

# *Bright Ideas*

Undergraduate  
Research Excellence  
Awards 2014



40 YEARS  
UNIVERSITY  
OF THE FRASER VALLEY

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Welcome to the 2014 UFV

## **Undergraduate Research Excellence Awards Presentation**

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UFV strives to provide exceptional learning experiences to enhance students' education. Engaging in research activities spawns opportunities for future studies and careers.

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Tonight the University of the Fraser Valley is delighted to present 26 students with research awards totaling over \$19,000.

These students were nominated by faculty for exceptional research work, either as part of the UFV work study program, as research assistants, or for an outstanding project as part of a course.

This evening, we also acknowledge the many students who received other prestigious research awards from UFV and federal granting agencies.

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**Congratulations to all the students who work so diligently to  
generate award-winning research projects!**

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## **Thank You!**

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We know that in education, as in hockey,  
"there is no such thing as an unassisted goal!"<sup>1</sup>

Special thanks to the family and friends  
who support our students with patience, encouragement  
and clean laundry;

and to the dedicated faculty and staff  
who thrive on mentoring our students to meet their goals.

Your contribution to student success is immeasurable!

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With more than 15,000 students attending UFV this year,  
these awards represent only a small portion of the research and other  
scholarly activities in which students are involved.



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<sup>1</sup> Canadian Tire (Feb 2013). *Team Photo*. (Television Commercial)

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## Program

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**Host**

Dr. Adrienne Chan, Associate VP, Research,  
Engagement & Graduate Studies

**Welcome**

Dr. Brian Minter, UFV Chancellor

**Board Chair Remarks**

Mr. Barry Delaney, Chair, UFV Board of Governors

**Dinner Buffet****VP Remarks & Introduction of Student Speakers**

Dr. Eric Davis, Provost & Vice President Academic

**Student Speaker**

Ms. Libby Griffin

**Awards Presentations**

Dr. Jacqueline Nolte, Dean, College of Arts

Dr. Rosetta Khalideen, Dean, Faculty of Professional Studies

Dr. Anthony Stea, Vice Chair, Science Faculty Council

Dr. Joanne MacLean, Dean, Faculty of Health Sciences

**Acknowledgements of Other Awards & Closing Remarks**

Mr. Brad Whittaker, Director, Research Services & Industry Liaison

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## National Awards

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**Hakai Graduate Fellowship**

Libby Griffin has been awarded a prestigious multi-year postgraduate fellowship of \$46,000 to conduct MSc research starting in September.

Libby is enrolled in the MSc program in SFU Earth Sciences, will be supervised by UFV's Dr. Olav Lian, and will be based in the UFV Luminescence Dating Laboratory.

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**NSERC Undergraduate Student Research Awards (USRA)**

These awards allow students to gain valuable research experience that complements their studies by working full time for a term with nationally recognized researchers at UFV.

Additional funds are provided by the Research Office and researcher grants.

**2014 Recipients - \$4,500**

<i>Student researcher</i>	<i>Program</i>	<i>Faculty researcher</i>
Jordan Bryce	Geography	Olav Lian
Libby Griffin	Geography	Olav Lian
Joshua Ho	Physics	Derek Harnett
Alex Palameta	Physics	Derek Harnett
Andrew Alexander	Biology	Lucy Lee
Mandeep Saran	Biology	Lucy Lee

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## UFV Awards

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### Student Research Day

Each year UFV holds a research presentation competition.  
More than 30 students inspired us with their exceptional posters  
at this year's event.

### Poster Prize Recipients 2014

<i>Student</i>	<i>Program</i>	<i>Award</i>
Meagan Beatty	Chemistry	Provost & VP Academic
Tracey Heron	Geography	AVP Research, Engagement & Graduate Studies
Kevin Janz	Biology	Dean of the Faculty of Science
Libby Griffin	Environmental Communications	Dean of the College of Arts
Harjyot Samra	Business	Dean of the Faculty of Professional Studies
Kamaldeep Gill	Kinesiology & Physical Education	Dean of the Faculty of Health Sciences
Nicole Wierks	Biology	Vice Provost & AVP Academic
Nastasha Mol	Visual Arts	AVP Research, Engagement & Graduate Studies

Photos of SRD 2014 are available on Flickr at  
<https://www.flickr.com/photos/ufv/sets/72157644023689803/>

Check out the video of Student Research Day 2013 at  
<http://www.ufv.ca/research/>

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## URE Award Recipients

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### *College of Arts*

#### *Social Sciences*

Thomas Funk	Anthropology
Talia Wiebe	Communications
Rachel Wollenberg	Criminology & Criminal Justice
Jack Kardux	Economics
Libby Griffin	Geography
Donna Gomes	Indo Canadian Studies
Karisa Teindl	Psychology
Sasha Morneau	Sociology

#### *Humanities*

Megan Davies	English
Paul Brammer	History
Nastasha Mol	Visual Arts

### *Faculty of Health Science*

Kamaldeep Gill	Kinesiology & Physical Education
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## URE Award Recipients

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### ***Faculty of Professional Studies***

Joy McGill	Adult Education
Samantha Bleich	Business Administration
Katherine Irving	Business Administration
Arpit Mittal	Business Administration
John van Steenis	Business Administration
Robin Weise	Business Administration
Wendy Colman-Lawley	Social Work

### ***Faculty of Science***

Kevin Janz	Biology
Meagan Beatty	Chemistry
Benjamin Tremblay	Computer Information Systems

### ***Industry Liaison Research Award***

Tashe Aldcroft	Business Administration
Rachit Jain	Business Administration
Ravneet Saini	Business Administration
Hedaya Mahmood	Business Administration

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## Anthropology

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### **Thomas Funk**

“Although I am a Bachelor of Arts student with a major in History, working with Nicola Mooney developed my passion for Anthropology and her guidance throughout was instrumental to the project. The research opportunity focused my love of travel, cultural osmosis, analysis, and holism into a tangible result that informs and educates on the topic of religion and politics. I plan to continue this form of work by pursuing a Masters in Public Policy.”

