

### Academic Perspectives on Why Sustainability Development Matters

Two of the newest members of UNB's Faculty of Management have collaborated on two successful 2019 publications. Dr. Azam Shamsi, a member of the finance area who joined the faculty in 2018, and Dr. Alireza Tajbakhsh, a member of the quantitative methods area who joined in 2019. The two have been collaborating on publications (including a textbook) since 2009 when they were both master's students at Sharif University (Department of Industrial Engineering). They continued their collaboration at the DeGroote School of Business, McMaster University, where they completed PhD programs. Reunited this year at UNB, they are celebrating two new collaborative research publications:



*Dr. Alireza Tajbakhsh and Dr. Azam Shamsi*

- Tajbakhsh, A., & Shamsi, A. (2019). "A facility location problem for sustainability-conscious power generation decision makers." *Journal of Environmental Management (JEMA)*, 230, 319-334.
- Tajbakhsh, A., & Shamsi, A. (2019). "Sustainability performance of countries matters: a non-parametric index." *Journal of Cleaner Production (JCLP)*, 224, 506-522.

In these studies, Azam's analytical and programming skills complimented Alireza's theory development standpoint in the context of sustainability development, where the above empirical studies investigated micro-level (the first study) and macro-level (the second study) considerations of sustainable initiatives.

In the JEMA article, to design a supervisory framework that measures the sustainability performance of fossil fuel power plants, they developed a double bootstrap data envelopment analysis model with undesirable factors in the first phase. They then used the obtained bias-corrected efficiency estimates in the second phase to establish sustainability-based policies in the context of facility location problems. In the JCLP paper, they concentrated on the macro-level performance measurement of countries through a sustainability-conscious lens. Their methodological objective was to develop a non-parametric frontier model in the presence of undesirable integer-valued indicators which constructs a nationwide sustainability composite index.

For this issue, we are catching up on the exciting research awards, grants and projects received by the University of New Brunswick researchers, from October 1st, 2018 to October 31st, 2019.

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## University Research Scholars 2019 (1 of 3)

The award of University Research Scholar is intended for University of New Brunswick researchers who have demonstrated a consistently high level of scholarship, and whose research is, or has the potential to be, of international stature. The award shall honour leading researchers at the University. Recommendations for this award are made by a selection committee and approved by the Board of Governors.

### Dr. Stephen Heard, Faculty of Science

Dr. Stephen Heard is a Professor in UNB's Department of Biology, where he has been appointed since 2002. Dr. Heard grew up in Ontario, completed his PhD in 1993 at the University of Pennsylvania, and held Killam and E.B. Eastburn postdoctoral fellowships at the University of British Columbia. Before joining the faculty at UNB, from 1995–2002 he held a faculty position at the University of Iowa.

Dr. Heard is an internationally recognized researcher in the field of evolutionary ecology. Over his career, he has made important contributions in a wide range of research areas. He made major early contributions to the use of patterns in the shape of evolutionary trees to explore ecological controls on speciation and extinction rates. He has contributed both theoretical and empirical studies of interspecies interactions that arise when one species processes resources into a form usable by another – as happens, for example, among insects and other invertebrates inhabiting streams and rivers. He has explored the ecology underlying evolutionary changes in diet specialization in plant-feeding insects, with a view to understanding the evolution of insect diversity. Most recently, he has worked to understand the ecology of insects that damage Canadian forests – both native and invasive species. This work involved international networks of collaborators and also students – both graduate and undergraduate – here at UNB.

Dr. Heard has published 80 peer-reviewed scientific papers, and a book (*The Scientist's Guide to Writing*) that has been widely praised for its value in training new generations of researchers. His work has been supported by grants and contracts from NSERC, the US National Science Foundation, MITACS, Parks Canada, the Canadian Forest Service, and a wide variety other agencies. He and his students and collaborators present research at many national and international conferences (35 presentations in the last 3 years alone). In addition to his own research, Dr. Heard serves his research community as Associate Editor for *The American Naturalist*, one of the pre-eminent journals in his field, and for *FACETS*, a new Canadian open-access journal. He is Vice President (and President-elect) of the Canadian Society for Ecology and Evolution, the national society for researchers in ecology and evolution, and he has served as Department Chair in Biology (5 years in total) and as Acting Dean of Science (1 year). Finally, his blog, *Scientist Sees Squirrel*, combines advice and support for early-career researchers with science outreach to general public. *Scientist Sees Squirrel* won the 2018 "People's Choice Award" as

Canada's best science blog, from the Science Borealis blogging network and the Science Writers and Communicators of Canada.



*Dr. Stephen Heard while visiting Westman Islands of Iceland*

## University Research Scholars 2019 (2 of 3)

### Dr. Danielle Bouchard, Faculty of Kinesiology

Dr. Bouchard has an undergrad in Physical Education from the Université de Moncton, an M.Sc. from the Université du Québec à Trois-Rivières in Exercise Sciences and a PhD from the Université de Sherbrooke in Gerontology. She completed two post-doctoral fellowships: the first one in Epidemiology at Queen's University, and the second one in Endocrinology at the Université de Sherbrooke. The main focus of her research relates to clinical exercise physiology to evaluate the impact of regular exercise on chronic conditions, especially in people living with obesity and older adults.

She has contributed to research in several ways since she started her academic career in 2011, despite taking two academic years for parental leave. She is known in her field locally, nationally, and internationally. Dr. Bouchard is already the author of over 50 research papers and is regularly invited to speak at international conferences. As demonstrated in her curriculum vitae, she has demonstrated a consistent track record of attaining research funding. As both a principle and co-investigator, she has successfully secured funding totaling \$3,122,626 in the past seven years, with 70% of it since arriving at the University of New Brunswick (UNB) in 2015.

Dr. Bouchard supports graduate students and undergraduate students. Since she started her career as an academic in 2011, she has been conducting 11 directed studies courses with undergraduate students, another 10 with graduate students, and she has supervised five honours students. At the graduate level, eight students have completed degrees under her supervision, including

one PhD. Currently, she is supervising two M.Sc. students and one PhD student; she will begin overseeing one additional master's student and one doctoral student in the fall semester. Overall, since 2011, she supervised a ratio of 1.85 graduate students per year and 2.28 undergraduate students per year. Out of her seven M.Sc. students that graduated under her supervision, they took an average of 1.9 years to complete their degree. Another fact that she is proud of is that out of the 13 graduate students she had the pleasure to supervise or currently supervising, 69% of them obtained external funding through peer-review competitions.

Dr. Bouchard enjoys sharing her research in the scientific and general community. Her work was presented across the globe in 107 occasions in a variety of scientific meetings. When possible, she offers her time for media interviews or local presentations. She has been able to speak in the media on more than 50 occasions.

Because of her background in physical education, she also likes to be involved in the public school system. She currently sits on the Anglophone School District Health Advisory Committee, and she also coaches a local Timbits soccer team.

Most of the research studies that she leads are related to exercise and health. She likes to find ways to encourage people who are currently inactive to increase their physical activity level. She wants to improve not only their functional health, but also their metabolic and social health.



*Dr. Bouchard (fourth from the right) during a weekly lab meeting explaining how to format a poster for an upcoming meeting.*

## University Research Scholars 2019 (3 of 3)

### Dr. David Wagner, Faculty of Education

Dr. David Wagner, a member of the University of New Brunswick's Faculty of Education since 2004, is recognized and respected nationally and internationally for his scholarship in the field of mathematics education. Driven by the overarching goal of promoting an appreciation for the sociopolitical dimensions of mathematics teaching and learning, Dr. Wagner's research draws attention to the pivotal role played by language in the learning, teaching, and doing of mathematics; the culture dimensions of mathematics discourses, including mathematics education with/for indigenous peoples; and the necessity of structuring discourses on mathematics in mathematics textbooks and classrooms in ways that promote equitable social relations.

In his 14 years at UNB, Dr. Wagner has contributed 28 refereed journal articles, 4 co-edited books, 53 refereed and invited conference papers, 8 textbooks, and 2 special issues of refereed journals, in addition to many other forms of research sharing. He is regularly invited to present around the world and is respected for his unique perspectives and his deep understanding of the linkages among culture, language, and mathematics. Recently, he was selected by UNESCO to serve as one of three mathematics experts from around the world to participate in the development of guidebooks to support the incorporation of concepts of peace, sustainable development, and global citizenship into curricula and textbooks.

Dr. Wagner's leadership in his field is exemplified by his editorial roles for two of the highest ranking journals in his field, *Education Studies in Mathematics* and *For the Learning of Mathematics*.

In addition to his publications, presentations, and editorial roles, Dr. Wagner has been a mentor to young researchers, several of whom

have gone on to develop strong research careers of their own, winning research awards and developing research partnerships around the globe.

As a University Research Scholar, Dr. Wagner will be embarking on an important and timely investigation on how newcomers, arriving with diverse backgrounds and experiences, are positioned within mathematics classrooms. This project, involving collaborations with scholars in Sweden and the US, will continue the important international capacity building and networking initiated and enlarged in his earlier studies.



*Dr. Wagner (second from the right): The Mahatma Gandhi Institute of Education for Peace and Sustainable Development (a UNESCO agency) brought Dr. Wagner to Gangtok, Sikkim three times in 2018 to support the local textbook authors who were writing a new set of mathematics textbooks for Sikkim to be oriented around peace and sustainable development. This photo is from a school visit David had with the textbook authors (at the Phenzong Government Primary School in Sikkim).*

## Research Success Stories

### The UNB Saint John Collaboration for Evidence-Informed Healthcare

A Joanna Briggs Institute Affiliated Group was recently named 'Centre of Excellence' by the Joanna Briggs Collaboration international network.

The Centre, housed in the Department of Nursing & Health Sciences on the Saint John campus, has a partnership with the Joanna Briggs Institute based out of the University of Adelaide, Australia. The Institute is a worldwide collaboration whose aim is to promote the synthesis, transfer, and utilization of best research evidence to improve healthcare outcomes globally. "As one of 29 worldwide Centres of Excellence, our nursing faculty are engaged locally, nationally, and internationally to promote evidence informed approaches to the delivery of healthcare policies and practices," says Dr. Lisa Keeping-Burke, Director of the Centre and Associate Dean of Health Research in Nursing & Health Sciences at UNB Saint John. "Our local JBI Centre of Excellence is now established and recognized as a prestigious hub of expertise, through which high-quality systematic reviews of evidence are being conducted."

The local Centre of Excellence features 10 faculty researchers and a librarian from UNB Saint John, and two faculty from the Université de Moncton. Having a Centre of Excellence at UNB Saint John is exciting and allows for academic and clinical partnerships to develop and evolve. Faculty who lead the review teams typically have completed a weeklong training workshop on using the JBI methodological approach for synthesizing evidence. Other researchers with specific expertise or interests often collaborate with members of various review teams. The Horizon Health Network has now officially joined our Centre as a clinical partner in this growing initiative. Currently there are five systematic reviews underway and two other completed and published in the *JBI Database of Systematic Reviews and Implementation Reports*. One review examined the experiences of nurses and patients with handover shift reports, and another investigated the nursing student experience with residential aged care facilities as learning environments.

The *UNB Saint John Collaboration for Evidence-Informed Healthcare: A Joanna Briggs Centre of Excellence* is the second of its kind in Atlantic Canada, with the other located at Dalhousie University in Halifax. If you are interested in receiving training in the JBI methodology and/or collaborating with our Centre, please contact Dr. Keeping-Burke, who is a certified trainer and offers yearly workshops and training on campus.



Back Row (L-R): Dr. Karen Furlong, Dr. Alison Luke, Emily Gregg, Dr. Dan Nagel, Dr. Lisa Keeping-Burke (Director), Alex Goudreau  
Front Row (L-R): Dr. Chola Shamputa, Loretta Waycott, Dr. Rose McCloskey (Deputy Director)

### Capturing Crime

In 2019 Greg Marquis (URS, 2018-20) continues to take history into the public domain with the second updated and expanded reprint of *Truth & Honour*—the story of the Oland murder trial that made the *Globe & Mail* bestseller list (2017) and with a co-authored book on New Brunswick crime cases: *Capturing Crime*.

