

### UNB's newest fellow of the Royal Society of Canada

Congratulations to Dr. Nancy Nason-Clark who will be inducted as a new fellow of the Royal Society of Canada at the 2017 ceremony to be held in Winnipeg, Manitoba, on November 25th.

A native of Saint John, NB, Nancy joined the faculty in the Department of Sociology at UNB in 1984, coming directly from her Ph.D. studies at the London School of Economics and Political Science, in London, England. She is recognized internationally for her innovative research on religion and domestic violence, altering how academics understand violence in families of faith and how religious leaders are trained to respond. She has received numerous awards for harnessing the academic rigour of her scholarship as the basis of a call for social justice.



*Dr. Nancy Nason-Clark*

Dr. Nancy Nason-Clark is the author or editor of thirteen books and has published articles in a variety of sociology of religion and violence against women journals. Her recent books include: *Religion and Intimate Partner Violence* (2017, Oxford University Press, New York; with Fisher-Townsend, Holtmann and McMullin), *Men Who Batter* (2015, Oxford University Press, New York; with Fisher-Townsend), and *Overcoming Conflicting Loyalties* (2015, University of Alberta Press; with Sevcik, Rothery and Pynn). She has served as President of the Association for the Sociology of Religion, President of the Religious Research Association, and President of the Society for the Scientific Study of Religion. In 2008, together with her research team at the Muriel McQueen Fergusson Centre for Family Violence Research, Nancy developed the [RAVE \[Religion and Violence e-Learning\] Project](#), an interactive website of training and resources funded by the Lilly Endowment.

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, 2016 to September 30th, 2017

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## Research Success Stories

### Eastern Regional Three-Minute Thesis (3MT) competition

On April 7th, 2017 the School of Graduate Studies hosted UNB's first [3MT](#) Competition where UNB graduate student **Brenda Lee** finished in **second place**. Graduate students have three minutes and one power point slide to engage, enlighten, and excite a non-specialist audience about their thesis research. Brenda was one of ten students who represented institutions across Atlantic Canada and Quebec, after winning first place in the UNB heat.

In addition to receiving two cash prizes totaling \$1,500, the video recording of Brenda's presentation was submitted as a finalist to the virtual national 3MT event hosted by the Canadian Association of Graduate Studies, where it received over 6,000 views.



L-R: Heather Sears, Darian Stahl, Concordia University (third place), Kashif Khan, McGill University (first place), Brenda Lee, UNB (second place), Drew Rendall.

### Sally McGrath, Interdisciplinary PhD candidate

Sally McGrath (BA UNB, BEd Saint Thomas, MA UNB) is an Interdisciplinary PhD candidate (focusing on the archaeology of Bronze Age Greece) and a CAI in the Department of Classics and Ancient History. Sally has excavated at a number of sites in Greece, at Iklaina with the University of Missouri, Dion in Northern Greece with the University of Thessaloniki, and at Abdera with the Greek Archaeological Service of Xanthi where she conducted a work study analysis of animal bone remains. She has received permits from the Greek Archaeological Service to conduct her research, with support from the *Dr. Nora Ni Chuiv CFUW Graduate Scholarship* (UNB Alumni Association) and from the Faculty of Graduate Studies at UNB. She has for decades been an educator, inspiring our youth in New Brunswick, and at the same time an ardent horse trainer, rider and judge.

Her love of horses and passion for archaeology inspired and motivated her to pursue an MA focusing on Classical Archaeology and an IDST PhD in Classics & Ancient History (M. Papaioannou) and Anthropology (S. Blair). Her research centres on the origins and introduction of the horse into Greece during the Bronze Age using **Strontium Isotope Analysis**, a procedure which examines the tooth enamel in order to identify the pasture lands where the horses were reared. Her work has also been acknowledged internationally as she has been accepted to present a paper (May 2018) at the prestigious 19<sup>th</sup> International Congress of Classical Archaeology (this year) in Köln Germany, an event which takes place every five years; Sally was among the 300 applicants chosen to present from a pool of over 1000 submissions from around the world. As a department, we and our students are proud to have Sally as a member of our team.



Sally McGrath in the Wiener Lab at the American School of Classical Studies in Athens preparing to cut a horse tooth (July 2017). The sample has been brought to Canada and will be analyzed at the Bio-archaeology lab at Memorial University, St. John's, NL.

### Greg Marquis: history in the academy and beyond

In 2016 Dr. Marquis with the Faculty of Arts (SJ), Department of History & Politics, published two books: *The Vigilant Eye: Policing Canada from 1867 to 9/11* (Halifax: Fernwood) and [Truth and Honour: The Death of Richard Oland and the Trial of Dennis Oland](#) (Halifax: Nimbus). The former was shortlisted for an Atlantic Book Award (2016) while *Truth and Honour* was on the *Globe and Mail* bestseller list and, in spring 2017, appeared as an "expanded paperback." During this same period, Dr. Marquis gave a keynote address, five conference papers, and thirteen public lectures. He also had a scholarly article and book chapter published, and was interviewed by local and national media outlets, often appearing on television to discuss the Oland trial. His work has raised the profile of the discipline of history and UNB immeasurably.

## Research Success Stories

### Dr. Kelly Scott-Storey, Faculty of Nursing

Dr. Scott-Storey is emerging as a leader in the field of violence, gender and health. She is currently a Principal Investigator (PI) on a 5 year CIHR operating grant aimed at examining men's experiences of cumulative lifetime violence and the intersection of gender and health (\$383,675; 2014-2019) as well as a PI on a large multi-provincial randomized control trial funded by CIHR exploring the use of an on-line health and safety decision aid for women experiencing intimate partner violence (\$959,651; 2012-2017). Dr. Scott-Storey's interests also expand to intervention work, resulting in a recent contract being awarded by the Public Health Agency of Canada (PHAC) to test the effectiveness of a nurse-led health promotion intervention for women who have experienced intimate partner violence (\$3,050,674; 2016-2021). This health intervention will be delivered in communities in New Brunswick, Ontario and British Columbia with recruitment anticipated to commence in the Spring of 2018. Further,



