. Olivia scanned, indexed, and organized this information into a database, making it more accessible for the Kwantlen First Nation and its membership. Olivia was able to gain experience in searching for, locating, and documenting relevant archival materials, website creation, database creation, and synthesizing complex information.

### **Allyship and Reconciliation-Building**

Brooke Higginbottom and Paul Jakhu worked together to locate existing allyship programs in the region offered by non-profit organizations and government/ministry entities. Brooke and Paul participated in several of these programs in order to assess their quality, identify gaps, and co-develop programs with the Stó:lō communities and UFV faculty programs and initiatives to fill those gaps. In addition, these students conducted 23 interviews with allyship program coordinators, and Stó:lō community members to obtain a better understanding of allyship in the region. Brooke and Paul concluded this research

project with research proficiency, interview experience, information management skills, and community outreach experience.

#### **Research Assistant at Heritage Abbotsford**

Kelsey Fleming worked with Heritage Abbotsford to research the history of labour movements in the Fraser Valley, with a focus on indigenous workers on hop and tobacco farms in the 19th and early 20th centuries. Kelsey compiled research pertaining to Hudson's Bay trading trends, Indigenous wages at HBC forts and other colonial enterprises, and how settler actions and laws impacted traditional Indigenous farming methods. Kelsey gained key skills in evaluating research material, organizing her findings, and understanding historical narratives and their longstanding impacts. A link to her completed project can be found here: <https://d.docs.live.net/46fc2b60e279e32b/Documents/Indigenous%20Labour.pptx>

#### **Virtual Assistant at Heritage Abbotsford**

Chandler Farlin worked with Heritage Abbotsford to convert existing interpretive material into Heritage Abbotsford's mobile and web-based apps, focusing on the Heritage History Garden. This garden documents traditional plants and their uses for food, medicine, and other uses by Indigenous and Metis people. Chandler worked to convert existing research and conduct new research on plants and their uses into two apps. One of these apps was directed at adults, while the other at children. Chandler was able to strengthen his skills in research, database management, and app development.

#### **Fraser Valley Health Region Literature Reviews**

Catana Tommy conducted literature reviews for the BC SUPPORT Unit Fraser Centre, a partnership between Fraser Health and Simon Fraser University funded by CIHR SPOR, in order to help the staff at the Fraser Centre become more informed, sensitive, and aware of Indigenous peoples' perspectives on health research, and assist them in understanding how best to develop partnerships with local indigenous communities to support patient-oriented research and better health outcomes for this population. Through literature reviews, Catana was able to further develop research, critical thinking and reading skills, organize findings, and identify key trends in the scholarship.

#### **Smallpox Research for Professors Keith Carlson, John Lutz, and the Stó:lō Research and Resource Management Centre (SRRMC)**

Jackie Drummond, Holly Janzen, Michaela Sapielak, and Maaria Zafar worked alongside Dr. Keith Carlson and Dr. John Lutz and their Indigenous partners at the SRRMC to further research the smallpox epidemics of the region, specifically focusing on the impacts the disease had, and still has, upon Indigenous people and their ways of life. These students gathered secondary source materials and began systematically looking through them for references to the smallpox epidemics. These notations were then uploaded into a database for future use. All four of these students gained skills in research practices, database management, critical thinking and reading skills, as well as identifying key trends and biases in historical materials.

#### **Community Engagement**

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Steven Schroeder:

- Hosting the Peace Talk: "PACS Students: Peacebuilding Projects in the Fraser Valley"
- Peace Talk: "Dealing with Modern China" with keynote speaker, Guy Saint-Jacques, Former Canadian Ambassador to China, 2012-2016

Lolehawk:

- A Day Retreat – September 2021 - at the Blue Heron Reserve (diverse community) of youth, Indigenous knowledge keepers, Elders, Artists, Activists, to gather for climate action – community gathered to plant a cedar tree (and it survived the November flooding).
- Hope for the Planet – November 2021 (a UFV event supported by PARC - brought forward by UFV colleague Dr Melissa Walters & myself). It was well attended with many students, UFV Faculty, Fraser Valley community, and guests included BCIT Fish Scientist Dr Marvin Roseneau, a short play by UFV Drama Students, and Stó:lō singers, The Good Medicine Songs Performers, invited the audience to sing along to the songs in both English and Halq'emeylem about our Wild Salmon, Mother Mountain, Mt Cheam, the Great Cedar Trees, and the River. This event was informative and generated a great deal of conversation towards climate action.
- November 2021 – Feb 2022 Prestige award for Siyamiateliot Elizabeth Phillips – Coordinating the nomination, lead for the Inspire film crew, connecting Cheam community members for the film weekend event. Dr. Siyamiateliot Elizabeth Phillips is a national treasure and has “lifted up,” language learners throughout the lands. She has championed Halq'emeylem, our river language and this is bringing a reconciliation towards the revitalization of our endangered Indigenous language.
- December 2021 - • Panelist for National Day of Remembrance: Selected as one of the speakers for Dec 6, 2021: National Day of Remembrance and Action on Violence Against Women. It was a humbling experience to be asked to speak for this UFV streaming event.
- April 20, 2022, a UFV Roundtable event: Seven Generations to Come - Building Relationships for Climate Action, hosted by UFV's Indigenous Studies Program and the new School of Social Justice and Global Stewardship (SoJust), in partnership with the Fraser Valley Chapter of the Canadian Federation of University Women and supported by PARC. Our present aim is to develop a network of engaged faculty and community partners into which we can bring students and members of the community together for climate actions.
- A UFV Event – Sept 29, 2022, at the Gathering Place, Chilliwack Campus. Chowiyes/Xwithet! – Rise up/Wake up! This will be a large community gathering held the day before Truth and Reconciliation Day 2022. The program is in remembrance of all Indigenous children who went to Residential Schools. The organization of this event is well underway this Spring with funding in place – the involvement of UFV students, Halq'emeylem learners, Elders, Indigenous Knowledge Keepers, and friends and allies will make this gathering very special and significant in bringing forward an understanding of Indigenous history, culture, and resilience.
- Summer 2022 – Fall 2022 – Supporting a research project by UFV student Calista Thirsk. She will be creating a short documentary on the “importance of learning Halq'emeylem.” The narrative will take the viewer to the lands, river, and mountains that surround Stó:lō territory and give voice to an old story of the land, and how the language describes the reciprocity of “taking care of the land and all that is here.”
- Three Interviews – Podcasts 2022-2023: Interview One: (October) Bringing Together two or three participants from the April Roundtable – 7 Generations to Come. What climate actions and reflections have continued to inform them since that gathering? Is there hope for our planet and if so, what examples/stories are needing to be shared? Interview Two: (December) Wisdom of the Elders: An interview with Siyamiateliot and her daughter Vivian Williams. The importance of language and what steps are still to be taken for revitalizing our Halq'emeylem language? How does “bringing our language back,” contribute to a harmony and a reconciliation for our society?



Keith Carlson:

- “Topics in Sto:lo History” Series of three presentations to grade 11 and 12 students and teachers in the Fraser Cascade School District, June 2, 9, 2021.
- “Chinese People in Sto:lo History,” Keynote address to Chinese Association of Vancouver, January 18, 2021.
- “Settlers and Indigenous People, Both Here to Stay,” Presentation to Abbotsford School District Board of Trustees, May 12, 2021.
- “Indigenous History and the Project of Building Reconciliation,” Reach Gallery C3 Forum, Feb 23, 2021.
- “The History of BC Colonial-era Indian Reserve Creation and Reduction relating to the Squiala Community,” Presentation to Squiala First Nation Chief and Council May 5, 2021
- “Settler Colonialism and the Eclipsing of Stó:lō Women’s Perspectives on Territoriality,” BC Studies Conference, May 6-8, 2021.
- “Strategies for Integrating Peace-Building and Reconciliation Building into BC University Curriculum and Pedagogy,” Organizer and Chair of Round Table Session, BC Studies Conference, May 6-8, 2021.
- “The Future of BC’s Past,” Organizer and Chair of Conference Capstone Forum, BC Studies Conference, May 6-8, 2021.
- Peace Talks: “Indigenous Place Names and Hiking in the Fraser Valley – How do we engage in ethical recreation?” (Chair and Facilitator), July 13, 2021.
- Peace Talks: “Islamophobia: Seeking Solutions for Hate,” (Chair and Facilitator), June 23, 2021.
- Peace Talks: “The Kidnapping of Sto:lo Children - The Exploitation of Indigenous Children and their Labour in the Era Prior to Formal Settler Colonialism,” June 9, 2021.
- Peace Talks: “The Crown as an Agent of Reconciliation? The Promise of the Crown in Indigenous-Settler Relations,” April 14, 2021.
- “The Colonization of Coast Salish Families and the Rise of Inter-community Conflicts,” Strengthening the Circle: Fraser Health Region Indigenous Health Research Conference, June 3-4, 2021.