Faculty Supervisor:	Nicola Mooney	Award: \$1,000
Program Head:	Alisa Webb	

### **‘Home,’ from Spiritual to Physical: An Ethnography of a Christian Zionist Community in the West Bank**

This project looks at a unique religious community living within the confines of the Jewish settler town of Har-Bracha. The community is based on the fundamental principle of offering support to the Israeli wineries in the Shomron region without proselytising Jewish settlers. This specific group of Christian Zionists are pre-millennial dispensationalists who believe their principle and their actions in the “Holy Land” are directly related to biblical teachings and the second coming of Christ. Over the three-month harvest, I, and 279 volunteers journeyed to pick grapes in the contested region of the West Bank.

I conducted interviews and participant observation over a three-week period during the 2013 harvest. I found that the globally diverse volunteer base – while sharing many qualities – all firmly believed in ‘home’ as an extension of their pseudo-Jewish identity. The volunteers’ concept of ‘home’ in the mountains of the West Bank thus became a central theme to their identity as they began to identify more with Jewish politics, religion, and culture than with those from their place of birth or nation of citizenship.

## Communications

## Talia Wiebe

Talia has just completed her BBA with a concentration in Marketing and a minor in Communications. After graduation, Talia will be continuing her education by developing graphic and web design skills while working in marketing and communications, and possibly seeking graduate studies in the future. The research project allowed her to see a project from conception to implementation, giving her valuable hands-on experience to take with her to the job market.

Faculty Supervisor:	David Thomson	Award: \$1,000
Program Head:	Samantha Pattridge	

## Creating and Nurturing Online Communities: Social Media Tools and Strategies for Promoting Independent Artists and Musicians

The music industry landscape has changed dramatically due to the rise in both legal and illegal digital downloading, causing a massive shift in consumption habits of consumers. This has affected the profitability of the modern recording industry, and has changed what musicians must do to sell albums and concert tickets. Musicians today must navigate the overwhelming digital landscape to efficiently promote their work to their fans online.

The goal of this project was to consolidate best practices in social media for musicians (which had not been concisely done before) and apply them in a real-world scenario. The research conducted was used to develop a two year strategic communications plan for an independent musician, and set up online channels of communication for the artist. Since launch, the artist has seen an increase of 14% in Facebook followers, 469% in Twitter followers, and has had 43 legal downloads of albums online.

## Criminology & Criminal Justice

**Rachel Wollenberg**

Rachel Wollenberg is a Criminal Justice student entering her fourth year, with goals to achieve her law degree and eventually practice law with a focus in social justice. While her long term goals are more internationally focused, the current research regarding local access to legal aid and its implications with social justice helped enhance her education process at UFV as it aligned well with her passions and helped to further cement her goals.

Faculty Supervisor: Yvon Dandurand Award: \$1,000  
Director: Amy Prevost

## Study Update on the Economic Impact of Legal Aid in British Columbia

In 2012, professors Yvon Dandurand (Criminology) and Michael Maschek (Economics) conducted a preliminary study discussing the feasibility of different options for assessing the economic impact of legal aid in British Columbia. The goal was to identify the kinds of economic benefits analyses that were methodologically possible given the state of existing data on the legal services provided, the legal services needs of the British Columbians, the functioning of the justice system, and the impact of unaddressed legal needs of various segments of the population. The review offered suggestions about distinct studies which could be undertaken to demonstrate the cost-effectiveness of further public investments in legal aid.

Rachel identified, located and reviewed the relevant literature published between 2012 and 2014 and identified relevant new research findings, as well as proposed amendments to the original research report. The study was conducted for the Law Foundation of British Columbia and the BC Legal Services Society.

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## Economics

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### Jack Kardux

Jacko Kardux is a fourth year Business student planning to graduate with an Honours BBA and pursue a CPA and/or a CFA designation. He has a keen interest in entrepreneurship, and would like to work with start-up companies in the future. Conducting research at UFV has allowed him to investigate a relevant, real-life issue that enabled application of what is learned in the classroom; the Apple research project specifically presented the opportunity to investigate the effect of globalization on corporate taxation from an economic perspective.

Faculty Supervisor:	Vladimir Dvoracek	Award: \$1,000
Program Head:	Sean Parkinson	

#### **Corporate Taxation: Is Apple Paying Their Fair Share of Taxes?**

Apple, along with other US multinationals has been accused of unfairly avoiding corporate taxation. This paper seeks to answer whether Apple, the world's most successful technology company, does indeed pay its fair share of taxes.

The project first describes US corporate taxation and the unique issues surrounding the taxation of intellectual property and then examines Apple's unique case, relying on primary US government committee investigative documents. Corporate tax avoidance, and the ways in which US companies avoid taxes, are detailed. We find that US corporations like Apple can easily avoid taxes through deferral by taking advantage of outdated tax laws. The US and international tax laws were created with bricks-and-mortar businesses in mind; today, however, many US corporations have very valuable intangible assets that can be easily moved to create optimal tax situations.

The project uncovers that Apple's tax situation is largely a political game that is being played while lawmakers scramble to uncover and close what is rapidly becoming a multi-trillion dollar tax deferral.