Dr. Kelly Scott-Storey

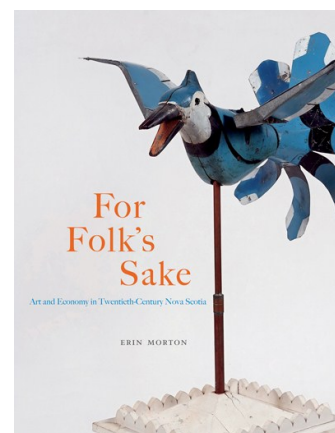
Dr. Scott-Storey has been actively involved in trying to better measure and capture experiences of interpersonal violence for both women and men resulting in two successful contracts with the PHAC; she was part of an international team who developed a short version of the [Composite Abuse Scale entitled CAS<sub>R</sub>-SF](#) for use in national and population surveys (\$24,789; 2015-2016) as well as took the lead role in examining the applicability and fit of the CAS<sub>R</sub>-SF for use with men (\$24,068; 2017). She is currently in the process of working with PHAC once again to conduct cognitive testing of the new CAS<sub>R</sub>-SF as well as to validate the tool among large community samples of both women and men. In January 2016, Dr. Scott-Storey's program of research and activism within the province was acknowledged and she was awarded the honor of 'Young Investigator of the Month' by the New Brunswick Health Research Foundation and in November 2016 was a finalist for the [Young Investigator of the Year Award](#)

### An act respecting research

[An Act Respecting Research](#) was a bill introduced into the Provincial Legislature of New Brunswick in March 2017 and proclaimed into law May 18, 2017. Dr. Ted McDonald, Director of NB-IRDT reports that the Act modifies privacy and other legislation to define a clear legal pathway through which the Government of New Brunswick can share with the New Brunswick Institute for Research, Data and Training (NB-IRDT) almost all research relevant pseudonymised, person-level, linkable data from across Government operations. This includes the Departments of Health, Social Development, Justice and Public Safety, Education and Early Childhood Development, Post-secondary Education, Training and Labour, Environment and Local Government and other Departments. It also covers data held by the Regional Health Authorities and other public bodies. This legislation signals the commitment that the Government of New Brunswick has to the continued collaboration with NB-IRDT in supporting its mission to bring more evidence into policymaking and evaluation.

### For Folk's Sake: Art and Economy in Twentieth-Century Nova Scotia

Dr. Erin Morton's book, [For Folk's Sake: Art and Economy in Twentieth-Century Nova Scotia](#), was published by McGill-Queen's University Press in the fall of 2016. The product of years of research supported by the Social Sciences and Humanities Research Council, the Canada Council Art Books Program, the Harrison McCain Foundation, and the University of New Brunswick. Dr. Morton's study connects the emergence of folk art in late-sixties Nova Scotia to the eclipse of modernism as the aesthetic favoured by collectors, curators, art professors, and the public at large. Modernization now invoked the yearning for a simpler past, which cultural taste and policy makers sought to satisfy by championing a locally-rooted art produced by self-taught rural artists and crafts-people. Copiously illustrated, *For Folk's Sake* illuminates the cultural politics that shaped 'the folk', a style and sensibility that continues to dominate the cultural scene in Atlantic Canada.



## Research Success Stories

### Anna Hamling joins the New Directions in the Humanities Advisory Board

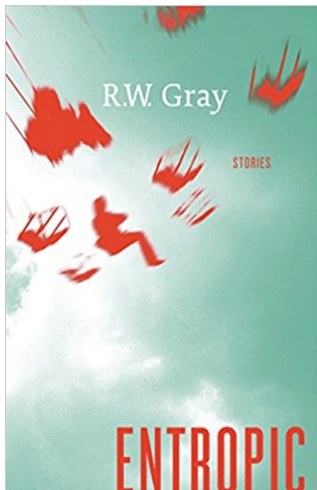
The New Directions in the Humanities [Advisory Board](#) is honored to welcome our newest member – Anna Hamling. **Dr. Anna Hamling** is currently an Associate Professor in the Department of Culture and Media Studies at the University of New Brunswick. She is the author of four books on the comparative studies of LN Tolstoy's and Miguel de Unamuno's religious writings: *Introducción a un estudio comparativo entre Miguel de Unamuno y León Tolstoi* (Madrid, 2001), *Tolstoy, Unamuno and Their Religious Essays. An Introduction. The Yearning for True Faith* (Saarbrücken, 2010); *Религиозные Воззрения Льва Толстого у Мигеля де Унамуно. Попытка опоставления* (OCR Bookshelf, 2016); *Poglady Religijne Lwa Tolstoja i Miguela de Unamuno* (Torun, 2017). She has written over fifty diverse articles and encyclopaedia entries covering Spanish and Latin American Women Writers and Artists; Dance and Music (tango, flamenco and Polish folk dances); Icons and Shrines of Black Madonnas; and the concept of non-violence (Gandhi and Khan).



Anna Hamling, Associate Professor

### Robert Gray (English) and Matt Rogers (Education) secure \$127,500 for first feature film

Dr. Robert Gray, Department of English, Dr. Matt Rogers, Faculty of Education along with UNB graduate and filmmaker Jon Dewar have [secured \\$127,500 in funding](#) from Telefilm Canada and The Talent Fund along with Bell Media and Corus Entertainment, to produce an original feature-length film. The film they will be working on is *Entropic*, which is taken from an award-winning [short story](#) and book of the same name written by Dr. Gray, who will write the screenplay. The project was identified and sponsored in its application by the New Brunswick Filmmakers' Co-operative; it will be shot and edited in the spring and summer of 2018. *Entropic* is one of 18 projects selected for funding under the Micro-Budget Production Program, now in its fifth year. The collaboration between Telefilm Canada, the Talent Fund and partners Bell Media and Corus Entertainment is meant to support emerging filmmakers and web-content creators that are producing their first feature-length project.



Along with the \$127,500, the *Entropic* team hopes to pull in some provincial funding and crowdsource to bring themselves up to \$250,000, which is the cap placed on the film's budget by the program. Dr. Gray sees working on film as a way to bring a practical eye to his screen-writing courses. In a creative discipline, his work is his research.

### The Harvard Lectures of Alfred North Whitehead

Jason Bell, Department of Philosophy, as editor published the first book of the Critical Edition of the works of Alfred North Whitehead with Edinburgh University Press: [The Harvard Lectures of Alfred North Whitehead, 1924-1925: Philosophical Presuppositions of Science](#), which he edited with Paul Bogaard, emeritus professor of Mount Allison University (published 2017). It is one product of a SSHRC Grant (Partnership Development Grant), "Discovering the Origins of Phenomenology in the Winthrop Bell papers."