Geetanjali Gill:

- Chaired monthly CoP on Refugee Crises and Experiences. Members include 15 UFV faculty and staff; 15 UFV students (including members of UFV WUSC Committee); and staff from Archway Community Services, ISSofBC, Oikodome Foundation, PARC Steering Committee, Inasmuch, and community activists.

Amanda McCormick:

- Identified a case study to analyze and use to develop training protocols for better practices in identifying and supporting survivors of intimate partner violence who have sustained a brain injury
  - o The case study is discussed in this news article - <https://www.cbc.ca/news/canada/british-columbia/civil-lawsuit-criminal-case-intimate-partner-violence-1.6325951>
- Developed and submitted a Stage 1 Partnership Grant Application to the Social Sciences and Humanities Research Council to support applied research relating to survivors of intimate partner violence
  - o the studies we proposed include proactive referrals to victim services, co-locating forensic nurses with intimate partner violence units, assigning victim services workers to respond with police to intimate partner violence related calls for service, assessing awareness among victim service workers about brain injuries
  - o the partners on the application to date are PARC, the RCMP, and SOAR

- Inspired a research study on Brain Injury Recognition and Response among Fraser Valley Community and Criminal Justice Agencies led by Dr. Amanda McCormick, which received a Social Sciences and Research Council Explore Grant from UFV for \$6,645.

### Funding

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Keith Carlson, Principal Investigator, and Megan Harvey Co-PI, SSHRC Connection Grant to host a symposium of Community Engaged Scholars and Community Partners examining best practices in Land-based Learning and Fieldschools (\$20,000).

Keith Carlson, Co-Principal Investigator with Sue Hanley of the Homalco First Nation, BC Capacity Initiative “Čečegataw+ (Helping Each Other)” \$167,000.

Keith Carlson, Collaborator on grant where David Schaepe of the Sto:lo Research and Resource Centre is the Principal Investigator, "Residential Schools in S'ólh Téméxw: Finding Unmarked Burials at Multiple Sites Associated with Three Former Residential Schools, Researching Associated Deaths, and Creating a "Lost Stó:lō Children" Registry," BC Ministry of Indigenous Relations and Reconciliation, \$918,000

Keith Carlson awarded UFV Sustainability and Innovation fund for UFV's Peace and Reconciliation Centre, \$29,600.

Keith Carlson awarded Okidome Fondation funding for UFV's Peace and Reconciliation Centre, \$30,000.

Geetanjali Gill, Career Launcher (CiCan) \$3500 to fund the work of 1 student RA on this project, Zain Zaidi. Zain will continue to work on this research, together with 1 other student, during the summer term.

### Publications, Presentations and Reports

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#### Keith Carlson:

##### Peer-reviewed Publications:

- Keith Thor Carlson with Naxaxalhts'i (Sonny McHalsie), "Myth Making and Unmaking: Indigenous Sacred Sites, Settler Colonial Mobility, and Ontological Oppression." In Gesa Mackenthun, ed., Decolonizing Pre-History, (University of Arizona Press).
- Keith Thor Carlson, "'The Last Potlatch' and James Douglas' Vision of an Alternative Settler Colonialism," in Peter Cook, Neil Valance, John Lutz, Graham Brazier, and Hamar Foster, eds., To Share, Not Surrender: Indigenous and Settler Visions of Treaty Making in the Colonies of Vancouver Island and British Columbia, Vancouver, UBC Press 2021.
- Keith Thor Carlson, "'The Last Potlatch' and James Douglas' Vision of an Alternative Settler Colonialism," in Peter Cook, Neil Valance, John Lutz, Graham Brazier, and Hamar Foster, eds., To Share, Not Surrender: Indigenous and Settler Visions of Treaty Making in the Colonies of Vancouver Island and British Columbia, Vancouver, UBC Press 2021.

##### Non-Peer-reviewed Publications:

- Keith Thor Carlson, "A Brief and Brutal History of Canadian Colonialism: Despite the Painful History, there's always been Indigenous resistance. Is Settler Society Finally Waking Up? Thetyee, June 17, 2021 (1,023 shares in first week of publication) <https://thetyee.ca/Analysis/2021/06/17/Brief-Brutal-History-Canadian-Colonialism/>