Capturing Crime (Canada: New World Publishing, 2019)  
ISBN - 10:1895814979



## Research Success Stories

### Exploring Patent Remedies for Complex Products: Professor Norman Siebrasse Releases New Book

Professor Siebrasse has edited a new book, *Patent Remedies and Complex Products: Toward a Global Consensus*, released this summer by Cambridge University Press. The book represents over two years of collaboration among twenty legal scholars and presents an international consensus on the use of patent remedies for products such as smartphones and computer networks. It covers monetary remedies (reasonable royalties, lost profits, and enhanced damages), injunctive relief, and the effect of competition laws and agreements to license standards-essential patents on terms that are 'fair, reasonable and non-discriminatory' (FRAND). Where national values and policy make consensus difficult, the contributors discuss the nature and direction of further research required to resolve disagreements.



*Professor Norman Siebrasse*

Professor Siebrasse was instrumental in the completion of this lengthy research project. He served as a subject matter expert and member of the International Patent Remedies for Complex Products (INPRECOMP) steering committee. Alongside Jorge Contreras (S.J. Quinney College of Law, University of Utah), Siebrasse was responsible for assembling the team of global experts in intellectual property.

"A key objective of the project was to identify areas of disagreement which require further research," said Siebrasse. "It was therefore important to attract participants from a variety of different jurisdictions and legal traditions. On the other hand, a great deal of the litigation and important legal developments have taken place in the United States, and our group had to reflect that as well. We ended up with participants from eleven different countries, including all the major patent litigation jurisdictions."

The researchers held a series of workshops in the UK and the US before splitting into smaller working groups to develop the individual chapters. After collaboration through email exchange, the team completed their initial drafts of each chapter. These drafts were dissected by a panel of esteemed judges & leading practitioners, who provided practical feedback based on their experience in complex products litigation.

"At the first workshop participants volunteered to be involved in the drafting of one or more chapters. A lead author for each chapter was responsible for coordinating the drafting process. The process was a bit easier because we were not trying to achieve consensus on every point; if there were clear points of disagreement, we would simply identify those as areas needing further research. I was surprised as the degree of consensus we were able to achieve in some very contentious areas, such as injunctive relief. But whether we were developing consensus, or identifying precisely our points of disagreement, there was of course a lot of back and forth discussion."

*Patent Remedies and Complex Products: Toward a Global Consensus* is available for purchase as a hardcopy and available as an open-access pdf through [Cambridge University Press](https://www.cambridge.org/9781107051111). Please visit <https://bit.ly/2YMEGN> for access.

### Marie-France Noella (Jutras) Jones

Marie-France successfully defended her PhD thesis at UNB in August 2019, with four additional publications to her credit. She is a very dedicated scholar, with tasks related to research, teaching, administration, and providing services. As such, she has taken on many roles in learning and preparing research activities, as an instructor in undergraduate courses and as an active member in undergraduate and graduate student associations, especially as President of ForEMs Graduate Student Association. Her technical skills refer to watershed soil and site classification, hydrological modelling, digital soil mapping, and statistical analyses, including R programming in GIS. In combination, she is the senior author in 7 of her 10 publications, she received 2 major ESRI awards (2016) in recognition of her soil trafficability research, and she is a member of the 2017 CIF Forest Management Group Achievement Award. In addition, she made presentations at 8 conferences, with one first- and one second-place poster presentations.



*Marie-France Noella Jones*

In terms of industriousness, Marie-France assisted with the development and delivery of 3 undergraduate ForEM laboratory courses (FOR 2505, FOR 3456, & FOR 3457) from 2009 to 2019, and prepared herself for a teaching career with UNB's Diploma in University Teaching certification (2015). Given this background, she received an almost uncontested appointment as Environmental Science Instructor (Soils, GIS, Research Methods) at the Keyano College in Fort McMurray, Alberta, where she now works since August 2019.

## Research Success Stories

### Dr. Murshed Chowdhury

Dr. Chowdhury is an Associate Professor of Economics at UNB Fredericton. He has expertise in the area of Immigration and Open Economy Macroeconomics. Dr. Chowdhury has received several research grants from the New Brunswick Innovation Foundation (NBIF) to examine the retention and labour market integration of immigrants in New Brunswick. He is one of the two recipients at UNB of the NBIF Social Innovation Research Fund to examine the impact of training received by the immigrants in their successful integration in the province. The project is expected to outline better policies for integration of various groups of immigrants upon their arrival in New Brunswick.

In a collaborative work, Dr. Chowdhury also examines how female immigrants from the Middle East and North Africa (MENA) are integrating into the Canadian labour market despite their low labour force participation in their home countries. Dr. Chowdhury is a recipient of two Mitacs internship awards for the year of 2019. Students under the Mitacs awards conducted various studies examining how institutions play important roles in determining the flow of international migration within wealthy countries.

Dr. Chowdhury is actively involved in supervising graduate students. One of his recently supervised projects with Mr. Erfan Mahmood Bhuiyan, a recent graduate student of UNB, titled, "Macroeconomic Variables and Stock Market Indices: Asymmetric Dynamics in the US and Canada", has been accepted for publication in the *Quarterly Review of Economics and Finance*, an Elsevier publication.



Dr. Murshed Chowdhury

In this paper, the authors examined how certain macroeconomic variables influence different sectors of the stock market differently in the US and Canada. Using monthly data over the 2000–2018 period and applying the cointegration technique, Dr. Chowdhury & Mr. Bhuiyan have modeled the relationship between industrial production, money supply, long-term interest rate, and different sector indices. Their research includes many sectoral indices, including energy, financials, real estate, industrial, healthcare, consumer discretionary, and consumer staples as well as composite S&P and TSX indices. Their findings based on this study suggest that there is a long-term relationship between the macroeconomic variables used and the composite and sectoral stock market indices for the US but not for Canada. The change in the domestic macroeconomic variables has strong association with stock market indices in the US. However, Canadian indices do not show any association with domestic macroeconomic variables. Moreover, they find the US money supply and interest rate can explain the Canadian stock market, but the opposite does not exist.

In effect, their research findings have important insights for private investors, pension funds, and governments, as long-term investors often base their decision to invest in equities on the stated macroeconomic variables. Dr. Chowdhury is currently working on testing the validity of their models for other developed and emerging economies with strong trading relationships.

### Dr. Virginia Hill

In the Department of Humanities and Languages, Dr. Virginia Hill is one of our most productive researchers. Her work in linguistics has taken her around the world and includes opportunities to teach graduate students in international settings. This year alone she has published three peer-review articles and was selected to present at three international conferences. A list of her recent work can be found below.

#### Papers in peer reviewed journal/volume:

- Alboiu, G. & V. Hill. 2019. "Narrative Infinitives, Narrative Gerunds, and the Features of the C-T System." *Journal of Historical Syntax* 3(3): 1-35.
- Hill, V. & A. Mardale. 2019. "Patterns for differential object marking in the history of Romanian." *Journal of Historical Syntax* 3(5): 1-47.
- Hill, V. 2019. "Mapping the speaker's mind." In Anne Breitbarth & Karen DeClercq (eds), *Mapping linguistic data*. Online volume, Ghent University.

#### Conferences with selection committees:

- Pirvulescu, M.; V. Hill et al. "The acquisition of adverbs in trilingual children." LSRL 49, University of Georgia, Athens, 2-4 May, 2019.
- Alboiu, G. & V. Hill. "Narrative infinitives, narrative gerunds and the C-T feature transfer." AICED 21, University of Bucharest, 6-8 June, 2019.
- Hill, V. & A. Mardale. "Differential object marking in Old Romanian and language contact." 2nd International Conference on Language Contact in the Balkans and Asia Minor. Aristotle University of Thessaloniki, 8-10 November, 2019.



Dr. Virginia Hill

## Research Success Stories

### Dr. Rongxing Lu

Dr. Lu received his PhD degree in electronic and computer engineering from the University of Waterloo in 2012, and his PhD degree in computer science from Shanghai Jiao Tong University in 2006. Before joining the UNB Faculty of Computer Science (FCS) as an Assistant Professor in August 2016, he also worked as an assistant professor at the School of Electrical and Electronic Engineering, Nanyang Technological University (NTU), Singapore for more than 3 years (from April 2013 to August 2016). He was promoted to an Associate Professor in 2019. In 2017, Dr. Lu was the Winner of the 2016-17 Excellence in Teaching Award in FCS. In 2018 and 2019, Dr. Lu was consecutively nominated as the Allan P. Stuart Award for Excellence in Teaching in UNB.

His research interests lie in applied cryptography, privacy enhancing technologies, and IoT-Big Data security and privacy. His research has gained him a national and international reputation in the area of cyber security. He was awarded the most prestigious “Governor General’s Gold Medal” at University of Waterloo in 2012, and won the 8th IEEE Communications Society (ComSoc) Asia Pacific (AP) Outstanding Young Researcher Award in 2013. Dr. Lu was also the recipient of 11 best (student) paper awards from several reputable journals and conferences. Dr. Lu has published more than 330 research papers, most of them in top-level journals, including IEEE Transactions on Information Forensics and Security, IEEE Transactions on Dependable Secure Computing, IEEE Transactions on Computers, IEEE Transactions on Industrial Informatics, and IEEE Internet of Things Journal. Based on the statistics of Google Scholar in November 2019, Dr. Lu has received 17,200+ citations with H-index 64. Due to the high H-index, he has been listed by Guide2Research as one of the Top-1000 scientists in computer science and electronics fields around the world in 2019.

Dr. Lu is well regarded by the wireless communications and network security researchers, particularly those in the area of security and privacy in VANETs, where he is one of the world’s leading researchers. In December 2017, he was elected to be the Vice-Chair of IEEE ComSoc Communications & Information Security Technical Committee, which is the only IEEE Communications Society Technical Committee on security. The fact that he has served on the editorial board of many International Journals and Journal special issues, and has participated in more than 30 program committees for leading international conferences also indicates that he has indeed achieved the international visibility for his high-quality research. In May 2019, when Dr. Lu delivered a distinguished keynote speech on “Secure Automated Valet Parking: A Privacy-Preserving Reservation Scheme for Autonomous Vehicles” in one IEEE ICC Workshop, the meeting room was full.

Dr. Lu has developed strong collaborations with several universities around the world since starting with UNB in August 2016. These collaborations have enabled the formation of his research group at FCS, which pursues high-quality research in cyber security and focuses on transferring technology from research to industry. In ACM TURC (Turing Award Celebration Conference) 2019, Dr. Lu and his collaborators presented their research paper “Adversarial Attack Against Scene Recognition System for Unmanned Vehicles,” which identifies that adversarial example attacks may pose risks to the unmanned scene recognition system in unmanned vehicles, and provides the corresponding counter measurement to improve the robustness of the classification model. Due to its novelty and practicability, the paper received the Best Paper Runner-up Award in ACM TURC 2019.

Up to now, Dr. Lu has received funding as a PI from UNB’s University Research Fund, the Harrison McCain Foundation, NBIF, Lockheed Martin Cybersecurity Research Fund, and NSERC Discovery Grant. Currently, as a member of [Canadian Institute for Cybersecurity \(CIC\)](#), Dr. Lu is also actively working with NRC and Siemens on secure smart grid and secure smart Healthcare projects.



*Dr. Rongxing Lu*



## Research Success Stories

### Human Papilloma Virus (HPV) risk and intention to use catch-up HPV vaccinations.

Early this year, Dr. Busolo received a Beatrice Hunter Cancer Research Institute New Investigator award (\$49,831) to examine ways to improve cancer screening for immigrant and refugee adults in New Brunswick. With the current increase in immigrant and refugee populations in the province and their chances of getting cancer in future, his study will yield findings that will be useful in improving cancer screening efforts for these populations.

Most recently, in July 2019, Dr. Busolo received a Social Sciences and Humanities Research Council Insight Development Grant (SSHRC IDG) (\$61,731) to carry out a study aimed at improving newcomers' (immigrants and refugees) wellbeing through nature-based approaches. The

aims of this project are: to evaluate existing nature-based programs at the Immigration Services Association of Nova Scotia (ISANS) and to engage newcomers at ISANS, Immigration Francophone Nouvelle-Écosse (IFNÉ) and the African Diaspora Association of the Maritimes (ADAM) to develop a pilot nature-based program to promote their wellbeing.