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## Geography

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### Libby Griffin

"With the completion of my Bachelor of Science degree in Physical Geography, with a minor in Biology, I will be pursuing a master's degree in Earth Science at SFU this coming fall. I was exposed to research at UFV as an undergrad nearly two years ago when I began working in Dr. Olav Lian's laboratory. Research at UFV has opened my eyes to a field that I did not previously know existed, a field I hope to further advance and grow in as a scientist."

Faculty Supervisor:	Olav Lian	Award: \$1,000
Program Head:	Michelle Rhodes	

#### **An Example of the Importance of Using Multiple Data Methods, Calvert Island, BC**

On Calvert Island (BC central coast), radiocarbon dating has been used extensively to help reconstruct palaeoenvironments, sea level change, and to date archaeological finds. However, additional dating methods, particularly optical dating, can be used to provide a check on radiocarbon dating results or add additional information since the two methods often date different events: radiocarbon can be used to date the time of death of organisms while optical dating dates the time elapsed since sand grains were last exposed to sunlight.

My research displayed the importance of using multiple dating methods by radiocarbon dating and analysing the macrofossils of an organic rich bed that underlies a modern beach. An optical age obtained from ancient beach sediment directly underlying the organic bed was used to directly date the beach surface on which the organic unit formed. Together and alone, the application of these different dating methods has led to different interpretations of past depositional events and associated environmental change. An accurate understanding of these events can assist in the prediction of how future landscapes will respond to climatic fluctuations.

## Indo Canadian Studies

## Donna Gomes

"I have a BA from UFV with a major in History and extended minor in English Literature and will be graduating in June from the Library and Information Technology diploma program this June. Engaging in research for the Centre for Indo-Canadian studies has been a wonderful experience and served to focus my interests and show me that I could combine my love of history and libraries into a challenging and rewarding career. After I graduate I hope to work in a community library and within an archival setting or in an academic, public, or special library working with archives and special collections."

Director & Supervisor: Satwinder Bains Award: \$1,000  
Co-supervisor: Sharanjit Sandhra

## Digitization, Cataloguing and Website Development of Archival Documents

The main purpose of my work has been to research primary source documents, the historical context of those documents, and create digital access to them. In the summer of 2013 I worked with a collection of 250 newspaper articles from the Vancouver Province published from 1907-1914. I described each article, including access points (subject headings) and created a searchable online database. In the fall of 2013 I worked with a collection of over 350 documents belonging to Dr. D.P. Pandia, an Indian lawyer who travelled to Canada in 1939 and advocated on behalf of the South Asian community in BC. He successfully fought against threatened mass deportations in 1939 and worked to secure the federal, provincial, and municipal vote for South Asian immigrants in 1945-1947.

I arranged the physical collection, digitized the documents, and created archival descriptions for each item. In the winter of 2014 my final project has been to create a website showcasing the research done by the CICS, including a site devoted to research on the franchise, from 1907-1947, based on the primary source documents I worked with over the previous semesters.

## Psychology

## Karisa Teindl

Karisa completed her Bachelor of Arts degree in honors Psychology. She plans to pursue further education in the area of developmental neuropsychology. Her specific areas of interest include age-related neurodegeneration, psycholinguistics, and Theory of Mind. She says her research experience at UFV was absolutely critical to obtaining the skills necessary to be a successful undergraduate student. Karisa shares this award with her advisor, Dr. Lesley Jessiman, who provided continual encouragement, direction, and support throughout the entire research process.

Faculty Supervisor: Lesley Jessiman Award: \$1,000  
Program Head: Zoe Dennison / Sven van de Wetering

## **“Mind Reading” by Face and Voice: An Examination of the Effects of Ageing on Emotion Comprehension**

Although previous research shows that typically ageing older and younger adults differ in their ability to recognise basic emotions, the cause of age-related discrepancies in emotion recognition is not yet fully understood. Thus, the central aim of the present study was to identify how older and younger adults differ in their ability to comprehend emotion. We also wished to determine the specific cognitive underpinnings of age-related differences in emotion recognition performance.

We found evidence that typical ageing affects the ability to recognize negative emotions, such as anger, fear, and sadness. Furthermore, we determined that these deficits in emotion recognition abilities could be explained by an age-related decline in working memory, Theory of Mind, and inhibitory processes.

Knowing exactly how ageing affects our ability to comprehend emotion clearly has real-world implications. Understanding emotion is important during conversational interactions that keep us connected with our social worlds. Our social worlds become increasingly smaller as a consequence of the biopsychosocial changes and transitions that occur in the latter stages of the lifespan. Older adults, who decrease the size of their social world, do so simply as a means of managing these shifts and changes. They do not wish to disengage from society completely. As a consequence, older adults often become the “out-of-sight-out-of-mind” population and it is important that we change this current trend. Older adults are fantastic conversationalists with a catalogue of stories to tell, rich in content and seeped in history. We should learn from our older generation; keep the conversation going.



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## Sociology

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### Sasha Morneau

“The process of conducting qualitative research always fascinated me, so I was not surprised to find myself completely immersed in the project and thoroughly enjoying it. I felt inspired to explore the intersection of these topics—gender and film directors—because as a feminist and someone close to the film industry, I was surprised it hadn’t previously been examined in much detail. Upon completing my degree in December with a Psychology major and Sociology minor, I plan to attend graduate school and continue research on gender and inequalities in the arts.”