**Presentations:**

- “Topics in Sto:lo History” Series of three presentations to grade 11 and 12 students and teachers in the Fraser Cascade School District, June 2 & 9, 2021.
- “Chinese People in Sto:lo History,” Keynote address to Chinese Association of Vancouver, January 18, 2021.
- “Settlers and Indigenous People, Both Here to Stay,” Presentation to Abbotsford School District Board of Trustees, May 12, 2021.
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- “The History of BC Colonial-era Indian Reserve Creation and Reduction relating to the Squiala Community,” Presentation to Squiala First Nation Chief and Council May 5, 2021
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- “Strategies for Integrating Peace-Building and Reconciliation Building into BC University Curriculum and Pedagogy,” Organizer and Chair of Round Table Session, BC Studies Conference, May 6-8, 2021.
- “The Future of BC’s Past,” Organizer and Chair of Conference Capstone Forum, BC Studies Conference, May 6-8, 2021.
- Peace Talks: “Indigenous Place Names and Hiking in the Fraser Valley – How do we engage in ethical recreation?” (Chair and Facilitator), July 13, 2021.
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- Peace Talks: “The Crown as an Agent of Reconciliation? The Promise of the Crown in Indigenous-Settler Relations,” April 14, 2021.
- “The Colonization of Coast Salish Families and the Rise of Inter-community Conflicts,” Strengthening the Circle: Fraser Health Region Indigenous Health Research Conference, June 3-4, 2021.
- “Trauma Informed Oral History Interviewing” workshop I conducted for SRRMC staff for Unmarked Graves Project, Feb 4, 2022
- UFV Women’s History Group
- Bigger than Me podcast interview, March 20
- Chair – session on History of Racism, Shifting Ties Conference March 4-5 Parksville BC
- National Trust of Canada, Board Meeting. “From Hidden Histories to Moving Histories: Considering Intangible Cultural Heritage.” (Feb 28, 2022)
- UFV Allies Program – settler colonialism and Whiteness
- Chilliwack Pro-D – two presentations
- Catholic Abby for Fr. Leo (2 x)
- Matsqui History (x2)
- Seabird Leadership (three parts)
- Jeremy church group
- I Fórum Internacional: Indígenas Na História – invited keynote panalist, Sao Louis Brazil Nov 26, 2021
- HIST/PARC Panel Forum on Academic Activism in the History Discipline Nov 29
- Reach Gallery – Vulnerable Children in BC History Nov 30
- TEDx – The Stolen Vision of an Alternative to Settler Colonialism Dec 2, 2021
- Surrey Teacher’s Pro-D – Indigenous schools

## Plans for the Upcoming Year

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### Steven Schroeder:

- Planning for a major project for harm reduction in the lower mainland for the next year
- Reaching out to potential partners for the harm reduction and trauma healing CoP including people who work in: Law enforcement, Front line harm reduction work in Vancouver, Overdose prevention in the Fraser Valley, Community safety, Community services and housing, Trauma healing experts.

### Amanda McCormick:

At the conclusion of Year 1, her community of practice decided to expand the focus beyond brain injuries to address a wider scope of issues facing survivors of intimate partner violence and the practitioners that work with families in conflict. As such, activities planned for Year 2 include:

- Concluding the brain injury study with:
  - o A one-day zoom event in May 2022 to provide service providers in the Fraser Valley with education and tools to enhance their ability to identify and support survivors of intimate partner violence who have sustained a brain injury
  - o A final report summarizing the results of the Brain Injury Recognition and Response study interviews
  - o A final report summarizing the impact and effects of the one-day Zoom event, which will be assessed using pre- and post-event surveys, and a final survey three months after the event to review what changes practitioners have made in regard to supporting survivors of intimate partner violence who have experienced a brain injury
- Conducting a research study analyzing police use of Criminal Code section 267c, 'assault by choking'; we plan to academically present and publish this work
  - o This study was inspired by an article citing CoP members Dr. Amanda McCormick and Stef Ashton (<https://thetyee.ca/News/2022/02/08/BC-New-Police-Training-Help-Women-Risk-Strangulation/>)
- Developing a study on Crown response to section 267c and the barriers to effective prosecution of strangulation cases
- Hosting a public event in October 2022 co-facilitated by the Abbotsford/Mission Violence Against Women in Relationships committee where we will engage in a panel discussion at UFV on the effects of Clare's Law
- Submitting a Visiting Scholars fund application to bring Dr. Clare Barlow from the University of Central Lancashire to Abbotsford to participate in the October panel, and to meet with the DV-CoP to discuss the challenges of enforcing coercive control laws in the United Kingdom
- Pending the outcome of the SSHRC Partnership Grant application, which we should be informed about by June 2022, the committee will also spend several months more fully developing the proposal to support up to five years of applied research designing innovative and collaborative responses to supporting survivors of intimate partner violence in communities across British Columbia
- Coordinating peace talks on war/conflict and violence against women and children; elder abuse and neglect; and immigrant populations and the barriers to reporting intimate partner violence