The book is based on research in New Brunswick archives, and in particular, on the papers of a Canadian espionage agent for the British government, Winthrop Bell. A series of historically valuable Harvard lectures may have been lost to time the moment they were erased from the blackboard, if not for the precise recording of Winthrop Pickard Bell. Instead, notes from 85 of these lectures were meticulously documented and preserved. Discovered within Bell's papers donated to Mount Allison University, these notes are now the primary source for the first volume of what will grow into a large, critical edition of the work of Alfred North Whitehead.

## Research Success Stories

### Nursing student awarded Studentship from CFN

Third year undergraduate nursing student, Alexa Kolyvas, Department of Nursing & Health Sciences, UNB Saint John, was awarded a [Studentship from the Canadian Frailty Network](#). Alexa's interest in working with older adults began while in high school volunteering at a local hospital. Her interest in older adults grew after entering the nursing program and working with well and ill older adults across the continuum. Alexa works part-time as both a home care worker and as a personal support worker in a local nursing home. She completed a project titled "Understanding who falls in a hospital and why they fall". Her work was supervised by Dr. Rose McCloskey and took place in the geriatric medicine program at St. Joseph's hospital.



Alexa Kolyvas,  
undergraduate nursing student

### We Demand an Apology Network

Over the last 3 to 4 years, Lynne Gouliquer and Carmen Poulin have been working with a Canadian network of researchers, activists, and former military members [[We Demand an Apology Network](#)] in an attempt to convince the Federal Government to apologize for the discriminatory treatment it inflicted on LGBTQI2+ individuals in the military, RCMP, and the public service. Carmen and Lynne's research on *The impact of the Canadian military's policies on homosexual military members (SSHRC-funded 2005-2010)* formed the basis for much of the evidence that was put forward to the Government to convince it to come forward with an apology. Their findings documented the impact of the Canadian Forces Administrative Order 19-20 (CFAO 19-20), which rendered homosexuality incompatible with serving in the Canadian military. Despite the decriminalization of homosexuality in 1969 in Canadian civil society, under CFAO 19-20, the military conducted over the next 22 years wide-



Lynne Gouliquer

spread witch-hunts to identify "suspected" and "self-admitted" LGBTQI2+ individuals and to terminate their careers. To carry out this witch hunt, the military utilised various approaches such as spying, interrogating, tracking, stalking, and wire-tapping (Gouliquer, 2000; Poulin, 2001; Poulin, Gouliquer, & Moore, 2009; Poulin, Gouliquer, McCutchen, In Press). Their findings revealed how devastating the effects of CFAO19-20 were for LGBTQI2+ soldiers, ranging from living with constant fear, being traumatised for life, losing their livelihood, suffering from mental health difficulties, and even committing suicide. This discriminatory policy was in effect until 1992 when the famous Human Rights' court case, involving a former military police officer—Michelle Douglas —forced the Canadian military to revoke CFAO19-20. The current Trudeau government has now committed to apologize to all those who suffered from the "Witch Hunt campaigns" the Canadian government carried out on LGBTQI2+ in the late 70s, 80s, and early 90s. The apology should happen before the end of this calendar year.



Carmen Poulin

### Aryn Benoit, Department of Psychology, UNB (Saint John)

Aryn Benoit is a second-year MA student in the Department of Psychology (Saint John). She recently received, along with supervisor and co-investigator Dr. Enrico DiTommaso, a \$7,125 [MindCare NB](#) Research Grant to examine self-compassion and female sexual pain. The study aims to better understand close relationships and sexual pain disorders, in order to inform accessible psychological treatment approaches to reduce sexual pain. The study is underway, and participant recruitment is ongoing.

## University Research Scholars 2017 (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. Viqar Husain

Dr. Husain joined UNB (Fredericton) in 1999 as an Associate Professor in the Department of Mathematics and Statistics. He has an undergraduate degree in computer science and physics from the University of Manchester, and holds a PhD in theoretical physics from Yale University. He was promoted to Professor in 2003 and was awarded UNB's Merit Award in the same year. Dr. Husain is the author of nearly 100 research papers and is regularly invited to speak at international conferences. His work is in the frontier area that aims to bring about a unification of Einstein's theory of gravity with quantum theory. His research has been continuously funded by NSERC Discovery Grants.

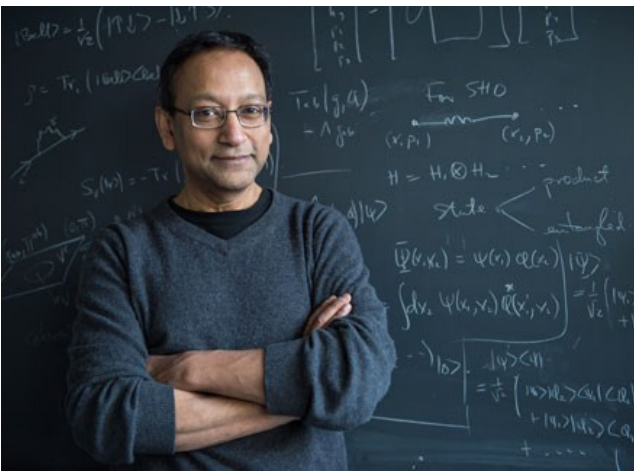
Dr. Husain is internationally recognized for several contributions to his field, including a solvable model for quantum gravity now known as the Husain-Kuchar model, new solutions of Einstein's field equations for gravity, and a reformulation of a special form of these equations known as self-dual gravity. He received the First Award of the Gravity Research Foundation in 1999, and was awarded the designation of Outstanding Referee by the American Physical Society in 2008. He regularly serves as a referee for several research grant agencies, including NSERC and the NSF, and a number of established international journals.

During his time at UNB Dr. Husain has supervised 9 Honours theses and undergraduate research projects, 3 MSc and 6 PhD students, and 9 post-doctoral fellows. All his graduated PhD students and post-docs have gone on to research positions in academia and industry. Dr. Husain has taught a

broad range of courses at UNB, from first-year undergraduate to graduate level. He designed a new course on the mathematics of financial derivatives.

In addition to his dedication to research and teaching, Dr. Husain has been active in outreach and promotion of science, including visits to schools in the Fredericton area and presentations to students in the Shad Valley program at UNB.