*Dr. David Busolo*

Dr. Busolo was invited to collaborate with other researchers on a study that will examine cumulative lifetime violence and men's health promotion processes (NBHRF; \$34,973) and a qualitative study on the experiences of breast cancer survivors in Quebec. Because of the importance of his research, Dr. Busolo has been invited to speak at local (NBHRF Conference; 2019) and regional meetings (CIHR Stakeholders meeting; 2019).

### Jeff Munde, Department of Culture and Media Studies

Over the past year, Jeff Munde, instructor in the Media Arts & Cultures program, has lent his expertise in game design to three different Fredericton companies. Collaborating on research funded by the National Research Council of Canada's Industrial Research Assistance Program, Mr. Munde most recently examined user retention strategies with Sapien Technology Inc. The company's wellness app, [LightDogs](#), encourages users to put down their phones. Time away from their device produces collectible dogs. If the device is touched during the time set, the progression toward acquiring the dog is lost. Sapien had no trouble getting users to try the app, but maintaining interest was more difficult. The research collaboration between Mr. Munde and the company led to a solution that focused on game design fundamentals – the same fundamentals he teaches in his courses in game design in the Faculty of Arts at UNB. It also built on the previous research Mr. Munde did on first time user experience with The Black Arcs, another IRAP-funded collaboration with a local tech company in 2018.

Currently, Mr. Munde is contributing research to Mav Synergetic, who are developing a suite of games to support non-profit organizations – his third IRAP project in less than two years. In addition to his work with Fredericton entrepreneurs, Mr. Munde is completing his own research on the commodification of participatory production in video games for his Masters in Interdisciplinary Studies, and is a founding member of the Games and Culture Research Group at UNB.



*Jeff Munde*

## Research Success Stories

### Emily Ruskovich wins International Dublin Literary Award

Ms. Ruskovich wins the [International Dublin Literary Award](#), the world's largest literary prize awarded to a single novel.

Emily Ruskovich, a UNB master of arts ('09) graduate, won the award for her debut novel, *Idaho*. The prize is worth €100,000 and has previously been awarded to such notable writers as Nobel laureate Orhan Pamuk.



Ms. Emily Ruskovich

Ms. Ruskovich's novel was selected from a list of 141 books, which were nominated by libraries in 115 cities from 41 countries. *Idaho* was nominated by a public library branch in Bruges, Belgium.

*Idaho*, published in 2017 by Random House, tells the haunting and mysterious story of a young couple, Jenny and Wade, who purchase a piece of wooded land in the Northern Idaho mountains. As the years pass, the couple has two children, May and June. Winters in the mountains are isolated, lonely and less than ideal. Then something happens that changes their lives forever.

Ms. Ruskovich's short stories have appeared in various publications, including *Zoetrope*, *One Story* and the *Virginia Quarterly Review*. She is also the winner of the 2015 O. Henry Prize and a master of fine arts graduate of the Iowa Writer's Workshop at the University of Iowa. She currently teaches creative writing in the master of fine arts programme at Boise State University.

For the full article, please visit [UNB alumna wins prestigious international literary award](#).

### Diana Loomer, M.Sc. P.Geo.

Diana Loomer is a PhD candidate with the Department of Civil Engineering. The focus of her research is understanding the occurrence of methane, the main constituent of natural gas, in private well water across southeastern New Brunswick (NB). Unconventional oil and natural gas (ONG) development involves drilling and hydraulic fracturing of low permeability hydrocarbon-bearing geological units. While NB has a long history of ONG extraction, the development of these new techniques means it may be possible to extract ONG from shale rock. However, due in part to concerns about groundwater contamination, an indefinite moratorium on hydraulic fracturing was imposed in NB in 2014 and remains in place today. Ms. Loomer has been analyzing the data from a baseline groundwater study that sampled more than 400 private water wells in areas of unconventional ONG exploration or development in NB. This year, she published a paper in the *Science of the Total Environment* journal introducing the use of the latest in multivariate and permutational statistical techniques, coupled with geospatial analysis, to aid the interpretation of highly variable groundwater chemistry datasets. She has also published a paper demonstrating the reproducibility of chemistry data from private wells, successfully linking variability in methane in well water to differences in the relative contributions of different hydrogeochemical zones. Currently, Ms. Loomer is focused on comparing the isotopic signature of natural gas from ONG reservoirs in NB to those observed in shallow groundwater.

Ms. Loomer is the recipient of an NSERC Alexander Graham Bell Canadian Graduate Scholarship, an O'Brien Foundation Fellowship, and the UNB Dr. William S. Lewis Doctoral Fellowship. Her work research is being conducted under the supervision of Dr. Kerry MacQuarrie and Dr. Tom Al (University of Ottawa).



Diana Loomer—Sampling

## Research Success Stories

### The Fredericton Downtown Community Health Centre, *by Tracey Rickards*

The Centre has not always been as big, as comprehensive, nor as connected as it is today. The idea of creating a health centre that was nurse-led and nurse-managed and would increase access to healthcare for vulnerable populations and, at the same time, create opportunities for nursing students and other allied health discipline students to engage in experiential learning, began in 2000. The clinic is co-managed by a Faculty of Nursing affiliated nurse and a nurse-manager from the local health authority. We provide care to diverse populations, have students from multiple professional and academic schools completing practicums, and engage in transformative research to improve the health outcomes of our clients.

An important example of the research we engage in is the **Hepatitis C Prevention, Support and Research Program**. The Hepatitis C project was initially a Public Health Agency of Canada (PHAC) funded research grant for two years (April 2011–April 2013). The project, titled “Hepatitis C Prevention, Support and Research Program” allowed for provision of education and support services to those living or affected by Hepatitis C Virus (HCV). Eventually, project funding was extended and focused on HCV prevention/education and HIV co-infection. Although the project funding came to an end, we ensured that the HCV initiative was self-sustaining.

The ECR is encouraged to develop a culture of research in which employees see the benefit of, and participate in, research that ultimately informs practice. Research generated from the FDCHC generally has a goal of addressing specific client needs and is frequently community-based, with patient engagement. A sampling of some of the projects are:

1. **Evaluation of the role of the NP in New Brunswick.** Investigating the role of the NP and the experience of patients’ receiving healthcare from NPs, provided confirmation of just how important and well received the NP role is.
2. **Diabetic Soles.** Using foot care as a tool for engagement with vulnerable seniors with diabetes, we discovered that many low-income seniors were living with multiple health problems, were isolated and lonely.
3. **An analysis of the relationship between housing status, service usage, and health outcomes in a small city community health centre?** The purpose of the study is to collect information about the clients’ housing and health status and the pattern of service usage at the FDCHC.
4. **PROGRESS – patient centered, upstream interventions to improve COPD care.** To identify COPD early, allow for early treatment, provide patients with peer-support to encourage self-management, and ultimately improve the long-term life expectancy, quality of life, and decrease hospital usage.
5. **Collective Case Study Review of the Bernese Method: What Can We Learn from Our Clients?** The outcome of the research gave us a richer understanding of the Bernese Method and opportunities for improving client experience.

What is really impressive and important about having an ECR on site at the FDCHC is that staff who would not normally be involved in research, are becoming more comfortable with the idea of inquiry and seeking answers to questions that ultimately inform practice and improve patient outcomes.



*Tracey Rickards (right), Faculty of Nursing, receiving the Award from the Patient's Den for research on COPD.*

## Research Success Stories

### GGE Grad Student Wins Award at Satellite Navigation Conference

A UNB Geodesy and Geomatics Engineering graduate student distinguished himself at The Institute of Navigation's Global Navigation Satellite Systems Plus 2019 meeting held in Miami, Florida, this past week.

Ivan Smolyakov, a Ph.D. student working with Prof. Richard Langley, received a best presentation award for his paper entitled "Resilient Multipath Prediction and Detection Architecture for Low-cost Navigation in Challenging Urban Areas." Besides Prof. Langley, the paper was co-authored by GGE postdoctoral fellow Mohammad Rezaee.



*Ivan Smolyakov*

Navigating in big cities with GPS and other global navigation satellite systems (GNSS) can be difficult as the signals from the satellites can be frequently blocked by buildings or reflected off them, causing interference -- a phenomenon called multipath. Mr. Smolyakov's work is helping to alleviate this problem allowing vehicles, even those with relatively inexpensive GNSS receivers, to accurately navigate concrete canyons.

The ION GNSS+ meeting, which is held every year, is the world's preeminent gathering of researchers and manufacturers working in the field of satellite navigation. Over 300 papers in several parallel sessions were presented over three days to the more than 1000 GNSS engineers and scientists from industry, academia, and government agencies in attendance.

For this story and more please visit [GGE News](#).

### Dr. Masooma Ali, awarded the Governors General's Gold Medal

Dr. Ali was awarded the Governor General's Gold Medal this year. Her PhD dissertation is in one of the most challenging areas of theoretical physics, the search for a unified theory of gravitation and quantum mechanics. The search for such a theory, referred to as "quantum gravity," began in the mid-20<sup>th</sup> Century. Since then it has occupied some of the best minds in the world, including Stephen Hawking and Roger Penrose. It is an area in which it is difficult to make significant progress, and correspondingly difficult to publish; new insights are hard to attain, and even harder to incorporate into a consistent mathematical framework.

Dr. Ali's thesis, and five related publications, were significant enough that she was awarded a highly competitive NSERC postdoctoral fellowship. She will take up this fellowship at the Perimeter Institute for Theoretical Physics in Waterloo, which is among the top few institutions in the world for foundational science. Before completing her thesis, Dr. Ali held the Bryce DeWitt pre-doctoral fellowship at the same institution.



*Dr. Masooma Ali*

### Dr. Wendy D. Churchill, Department of History

Dr. Churchill was awarded a 2019-2020 Associated Medical Services (AMS) History of Medicine Project Grant for her research project "Health and Medicine in the Maritimes, circa 1765-1830: Knowledge, Networks, and Practices in an Age Revolution and Loyatism." Her project aims to capture the dynamic and migratory nature of peoples and of medical knowledge, marketplaces, and practices within the colonies of Nova Scotia, New Brunswick, Cape Breton Island, and Prince Edward Island during the period of the American and French Revolutionary Wars and the Napoleonic Wars. It explores how medical services were delivered and whether practitioners adjusted their practices of care based on factors such as geo-politics, demographics, epidemics, and climate/weather. In addition, her project considers the roles of gender, ethnicity/race, and socio-economic status and investigates the manner in which Atlantic migrations and networks (i.e. social, familial/kinship, cultural, intellectual, occupational/professional, and economic) influenced individuals' encounters with medicine, their perceptions of health, and their dissemination of health-related knowledge.

## Research Success Stories

### Dr. Sana Rizvi, Faculty of Business

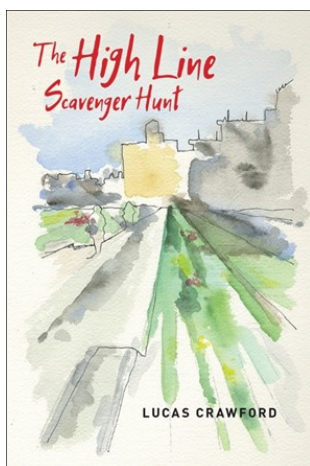
Dr. Rizvi is an Assistant Professor (tenure-track) of Organizational Behavior and Human Resource Management within the Faculty of Business at the University of New Brunswick, Saint John. She received her PhD in Industrial and Organizational Psychology from University of Waterloo in 2016. Prior to joining UNBSJ in August 2017, Dr. Rizvi was a Post-Doctoral Research Fellow in the Department of Psychology at York University.

Dr. Rizvi's research interests lie in the areas of organizational justice, workplace conflict resolution, and occupational health and safety. To date, her research has been published in numerous peer-reviewed journals, including *Social Psychological and Personality Science*. She has also presented her research at several peer-reviewed conferences, including the Academy of Management.