**Geetanjali Gill:**

- Peace Talks possibilities:
  - podcast style interview with 1-2 newcomer youth from the digital storytelling project
  - panel event on Ukraine, refugees, and humanitarian response (possibly together with Steve Schroeder)
  - panel event or an interview with my NGO partner (Right to Play) to discuss gender-based violence project focused on refugee youth in Uganda and Lebanon
  - event with several GDS alums who are currently working with refugee-serving organizations in BC
- Several events to be planned for landscaping research and digital storytelling event in Summer 2022 and Fall 2022 terms
- Writing up and sharing results from landscaping refugee research
- I can suggest some live speakers for PARC events in Fall 2022
- I would like to introduce Sarah Kamal, Director of Fraser Canyon Emergency Services Society (FCESS) to Keith and others at PARC. She is looking for 2 interns to work with her organization in Fall 2022, on a UNDRIP funded research project focused on Lytton and displaced Indigenous persons. This could be done through PARC's Collaboratorium

**Keith Carlson:**

- Secure resources to hire one or two program coordinators for PARC (We initially had two 3/4 staff members. One left to pursue other opportunities and the second was laid off when funding expired in July 2021)
- Continue to develop and implement the Fraser Valley-wide "Allyship Program" (ideally as a credited UFV program)
- Expand the award-winning Community-engaged Collaboratorium initiative that partners with community groups and provides students with paid summer research internships
- Continue an active outreach and engagement program relating to reconciliation, decolonization, and Indigenization
- Devote time to publishing the results of my current and ongoing research

## Luminescence Dating Lab (LDL)

Olav Lian, Director

May 2021 – April 2022

<https://www.ufv.ca/land-and-environment/facilities/luminescence-dating-laboratory/>

### Purpose

The Luminescence Dating Laboratory is an externally funded laboratory that conducts original research on long term environmental (landscape) change. It also helps UFV achieve its goal of expanding inquiry-based learning. As such, the laboratory is a place where UFV students can acquire advanced scientific training and learn from being involved in real cutting-edge research; they interact with graduate students and visiting scientists from other universities and government institutions, thus giving them opportunities that are, in most cases, available only to undergraduate students at larger institutions. The Luminescence Dating Laboratory has been recognized formally in the 2016-2021 UFV Strategic Research Plan within one of its priority areas. Training and learning done in the laboratory is based on a program of supervised student mentoring where UFV undergraduate research students, who have been trained by its director, Dr. Olav Lian, work closely with and are mentored by MSc and PhD students, and, on occasion, a postdoctoral fellow, that are also under his direct supervision. Senior undergraduate research students often conduct independent research of their own, often of a caliber that can be published and/or presented at professional conferences. To attract the external funds necessary to operate the laboratory, all the research conducted in it, or at least most of it, must be of high caliber so that it can be published in high-impact peer-reviewed journals. This also serves to attract good graduate students from other universities, which also is required to attract funds from NSERC, and from other sources, and to maintain external collaborations. Another purpose of the laboratory is to provide UFV students with employment (i.e., paid research experience) and, as such, all students conducting research in the laboratory are paid. Part-time students are paid through the UFV Work-Study Program, with funds from the Research office, and/or from external grants held by its director. Students that work more than part time ( $\geq 20$  hour per week) are paid from funds acquired through external research collaborations, from the director's NSERC Discovery Grant, or through the NSERC Undergraduate Student Research Award (USRA) program.

### Membership

The laboratory is directed and managed solely by Dr. Olav Lian, with the assistance from senior research students. To date Lian alone has been responsible for the acquisition of the external funds necessary to keep the laboratory operational. As of 2021, UFV faculty member Carolyn Atkins (MSc) has joined the laboratory as an associate member.

### Partnerships

- Natural Resources Canada (NRCan), Geological Survey of Canada; Dr. S.A. Wolfe, Dr. R. Paulen. Projects: Climate Change Geoscience Program (NAM1), Permafrost project; The GEM2 Southern Mackenzie Surficial activity
- B.C. Ministry of Energy, Mines & Petroleum Resources; Dr. A.S. Hickin. Project: Geomorphic and ecological age constraints for paraglacial to boreal transition on northeastern British Columbia
- Manitoba Geological Survey, Mr. Tyler Hodder, Dr. Michelle Gauthier. Project: Character and timing of long-term ( $>100,000$  years) landscape change, Hudson Bay Lowlands, Northern Ontario and Manitoba