Dr. Husain served as Chair of the Department of Mathematics and Statistics at UNBF from 2007 to 2013. He was Scientific Director of the Atlantic Association for Research in the Mathematical Sciences (2008-2011) and was a member of its Board of Directors from 2012 to 2016. He is currently on the Scientific Advisory Board of the Banff International Research Station for Mathematical Innovation and Discovery. He has served on the Fredericton Senate since 2015 and was recently elected as a faculty member of UNB's Board of Governors.



*Dr. Viqar Husain*

## University Research Scholars 2017 (2 of 3)

### Dr. Edith Snook

Dr. Edith Snook received her PhD in English from the University of Western Ontario in 2000, her MA in English from the University of Alberta in 1994, and her BA in History, also from Alberta, in 1991. Dr. Snook joined the Department of English at the University of New Brunswick in 2001, where she was appointed to the rank of Associate Professor in 2005 and to Full Professor in 2012. An early modern literature specialist, her research interests include women's writing, material culture, and the history of medicine.

She is the author of several innovative books and essays. *Women, Reading, and the Cultural Politics of Early Modern England* (2005) examined how women approached reading as a site of cultural conflict over gender, status, education, religion, and nationalism in the sixteenth and seventeenth centuries. Her second book *Women, Beauty and Power in Early Modern England: A Feminist Literary History* (2011; reprinted in 2015) was named an Outstanding Academic Title by Choice Reviews Online. It looks at how women writing in seventeenth-century England used the language and practices of cosmetics, clothes, and hair to think about racial, class and gender identities and to convey ideas about politics, empire, religion, and philosophy. An edited collection of essays, *The Cultural History of Hair in the Renaissance* (in press), continues this ground-breaking research into beauty practices in the period. A fourth book *The Culture of Physic: Women's Writing and Medicine in Early Modern England*, a study of how women's knowledge of medicine informed by their literary writings, will be coming soon to fruition. Placed in top-ranked publications such as *The Social History of Medicine*, *English Literary Renaissance*, and *The Seventeenth Century*, and in major essay collections in the field of early modern women's writing, other essays consider recipe culture, beauty culture, reading, maternal advice, and women's paediatric medical knowledge. She has disseminated her research in over 30 presentations at international and national conferences. Deeply invested in archival research, this work has been supported by SSHRC Standard Research Grants and other funding and fellowships, including UNB University Research Fund grants, a Folger Fellowship and a stint as a Visiting Scholar at Harvard University.

Dr. Snook's current research project, *Early Modern Maritime Recipes*, shifts to this side of the Atlantic and is supported by a SSHRC Insight Development Grant. With Co-Investigator Dr. Lyn Bennett (Dalhousie) and UNB's Centre for Electronic Scholarship, she heads a small research team that will compile a record of extant manuscript and print recipes produced in the region, make them accessible to a wider audience via an open access web portal, and consider how Maritime recipes both interact with and help to constitute an



*Dr. Edith Snook*

Atlantic culture of intellectual exchange that included French, Indigenous, and English-speaking peoples. In the early modern period, recipes were written by women and men working in the home and professionally as cooks, physicians, surgeons, apothecaries, and chemists. Analysis of early modern recipes is an emerging field of study, largely focused on England that is demonstrating how recipes articulate social networks for knowledge creation and the exchange of knowledge across geographic, cultural, and social divides. This project is exciting because it not only shifts scholarly attention to the Maritime region but it will also demonstrate the unique place of this culturally heterogeneous region in the intellectual culture of the early modern Atlantic world.

## University Research Scholars 2017 (3 of 3)

### Dr. Christopher Gray

#### Contribution to research

Dr. Christopher Gray accepted a faculty position at UNB in 2007 where, along with John Johnson he started the UNB Natural Products Research Group (NPRG) in 2008. The NPRG is focused on the discovery of novel bioactive natural products that will become or inspire new therapeutics. The group's drug discovery efforts are focused on plants that have documented uses as traditional remedies and the many fungi that inhabit the tissues of these plants. Since 2008, 59 students, many of which have returned to complete multiple degrees, internships or research projects, have been group members resulting in a total of 31 research publications. NPRG research has been presented at regional (141 presentations), national (11 presentations) and international conferences (18 presentations), most recently at the International Congress on Natural Products Research in Copenhagen, Denmark this past summer. The fundamental position that mentorship holds in the NPRG philosophy is illustrated by some 166 of these conference presentations being given by students in the group. In recognition of the successes of the NPRG, Christopher was named Health Researcher of the year by the New Brunswick Health Research Foundation in 2013 and was invited to present a Royal Society of Chemistry (South African Division) Research Seminar in Cape Town, South Africa in 2016.

#### NPRG Background

Natural products chemistry has uncovered a vast number of biologically active organic compounds with genuine potential to become or inspire new therapeutics, health products, agrochemicals and antifoulants. We are only beginning to acknowledge the full potential of the molecules present in the world's biodiversity and can expect the continued discovery of many useful natural products in the future. In many cases these biologically active molecules are structurally complex, and elucidating their structures represents a considerable challenge. Our research programme is focused on the discovery of novel bioactive natural products that will become or inspire new therapeutics. Not only are we using the medicinal plants as the source of our biodiversity, we are also investigating the many fungi that inhabit the tissues of the plants. These endophytic fungi are isolated from the host plant species and can be cultured in the laboratory to provide a renewable source of bioactive metabolites.

**Current research** centers upon the discovery of natural products that:

- Inhibit the growth of drug resistant strains of pathogenic microbes (particularly tuberculosis), and consequently have significant potential as lead compounds for the development of new **therapeutics for infectious disease**.

- Inhibit the ability of cancer cells to invade intercellular matrices and stimulate programmed cell death in cancerous cells for the development of **more specific antimetastatic and apoptotic cancer chemotherapeutics**.
- Stimulate or suppress aspects of the immune response for the development of **antiviral agents and combination therapies** that compliment antibiotic and anticancer treatments.

**Future research** will build on our current successes and continue our development and application of:

- NMR and MS based protocols that employ **metabolomic profiling techniques that will allow the rapid screening of crude extracts** to facilitate lead prioritization and dereplication.
- Robust bioassays that will enable us to isolate drug leads with activities **that target drug resistant strains of pathogenic microorganisms and cancer cell lines** through the inhibition of efflux pumps or as yet unknown drug resistance mechanisms.
- Methods that will **increase the yields of bioactive natural products isolated from fungal cultures** through the application of co-culture techniques, multifactorial optimization studies of fermentation conditions and the use of solid phase resins and supports to scavenge natural products from culture broths.
- Strategies that employ metabolomics, proteomics and chemical genetic techniques to **explore and identify the modes-of-action of the new natural product** that we discover.