Faculty Supervisor: Amie Mclean Award: \$1,000  
Program Head: Alisa Webb

#### First Take: An Exploration of Gender and Student Film Directors

This project was meant to explore gender and the accompanying power dynamics involved with student film directors. It was first conducted on the assumption student directors would likely have endured a series of gendered experiences throughout their four-year film degree. Having examined the scarce literature on professional film directors, I found that there were vast gender inequalities and gender discrimination taking place where directorship is concerned; in the professional film industry — Hollywood and elsewhere — patriarchal norms prevail. I expected to find similar inequalities rampant on sets and evidenced in interviews. What I found pushed me in a slightly different direction.

As all participants (two female, two male) are currently at the end of their film degree, I thought they could provide a retrospective on their time at university. I interviewed three student film directors and observed three student film sets, focusing on the director, their actions, and interactions. My analysis and conclusions focus mostly on three things: differences in the way students experience the role of director, the current inequalities in the professional film industry (with emphasis on directorship), and the role gender and gender inequality plays in film school education. Interestingly, while all participants explained that film was certainly “male-dominated industry”, they also admitted their education lacked attention to this clearly patriarchal system. While this project led me in a direction different from that which I intended, I have become motivated to explore the relationship between gender and the bureaucracy of the film industry further and consider educational deficits where feminism and film directors are concerned.

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## English

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### Megan Davies

Megan aspires to teach and research at a major university, while also engaging in collaborative theatre projects with local theatre companies. To realize this career goal, Davies has a long road of graduate studies ahead, in order to gain the much-needed research and writing skills required for this career. Davies’ research experience at UFV has impassioned her for future research in intercultural performances. Additionally, the advice and mentorship provided by her project supervisor, Heather Davis-Fisch, allowed her to fully understand the process involved in researching, planning and writing a thesis.

Faculty Supervisor: Heather Davis-Fisch Award: \$1,000  
Program Head: John Pitcher

#### Historical Pageants, Flags and Q'owét: Contested Identities, History and Land in Fort Langley, BC

My English honours thesis, investigates three intercultural performative events that have taken place in Fort Langley, British Columbia (BC) since the 1820s. These intercultural events are not performances in the theatrical sense, but rather social performances of identity, history and relationship to land. These three events are the 1925 Fort Langley Centennial Celebration, present-day reenactments of the 1858 Proclamation of BC, and contemporary performances of traditional Kwantlen warrior songs. These three intercultural events are connected in the way participants relate themselves to each other and to BC.

My project analyzes how Euro-Canadians presented their history and relationship to land in order to construct a white and civil British Columbian identity against a stereotyped “Indian” figure. It also demonstrates that Stó:lō counter-histories disrupted this stereotypical representation of “Indian” and situated BC land and history within Stó:lō world-views. This project is significant because by examining how colonial processes operated and continue to operate in Canadian theatre, literature, and tourism, it contributes to the decolonization of these fields.

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## History

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### Paul Brammer

Paul is graduating this June with a degree in History. In September he will begin a History MA at the University of Manchester, where he hopes to focus on early Soviet cultural history. He is thankful for the opportunity to both undertake original research at UFV and also present his findings at the 2014 Qualicum Graduate History Conference. Both of these experiences have been invaluable in preparing Paul for his future academic endeavours. He is also very thankful for conducting research under the excellent tutelage of Dr. Alisa Webb.

Faculty Supervisor &

Program Head:

Alissa Webb

Award: \$1,000

**“Like everyone else who goes to Russia these days,  
I am writing a book.”**

#### British intellectual reactions to the Russian Revolution, 1917-1921

The topic of my paper is British written representations of the Russian Revolution between 1917 and 1921. By analysing seven books written by Britons who travelled to Russia (plus one essay by a Briton at home) I explore how various facets of the Russian Revolution were presented to the British public. The major themes that the work presents are: the authors' views on the historical context and significance of the Russian Revolution; their assessments of Lenin as individual and revolutionary leader; their appraisals of revolutionary art and culture; their opinions on the fate of Russian intellectuals; their predictions for the future of the Bolshevik state; and the reception that reports on revolutionary Russia received in Britain.

Analysing British travel-writing on revolutionary Russia addresses two significant areas: first, how the Revolution was presented to British audiences; second, the myriad of conceits, concerns, and anxieties that existed in post-war British society.

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## Visual Arts

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### Nastasha Mol

“Throughout my time of study at UFV I learned how to consolidate research, structure my inquiry, and finally apply it within the various media of Visual Arts. I also discovered that critical thinking and creative problem solving exists in all disciplines. I plan to continue on to obtain a master's degree and to pursue an education career within the Visual Arts.”

Faculty Supervisor:

Grace Tsurumaru

Award: \$1,000

Program Head:

Tetsuomi Anzai

#### למדה חמלה: Learned Compassion

My research for "*Learned Compassion*" began when I discovered that many of my own Polish ancestors had been sent to death camps during the Holocaust. These dolls were created as a tool to help instill the significance of learning compassion for your fellow human being. They also symbolize the bridging of communication and the importance of storytelling between generations, in order to encourage the discovery and remembrance of family history. This project presents itself at a pivotal moment in history as well, knowing that quite soon there will be few Holocaust survivors left. The dolls serve to remind others to remain engaged with their own family histories and remember lessons of humanity embedded within these tragic kinds of stories.

למדה חמלה is the Hebrew translation for "Learned Compassion". My great grandfather, Frank August Risplerowa, fled Poland with his brother during WWII while his parents and sisters were sent to death camps. My grandmother passed away before she was able to share the stories of my ancestors' lives. This is what has driven me to learn more about my own history and to create a piece that engages the viewer and honours these personal narratives.