- Simon Fraser University, Dept. of Earth Sciences (Drs. J.J. Clague and B.C. Ward), Dept. of Geography (Dr. T.A. Brennand). Projects: Postglacial adjustment of large river systems, southcentral BC; Landscape change driven by long-term climate change, southern and central coast BC; postglacial geomorphic history of BC coastal land systems
- University of British Columbia, Geography (Dr. M. Hassan); Postglacial landscape connectivity
- University of Northern B.C., Geography Program (Dr. B. Menounos, Dr. P. Sanborn). Projects: Provenance studies of coastal sands on Calvert Island, BC; Pedagogical trends and implications for forest productivity in a Holocene soil chrono sequence, Calvert Island, BC
- Tasmania (Australia) Forest Practices Authority (Dr. P.D. McIntosh, Dr. A. Slee). Project: Late Pleistocene and early Holocene aeolian deposits in Tasmania, Australia, and their climate implications
- University of Waterloo, Earth and Environmental Sciences, Dr. M. Ross, Dr. Jesse Rice. Project: Glacial dynamics of the Quebec-Labrador sector of the Laurentide Ice Sheet in north-central Quebec/Labrador

### **Students**

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- Dr. Maria Schaarschmidt (BSc Marburg, MSc Bayreuth, PhD Wollongong) joined the laboratory in winter 2022 for a two-year postdoctoral fellowship. She will be co-supervising on several of the laboratory's long-term research projects and she will be developing new projects
- Libby Griffin, BSc UFV 2013, NSERC USRA student summers 2013, 2014; MSc SFU (defended April 13, 2017) under Lian's supervision, currently (spring-summer 2022) writing manuscript for publication
- Dr. Adrian Hickin, UVic PhD student under my co-supervision (defended in 2013), manuscript was published in summer 2021
- Jordan Bryce (BSc Hons UFV 2016) NSERC USRA research student, summers 2014, 2015, and 2016; work-study student fall and winters of 2014, 2015, and 2016; SFU MSc student under my supervision, successfully defended her thesis in spring 2022
- Travis Gingerich, (BSc Hons 2018 UFV), NSERC USRA research student, summers 2015, 2016, 2017, commenced his MSc at SFU in fall 2018 under my supervision. Successfully defended his thesis in spring 2021
- Audrey Faber, (BSc UFV 2017) is currently an MSc student at UNBC under my co-supervision, currently (spring 2022) writing her thesis
- Jonathan Cripps, an SFU PhD student, is writing thesis during spring and summer 2022; I am on his supervisory committee
- Lee-Ann Nelson, (MSc UNBC 2018), for which my laboratory provided absolute age information for her study of ancient soils on the BC central produced a co-authored paper that was published in spring 2021
- Matthew Taylor, (BSc University of Edinburgh, 2020), has joined the laboratory as a new SFU MSc student under my co-supervision, and will be expanding on Travis Gingerich's research on postglacial river adjustment in southcentral BC. His field work in Nicola Valley, BC, is completed and his laboratory work is currently (spring/summer 2022) underway

- Michael Turley, (BSc Utah State, MSc UBC) joined the laboratory as a new UBC PhD student under my co-supervision in 2021 and will be looking at the connectivity of postglacial sedimentary landforms in southcentral BC. His field work will commence in spring/summer 2022
- Sam Woor (BA Oxford, MRes UCL), currently a DPhil student at Oxford, will be joining the laboratory in summer 2022 to initiate a project on the postglacial history of Thompson Valley near Spences Bridge, BC
- Vanessa Brewer, UFV BSc student, worked as a work-study student in fall 2020 to winter 2022, and is currently (spring/summer 2021) working full-time as a research assistant supported by her third NSERC USRA award. Vanessa is assisting on the Hudson Bay Lowlands project, and a part of this will form her Honours thesis to be completed in summer 2022
- Nicola Furguson, UFV BSc student, worked as a full-time research assistant in summer 2021, and a part-time in fall 2021, and will return in fall 2022. It is anticipated that she will complete her BSc honours research in a project related to our Hudson Bay Lowland research

### **Community Engagement**

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As the research conducted in the laboratory, and that conducted by its external collaborators, is associated with understanding the nature and timing of changes to the landscape (mostly in western Canada) as a result of significant long-term (1000s of years or more) shifts in climate, its activities have no immediate relevance to the Fraser Valley community. However, discoveries made in the laboratory should help enable predictions to be made about future landscape change, including that in the Fraser Valley, in response to significant shifts in future climate (e.g., global warming). Since the opening of the laboratory in 2007 its research has been presented to the community, from time to time, in local Abbotsford and Chilliwack newspapers, to Elder College (Chilliwack), to Abbotsford Learning Plus, in Skookum Magazine, in the UFV Viewbook, in the UFV blog roll, The Cascade newspaper, UFV's Faculty of Science Magazine, and most recently (March 2021) via the virtual Science Talks series. Our work has also had exposure in media, directly or indirectly, outside the valley (e.g., The Vancouver Sun, Toronto Sun, Hakai Magazine, Global News)