*Dr. Christopher Gray*



## Professor Emeritus & Honorary Research Professor – Research Success Stories

### Integrated analysis of rock mass deformations in mining areas

Professor Emeritus Adam Chrzanowski, Director of Canadian Centre of Geodetic Engineering (CCGE) at UNB is the Principal Investigator on the research project "Integrated analysis of rock mass deformations in mining areas". Titular Professor Anna Szostak-Chrzanowski is a Principal Co-Investigator. Dr. Maciej Bazanowski, is another key member of the research team. In addition, visiting scholars and graduate students participate in the research.

The growing global demand for raw materials leads to increasing depth and cost of underground mining with increasingly complicated geometry. At the same time, there are growing demands for increased mine safety and environmental protection, which call for a good understanding of the effects of mining on the behavior of the surrounding rock mass including ground subsidence and effects on the surface and underground infrastructure. The analysis and prediction of the effects are the goals of the current research at CCGE. The research is based on integrated analysis of rock mass deformations in which results of monitoring surveys are combined with deterministic modeling of rock mass behaviour. The current research is sponsored mainly by Potash Corporation of Saskatchewan (PCS), the largest in the world potash producer, to investigate behavior of rock mass consisting of brittle rock and evaporates (commonly known as salt and potash). The research concentrates on the large scale and long-term behaviour of evaporate rock mass using monitoring and deterministic modeling results from two mines: PCS Pe-nobsquis and PCS Picadilly in Sussex, New Brunswick. CCGE has been involved in monitoring and modeling of ground deformation at Pe-nobsquis mine since 1989 providing 28 years of data for long term deformation analysis in complex geological conditions. Fig. 1 shows the geological cross-section of the Penobsquis and Picadilly potash deposits.

The research at CCGE makes UNB recognized as an international leader in structural and ground deformation studies. Between 1986 and 2011, Dr. Adam Chrzanowski served as a chairman of the International Commission on Deformation Surveys of the International Federation of Surveyors (FIG). Over the last few years, 3 books and numerous papers on deformation analysis have been published by the key members of the research team. Another book (Deformation analysis of large earth/rockfill dams) is almost completed and will be published in early 2018. To view Professor Chrzanowski's full article please visit [research matters—Professor Emeritus Chrzanowski](#).

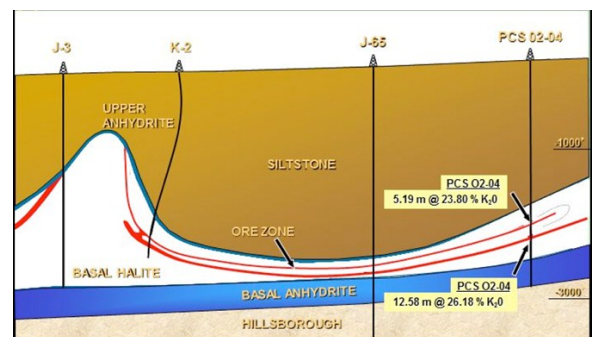


Fig.1 : Geological cross-section of Penobsquis (salt dome)

### Upgrade of the Maliseet-Passamaquoddy online dictionary portal

Since 1972, Professor Emeritus Robert M. Leavitt has been conducting research on the Maliseet-Passamaquoddy language, an indigenous language of New Brunswick and Maine, co-authoring with David A. Francis (1917–2016) a comprehensive dictionary of the language (Goose Lane Editions and University of Maine Press, 2008).

This past summer, the Centre for Digital Scholarship at UNB, under the direction of James MacKenzie, launched a major upgrade of the Maliseet-Passamaquoddy online dictionary portal, Jacob Sanford principal developer, with Jeff Carter and Jeremy McDermott. This digital resource contains nearly 19,000 entries, each with audio recordings, linked with 100 videos of native speakers using the language. The dictionary, audio recordings, and videos are the product of grants from the National Science Foundation and the Administration for Native Americans, 1996–2012, and the online portal has been upgraded under a current grant from ANA (2015–2018). These grants were awarded to Leavitt, of the Faculty of Education, in collaboration with Passamaquoddy elder Francis; Maine filmmaker Ben Levine; and Passamaquoddy tribal historian Donald Soctomah. The dictionary itself, begun in 1976 at Indian Township, Maine, by linguist Philip S. LeSourd, was then taken on by Francis and Leavitt, who edited a first version for publication in 1984. The first online version of the dictionary was created in 1999 by Stephen Sloan, then at the library's Electronic Text Centre.

The dictionary Portal is unique for its size and especially for its use of interlinked text, audio, and video media. Example sentences in the entries contain valuable cultural information. In addition, the collection of videos enables users to hear and see the language used in natural, spontaneous conversation and storytelling. The videos are subtitled in both Maliseet-Passamaquoddy and English, and native language words in the subtitles are linked to dictionary entries. The Portal is widely used by students, teachers of the language, by linguists and other researchers. The UNB portal has become a model for other indigenous language groups seeking to document and preserve their languages, most notably speakers of Mixe, a language of southern Mexico. The Mixe portal, now housed at the [University of Indiana](#), was developed by UNB's Jacob Sanford. It results from a project initiated at the invitation of Geraldo Yescas Alcántara, a Mixe student enrolled in a class taught by Professor Leavitt, who has been a visiting professor at the Universidad Pedagógica Nacional in Oaxaca since his retirement from UNB.

## Professor Emeritus & Honorary Research Professor – Research Success Stories



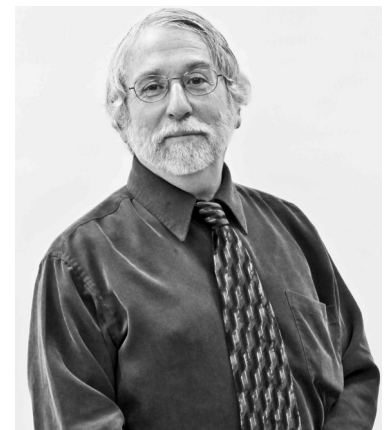
Derek Lister, Professor Emeritus

### Research into the chemistry & corrosion of power system coolants

As the Research Chair in Nuclear Engineering in the department of Chemical Engineering, Dr Lister, Professor Emeritus continues his full-time research into the chemistry and corrosion of power system coolants, publishing widely and presenting the findings of his group, known as UNB Nuclear, at Canadian and international conferences and meetings. NSERC and the CANDU Owners Group provide the group's basic funding and this is supplemented by contracts from industrial organizations such as the Electric Power Research Institute (EPRI) in the US and companies such as Kurita Water Industries in Japan. Dr Lister has been a Technical Advisor to UNB's Centre for Nuclear Energy Research (CNER) since its inception and continues to provide research results and ideas that bolster the centre's development of instruments for monitoring corrosion in power plants. Recently this year, CNER was awarded a contract from Ontario Power Generation on the strength of his suggestions for an experimental program to investigate issues arising from the refurbishment of CANDU reactors. Dr Lister also has a research presence in the Mechanical Engineering department, and is a co-principal investigator with Professor Garland in a project supported by EPRI that is expected to lead to the development of an innovative, non-intrusive instrument for the continuous monitoring of pipeline corrosion.