I have created dolls based on real women such as Libbi Kleinman and Elizabet Itzikzon whose identities were chosen from the Yad Vashem's victim database, a comprehensive list of millions of Jews who were systematically murdered during the Holocaust. These dolls are equipped with what an average woman in a concentration camp would have possessed during this time. The dolls, their clothing and accessories are handmade and assembled. With this work, my goal is to evoke the spirit of those who lost their lives in the Holocaust.

## Kinesiology & Physical Education

### Kamaldeep Gill

"I am a Kinesiology and Physical Education student graduating with a minor in Biology. Becoming a part of this research under the guidance of Alison Pritchard Orr and Kathy Keiver has given me the opportunity to explore the areas of research I am passionate about and allowed me to attain skills that I can continue to use and develop in my graduate studies. My ultimate goal is to attain a PhD in Occupational Therapy and for this reason I am attending University of Alberta this September to complete my Master's in OT."

Faculty Supervisor: Kathy Keiver / Alison Pritchard Orr    Award: \$1,000  
Program Head: Chris Bertram

#### **Effects of a Strength Based Motor Skill Development Program on a Test of Executive Function on Children with FASD**

Fetal Alcohol Spectrum Disorder (FASD) is a serious public health, social and economic issue in Canada and around the world. FASD results from maternal alcohol consumption during pregnancy and is one of the leading causes of birth defects and developmental disabilities in Canadian children. In 2006, researchers at UFV's Kinesiology and Physical Education Department proposed a unique strength based motor skills intervention that is still currently in place, which came to be called FAST Club. FAST Club is an intervention in which each child participates in an individually prescribed physical activity program for 2 sessions per week for 12 weeks. This program allows children to have a choice in the activities that they would like to participate in to increase enjoyment and motivation, and involves one to one mentoring with UFV students. FAST Club is run as an after-school program that functions not only to enhance the gross motor skills of FASD children, but also their self-esteem and cognitive skills, such as executive functioning.

The purpose of this study was to investigate the effects of FAST Club on executive functioning in children diagnosed with FASD. Specifically, this study examined the impact of FAST Club on executive function tasks involving response selection and inhibition of previously learned rules. Results indicated that participating children as a group improved from the 5<sup>th</sup> percentile, below the expected level, to the 25<sup>th</sup> percentile, the expected level, for response selection and inhibition of previously learned rules.

## Adult Education

### Joy McGill

Joy is completing her Bachelor of Arts in Adult Education. Upon graduation Joy hopes to use her newfound knowledge, together with her experience of teaching English in China for nine years, to undertake an internship either overseas, or within the Fraser Valley region, to help empower marginalized individuals, particularly women, by helping them to improve their level of English and to make them aware that they are entitled to receive basic human rights, fair treatment and equal access to economic, social and educational benefits regardless of their race, class, ability, language, gender, sexuality or appearance.

Joy extends her heartfelt thanks to Dr. Seonaigh MacPherson, her faculty supervisor who provided guidance, direction and much encouragement, not only in completing the research project but helping her to disseminate the data and co-author an article for potential publication in an academic journal.

Faculty Supervisor & Program Head: Seonaigh MacPherson    Award: \$1,000

#### **Learners' Stereotypical and Nuanced Language about Culture: Implications for Intercultural Communicative Teaching**

This research study investigated relationships between the linguistic and intercultural communicative competence of ten multilingual students studying English as a Second Language at UFV at intermediate and advanced levels. Data focussed on students' use of stereotypical and nuanced language when discussing the cultural traits of their own and other ethnic groups. Using mixed-method grounded theory, quantitative data on students' linguistic use of modality, hedges and other modifying terms was compared with qualitative data of students' baseline and developing intercultural communication skills using the Association of American Colleges and Universities (AACU) Intercultural Knowledge and Competence Value Rubric.

The findings revealed that while multilingual students at both levels may not always use grammatically correct English and have a tendency to overuse hedges (maybe, kind of, etc.) and intensifiers (very, many, really, a lot, etc.), the quality of their intercultural communications was not significantly impacted when responding to questions about their own culture, the culture of other ethnic groups, or when discussing differences and similarities between the groups. These findings reinforce the importance of students acquiring a better understanding of the impact of hedges and intensifiers to avoid over-emphasizing and exaggerating cultural views.

## Business Administration

### Samantha Bleich, Katherine Irving, Arpit Mittal, John van Steenis, Robin Weise

**Samantha:** "I am a business student majoring in Accounting and I am currently in my fourth year here at UFV. Participating in this research project provided me with valuable experience and confidence that will be an asset in the workplace and the business that I one day hope to start."

**Katherine:** Katherine is in her fourth year of the Business Administration degree.

**Arpit:** "I am a UFV International student at the India Campus. I have completed my BBA Degree in April 2014 after attending Fall 2013 semester in Abbotsford. Further I plan to serve my country by joining administrative services of India. This market research project helped me in understanding the view of Canadian fans to a particular sport. Working with Abbotsford Heat was an awesome experience and it gave a good insight of functioning of a hockey team."

**John:** "I am a UFV Business degree student majoring in Human Resource Management and minoring in Economics. My future goal is to obtain my MBA. The research that my group did for the Abbotsford Heat gave me a solid footing on what it takes to create research based answers to business related questions. This project gave me a real life example about how research can be done in the business world. I was more than overwhelmed to see that some of our research conclusions were implemented within business."

**Robin:** "I am entering my 4th year of a Bachelor of Business Administration here at UFV. This research opportunity allowed me to gain concrete and valuable experience that I am putting to use in my summer employment at Atomic Energy. It has also fueled my passion towards pursuing an entrepreneurial dream of one day working for myself."