Dr. Rizvi was recently awarded the Social Sciences and Humanities Research Council's (SSHRC) Insight Development Grant for her work on offender apology as a constructive response to interpersonal transgressions at the workplace. To elaborate, after a transgression, offenders can offer an apology to mitigate the negative consequences of their actions. Indeed, empirical findings indicate that apologies are immensely beneficial for individuals (i.e., facilitate forgiveness; Bachman & Guerrero, 2006) as well as organizations (i.e., enhance leadership effectiveness; Tucker et al., 2006). Despite the fact that apologies yield positive outcomes, some offenders choose to withhold them. This is because apologies elicit fears that offenders want to avoid (Okimoto et al., 2013). Dr. Rizvi's proposed research will seek to enhance the understanding of the factors that shape transgressors' responses by investigating whether mindfulness, which is defined as "an awareness that arises through paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (Kabat-Zinn, 1994, p. 4), can foster offender apologies. It will draw on laboratory and field methodologies. Dr. Rizvi will use the opportunity arisen from the grant to teach a mixture of undergraduate and graduate students the skills necessary to conduct good quality research, thereby ensuring that another generation of academic and practitioners receive training in evidence based practices.



Dr. Sana Rizvi in Florence, Italy



### The High Line Scavenger Hunt

In August 2019, Lucas Crawford (English) launched his poetry book, *The High Line Scavenger Hunt*, on the elevated New York City public park that is the focus of the book. The arts programming team at the High Line park commissioned Lucas and two NYC artists to create alternative audio guides to the park, which visitors were able to listen to while moving throughout the park before the trio's readings and moderated conversation.

The [audio guides](#) have been archived.

## Professor Emeriti & Honorary Research Professor — Research Success Stories

### Paul Gendreau, Professor Emeritus

Professor Gendreau joined the psychology department, Saint John campus in 1990. With the support of his colleagues, the administration and particularly his students at UNB Saint John he continued his research/policy agenda based on the scientist practitioner model and the traditional evaluation ethos of helping individuals and agencies in need. In addition, the Criminal Justice Centre was created to assist in this endeavor. In sum, these activities further contributed to what has become known amongst academics and government policy makers in criminology and forensic psychology as the Canadian School of Rehabilitation, of which he was originally a co-founder in the 1980s. Gratifyingly, there have been three generations of science practitioners since then who have 'spread the word' on this issue in North America, parts of Europe, and the antipodes.

Since becoming professor emeritus in 2006, the above activities have been sustained with his colleagues as evidenced by the generation of 26 publications generally using meta-analytic techniques in the areas of 'what works' regarding offender treatment & prediction of criminal behaviour, criminal profiling, and the effects of prison life. His research on this latter topic, beginning in the mid-1960s, has been the source of considerable attention up to the present time. The most recent work (see 2019 references) has examined the effects of various forms of prison life (e.g., solitary confinement) on inmate's psychological adjustment within prison and upon post release and presented guidelines as to how to manage prisons in a more humane fashion.

Other recent research interests are documenting how 'fake news' occurs in corrections and abandoning the use of significance testing to make better sense of the utility of research findings for social policies. Lastly, since retirement, he has had the good fortune to have his work further recognized by being received as an Officer of the Order of Canada as well as granted awards from several academic organizations, universities, and governments.

#### References:

- Gendreau, P., & Goggin, C. (2019). "Solitary confinement and punishment: Effects on misconducts and recidivism." In D. D. Poleschek, A. Day, & C. Hollin (Eds.), *The Wiley Handbook of Correctional Psychology*. (pp.131-143). Hoboken, N.J., Wiley and Sons, Ltd.
- Gendreau, P., & Goggin, C. (2014). "Practicing psychology in correctional settings." In I. B. Weiner & R. K. Otto (Eds.) (4<sup>th</sup> Ed.), *The Handbook of Forensic Psychology* (pp. 759-795). Hoboken, N.J.: John Wiley Press.
- Gendreau, P., & Labrecque, R. M. (2019). "The effects of administrative segregation: A lesson in knowledge cumulation." In J. Wooldredge & P. Smith (Eds.), *Oxford Handbook on Prisons and Imprisonment*. (pp. 340-366) Oxford, UK: Oxford University Press.
- Morgan, R.D., Labrecque, R. M., Gendreau, P., Ramler, T. R., & Olafsson, B. (2017). "Questioning solitary confinement. Is administrative segregation as bad as alleged?" *Corrections Today*, 79, 18-22



Paul Gendreau, Professor Emeritus



David Frank, Professor Emeritus

### David Frank, Professor Emeritus

"After undertaking several years of research on the Canadian political cartoonist Avrom Yanovsky (1911-1979), I was pleased to be able to publish an extended article in the journal *Left History*, vol. 22, no. 1 (2018), pp. 37-87. This year I also completed a feature story for the popular history magazine *Canada's History*. At a research seminar at Cape Breton University last winter, I spoke about the life and work of my late friend and colleague Don MacGillivray (MA, UNB, 1971). In May, I presented a paper about public history at the Winnipeg General Strike Centenary Conference at the University of Winnipeg. In other work, I completed the transfer of the [Labour History in New Brunswick website](#) to its new home at the Provincial Archives of New Brunswick. I contributed commentaries to *The Globe and Mail*, *Telegraph-Journal*, *New Brunswick Media Co-op*, *Nova Scotia Advocate* and the *Acadiensis* Blog. I also continued to write occasional short fiction, including a story published in *The Nashwaak Review*."

## Professor Emeriti & Honorary Research Professor — Research Success Stories

### UNB Technique recognized the best universally for geoid determination, *by Ismael Foroughi*

The geoid is an equipotential surface which best approximates the Mean Sea Level (MSL) and can be determined globally or regionally from satellite, airborne, and terrestrial gravity, as well as topographical information. The geoid is used as the reference surface for heights (zero-height surface) over the land areas where heights are needed. There exist a few different theories and accompanying methodologies to determine the geoid as accurately as possible that are employed by different countries. To estimate the degree of correctness and the accuracy of the determined geoid the "1-cm Geoid Experiment Working Group," including well-known international scientists, provided a unique gravity data set in Colorado, USA, and prescribed a geoid computation experiment strategy for all the research groups around the world who were invited to participate. Twenty four groups from universities or governments participated in this experiment using their selected methodologies to determine geoid in the test area. The results of all groups were presented during the 27<sup>th</sup> general assembly of the International Union of Geodesy and Geophysics (IUGG) in Montreal in July 2019.

The UNB technique for geoid determination, called the Stokes–Helmert method, has been developed by the Gravity Research Group of the Department of Geodesy and Geomatics Engineering over the past 25 years. The group now consists of P. Vaníček, M. Santos, R. Kingdon, M. Sheng and I. Foroughi, but at least a dozen former graduate students, post-doctoral fellows and various visitors were members of the group. This technique was used by the Canadian Government Geodetic Survey to participate in the experiment. The submitted geoid models were evaluated in several different ways, including the comparison with a reference geoid model and the evaluation of the discrepancies with the control data set (GPS/Leveling points). The UNB technique was announced to have the best performance for geoid determination among the 24 participants in all evaluation criteria. The accuracy of the model presented by UNB technique agreed with the control data set at 1.83cm level whereas the closest one after the UNB model was almost 27% worse.

The UNB Stokes–Helmert technique was developed on the shoulders of many graduate students, post-doctoral fellows, and visiting scientists under the supervision of Professor Emeritus Petr Vaníček. The method is being developed further and has recently been modified to produce the most probable solution for the geoid as well as statistical uncertainties of such geoid model. The latest results of this research have been presented in the paper "[Sub-centimetre geoid](#)", written by I. Forougji and 7 co-authors and published by Journal of Geodesy.

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### Angus Hamilton, Professor Emeritus in GGE

This past summer Professor Hamilton published his World War II memoir titled *For King and Country: The Memoirs of a Radar Mechanic in the RCAF/RAF during World War II*. Angus was overseas for three and a half years, in South East Asia for two and a half. He was on six troopships, at sea for twelve weeks, on four continents and in eight countries.

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### Esam Hussein, Professor Emeritus in Mechanical Engineering

Professor Hussein received the [2019 Outstanding Achievement Award](#) of the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS). Hussein is currently the Dean of Engineering and Applied Science at the University of Regina.

The award honours "members who show technical excellence and achievement in engineering and/or geoscience in Saskatchewan". Hussein's research work has focused on developing techniques for the detection of contraband materials and on other peaceful uses of nuclear technology, most of which was accomplished during his [tenure at UNB](#), from 1984 to 2013.



*Esam Hussein, Professor Emeritus*

## Professor Emeriti & Honorary Research Professor — Research Success Stories

### Catherine Ann Cameron, Child Studies Lab

The Child Studies Lab in Psychology at the University of New Brunswick has a sibling lab at the University of British Columbia where Emerita Professor Catherine Ann Cameron continues to conduct research 20 years after her retirement from UNB. Her research, carried out in collaboration with a lively group of research students, continues to include cross-cultural studies of moral development of children and youth in eastern and western Canada (New Brunswick and British Columbia) and Zhejiang Province in China. This research was initiated with Prof. Kang Lee, University of Toronto, when he was a doctoral student at UNB.

Since her retirement, Ann has also developed cultural studies of thriving in diverse locations around the globe, including studies of toddlers in Canada, Thailand, U.K, Italy, Peru, U.S.A & Turkey: *International Perspectives on Early Childhood Research: A Day in the Life* (2010), Palgrave Macmillan. This book was translated into Italian as *Un giorno nella vita: Percorsi internazionali di ricerca della prima infanzia* (2015).

Her research teams have conducted similar “*day in the life*” ecological studies of the resilience of migrant youth in China, Thailand, Canada, and South Africa and of older adults’ thriving in Lithuania, Switzerland, Brazil, and Canada. Their most recent research program is: “Children in transition from home to school” in Canada, Italy and Brazil, published as: “*Psicologia do Desenvolvimento: Um Dia na Vida de Pessoas de Bem-sucedidas* (2018).

Emerging research on non-Indigenous students’ reciprocal learning about Indigenous themes, customs, practices, and languages is under way in NB and BC with strong local Indigenous support. There is also a new initiative investigating the facilitation of pro-sociality of Rohingya refugee children and youth in mega-camps in Bangladesh, initiated by Dr. Tara Callaghan of Saint Francis Xavier University, a graduate of UNB.

Dr. Cameron’s Child Studies Labs at UNB and UBC converged at the Canadian Psychological Association’s annual meeting in Halifax in May 2019 to collaborate on presenting six posters (pictured). They have recently received knowledge mobilization funding from the Fergusson Foundation to create attractive, sustainable workshops for children and teenagers to help them develop confident communication skills for healthy relationships.



L-R: Shuai Shao, Arantxa Mascarenas, Dr. Cameron, Harleen Gill, Elizabeth Gerhardt, Jessi Knutson, Sara Kean, Anna Stanzel, Morgan Richard, Alessandra Ribeiro



## Professor Emeriti & Honorary Research Professor — Research Success Stories

### Dr. Will C. van den Hoonaard

Dr. van den Hoonaard continues to work on three research themes, namely (a) research ethics and research ethics review, (b) social cartography and architecture, and (c) Baha'i Studies:

#### (a) research ethics and research-ethics review (2018 – 2019)

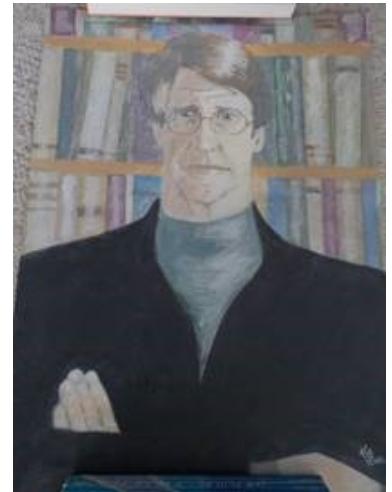
- “Critical sociological research in the context of research-ethics review Guidelines.” Pp. 117-130 (Chapter 8) in Catriona I. Macleod, Jacqueline Marx, Phindezwa Mnyaka, and Gareth J. Treharne (eds), *The Palgrave Handbook of Ethics in Critical Research*. Chapter 8. Cham, Switzerland: Palgrave Macmillan.
- “Ethics in Symbolic Interactionist Research.” *Handbook of Symbolic Interactionism*. London: Routledge. (co-author: Deborah K. van den Hoonaard)
- Invited Talk, “The Future of Research-Ethics Review.” European Commission. Research and Innovation, Scientific Advice Mechanism, 24th Forum of the National Ethics, Iasi, Romania 4 April.
- “The Future of Research Ethics Review: Towards a Non-colonial and Democratic Approach.” 36 Annual Qualitative Analysis Conference, University of New Brunswick, Fredericton, N.B. 9 May
- I was the reader of Julie R. Bull’s PhD Thesis, “Relational and Reflexive Research: Peoples, Policies, and Priorities at Play in Ethically Approving Research with Indigenous Peoples.” Interdisciplinary Studies, UNB.
- I was also invited by the International Association of French-Speaking Sociologists to give the plenary talk at their Annual Conference in Tunis, entitled, “Le nouveau désordre éthique en sciences sociales: Les clés pour trouver des solutions pertinentes.”