### **Funding**

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#### **External**

- NSERC Discovery Grant: \$154,000 (2018-2023) (5-year grant extended for one year due to covid)
- NSERC USRA grants: \$6000
- Natural Resources Canada: c. \$20,000
- Manitoba Geological Survey: \$10,000

### **Research**

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Most of the research listed below is on-going, although components of it have been completed, and some components have been published:

- Research on the significant Holocene (last 11,000 years) soil chrono sequence on the BC central coast was completed and published in spring May 2021
- Research on adjustment of the Fraser River, southcentral BC, immediately following the last glaciation. The part of this study that formed Travis Gingerich's MSc research has been completed, and a manuscript for publication is being formulated



- Research on stabilization of the landscape in northeastern BC immediately following the demise of the Cordilleran Ice Sheet (c. 10,000 years ago) was completed and a paper was published in summer 2021
- Research on the late glacial permafrost history preserved in the Pine Barrens region of New Jersey, USA, has been completed. A manuscript has been completed and is undergoing internal review
- Parts of our research on landscape change in the Hudson Bay Lowland has been completed, and a manuscript for publication is nearly complete

### **Publications, Presentations and Reports**

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#### **Peer-reviewed journal papers (current and former students and PDFs indicated by an asterisk):**

- Gauthier, M.S., Hodder, T.J., Lian, O.B., Finkelstein, S.A., Dalton, A.S.\* and Paulen, R.C. 2021. Stratigraphic, paleoenvironmental and geochronological investigations of intertill nonglacial deposits in northeastern Manitoba (parts of NTS 54B–F, K, L, 64A, H, I) in Report of Activities 2021, Manitoba Agriculture and Resource Development, Manitoba Geological Survey, p. 71–76.
- Nelson, L.-A.\*, Sanborn, P., Cade-Menun, B.J., Walker, I.J., and Lian, O.B. 2021. Pedological trends and implications for forest productivity in a Holocene soil chronosequence. Calvert Island, British Columbia, Canada. *Canadian Journal of Soil Science*, 101: 654–672.
- Hickin, A.S.\*, Lian, O.B., Telka, A., Levson, V.M., and Geertsema, M. 2021. Geomorphic and ecological age constraints for paraglacial to boreal transition in northeastern British Columbia. *Quaternary Science Reviews*, 268: 107002.

#### **Conference papers:**

- Taylor, R.\* Brennand, T.A., and Lian, O.B. 2021. The nature and timing of postglacial incision of the Nicola River, British Columbia. 2021 Geological Society of America annual meeting Oct 10–13, Portland, Oregon, USA. Abstracts with Program, vol. 50, no. 5, 27-D24. <https://doi.org/10.1130/abs/2021AM-367652>
- Hodder, T.\*, Gauthier, M., Ross, M., and Lian, O.B. 2021. New stratigraphic and chronological constraints in western Hudson Bay Lowland, Canada, and their implications for the Laurentide Ice Sheet evolution. 2021 Geological Society of America annual meeting Oct 10–13, Portland, Oregon, USA. Abstracts with Program, vol. 50, no. 5, 242-10. <https://doi.org/10.1130/abs/2021AM-365754>

### **Plans for the Upcoming Year**

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Much of the coming year will be dedicated to our on-going research in the stratigraphic history in the Hudson Bay Lowland with the Manitoba Geological Survey. We will also continue our work in northeast USA, looking at landscape changes that occurred during the last glaciation (ice age) immediately south of the southern limit of the Laurentide Ice Sheet; this work is in collaboration with colleagues at the Geological Survey of Canada (Natural Resources Canada) and Stockton University (USA). Our research into postglacial adjustment of the Nicola, Thompson and Lillooet River valleys in BC will also continue with colleagues from SFU, UBC, and Oxford University. Additional UFV undergraduate student researchers will be sought in fall 2022. As more conferences return to being fully face-to-face, we will continue our tradition of presenting our research nationally and internationally.

## Molecular Modeling Lab (MML)

Jake Spooner, Director

May 2021 – April 2022

<https://www.ufv.ca/research/research-office/centres-and-institutes/>

### Purpose

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Molecular modeling is an interdisciplinary field where computers and numerical methods of applied mathematics are used to solve precise and approximate physical models of atomic, molecular, and supramolecular systems of interest in physics, chemistry, biology, material sciences, and geosciences. With advancement of computer technology, the accuracy of its predictions reaches a level comparable to experiment and, as a result, molecular modeling complements and increasingly replaces often costly and dangerous experimental work.