Faculty Supervisor:  
Director:

David Dobson  
Frank Ulbrich

Award: \$250 each

## Understanding the Abbotsford Heat Fan Experience and Expectations

This report examines how to improve the overall experience that consumers have when they come to an Abbotsford Heat American Hockey League game. Attendance has been less than desirable, and the Heat want to derive a plan for bringing more people to the arena, while increasing satisfaction of existing fans.

The focus group participants stated that the atmosphere in the arena was lackluster and that made for a less exciting game. The respondents spoke about issues with the event nights that occurred throughout the season, and were not interested in the back-to-back games. While they liked the overall cost of the evening, there were weaknesses in some of the services of the arena, such as parking and food quality. Moreover, the participants felt the advertising was relatively non-existent and thought that more focus on advertising could help bring more people to games.

The survey allowed for a broader investigation of the Heat fans' experience. It focused on what factors influence respondents' decision to come to Heat games, their opinions on the services in the arena, and the marketing that they experienced. There were a total of 216 responses which were then analyzed and made into recommendations.

From the results, the first recommendation is to expand Loonie Toonie Dog 'N Brew nights to include soft drinks for those who do not drink alcohol. The second recommendation is to update the current methods of advertising. We recommend more advertising outside Abbotsford, updating signage around Abbotsford, such as lamppost banners, and providing consumers/fans with more information about players and teams who are coming to play against the Heat.

Our third recommendation is amending the food concessions. One suggestion is a 'Park and Eat' promotion, where fans can use their parking stubs to receive discounts on food. Moreover, maintaining better food quality will improve the fan experience, and we would recommend offering new food items or new vendors to better satisfy fans, as well.

Other suggestions made were changes to the London Drugs Family Pack by making the specifics of the deal clear and easy to understand, and encouraging the City of Abbotsford to promote the Heat and to avoid negative press.

Maintaining a positive relationship with customers will ultimately increase the quantity of fans and provide a greater amount of lasting viewership. All in all, we feel that these recommendations will improve the overall fan experience.

## Social Work

## Wendy Colman-Lawley

“The opportunity to work as a researcher for UFV has been an incredible and rewarding experience. It has allowed me to engage numerous partners in a very interesting, insightful process where each participant was encouraged to share their story as it related to the requirements of the research. This process has provided me with a comprehensive holistic overview of services and the passion of individuals committed to working in communities to provide numerous resources, and supports. Being involved has expanded my knowledge and understanding of numerous theories and the importance of connectedness, working collaboratively, accountability and the importance of working together as individuals, families, communities and regions. We are truly better together. This opportunity has shown me first-hand the importance of considering the numerous theories relevant to the service development, delivery, priorities and maximizing resources and the on-going need for multi layered, multidimensional advocacy.”

Faculty Supervisor: Glen Paddock  
Community Supervisor: Martin Bartel, MCFD  
Director: Darrell Fox

## Fraser Cascade Profile - Joint Research Project Between UFV and MCFD

The purpose of this integrated and coordinated research development project was to gain a comprehensive understanding of the important characteristics and experiences of the participants of numerous organizations and programs within the Fraser Cascade who provide social services, supports and interventions to the diverse communities within the Fraser Cascade area. The benefits of this profile are numerous, as it provides information regarding infrastructure, service allocation, funding priorities, service gaps, considerations, overlaps, strengths, delivery and partnerships. The research has the potential to improve outcomes for children, youth, and families, as well as identifying necessary effective valued efficient services. The study provides evidence of excellent practice and passion. The research informed the development of a vulnerability strategy business plan for the Fraser Cascade.

## Biology

**Kevin Janz**

"Engaging in research during my undergraduate education in the Biology department at UFV has given me the opportunity to apply my theoretical knowledge practically. It has also helped me gain valuable understanding in how research is essential to our society as we strive to better understand the world around us. Next year my education will continue in UBC's Medical School program, and I am sure that my research experience at UFV will help me become the best physician that I am capable of being. I believe that as a physician it is important to be well informed about current research."

Faculty Supervisor: Anthony Stea Award: \$1,000  
Program Head: Allan Arndt

## Pyrethroid Insecticides Inhibit the Electron Transport Chain in Mammalian Mitochondria

Insecticides have been commonly used for many years to eradicate unwanted insects in household, industrial and agricultural environments. Pyrethroids, a specific class of insecticides, kill insects by disrupting the normal functioning of the nervous system. It is known that at high concentrations, pyrethroids may exert toxic effects on the nervous system of mammals but it is not well understood whether these chemicals are toxic to other types of cells in the body.

In my study, I developed an assay system that is able to examine the effects of pyrethroids (and other potential toxicants) on mitochondria, a common organelle in all cells. My study demonstrates that permethrin (a Type I pyrethroid) inhibits the electron transport chain (ETC) of mammalian mitochondria at complex I with an  $EC_{50}$  of 4.9  $\mu$ M while deltamethrin (a Type II pyrethroid) inhibits the ETC of mammalian mitochondria at complex II with an  $EC_{50}$  of 418  $\mu$ M. I have shown in this study that different classes of pyrethroids inhibit the activity of mitochondria in different ways and at different locations.

Since the effective concentrations in this study are similar to effective concentrations in prior studies inhibiting nervous system function it leads to speculation that these insecticides may have broader toxic effects than previously thought. Pyrethroid insecticides are used commonly in our society (e.g. head lice shampoo) so it is important to distinguish the possible short and long term effects of exposure to these chemicals.

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## Chemistry

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### Meagan Beatty

"I have participated in chemistry research for over 2 years with Cory Beshara and my experience is coming to an end as I have graduated this past semester. Research at UFV has inspired growth in my research skills that will help with my studies in grad school at the University of Victoria."