#### (b) social cartography and architecture

- I have been exploring the life of Shawnadithit (1801-1829), the last Beothuk in Newfoundland as a 19<sup>th</sup>-century mapmaker. My recent travels led me to explore the unique features of architecture in The Hague, the Netherlands, which was published in 2019 as “An Architectural Feature: The Dutch Portico (*Portiek*).” *Newsletter of the Canadian Association for the Advancement of Netherlandic Studies*. Aug.: 8-11.

#### (c) Baha'i Studies.

- There are many activities associated with my 2018 children’s book, *Did You Ever Wonder?: The Life of the Báb as a Child* (Victoria, BC: Tellwell Publications). 2019 represents the 200<sup>th</sup> anniversary of the birth of the Báb and the book has come into good use. It is currently being translated into Spanish and Icelandic.
- “Ethics in Symbolic Interactionist Research.” *Handbook of Symbolic Interactionism*. London: Routledge. (Co-author: Deborah K. van den Hoonaard)



## UNB Awards

Name	Award	Description
Akhila Chawla	URF Award	Performance measures for incubators
Akhila Chawla	Faculty Development Fund Award	Accounting and accountability in Workfare Programs - A Comparison
Anna Hamling	Busteed Fund	For publication of Pilgrimages and Tourism conference proceedings
Debra Lindsay	Concordia Historical Institute (US) book award for contributions to Lutheran history in North America	recipient: <i>Maria Martin's World: Art and Science, Faith and Family in Audubon's America</i> (University of Alabama Press, 2018)
Emily Read	Outstanding Paper Award for 2019 (Selected by the publisher)	Cziraki, K., Read, E. A., Laschinger, H. K. S., & Wong, C. A. (2018). Source of nurses' leadership self-efficacy and subsequent influences on motivation and aspirations to lead. <i>Leadership in Health Services, 31(1), 47-61.</i>
Funke Aladejebi	Harrison McCain Foundation Young Scholars Awards 2019	Global Crossings: Race and Educational Citizenship in Canada, 1960's - 1990's
Funke Aladejebi	Busteed	Girl You Better Apply to Teachers' College
Gary K. Waite	UNB Excellence in Research Award	Inaugural award given Convocation, 2018
Hsin-Chen Lin	UNB Merit Award	The UNB Merit Awards recognize outstanding contributions to teaching, research and university service by members of the Association of University of New Brunswick Teachers.
Lucas Crawford	UNB Merit Award	Selected to receive university award for faculty members
Jeffrey J. McNally	Greif Research Impact Award	The Greif Research Impact Award is a \$5,000 annual award given to the researcher(s) who published the most impactful entrepreneurship article over a five-year period in the top management and entrepreneurship journals. Impact is measured as the number of Social Sciences Citation Index citations in the five years following publication.
Mark Jarman	Prizes and Publication payments	Anvil Press, <i>The Group of Seven Reimagined, The Advent Short Story Calendar, The Malahat Review, Grain, Maritime Edit, Hinterland (UK), and Between These Shores (UK)</i>
Patrick Bruning	Harrison McCain Young Scholar Award	The award was provided to a person who (a) is in the first 10 years of their academic career, (b) has displayed strong academic production.
Patrick Bruning	Faculty of Business Administration Excellence in Research Award	The Award is provided to researchers in the Faculty of Business Administration (now the Faculty of Management) who have displayed strong research productivity over the previous 5 years.
Patrick Bruning	Human Relations Reviewer of the Year Award	This prize is awarded to the person who has made the most outstanding contribution to the journal in terms of the number, quality and turnaround time of reviews completed during the previous 12 months.
Patricia Seaman	Nursing Association of New Brunswick (NANB) - Lifetime Membership Award, June 2019	Award recognizes long or outstanding services to the nursing profession, either by serving in elected office or by participating in committee work at the national or provincial level.
Stefanie Hunt-Kennedy	Busteed	Remembered in the Body
Tracey Rickards	Nursing Association of New Brunswick (NANB) - Award of Merit: Research, June 2019	Award acknowledges those who have made unique contributions to the nursing profession and who demonstrates excellence in nursing research and practice.
Zsuzsa Szabo-Nyarady	Change One Thing Challenge Award	Puppets in the Language Class: Improving Communication Skills

## UNB Grants (not recorded by ORS) – page 1 of 3

Name	Grant	Description
Cam Woykin	Short Film Venture Program Grant	The Short Film Venture Program assists emerging NB filmmakers who have a serious interest in establishing a career in filmmaking & in producing a "calling card" film.
Cam Woykin	Canada Council Explore and Create Program Grant	Explore and Create funds Canadian artists, artistic groups and organizations committed to the creation and dissemination of innovative, vibrant and diverse art.
Cam Woykin	ArtsNB Creation Grant	The Creation Grant program is designed to provide assistance to professional NB artists for the research, development & execution of original projects in the arts.
Cindy Brown	SSHRC Insight	Long term housing outcomes of under-housed Syrian refugees
Dr. Catherine Aquino-Russell, Dr. David Busolo, and Dr. Danielle Bouchard (co-investigators)	20-Week Work Study (\$2,754) awarded August, 2019.	Perspectives and experiences of francophone breast cancer survivors after participating in an active retreat.
Elizabeth Mancke	The New Brunswick Innovation Foundation	Atlantic Canada Commons & the Political Economy of Provinces, Empire, & Nation
Elizabeth Mancke	CRC-SSHRC	CRC in Atlantic Canada Studies
Funke Aladejebi	University Research Fund Competition Series 2019 (NF Explore)	Global Crossings: Race and Educational Citizenship in Canada, 1960's - 1990's
Funke Aladejebi	Arts Faculty Development Fund	Back Home and Abroad - June 2019
Jennifer Andrews	University Research Fund	UNB grant for "Americans Write Canada" project
Kate Weaver	2 <sup>nd</sup> Annual Patients' Den Award	For It's Not About Food: Peer-to-peer support for eating disorders recovery on campus. Hosted by NB PIHCl Network and the Maritime SPOR SUPPORT Unit
Lee Windsor & Cindy Brown, Collaborators	SSHRC Partnership Grant	Thinking Historically for Canada's Future 2019-2026
Lee Windsor & Cindy Brown	Canadian Institute for Military and Veterans Health Research-True Patriot Love Research Initiative	After the War: Investigating 20th Century Post-Conflict Re-Establishment and Rehabilitation Best Practices to Empower 21st Century Veterans.
Lee Windsor & Cindy Brown	Veterans Affairs Canada Community Commemorative Partnership Grant	Connecting to 1944: War and the Canadian Experience Teachers Professional Development Program, 2019.
Lee Windsor & Cindy Brown, (Network Partners)	SSHRC Partnership Grant	Canadian Security and Defense Network - Nation-wide collaborative security and defense research program.
Lee Windsor & Elizabeth Mancke	SSHRC Partnership Development Grant	Military Service, Citizenship and Political Culture Militia Studies in Atlantic Canada, 1700-2000.
Len Falkenstein	City of Fredericton Community Grant	Bard in the Barracks - Operational funding for municipal arts organizations
Len Falkenstein	City of Fredericton Arts, Culture, and Heritage Grant	Bard in the Barracks - City of Fredericton Arts, Culture and Heritage Grant for productions of <i>Measure for Measure</i> and <i>A Midsummer Night's Dream</i>
Len Falkenstein	Downtown Fredericton Inc. Grant	Bard in the Barracks - Downtown Fredericton Inc. grant for production of <i>Measure for Measure</i>
Len Falkenstein	City of Fredericton Community Grant	NotaBle Acts - Operational funding for municipal arts organizations
Len Falkenstein	City of Fredericton Arts, Culture, and Heritage Grant	NotaBle Acts - Project funding for 2019 productions of Taking it to the Streets and Street Scenes: Three Site-Specific Plays
Len Falkenstein	Department of Canadian Heritage Building Communities through Arts and Heritage	NotaBle Acts - Operational funding for 2019 summer festival
Len Falkenstein	Downtown Fredericton Inc. Grant	NotaBle Acts - Operational funding for municipal arts organizations
Len Falkenstein	Province of New Brunswick	NotaBle Acts - Operational funding for major provincial arts organizations and festivals
Len Falkenstein	artsnb Artist in Residence program	NotaBle Acts - Recipient of grant from Artist in Residence Funding Program for Playwright/Dramaturge in Residence, 2019 Summer Theatre Festival
Len Falkenstein	Alvin J. Shaw Fund	Bard in the Barracks and NotaBle Acts - funding for four student internships
Lucas Crawford	artsNB Creation Grant	For the research and creation of poems about NB's Internment Camp B70
Mark Jarman	Alvin J. Shaw Fund	Writer-in-Residence program

## UNB Grants (not recorded by ORS) – page 2 of 3

Name	Grant	Description
Mark Jarman/Sue Sinclair	Canada Council	Writer-in-Residence program (#1)
Mark Jarman/Sue Sinclair	artsNB	Artist-in-Residence program (#1)
Mark Jarman/Sue Sinclair	Canada Council	To support the Writer-in-Residence Program (#2)
Mark Jarman/Sue Sinclair	artsNB	Artist-in-Residence program (#2)
Murshed Chowdhury	Mitacs Globalink Research Internship	Migration: Where to & Why? - An Optimal Macro Selection Process
Murshed Chowdhury	Mitacs Globalink Research Internship	Interprovincial labour mobility and labour market adjustment
Murshed Chowdhury	NB Innovation Foundation-Research Assistantship Initiative	Short and Long-term Retention Rate and Economic Performance of Movers, Stayers, and Return Migrants in New Brunswick
Murshed Chowdhury	NB Innovation Foundation-Social Innovation Research Fund	Retention and Labour Market Preparation for Immigrants in New Brunswick
Robert Gray	City of Fredericton	Grant to support Fictive Pictures / Fictive Projects
Ross Leckie	Alvin J. Shaw Fund	Grant to support UNB Reading Series
Sabine Lebel	Arts Faculty Development Fund travel grant	To present at Two Days of Canada conference Nov 8-9, 2019
Sarah-Jane Corke	University Research Fund Competition Series 2019 (NF Explore)	The Nine Lives of John Paton and Patricia Grady Davies
Sarah-Jane Corke	US Consulate General, Halifax	This grant was awarded to Dr. Sarah-Jane Corke for the organization and development of a four part cyber lecture series.
Sarah-Jane Corke	Arts Faculty Development Fund	North American Society for Intelligence History - October 2019
Sarah-Jane Corke	Academic Development Fund	Cyber Lecture Series
Sasha Mullally	SSHRC Connection Grant	Medicine in the Transatlantic North: Canada and Sweden in Focus
Sasha Mullally	SSHRC Insight Grant	Therapeutic Craft, Productive Citizenship, and the Origins of Occupational Therapy, 1903-1923
Sasha Mullally	Aid to Scholarly Publishing Program Grant	<i>Foreign Practices: Physician Immigration and the History of Medicare in Canada</i> (McGill-Queens University press, 2020)
Sophie Lavoie	Arts Faculty Development Fund travel grant	To present at Colloquium, Centre for Women's Studies, Casa de las Americas, Cuba on February 16-22, 2020
Stefanie Hunt - Kennedy	Harrison McCain Foundation Grant in Aid of Scholarly Book Publishing Award 2019	Between Fitness and Death: Disability and Slavery in the Caribbean
Stefanie Hunt - Kennedy	Arts Faculty Development Fund	Imagining Africa - October 2018
Sue Sinclair	Canada Council for the Arts public outreach award	Public outreach events for The Fiddlehead literary journal
Sue Sinclair	Heritage Canada	Grant to create and publicize The Fiddlehead's 75th anniversary special issue
Sue Sinclair	Canada Council for the Arts	Award for the ongoing running of The Fiddlehead literary journal
Sue Sinclair	Alvin J. Shaw Fund	Grant to support the graduate student literary journal Qwerty
Wan Li	University Research Fund	The impact of organizational collective action on corporate social performance
Wan Li	Faculty Development Fund	Can You Do Kung Fu and Also Act? New Entrants' Status Attainment in the Creative Industries
Wendy Churchill	Associated Medical Services History of Medicine Project Grant	Health and Medicine in the Maritimes, circa 1765-1830: Knowledge, Networks, and Practices in an Age of Revolution and Loyatism
Wendy Churchill	Arts Faculty Development Award	Linguistic Interpretation and Non-Verbal Communication within British Medicine during the Eighteenth and Early Nineteenth Centuries, and The Rewards and Challenges of Skills Development in Undergraduate Courses on Health and Medicine during the Revolutionary and Loyalist Eras. May/June 2019
Wendy Churchill	Associated Medical Services History of Medicine Project Grant	Health and Medicine in the Maritimes, circa 1765-1830: Knowledge, Networks, and Practices in an Age of Revolution and Loyatism
Robert Gray	Province of New Brunswick	Grant to attend Toronto International Film Festival as a delegate