### The Long View: forty years in preparation

Historians take the long view, and since taking up retirement Professor Emeritus David Frank has been reminded of that more than once. For one, he spent months sorting out his accumulated files, which was a kind of research project in itself, and there has been plenty of other work to keep him busy too. One of David's more interesting projects is an article he started to think about when he was a graduate student in the 1970s. At the time, a number of professors working on the history of the coal miners in Nova Scotia made use of a microfilm copy of an unpublished manuscript by a former union research director who was one of the first people in Canada to occupy that kind of position. Although a popular history had referred to the author as deceased, David was able to find him, still in his sixties and pursuing an active retirement in Toronto. He visited and discussed his research with him, but later when he looked for him again, he was no longer living. Over the years since that time, he kept coming across his name in various publications and several archival and library collections, and also located several versions of his original manuscript. In the course of his own career, there were always other teaching, research and administrative priorities, but the clues continued to accumulate in his files. Finally, since retirement in 2015, David has been able to put in the time to explore and write his story, which is now published in the pages of the journal [Labour/Le Travail \(Spring 2017\)](#). Writing history can take time, and this story was more than forty years in preparation.



David Frank, Professor Emeritus

### Will C. van den Hoonaard, Professor Emeritus

The Society for the Study of Symbolic Interactionism awarded Professor Emeritus Will van den Hoonaard with the Department of Sociology, and his wife, Dr. Deborah van den Hoonaard, St. Thomas University the [George Herbert Mead Award for Lifetime Achievement](#) at its 2017 meeting in Montreal, QC.

With the expanding interest in his work on research ethics, the European Science Foundation in Strasbourg has appointed Professor Will van den Hoonaard on the Advisory Board of the project "Promoting integrity in the use of Research results in evidence based policy: a focus on non-medical research" (PRO-RES), in addition to serving on the Editorial Advisory Board of the *Handbook on Qualitative Research Ethics* (Sage). Related to research ethics, he has reviewed publications for the *J. of Academic Ethics*, the *J. of Empirical Research on Human Research Ethics*, and the *European Educational Research J.* Several chapters appeared in edited volumes, namely in *Finding Common Ground: Consensus in Research Ethics Across the Social Sciences*. (Book Series: *Advances in Research Ethics and Integrity*. London, UK: Emerald Group) and in the *Handbook of Ethics in Critical Research: Stories from the Field* (Milton Park, Oxon, UK: Palgrave/Macmillan), and in *The International Handbook on Narrative and Life History* (London: Routledge). Finally, the University of Haifa invited him to give the plenary talk at the International Scientific Workshop on Ethics in Research, December 2017.

## Professor Emeritus & Honorary Research Professor – Research Success Stories

### From research to practice and policy

Following more than a decade of law practice, graduate studies in Family Law, Conflict Resolution and Sociology, and a PhD in Law at the London School of Economics and Political Science (University of London) in England, Dr. Linda Neilson, Professor Emerita joined the Sociology Department at the University of New Brunswick where she devoted her teaching career to developing, administrating and teaching Law in Society and Conflict Resolution programs and courses. Linda was the recipient of two Presidential Awards for her faculty contributions to the University and was designated Professor Emerita on her retirement. Throughout Linda's career her research and policy work have been devoted to improving legal system responses to families, particularly to women and children.

This year, in association with the Canadian Legal Information Institute (CanLII) and Lexum, Dr. Neilson consolidated her family law and domestic violence research in the free-public-access 2017 publication [Responding to Domestic Violence in Family Law, Civil Protection and Child Protection Cases](#) (Ottawa: Canadian Legal Information Institute, CanLII). CanLII has embedded the e-book throughout its search and primary law reporting systems. In essence what the e-book does is make use of legal system institutional analysis to identify problems and a cross disciplinary process to identify solutions. More particularly, social and medical scientific knowledge of the effects of domestic violence on women, children and parenting is translated into analytical and procedural tools that can be used in the legal system to: gather and assess evidence, question witnesses, assess risk and danger, respond to perpetrator litigation tactics, and respond to family vulnerabilities and children's best interests in cultural context. These matters are then connected to procedural options and legal remedies via tools to interpret evidence and web links to case law, statutes and educational resources.

To view Dr. Neilson's full article please visit [research matters—Dr. Neilson](#).



*Dr. Linda Neilson, Professor Emerita*

### David Rehorick, Professor Emeritus

David Rehorick reflects on his time at UNB and his research activities over the past few years.

It's been ten years since I retired from UNB in 2007. The call of research remains alive, well and continuing. I share how ideas and best teaching practices from my UNB years have surfaced within two capstone projects that address a lifetime of scholarly engagement.

In 1995, I coined the neologism "leregogy" in a co-authored publication with Gail Taylor where we sought to advance beyond the notion of andragogy as the basis for adult learning theory. Leregogy implies a transactional and shifting set of roles where-in distinctions between teacher/learner and mentor/mentee falls away. In a leregogical learning relationship, all participants are open and mindful to learning from and within the relationship. In 2010, I returned to this seed idea, developing it through conference papers and publications. The capstone statement emerged in 2016, when I co-authored with Sally Rehorick, *Professor Emerita of Education* at UNB, a synthesis book chapter which combined our collective knowledge bases and experience. We generated a summative account of an integrated content- and-language-based curriculum, drawing upon our work in Japan and Dubai. Our teaching interactions characterize what "leregogy" means. (Rehorick, David & Rehorick, Sally. (2016). The leregogy of curriculum design: Teaching and learning as relational endeavours. In A. Tajino, T. Stewart & D. Dalsky (Eds.), [Team teaching and team learning in the language classroom: Collaboration for innovation in ELT](#) (pp. 143-163). London: Routledge).