Over 20 years of its existence The UFV Molecular Modeling Lab housed more than 80 undergraduate students from various departments, including Chemistry, Biology, Physics, Math, and Computing, working on various interdisciplinary projects.

### Membership

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Current faculty associates of the lab include Drs. Noham Weinberg, Jacob Spooner, and Gennady Shustov.

### Partnerships

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External collaborations:

- Dr. Heather Wiebe (VIU, Nanaimo) - on a wide range of topics related to chemistry of high pressures
- Dr. Erika Plettner (SFU, Burnaby) - on studies of pheromones
- Dr. Charles Walsby (SFU, Burnaby) - on studies of Ru complexes, potential anti-cancer drugs
- Dr. Bo Chen (Ikerbasque Basque Foundation for Science, Spaine) - on theoretical studies of furan and thiophene nanothreads
- Dr. Dmitry Kornilov (Kazan University, Russia) - on studies of high-pressure Diels-Alder reactions

### Students

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- Jordan Penner - Molecular dynamics calculations of lipophilicity of anticancer ruthenium complexes
- Brianna Whatley - Theoretical studies of molecular machines.
- Gavyn Lastoria - Theoretical studies of molecular machines.
- Monesha Mann - High pressure formation of furan and thiophene nanothreads.

### Funding

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- NSERC USRA (Jordan Penner) - \$4,500

### Research

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- Force-Field Parameterization of Ru anticancer complexes
- Molecular Dynamics Calculations of Partial Molar Volumes of Amino Acids in Aqueous Solutions
- Thermodynamic Stability of Petroleum Hydrocarbons at Geochemical Conditions - Preliminary Studies Grant proposal submitted Feb. 2022 to ACS Petroleum Research Fund - \$70,000 for 3 years

## Publications, Presentations and Reports

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### Publications (peer reviewed):

- Weinberg, N., Edwards, E., Huber, L., Sentell, Z., Spooner, J., A Newtonian algorithm for constant pressure molecular dynamics with periodic boundary conditions, *Mol. Phys.*, 2022, DOI: 10.1080/00268976.2022.2060145
- Sentell, Z., Penner, J., Spooner, J., Weinberg, N., Molecular Dynamics Calculations of Partial Molar Volumes of Amino Acids in Aqueous Solutions, *Can. J. Chem.*, 2022, Just-IN, DOI: 10.1139/cjc-2021-0217
- Shustov, G., Theoretical study of water-assisted reaction between methane and nitrosonium cation, *Can. J. Chem.*, 2022, 100, 360. DOI: 10.1139/cjc-2021-0299

### Presentations (speaker indicated by \*):

- Weinberg, N., Edwards, E., Huber, L., Sentell, Z., Spooner, J.\*, (2022) A Newtonian Algorithm for Constant Pressure Molecular Dynamics with Periodic Boundary Conditions, APS March Meeting (APSMM)
- Whatley, B.\*, Lastoria, G.\*, Gajsek, K.\*, Spooner, J., Weinberg, N., (2021) Efficacy of molecular clutch systems for large scale molecular machines. UFV Student Research Day
- Penner, J., Wilson, D., Spooner, J., Weinberg, N.\* (2021) High Pressure Vibrational Spectra of Molecules via Molecular Dynamics Simulations. APSMM
- Spooner, J.\*, Weinberg, N., (2021) Reaction Profiles and Energy Surfaces of Compressed Species Under Extreme Conditions. APSMM

### Accepted Abstracts:

- Spooner, J.\*, Weinberg, N., (2022) High Pressure Energy Surfaces and Profiles: General Approach to be presented at the 12th Triennial Congress of the World Association of Theoretical and Computational Chemists in July
- Spooner, J.\*, Weinberg, N., (2022) High Pressure Energy Surfaces and Profiles: Specific Examples to be presented at the 12th Triennial Congress of the World Association of Theoretical and Computational Chemists in July

## Plans for the Upcoming Year

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### Research projects:

- Theoretical calculation of partition coefficients for Ru anticancer complexes
- Theoretical studies of furan and thiophene nanothreads
- Theoretical studies of pressure-driven molecular machines
- Molecular dynamics calculation of activation volumes for diels-alder reactions of thiobenzophenone
- Molecular dynamics calculations of molecular volumes for constrained molecules
- Thermodynamic stability of petroleum hydrocarbons at geochemical conditions