## UNB Grants (not recorded by ORS) - page 3 of 3

Name	Grant	Description
Richard Hornsby	Arts, Culture & Heritage Grant	NB Summer Music Festival
Richard Hornsby	SOCAN Foundation—Production Grant	Atlantic Sinfonia
Richard Hornsby	Fredericton Foundation Grant	NB Summer Music Festival, FUZE
Richard Hornsby	Province of New Brunswick, Festival Grant	NB Summer Music Festival
Richard Hornsby	Province of New Brunswick, PETL Grant	UNB Music Summer music programs
Richard Hornsby	Province of New Brunswick, THC, Strategic Initiatives Grant	UNB New Music Festival
Richard Hornsby	SOCAN Foundation, Festival Grant	UNB New Music Festival
Richard Hornsby	Province of New Brunswick, THC, Artist in Res. Program	UNB Musician in Res.
Richard Hornsby	Province of New Brunswick, UNB, Alvin Shaw Fund	Classical Cabaret
Richard Hornsby	ArtsNB	Arts by invitation program. Caunes Festival of Arts, Fredericton.

## UNB Grants (recorded by ORS) – page 1 of 8

Principal Investigator Info	Agency	Project Title
Andrea Bombak	Banting Research Foundation	Health Inequities and Weight Stigma in Marginalized Groups
David Busolo	Beatrice Hunter Cancer Research Institute	Improving Cancer Screening for Immigrant & Refugee Adults in New Brunswick
Anthony Reiman	Beatrice Hunter Cancer Research Institute	Evaluating the Role of Hippo Component TAZ in Regulating Immune Markers in Multiple Myeloma
Veronica Whitford	Canada Foundation for Innovation	A Behavioural and Neuroimaging Investigation of Monolingual and Bilingual Reading Across the Lifespan
Stijn De Baerdemacker	Canada Research Chair	NSERC Tier 2
Elizabeth Mancke	Canada Research Chair	SSHRC Tier 1 Chair Renewal
Veronica Whitford	Canada Research Chair	NSERC Tier 2
Janet Austin	Canadian Bar Association	The Impact of Whistleblowing Awards Programs on Ponzi Schemes
Jason Hickey	Canadian Institutes of Health Research	Network Environment for Promoting Urban Indigenous Well Being in Atlantic Canada
Ted McDonald	Canadian Institutes of Health Research	Sub from UBC: SPOR National Data Platform
Janine Olthuis	Canadian Institutes of Health Research	Firefighters Accessing Care for Trauma: A Clinical Case Series Testing the Efficacy of Distance-Delivered Narrative Exposure Therapy in Reducing PTSD Symptoms
Yonghao Ni	Domtar Inc.	Use of Lytic Polysaccharide Monooxygenases (LPMO) to Enhance the Enzyme Treatment for Cellulose Nano-Fibrils (CNF) Preparation
Myriam Barbeau	Ducks Unlimited Canada	Studying the Colonization Patterns of Salt Marsh Plants, Invertebrate and Fish Communities of Salt Pools
Joseph Nocera	Ducks Unlimited Canada	Inventory of Avian (and Bumblebee) Communities to Guide Future Protection and Conservation Action in Forested Wetlands of New Brunswick
Bruce J. Balcom	Fredrik & Catherine Eaton	MRI Pharmaceutical Tablet Dissolution
Robert Crawford	Fredrik & Catherine Eaton	Chemical Process Design Course
Arash Lashkari Habibi	Fredrik & Catherine Eaton	Dark Web Multi-Layering VPN Traffic Flows
Dan Kucеровsky	Fredrik & Catherine Eaton	New Techniques for Quantum Groups
Kara Costanza	Grand Lake Meadows	Tree Species Response to Flooding: Implications for Climate Change & GLM Management
Michelle Gray	Grand Lake Meadows	Ethnobotany and the Seed Bank: Pairing Genomics with Indigenous Knowledge
Fred Mason	Grand Lake Meadows	A History of Grand Lake Provincial Park
Christopher McFarlane	Grand Lake Meadows	Analysis of Ancient Wolastoqiyik Pottery from the Grand Lake Meadows
Joseph Nocera	Grand Lake Meadows	Evaluating the Reproduction of Cavity-Nesting Waterfowl in the GLM and Lower St John River
Scott Pavey	Grand Lake Meadows	Using eDNA to Assess Fish Biodiversity in the Grand Lakes PNA
Allan G. Adam	Harrison McCain Foundation	Université Lyon 1 and Arizona State University
Funke Aladejebi	Harrison McCain Foundation	Global Crossings: Race and Educational Citizenship in Canada
Clodualdo Aranas	Harrison McCain Foundation	Designing Novel and Energy-Efficient Materials Through Data Mining
Patrick Bruning	Harrison McCain Foundation	The Impact of Job Crafting Competencies on Worker Outcomes
Casey Burkholder	Harrison McCain Foundation	Confronting Unsustainable Futures with Youth: Engaging in Participatory Visual Inquiry
David Busolo	Harrison McCain Foundation	Newcomer Youth's Understanding of HPV Risk and Intention to Use Catch-Up Vaccines
Anne Cremazy	Harrison McCain Foundation	Exploring the Effects of Salinity on Metal Fate & Effects in Aquatic Ecosystems
Cassidy D'Aloia	Harrison McCain Foundation	Seascape Genetics of Coastal Marine Invertebrates in the Northwest Atlantic
Rickey Dubai	Harrison McCain Foundation	Jinzhu Peng, Zhengzhou University, China

## UNB Grants (recorded by ORS) - page 2 of 8

Principal Investigator Info	Agency	Project Title
Arash Lashkari Habibi	Harrison McCain Foundation	An Intelligent-Driven Android Malware Detection and Classification System
Anna Hamling	Harrison McCain Foundation	Contemporary Icons of Nonviolence
Paul Howe	Harrison McCain Foundation	The Adolescent Society
Shabnam Jabari	Harrison McCain Foundation	Automatic Flood Map Generation Using High-Resolution Satellite Images: St. John River
Stefanie Kennedy	Harrison McCain Foundation	Between Fitness and Death: Disability and Slavery in the Caribbean
Mohsen Mohammadi	Harrison McCain Foundation	Peyman Setoodeh, Shiraz University, Iran
Aurora Nedelcu	Harrison McCain Foundation	Deakin University and University of Arizona
Jackie Oncescu	Harrison McCain Foundation	Neoliberalism & Community Recreation & Sport Provisions for Low-Income Families
Amy Parachnowitsch	Harrison McCain Foundation	Plants Eavesdropping on Floral Scent Signals
Om Rajora	Harrison McCain Foundation	University of Göttingen, Germany
Susan Sinclair	Harrison McCain Foundation	Elemental Elegies
Daniel Tubb	Harrison McCain Foundation	Shift: An Ethnography of Mining, Movement, and Place in the Colombian Pacific
Veronica Whitford	Harrison McCain Foundation	Pathological and Non-Pathological Aging Effects on Reading in Bilinguals
Jonathan Wilbiks	Harrison McCain Foundation	Exploring the Link Between Audiovisual Integration Capacity and Autism Spectrum Disorder
Edward Wilson-Ewing	Harrison McCain Foundation	An Effective Cosmological Constant from Quantum Gravity
Julia Woodhall-Melnik	Harrison McCain Foundation	The Impacts of Climate Change on Human Mental Health and Wellbeing
Danielle Bouchard	Heart and Stroke Foundation of Canada	Proposing a Novel Exercise Program for Men Living with Obesity Pillar Social, Cultural, Environmental and Population Health
Paul A. Arp	NSERC & JD Irving Limited	Comprehensive Site Productivity and Soil Trafficability Modelling Based on Digital 1-m Scale Soil Re-Mapping
Ann Cameron	Muriel McQueen Fergusson Foundation Inc.	Teens' Real Virtual Relationships
Gabriel Martin Hrynck	National Geographic Society	Archaeology of the Wabanaki Response to European Contact
Jason Addison	Natural Sciences and Engineering Research Council	The Genetics of Reproductive Isolation in North Atlantic Sea Urchins
Waye J. Albert	Natural Sciences and Engineering Research Council	An Ergonomic Investigation of a New Hand Grip Driving Aid
Wayne J. Albert	Natural Sciences and Engineering Research Council	Human Factors Inspired Chair Design II
Tim Alderson	Natural Sciences and Engineering Research Council	Codes from Finite Geometries: Extensions, Constructions, and Decoding.
Clodualdo Aranas	Natural Sciences and Engineering Research Council	Thermomechanical Aspect and High-Strain Rate Behavior of Next Generation Advanced High-Strength Materials
Kaveh Arjomandi	Natural Sciences and Engineering Research Council	Vibration Performance of Cross-Laminated-Timber (CLT) Floors
Donald Baird	Natural Sciences and Engineering Research Council	Network-Based Biomonitoring of Freshwater Ecosystems in Relation to Anthropogenic Impacts
David Bremner	Natural Sciences and Engineering Research Council	Transport Model Validation
Andrea Burgess	Natural Sciences and Engineering Research Council	Designs and Cycle Decompositions
David Burns	Natural Sciences and Engineering Research Council	Virtual Workshop - Advanced Manufacturing
Eduardo Castillo Guerra	Natural Sciences and Engineering Research Council	Investigation of Value Added System Support Functions of PV Systems