Faculty Supervisor: Cory Beshara                      Award: \$1,000  
Program Head: David Fenske

### Synthesis of a Macrocyclic Anion Receptor

While pursuing to synthesize a pyrrole-based macrocyclic anion receptor, an age-old regioselectivity issue came to light upon nitration of 2-trichloroacetyl pyrrole. Many contemporary synthetic works involving this nitration reaction have claimed that the 5-nitro regioisomer is the major product. This was indeed thought to be the case in our own work until scientific discussion prompted us to attain a crystal structure of our major product, which was obtained from the most common of the published synthetic conditions. It was the 4-nitro regioisomer.

Small tweaks in the reaction conditions have now allowed us to produce the 5-nitro product as a much greater proportion of the products, and this has allowed us to push forward with the synthesis of our desired small molecule receptor.

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## Computer Information Systems

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### Benjamin Tremblay

"I am entering my fourth year pursuing a Bachelor of Science, majoring in Mathematics and minoring in Computer Science. I especially enjoy working in fields that combine my two disciplines, and record linkage is such an area. Researching into it not only expanded my skill sets, but also brought me to a new level of thinking and understanding."

Faculty Supervisor: Gabriel Murray                      Award: \$1,000  
Program Head: Ian McAskill

### Data Quality - Record Linkage

Record Linkage, a subfield of Data Quality, is the problem of identifying distinct records that actually refer to the same entity across possibly many databases. My research has been on a current model for completing such a task, the Fellegi-Sunter Record Linkage Model. The model can be summarized as a method for assigning a score to each and every possible pair of records from the database(s), and then designating record pairs with a high enough score as a match.

I found that in some cases, the model will assign inappropriate scores to some record pairs. Without getting into too much detail, this comes from the underlying task of deciding if each individual field of the records is a match or not. This can be easy when the field is something simple and standard, like a SIN number - but this can be very hard when the field is something inconsistent, like an address. More sophisticated ways of designating matches between fields, and knowing what situation to use them in, will significantly improve the results of this model.

## Industry Liaison Research Award

### Tashe Aldcroft, Rachit Jain, Ravneet Saini, Hedaya Mahmood

**Tashe:** “I am a Business student majoring in Marketing and this project was an amazing opportunity to work with a real client. It was exciting to perform research and create a report with recommendations that are practical and useful for the Abbotsford Heat. This experience and the connections I made are valuable towards my career goals. I will graduate next year with my degree and I look forward to beginning a career in the business world.”

**Hedaya:** “I am a 3rd year Bachelors of Business Administration student majoring in Accounting. After graduation I plan to work for a public accounting firm while pursuing my CPA designation. It was a really great experience conducting a research for an actual client. This research not only enhanced my learning experience but it also provided me with skills I seek to use in the future and in my career.”

**Ravneet:** “I am an international business student, majoring in Human Resource Management, who transferred from UFV Chandigarh. I plan to do CHRP after completing my degree. This market research project not only helped me in understanding the Canadian market but also gave me confidence and insight into the working of an organization. Working with Abbotsford Heat was a great experience.”

**Rachit:** “I am an international student doing a General degree in Business and I transferred from UFV Chandigarh in Fall 2013. I want to join my family business after I complete my degree. This research study has helped me a lot. I understood the functioning of a real Canadian organization and the environment they function in. It helped me in better understanding of the key marketing concepts applied by various businesses. Working for Abbotsford Heat was really exciting and interesting and also I learned about a new sport, i.e., ice hockey.”

Faculty Supervisor:	David Dobson	Award: \$250 each
Direct:	Frank Ulbrich	

## Understanding the Fan's Entertainment Experience and Expectations

The primary goals of this study were to learn why fans attend Abbotsford Heat games and why they continue to attend games, what factors play an important role in a fan's decision to attend a game, and what other entertainment sources are people using instead. We conducted a literature review, a focus group discussion, and a survey questionnaire.

The literature review revealed that fans choose to attend a professional hockey game for eustress and entertainment, based on multiple factors: their participation in the sport, emotional attachment to the sport or team, and the players' or game performance and outcome. Implementing alcohol control strategies and extra perks, such as Wi-Fi, help improve the fans' overall satisfaction. Demographics influence the fan's expectations of facility services and personnel. Younger fans, lower income fans, and first time visitors or “non-fans” have higher expectations.

The focus group discussion revealed problem areas such as lack of crowd control, minimal community support, and unsatisfying relationships with season ticket holders. The results from the survey are that people mainly attend Heat hockey games for the hockey, location and price.

Our recommendations are that Abbotsford Heat Hockey Ltd. make frequent updates and continue to use their website, Facebook page, local newspaper, and radio for advertising. We recommend our client continue to have a “Loonie Toonie Dog'n Brew Night” and target all ages as there were very high satisfaction ratings from all age ranges. Lastly, we recommend that Abbotsford Heat Hockey Ltd. connect with local restaurants to create a dinner and game night promotion as the most common alternate entertainment was going for dinner.

We are very happy to see that our recommendations were in line with our client's objectives and have been applied already during the second half of this season. They have updated their website and have continued to advertise on Facebook, radio, and the local newspaper. Their “Loonie Toonie Dog'n Brew Night” has changed to “\$3 Beers, \$2 Hot Dogs, and \$1 Pop Night” and they have implemented a security control to monitor alcohol consumption. Event parking has been lowered from \$10 to \$5. “Family Nights” allow free entry to kids 14 and under with an adult. They have also collaborated with restaurants such as Greek Islands for fans to receive discounts.