Let me close by sharing an original composition "Remembering Ian" (2016), which is a tribute to my first jazz teacher in Fredericton, the late Ian Sedgewick. My tune was performed live in a Vancouver jazz club, by a professional quartet. You can listen to the performance through this [private YouTube channel](#). To view Professor Rehorick's full article please visit [research matters—Professor Emeritus Rehorick](#).



*David Rehorick playing jazz piano in Vancouver, BC.*

## Professor Emeritus & Honorary Research Professor – Research Success Stories

### Visiting India & South Africa

Dr. Virendrakumar C. Bhavsar, Hon. Research Professor and Professor Emeritus, Faculty of Computer Science, visited the Center for Development of Advanced Computing (C-DAC), Pune, India from Dec. 8, 2016–April 12, 2017. C-DAC is a high profile research center carrying out multi-disciplinary research in many areas of information technology. It has 14 centers in India and its headquarter is at Pune. There are about 800 employees at C-DAC, Pune. Dr. Bhavsar interacted with several members at C-DAC carrying out research work in the Applied Artificial Intelligence Group (AAIG) as well as the High Performance Computing Solutions Group and the Advanced Computing Training School (ACTS).

Dr. Bhavsar received the great honor of being invited as the Chief Guest, 2nd International Conference on Communication and Signal Processing (ICCASP 2016), Dr. B. Ambedkar Technological University, Lonere – Raigad, Maharashtra State, India.

He also gave eight keynote addresses at national and international conferences, as well as four invited seminars at the universities in South Africa and India. For a full list of Dr. Bhavsar's 2016/17 activities please visit [research matters—Dr. Bhavsar](#).



*Dr. Bhavsar (right) planting a tree at the Dr. Babasaheb Ambedkar Technological University, Lonere, India*

### Continuing research in molecular spectroscopy

Professor Emeritus Ron Lees is continuing his research in molecular spectroscopy using the Far Infrared beamline at the Canadian Light Source synchrotron in Saskatoon, the “brightest light in Canada.” He presented papers with co-authors on this work at several national and international conferences during the year, including “Shining Light on the Methyl-Bending Spectrum of CH<sub>3</sub>SH at the Canadian Light Source” at the 32<sup>nd</sup> Waterloo Chemical Physics Symposium, “FTIR Synchrotron Spectroscopy of the S-H Stretching Band of Methyl Mercaptan – An Interstellar and Biogenic Molecule” at the 72<sup>nd</sup> CAP Congress in Kingston, “High Resolution Synchrotron Spectroscopy of the Lower Modes of Methyl Mercaptan at the Canadian Light Source” at the International Conference on Advanced Vibrational Spectroscopy in Victoria, and “Torsion-Rotation Structure and Quasi-Symmetric-Rotor Behaviour for the CH<sub>3</sub>SH Asymmetric CH<sub>3</sub>-Bending and C-H Stretching Bands of E Parentage” at the 25<sup>th</sup> Colloquium on High Resolution Molecular Spectroscopy in Helsinki. Prior to the Helsinki meeting, Ron spent an interesting 3 weeks in August with colleagues at the Physikalisches Institute I of the University of Cologne in Germany, running methanol spectra on their THz spectrometer for potential astronomical application.



*Ron Lees hard at work in the Cologne THz lab, gazing intently at his spectrum on the screen*

Ron and his wife Dr. Li-Hong Xu are collaborating on this project with colleagues in Cologne, hoping some of those lines seen on the screen might be found in space in future by the astronomers.

### Stokes-Helmert (classical) algorithm

Dr. Petr Vanicek, Dr. Kingdon and Dr. Santos, along with two PhD students (Sheng and Foroughi), continue working on the Stokes-Helmert (classical) algorithm for precise determination of regional geoid. The group has submitted many publications on this topic with special emphasis being on “[In defense of the classical height system. Geophysical Journal International](#)” where they prove that the classical definition of height system is preferable to Molodenskij’s used in most of Europe.

Ms. Yosra Afrashteh, a PhD candidate from Tehran University, will be visiting the group for a period of 3 months to become familiar with their software for the Stokes-Helmert approach to geoid evaluation. Following the suggestion of the Czech Ambassador to Canada, the group initiated the move to establish a formal cooperation between UNB and the University of West Bohemia. The software that computes the rigorous orthometric heights was bought by FUGRO. To view Professor Vanicek’s full article, please visit [research matters—Petr Vanicek](#).

## Professor Emeritus & Honorary Research Professor – Research Success Stories

### Dr. Rajamani Doraiswami, Professor Emeritus

Dr. Doraiswami received his Bachelor of Electrical Engineering from Victoria Jubilee Technical Institute, Bombay, India; Master of Electrical Engineering from the Indian Institute of Science, Bangalore, India; Ph. D (Electrical Engineering) from Johns Hopkins University, Baltimore, USA in 1962, 1965 and 1971 respectively. Currently he is a professor emeritus in the department of Electrical and the Computer Engineering, the University of New Brunswick.

Dr. Doraiswami's current research is the development of fault tolerant autonomous vehicles including Automated Guided Vehicles (AGV), Mobile Robots, Driver-less cars. The performance of the autonomous system is monitored and if a fault is detected, the faulty subsystem is isolated, and the fault is accommodated. For his current research, publications including book chapter, and patents please visit [research matters-Dr. Doraiswami](#).

### Designing magnetic resonance probes from first principles

Saba M. Mattar, Professor Emeritus and HRP of Chemical Physics, reports on his research on magnetic resonance, Magnetic resonance techniques are extremely important in every day life. For example nuclear magnetic resonance (NMR) is the corner stone of magnetic resonance imaging (MRI) used as a diagnostic tool in hospitals. Electron Spin Magnetic Resonance (EMR) or (ESR) and electron paramagnetic resonance (EPR) are the equivalent of NMR but use electrons instead of nuclei. Spin labelled analogues of biologically and medically significant molecules and free radicals are usually large while their paramagnetic centers, in comparison to their overall size, are small. Thus they are paramagnetically dilute and difficult to detect. In addition, the sample size is generally small and its quantity is limited. Consequently, extensive research and effort have been spent in increasing the sensitivity of the magnetic resonance spectrometers used to investigate these molecules. One way is to design more sensitive EPR probes. Accordingly, miniature loop-gap (LGR) or dielectric (DR) resonators were introduced as probe components. These resonators have small sizes, high energy density and large magnetic fields in the sample vicinity, leading to large filling factors. DRs are normally housed in a shield to confine the probe's microwave radiation.