## UNB Grants (recorded by ORS) - page 3 of 8

Principal Investigator Info	Agency	Project Title
William Cook	Natural Sciences and Engineering Research Council	Sub from McMaster: Small Modular Advanced Reactor Training (SMART) CREATE
Anne Cremazy	Natural Sciences and Engineering Research Council	Investigating Metal Bioavailability to Aquatic Organisms: Biogeochemical Perspectives
Chris Diduch	Natural Sciences and Engineering Research Council	UNB India Research Connector: Energy
Loic D'Orangeville	Natural Sciences and Engineering Research Council	Vulnerability of Eastern Canadian Forests to Climate Warming: Environmental Drivers, Plasticity and Climatic Thresholds
Weichang Du	Natural Sciences and Engineering Research Council	Collective User Behavior Analysis for Social Intelligence
Rickey Dubay	Natural Sciences and Engineering Research Council	Sub from Dalhousie: NSERC CREATE Interdisciplinary Marine Engineering Research & Industrial Training (iMerit)
Dion Durnford	Natural Sciences and Engineering Research Council	Photoacclimation During Senescence and the Control of Longevity in Microalgae
Christopher Gray	Natural Sciences and Engineering Research Council	Exploring the Endophytic Parvome for the Discovery of Novel Biologically Active Molecular Scaffolds
Brian Hayden	Natural Sciences and Engineering Research Council	"Life Under the Ice" - Winter Ecology of Temperate Rivers
Kenneth Kent	Natural Sciences and Engineering Research Council	Improving Data Organization in Managed Runtimes for Improved Performance
Kenneth Kent	Natural Sciences and Engineering Research Council	Performance Optimization and Scaling for Simulations of Urban Planning
Kenneth Kent	Natural Sciences and Engineering Research Council	Load Stall Minimization
Richard Langley	Natural Sciences and Engineering Research Council	Enhancement of Multi-Constellation Satellite-Based Precise Positioning and Ionospheric Remote Sensing
David Lentz	Natural Sciences and Engineering Research Council	Mineralized Magmatic Hydrothermal Systems
Tommi Linnansaari	Natural Sciences and Engineering Research Council	Predation Effects on Juvenile Atlantic Salmon ( <i>Salmo Salar</i> ) Populations in Changing Riverscape
Emmanuel Andrew Lockhart	Natural Sciences and Engineering Research Council	Data Visualization Competition
Heather Major	Natural Sciences and Engineering Research Council	Seabird Ecology in the North Atlantic
Yonghao Ni	Natural Sciences and Engineering Research Council	Use of Lytic Polysaccharide Monooxygenases (LPMO) to Enhance the Enzyme Treatment for Cellulose Nano-Fibrils (CNF) Preparation
Yonghao Ni	Natural Sciences and Engineering Research Council	Evaluation of Cannabis Steams Biomass for the Production of Molded Pulp Products
Rémy Rochette	Natural Sciences and Engineering Research Council	Lobster Node II Research Agenda and Engagement Workshop
Gobinda Saha	Natural Sciences and Engineering Research Council	Reliability Assessment of the Pultruded Fiber-Reinforced Thermoplastic Polymer Matrix Composites in Preparation for Pilot-Scale Production
Erik Scheme	Natural Sciences and Engineering Research Council	Concurrent EMG & EEG Analysis for Quantitative Motor Assessment
Sanjeev Seahra	Natural Sciences and Engineering Research Council	AARMS-Girl Guides Provincial STEM Camps
Sanjeev Seahra	Natural Sciences and Engineering Research Council	Science Odyssey PromoScience Supplement: St. F.X. AARMS CMS Math Camp
Sanjeev Seahra	Natural Sciences and Engineering Research Council	Mathematical Optimization of Heat Conduction Algorithms
Cliff Shaw	Natural Sciences and Engineering Research Council	Experimental and Field Studies of the Timescale of Igneous Processes
Nicholas Touikan	Natural Sciences and Engineering Research Council	Constructible Groups and Ramifications of JSJ Theory
Clancy Joseph White	Natural Sciences and Engineering Research Council	Deformation of the Earth: From Processes to Phenomena
Zong-Chao Yan	Natural Sciences and Engineering Research Council	High-Precision Theory of Few-Body Atomic and Molecular Systems
Yun Zhang	Natural Sciences and Engineering Research Council	Phase 1b: Software System Development for High-Resolution Change Detection Using Images with Different Viewing Angles and Geometries
David Lentz	NB Department of Natural Resources & Energy	Petrogenetic Evaluation of Molybdenum Porphyry Deposits, New Brunswick



## UNB Grants (recorded by ORS) – page 4 of 8

Principal Investigator Info	Agency	Project Title
Audrey Limoges	NB Department of Post Secondary Education, Training & Labour	Sedimentary Proxies to Study the Impact of Climate Change on Sea Ice, Ocean Circulation and Primary Production in the Canadian Arctic
Ted McDonald	NB Department of Post Secondary Education, Training & Labour	Early Learning Centres Evaluation
Kelly Miles	NB Department of Post Secondary Education, Training & Labour	Forensic Taphonomy & Stable Isotopes: Trends of the 13C and 15N Enrichment in Decomposing Human Skin and Muscle
Andrea Bombak	NB Health Research Foundation & U of Manitoba	Small Business Owners' Perspectives on Sugar-Sweetened Beverage Tax
Andrea Bombak	NB Health Research Foundation	Weight Stigma and Health Inequities in New Brunswick Marginalized Communities
David Busolo	NB Health Research Foundation	Improving Cancer Screening for Immigrant and Refugee Adults in New Brunswick
Stephan Dombrowski	NB Health Research Foundation	Systematic Review and Meta-Analysis of Randomized Controlled Trials Comparing Face to Face vs. Remote Behaviour Change Interventions for Weight Management
Shelley Doucet	NB Health Research Foundation	Using Theatre as an Innovative Knowledge Translation Approach for Health Research
Shelley Doucet	NB Health Research Foundation	2019 Patients' Den: Patients Setting Research Priorities in Primary and Integrated Care Innovations
Herb Emery	NB Health Research Foundation	Tobacco Use & Food Insecurity in New Brunswick
Christopher Gray	NB Health Research Foundation	Maritime Natural Products Conference
Jeffrey Hebert	NB Health Research Foundation	The Role of Socioeconomic Status in the Physical Activity Behavior of Children
Rose McCloskey	NB Health Research Foundation	Feasibility and Usability of the Rountinify Solution for Supporting Aging in Place
Chris McGibbon	NB Health Research Foundation	New Brunswick Brain Health Initiative
Janine Olthuis	NB Health Research Foundation	Comparing the Efficacy of CBT for Anxiety Sensitivity to Disorder-Specific CBT in Reducing Mental Health Symptoms: a Randomized Controlled Trial
Thomas Pulinilkunnil	NB Health Research Foundation	Role of Branch Chain Keto Acids in Triple Negative Breast Cancer
Yang Qu	NB Health Research Foundation	Cannabis Health Research Chair
Anthony Reiman	NB Health Research Foundation	Evaluation of Anti-Myeloma Potential of Caffeic Acid Phenethyl Ester (CAPE) Derivatives
Martin Senechal	NB Health Research Foundation	Improving Individual Glycemic Response with Exercise Intensity (INTENSITY-Trial)
Julia Woodhall-Melnik	NB Health Research Foundation	The Maritime Community Health and Housing Initiative: Investigating the Impact of Public Housing Interventions on Mental Health in Low-Income Households in New Brunswick
Clodualdo Aranas	NB Innovation Foundation	Development and Characterization of Novel, Sustainable and Energy-Efficient Next Generation Advanced High-Strength Steels
Bruce J. Balcom	NB Innovation Foundation	Unilateral Magnetic Resonance of High Value-Added Foods and Consumer Products
Scott Bateman	NB Innovation Foundation	Supporting Community Engagement in the Maker Movement
Tillman J. Benfey	NB Innovation Foundation	Genetic Variation in Thermal Tolerance within a Commercial Atlantic Salmon Breeding Program
Barry Blight	NB Innovation Foundation	Towards Inkjet Printable O-LED Materials Inspired by Biology
Barry Blight	NB Innovation Foundation	Bulk Carbon-Capture Sensory Materials
P.A. Charles Bourque	NB Innovation Foundation	Advanced Analytics for the City of Beijing
David Bremner	NB Innovation Foundation	IVF Voucher with Eyesover Technologies Inc
Caroline Brunelle	NB Innovation Foundation	Trauma and Substance Use in Women Offenders: The Role of Emotional Intolerance and Emotion Dysregulation
Keith Brunt	NB Innovation Foundation	NBIF Voucher w-Wellness Connections Inc
Casey Burkholder	NB Innovation Foundation	Resisting and Speaking back to Historical Absences: Engaging Queer and Female-Identifying Pre-Service Teachers in Cellphilmimg and Participatory Archiving
Julian L. Barrera Cardenas	NB Innovation Foundation	Electric Load Forecasting and Control for Smart Grid Operations

## UNB Grants (recorded by ORS) – page 5 of 8

Principal Investigator Info	Agency	Project Title
Murshed Chowdhury	NB Innovation Foundation	Short and Long-Term Retention Rate and Economic Performance of Movers, Stayers, and Return Migrants in New Brunswick
Anne Cremazy	NB Innovation Foundation	Developing an Ion-Exchange Technique for the Determination of Metal Bioavailability in Fresh, Brackish and Marine Waters
Cassidy D'Aloia	NB Innovation Foundation	Startup Grant to Recruit Dr. Cassidy D'Aloia
Stijn De Baerdemacker	NB Innovation Foundation	Talent Recruitment Fund – Dr. Stijn De Bardemacker
Stijn De Baerdemacker	NB Innovation Foundation	Deep Learning Chemistry (DLChem): extracting chemical descriptors from machine learning algorithms
Rickey Dubay	NB Innovation Foundation	Towards Factories of the Future in Advanced Manufacturing
Adam Dyker	NB Innovation Foundation	Organic Anode Materials for Redox Flow Batteries
Herbert Emery	NB Innovation Foundation	U of Guelph CFI Match: The Canadian Peoples 1861-1921
Herbert Emery	NB Innovation Foundation	BoostNB.com
Kevin Englehart	NB Innovation Foundation	Robust Human-Machine Interfaces using the Myoelectric Signal
Allison Enright	NB Innovation Foundation	Start-Up Fund for Allison Enright
David Foord	NB Innovation Foundation	Digital Grid
Meng Gong	NB Innovation Foundation	Use of 3D Digital Image Correlation Technique to Analyze the Fracture Behavior of Adhesive-Laminated Timber Products
Christopher Gray	NB Innovation Foundation	Natural Products from New Brunswick Endophytic Fungi as Antibiotic Drug Leads
Joseph Hall	NB Innovation Foundation	Flow Control for Reduced Fuel Consumption and Reduced Emissions
Anna Ignaszak	NB Innovation Foundation	Stretchable Capacitors Based on Carbon-Grafted Polymers Embedded in a Hydrogel Electrolyte
Anna Ignaszak	NB Innovation Foundation	Oxygen Reduction Reaction (ORR) Catalysts with Janus Structure for Cathodes in Fuel Cells and Metal-Air Batteries
Shabnam Jabari	NB Innovation Foundation	Flood Damage Monitoring in Urban Areas Using Machine Learning, GIS Models and Satellite Images
Kenneth Kent	NB Innovation Foundation	Visualization for Circuit Optimization
John A. Kershaw	NB Innovation Foundation	Establishing a Biological Basis for Enhanced Forest Inventory Using Airborne and Terrestrial LiDAR
John A. Kershaw	NB Innovation Foundation	Biological Basis for LiDAR-Assisted Enhanced Forest Inventory
Zahra Khatami	NB Innovation Foundation	Thin Film Silicon Solar Cells Using Novel Silicon Nanostructure
Zahra Khatami	NB Innovation Foundation	Characterization of Silicon Light Emitters for Solid State Lighting
Usha Kuruganti	NB Innovation Foundation	Development of Improved Handle Design for Workplace Ergonomics
Brigitte Leblon	NB Innovation Foundation	Monitoring Salt Marsh Restoration with UAV Imagery
Brigitte Leblon	NB Innovation Foundation	Use of UAV Imagery for Potato Disease Detection
Zhen Lei	NB Innovation Foundation	Start Up Recruitment for Dr. Zhen Lei
David I. MaGee	NB Innovation Foundation	Development and Testing of Pheromone-Based Monitoring System for Blueberry Flea Beetle
Elizabeth Mancke	NB Innovation Foundation	Atlantic Canadian Commons and their Regulation
Chris McGibbon	NB Innovation Foundation	Adaptive Robotic Training for Improving Upper-Extremity Function Following Stroke
Chris McGibbon	NB Innovation Foundation	System for Knee Injury Rehabilitation
Mohsen Mohammadi	NB Innovation Foundation	3D Printing Niobium Alloys for Space Applications
Rob Moir	NB Innovation Foundation	Food Bank Platform
Ben Newling	NB Innovation Foundation	MRI of Flowing Maple Sap and Syrup Processing
Yonghao Ni	NB Innovation Foundation	Use of Lytic Polysaccharide Monoxygenases (LPMO) to Enhance the Enzyme Treatment for Cellulose Nano-Fibrils (CNF) Preparation
Scott Pavey	NB Innovation Foundation	Ecological Genomics Services for New Brunswick
Brent Petersen	NB Innovation Foundation	CubeSat NB