## UFV - 40 Years of Bright Ideas!

In 2014, UFV turns 40 years old. From right here in the Valley, UFV and you have helped transform our community, and our community is helping transform the world. As we celebrate the last four decades, we also dream of growing innovation locally and beyond. We can only do it together with you.

- ✱ 1974 April 4 - Fraser Valley College is proclaimed into existence by the provincial government of British Columbia.
- ✱ 1974 September 1 - First classes begin at the new Fraser Valley College – the college without walls - using rented and borrowed facilities, including church basements, storefronts, and high schools.
- ✱ 1974 October 1 - Hope Centre opens on Third Ave.
- ✱ 1975 September 1 - Chilliwack campus opens in a former motel building, intending to use it for 5 years. It was used for 37.
- ✱ 1975 September 1 - Marshall Road campus opens. FVC enrolls 2,300 students in Abbotsford, Chilliwack, Agassiz, Hope, and Mission.
- ✱ 1980 September 1 - Theatre program launches - despite having no theatre.
- ✱ 1983 May 1 - Abbotsford King Road campus opens.
- ✱ 1983 September 1 - Cascades athletic basketball teams founded – despite having no gym.
- ✱ 1986 September 1 - Agriculture Centre opens with classrooms, barn, and greenhouse.
- ✱ 1988 September 1 - FVC launches International Education and the first eight International Students arrive.
- ✱ 1991 July 3 - Fraser Valley College gains university-college status – With tremendous community and student support, and begins using the name the University College of the Fraser Valley (UCFV).
- ✱ 1992 March 15 - Women's basketball team places second at the nationals – despite having no gym.

- ✱ 1992 April 10 - Health Sciences Centre opens on Chilliwack Yale Road campus.
- ✱ 1992 September 1 - First bachelor's degrees launched BA, BBA, BA Criminal Justice followed in 1993 with the BSc, BCIS, BCYC.
- ✱ 1994 September 1 - Degrees in Adult Ed and Social Work launched.
- ✱ 1994 November 12 - Women's soccer captures bronze at collegiate nationals.
- ✱ 1996 May 1 - UCFV unveils its first website at ucfv.bc.ca
- ✱ 1996 September 1 - Nursing and Aviation degrees launched
- ✱ 1996 September 1 - First kinesiology program is offered.
- ✱ 1996 October 6 - Mission campus at Heritage Park Centre opens
- ✱ 2000 March 15 - Men's basketball team places second at the ACCC nationals – nope, still no gym!
- ✱ 2000 May 1 - Students approve funding from student levies for a gym.
- ✱ 2000 June 14 - First honorary degrees awarded to Vic Hollister and Steven Point.
- ✱ 2004 September 1 - UCFV's first Canada Research Chair Hugh Brody appointed (Aboriginal Studies.)
- ✱ 2005 September 1 - Dr. Darryl Plecas is named the RCMP Research Chair in Criminal Justice.
- ✱ 2006 September 2 - Centre for Indo-Canadian Studies opens with Satwinder Bains as director.
- ✱ 2006 September 4 - First BBA cohort in India begin studies.
- ✱ 2006 October 1 - Envision Athletic Centre opens – Yes! We have a gym!
- ✱ 2007 June 14 - First master's degrees awarded – MA Criminal Justice
- ✱ 2007 June 20 - Canada-India research chair appointed – Dr. DJ Sandhu.



- ✿ 2007 September 1 - Baker House Student Residence opens.
- ✿ 2007 September 6 - State of the art Trades and Technology Centre opens at CEP
- ✿ 2008 April 21 - UCFV achieves university status, becomes UFV with huge community and student support.
- ✿ 2008 August 13 - Former FVC Board Chair and Brian Minter is named as UFV's first chancellor.
- ✿ 2009 July 6 – Dr. Mark Evered, UFV's fifth leader, begins his first term as president and vice-chancellor.
- ✿ 2009 October 1 - Global Development Institute and Centre for Social Research open.
- ✿ 2011 September 1 - Second master's degree launched - Master of Social Work.
- ✿ 2001 September 2 - UFV welcomes Dr. Lenore Newman as our second Canada Research Chair (Food Security and Environment.)
- ✿ 2012 October 1 - Clearbrook Centre opens
- ✿ 2013 January 1 - Bachelor of Global Studies launches
- ✿ 2013 March 30 - Women's volleyball wins national championship!
- ✿ 2013 October 25 - UFV men's and women's golf teams win national championships!

**April 1, 2014 – Happy 40<sup>th</sup> Birthday, UFV!**

More stories and photos can be viewed at <http://40.ufv.ca/>

“There are two ways of spreading light; to be the candle or the mirror that reflects it.” Edith Wharton

“Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid.” Albert Einstein

***Thank you for joining us to celebrate this special recognition of student achievements!***

“And those who are wise shall shine like the brightness of the sky above...”  
Daniel 12:3





The University of the Fraser Valley is a comprehensive, regional post-secondary institution that enrolls more than 15,000 students per year and is larger than half the universities in Canada. Nestled in the beautiful Fraser Valley just east of Vancouver, British Columbia, UFV has campuses in Abbotsford, Chilliwack, and Mission, a regional centre in Hope, and a growing presence in Chandigarh, India.

UFV has been serving the educational needs of the Fraser Valley since 1974 and is celebrating 40 years of growing innovation, locally and beyond.

UFV focuses on teaching excellence, with the highest priorities for research being to support teaching and to address local issues and regional needs. Faculty, staff, and students are engaged in a significant number of research projects that both enrich the environment of the university and contribute to the development of the Fraser Valley region.