## UNB Grants (recorded by ORS) – page 6 of 8

Principal Investigator Info	Agency	Project Title
Yang Qu	NB Innovation Foundation	Start-up Grant to Recruit Dr. Yang Qu
Yang Qu	NB Innovation Foundation	Chemical and Genetic Engineering of Cannabinoids
Yang Qu	NB Innovation Foundation	Novel Cannabinoids and Cannabis Germplasm by Biochemical & Generic Engineering
Suprio Ray	NB Innovation Foundation	Blockchain-Based Audit Log and Secure Provenance for Healthcare Data Management
Rémy Rochette	NB Innovation Foundation	Lobster Node
Gobinda Saha	NB Innovation Foundation	Cermet Nanocomposite Coatings with Functionally-Graded Properties for New Business Development
Gobinda Saha	NB Innovation Foundation	Thermoplastic Polymer Synthesis from Biomass-Extracted Bio-Oil in Microwave Pyrolysis Process for Manufacturing of High-Strength Biocomposites
A. Xiomara Sanchez-Castillo	NB Innovation Foundation	Beer Wastes to Bio-Binder (BBB)
Erik Scheme	NB Innovation Foundation	Validation of Cloud-Connected Assistive Technologies in Clinical Settings
Erik Scheme	NB Innovation Foundation	Innovation Voucher Fund - Picomole
Dhirendra Shukla	NB Innovation Foundation	Power at the Edge: Exploring Sustainable Energy Security in the Rural and Remote Communities of Atlantic Canada
Dhirendra Shukla	NB Innovation Foundation	The Romance of Resistance: Valuing Societal Responses to Energy Utility Transformations
Andy Simoneau	NB Innovation Foundation	Developing a Smart Agri-System for Farm Development and Sustainability
Kripa Singh	NB Innovation Foundation	Volatile Fatty Acids Production from Starch Rich Organic Wastes using Anaerobic Biofilm Reactor
Wei Song	NB Innovation Foundation	Visual Crowdsensing System with Deep Fusion of Human and Machine Intelligence
Veronica Whitford	NB Innovation Foundation	Veronica Whitford Recruitment
Veronica Whitford	NB Innovation Foundation	A Behavioural and Neuroimaging Investigation of Monolingual and Bilingual Reading Across the Lifespan
Yun Zhang	NB Innovation Foundation	Human Factors Design Guide on Developing Stereoscopic 3D Maps and Applications
Yun Zhang	NB Innovation Foundation	Develop a Pan-MS Dual-Camera Hardware Prototype
Yun Zhang	NB Innovation Foundation	Standards-Based System for Near-Real-Time 3D Online Mapping of the Globe by Integrating Various Sources of Satellite Data and Geospatial Data
Yun Zhang	NB Innovation Foundation	Produce high-resolution multi-spectral imagery
Danielle Bouchard	Networks of Centers of Excellence	Stand If You Can
Danielle Bouchard	Networks of Centers of Excellence	CFN Summer Student - Molly Gallibois
Danielle Bouchard	Networks of Centers of Excellence	CFN Summer Student - Sarah Webb
Danielle Bouchard	Networks of Centers of Excellence	Interdisciplinary Fellowship Program - Kendra Cooling
Keith Brunt	Networks of Centers of Excellence	Benefit of a Telehealth Home-Monitoring Program for Patients Living with Frailty Undergoing Heart Surgery
Ian Church	Networks of Centers of Excellence	Mapping the Arctic Seafloor: Innovation in Data Acquisition and Processing for Benthic Habitat, Seabed Composition, Geohazards, and Climate Dynamics
Kim Davies	Networks of Centers of Excellence	The Influence of Climate-Driven Prey Shortage on Endangered Whales and their Coexistence with Ocean-Going Industries
Audrey Limoges	Networks of Centers of Excellence	Mapping the Arctic Seafloor: Innovation in Data Acquisition and Processing for Benthic Habitat, Seabed Composition, Geohazards, and Climate Dynamics
Tracey Rickards	Networks of Centers of Excellence	CFN Summer Student - Ruth Marshall
Wendy Churchill	Research Nova Scotia	Health & Medicine in the Maritimes, circa 1765-1830: Knowledge, Networks and Practices in an Age of Revolution and Loyalism
Shelley Doucet	Royal Society of Canada	Navigating Your Journey: A Workshop Presented by NaviCare/ SoinsNavi's family Advisory Council
Eduardo Guerra Castillo	NSERC & Saint John Energy Inc.	Integrated Dispatchable Resources Control Systems for Peak Load Management in Local Electricity Distribution Networks
John C. Ball	Social Sciences and Humanities Research Council	Studies in Canadian Literature

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Principal Investigator Info	Agency	Project Title
Tom Beckley	Social Sciences and Humanities Research Council	Coming Together, Learning Together: Indigenous Outreach and Two-Eyed Seeing for the Faculty of Forestry and Environmental Management, UNB
Andrea Bombak	Social Sciences and Humanities Research Council	Food Positivity Canadian Post Secondary Pedagogy
David Busolo	Social Sciences and Humanities Research Council	Improving Newcomers Wellbeing Through Nature-Based Approaches
Elizabeth Effinger	Social Sciences and Humanities Research Council	Fragile Romanticism: Emergent Knowledge and the Waning of Human Exceptionalism
Cheryl Fury	Social Sciences and Humanities Research Council	Disease, Diet and Discontent in the Early East India Company
Gabriel Martin Hrynick	Social Sciences and Humanities Research Council	The Protohistoric Period in the Wabanaki Homeland
Paula Kristmanson	Social Sciences and Humanities Research Council	Canadian Journal of Applied Linguistics
Jacqueline Low	Social Sciences and Humanities Research Council	Qualitatives 2019: The Transdisciplinary Efficacy of Qualitative Methods: Studying Everyday Life, the Empirical Tradition Continues
Randall Martin	Social Sciences and Humanities Research Council	Cymbeline in the Anthropocene: A Global Eco-Theatrical Research Project
Sasha Mullally	Social Sciences and Humanities Research Council	Therapeutic Craft, Productive Citizenship, and the Origins of Occupational Therapy, 1903-1923
Sasha Mullally	Social Sciences and Humanities Research Council	Medicine and Power in the Transatlantic North: Canada and Sweden in Focus
Ted D. Needham	Social Sciences and Humanities Research Council	Building Respectful Relationships in the Forestry Community Through Indigenous Knowledge
Carmen Poulin	Social Sciences and Humanities Research Council	Sub from STU: Informal Caregivers of Older Adults: Exploring the individual, social and political context in New Brunswick
Sana Rizvi	Social Sciences and Humanities Research Council	The Role of Mindfulness in Offender Apologies
Matthew Sears	Social Sciences and Humanities Research Council	Passing the Torch: War, Remembrance, and Citizenship in Classical Greece
Eric Weissman	Social Sciences and Humanities Research Council	Sub from MUN: New Partners in Northern Housing and Homelessness: Inter-community, Pan-northern Partnerships in Knowledge Sharing, Mobilization and Collaboration
Julia Woodhall-Melnik	Social Sciences and Humanities Research Council	Sub from U of Alberta: Building a Resilient Community Housing Sector in Canada: A Café Pracadémique Approach
Donald Wright	Social Sciences and Humanities Research Council	Acadiensis
Donald Wright	Social Sciences and Humanities Research Council	Ramsay Cook: a Biography
Stephen Heard	Spray Efficacy Research Group	Sub from FPL: Outbreak Potential of Spruce Beetle, <i>Dendroctonus rufipennis</i> , in Relation to Pheromone and Genetic Diversity
Deepa Pureswaran	Spray Efficacy Research Group	Sub from FPL: Long Term Monitoring of Northward Range Expansion, Population Dynamics and Adaption of Spruce Budworm Populations
Dr. Alli Murugesan	Springboard Atlantic	Developing Novel Anti-blood Cancer Drug Candidate(s) through ex-vivo
Rémy Rochette	Springboard Atlantic	Lobster Node II Research Agenda and Engagement Workshop
Saha Gobinda	Transport Canada	Lightweight Composites with Architected Properties by High Pressure Cold Spray (LICAP)
Funke Aladejebi	University of New Brunswick	Global Crossing: Race and Educational Citizenship in Canada, 1960s-1990s
Jason Bell	University of New Brunswick	Phenomenology and Pragmatism Yesterday and Today: A New Assessment
Lisa Best	University of New Brunswick	Physical and Psychological Health in Cancer Patients
Danielle Bouchard	University of New Brunswick	University Research Scholar Award
Akhila Chawla	University of New Brunswick	Performance Measures for Incubators in the For-Profit & Not-For-Profit Sectors
Murshed Chowdhury	University of New Brunswick	Retention and Labour Market Adjustments of Immigrants in New Brunswick: a Longitudinal Analysis
Sarah-Jane Corke	University of New Brunswick	The Nine Lives of John Paton and Patricia Grady Davies
Kara Costanza	University of New Brunswick	Identifying Casual Mechanisms and Risk Factors Associated with Sudden Fire Mortality in New Brunswick, to Develop Long-Term Management Strategies
Anne Cremazy	University of New Brunswick	Exploring the Effects of Temperature on Metal Interactions with Aquatic Organisms

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Principal Investigator Info	Agency	Project Title
Karla Culligan	University of New Brunswick	Preservice Teachers' Professional Vocabulary: Reflections on International Practicum Experiences
Cassidy D'Aloia	University of New Brunswick	Coastal Marine Species on the Move: an Exploration of How Dispersal Ability Shapes Species' Distributions
Stijn De Baerdemacker	University of New Brunswick	NSERC Tier 2
Stephan Dombrowski	University of New Brunswick	Cultural Adaptation of an Acceptable and Feasible SMS Weight Management Intervention for Men Who Are Obese
Loic D'Orangeville	University of New Brunswick	High-Resolution Monitoring of Forest Vulnerability to Increases in Temperature and Climate Anomalies
Elizabeth Effinger	University of New Brunswick	Queer Botany: Vegetal Life in Romanticism
David Foord	University of New Brunswick	Counting Technologies in Social Change: Public Counting of Greenhouse Gas Emissions in the Decarbonization of Canadian Electric Power Grids
J. Graham Forbes	University of New Brunswick	Stable Isotopes in Decomposing Human Skin and Muscle Tissue
Neeru Gupta	University of New Brunswick	Leveraging the Social Data Linkage Environment (SDLE) to Assess the Hospital Burden of Obesity
Arash Lashkari Habibi	University of New Brunswick	Towards an Intelligent-Driven Malware Detection System
Stephen Heard	University of New Brunswick	University Research Scholar Award
Marilyn Hodgins	University of New Brunswick	Unplanned Acute Care Re-Entry and the Emergency Department: Establishing a Foundation for Future Intervention
Shabnam Jabari	University of New Brunswick	Building Damage Detection Using Drone Images
Chunhua Lan	University of New Brunswick	Social Value of Enhancing Transparency
Wan Li	University of New Brunswick	The Impact of Organizational Collective Action on Corporate Social Performance
Alison Luke	University of New Brunswick	Canadian Healthcare Navigation Conference 2019
Fred Mason	University of New Brunswick	Sport Literature Association Conference/Music and Sport: Knowing the Score Conference
Jackie Oncescu	University of New Brunswick	Exploring Neoliberalism Governance and Access and Inclusion Provisions with Recreation and Sport Agencies
Mercy Oyet	University of New Brunswick	Prior Experienced Interpersonal Mistreatment and Newcomer Employee Adjustment
Scott Pavey	University of New Brunswick	Ecological Genomics Services for New Brunswick
Elaine Perunovic	University of New Brunswick	The Dark Side of Conscientiousness: Discrimination Against People with Stigmas Perceived as Controllable
Yang Qu	University of New Brunswick	Biochemical Engineering of Novel Cannabinoids for Pharmaceutical Development
Sana Rizvi	University of New Brunswick	Can Mindfulness Foster Offender Apologies?
Sean Roach	University of New Brunswick	Territorial Response to Typical and Atypical Song Syntax Among Hermit Thrush ( <i>Catharus guttatus</i> ) Males
Azam Zamenjani Shamsi	University of New Brunswick	Spillover Effects and Factor Analysis in Finance: a Bayesian Nonparametric Framework
David Wagner	University of New Brunswick	University Research Scholar Award
Veronica Whitford	University of New Brunswick	Contrasting the Behavioral and Neural Correlates of Reading in Monolingual and Bilingual Children: an Eye-Tracking and EEG Investigation
Jonathan Wilbiks	University of New Brunswick	Investigating the Independent Effects of Endogenous and Exogenous Attention on the Capacity of Audiovisual Integration
Julia Woodhall-Melnik	University of New Brunswick	Community Resilience: Residents' Experiences of Housing Damage, Displacement, Mental Health and Wellbeing during the Spring 2018 Flood in New Brunswick