Two stacked resonators in an EPR probe, shown in [figure 1](#), add the flexibility of tuning the frequency over a certain frequency range. Doubly stacked dielectric resonators in free space and inside a shield were analyzed and the frequencies of the modes were calculated. This research has been recently published in a special edition of the Applied Magnetic Resonance (August 2017) Journal to honour Professor James S. Hyde on the occasion of his retirement. To view Professor Mattar's full article please visit [research matters—Professor Emeritus Mattar](#).

### Sally Rehorick, Professor Emerita, Education

Since retiring from UNB in 2007, Sally Rehorick has continued her research interests in the areas of Content and Language Integrated Learning (CLIL) and second language assessment via the Common European Framework of Reference (CEFR) as well as the European Language Portfolio (ELP).

As Principal of the Rehorick Group, she collaborated with David Rehorick (Professor Emeritus, Sociology) and Tim Stewart (Professor, Kyoto University) to develop a unique CLIL curriculum for English language learning at Jumeira University in Dubai, UAE. The resulting publication, *English for Academic Studies*, 2013, combined the CEFR and the ELP to establish a firm foundation for the Islamic students to learn English simultaneously via their content area courses.

In 2016, she co-authored with David Rehorick a [synthesis book chapter](#) which combined their collective knowledge bases and experience. They generated a summative account of an integrated content- and-language-based curriculum, drawing upon their work in Japan and Dubai. To view Professor Rehorick's full article please visit [research matters—Professor Emeritus Rehorick](#).



Sally Rehorick, Professor Emeritus

## UNB Awards

| Name                | Award  | Description  |
|---------------------|--|--|
| Sally McGrath       | Dr. Nora Ni Chuiv CFUW Graduate Scholarship  | Research on the origins of the equid in Bronze Age Greece using teeth samples to conduct strontium isotope analysis in order to identify the pasture lands where the horses were reared.   |
| Sue Sinclair        | Pat Lowther Award  | For best book of poetry by a Canadian woman in the calendar year.  |
| Robert Gray         | UNB Merit Award  |  |
| Dr. Emily Read      | 2016 Healthy Minds Canada/Pfizer Canada Workplace Depression Award                     | Dr. Read and her team (Patrick Bruning, PhD, Assistant Professor at the UNB School of Business Administration; Sue O'Donnell, RN, MN, PhD, Assistant Professor, Faculty of Nursing, UNB Fredericton; and Jennifer Donovan, RN, MN, the Clinical Research Coordinator at York Care Centre in Fredericton, NB), will be using the grant funds to examine the use and effectiveness of workplace Employee Family Assistance Programs for the identification and treatment of employee depression. The project will also receive 1:3 matching funds from New Brunswick Health Research Foundation. |
| Dr. Emily Read      | 2017 Harrison McCain Foundation Young Scholars Award                                   | Ekso Perspectives: Examining the experience of training and implementation of over ground ambulation using the Ekso bionic exoskeleton from the perspective of physiotherapists and patients and their family caregivers.  |
| Mary Lou Batty      | 2017 McPhedran Doctoral Award  | This scholarship is intended to provide funding for registered nurses employed by UNB Faculty of Nursing in Fredericton in a continuing or term appointment who are pursuing graduate degrees at any university approved by the selection committee.   |
| Fran Seymour        | 2017 Fredrik & Catherine Eaton Visitorship Award                                       | Research at Queen's University Belfast (QUB), School of Nursing & Midwifery.   |
| Erin Morton         | Canadian Studies Network Prize for the Best Book in Canadian Studies (Nominee)         | <i>Nominee - For Folk's Sake: Art and Economy in Twentieth-Century Nova Scotia (McGill-Queen's University Press, 2016).</i>  |
| Erin Morton         | RSC College of New Scholars, Artists and Scientists (Nominee)                          | Nominee – Royal Society of Canada College of New Scholars, Artists and Scientists  |
| Marc Milner         | The Admiral's Medal - An 8 ounce sterling silver medal (National Award of Recognition) | Awarded annually by the Royal Canadian Navy and the Naval Association of Canada in recognition of distinguished contribution to public awareness of the maritime issues and heritage of Canada.  |
| Marc Milner         | The Brigadier James Collins Book Prize (International Award)                           | Awarded annually by the U.S. Commission on Military History for the best book in Military History.   |
| Marc Milner         | UNB Merit Award  | Awarded by UNB in recognition of a particularly high level of scholarly activity and achievement.  |
| Marc Milner         | Honorary Colonel, RCAF   | Honorary Colonelcies are awarded to Canadians who, in the opinion of the Royal Canadian Air Force, have made a significant contribution to health, well being or public awareness of the Canadian Armed Forces in general and the RCAF in particular.  |
| Kaitlyn Goldsmith   | Best Student Poster International Academy of Sex Research summer 2017                  | Kaitlyn received "Best Student Poster" for the International Academy of Sex Research for the poster titled: "Extending the relationship maintenance framework: Sexual maintenance behaviors in long-distance and geographically close relationships".  |
| Brianna Boyle       | Joseph-Armand Bombardier Canada Graduate Scholarship (PhD)                             |  |
| Catherine Gallagher | Maecenas Graduate Scholarship  | For exceptional academic achievement.  |
| Jennifer Gallant    | Dr. William S. Lewis Doctoral Fellowship / SGS Magee                                   |  |
| Brenda Lee          | 2nd Place, Eastern Regional 3 Minute Thesis Competition                                | Brenda finished in 2nd place at the Eastern Regional Three Minute Thesis Competition for her research entitle Maintaining Monogamy in Committed Romantic Relationships.  |
| Jennifer McWilliams | SSHRC Masters Fellowship   |  |
| Hannah Stewart      | SSHRC Doctoral Fellowship  |  |
| Lauryn Vander Molen | SSHRC Masters Fellowship   |  |

## UNB Grants (not recorded by ORS) - page 1 of 2

| Name                                  | Grant  | Description  |
|---------------------------------------|--|--|
| Caroline Brunelle                     | MindCare   | Client Experiences in Different MMT Programs in Saint John, New Brunswick  |
| Enrico DiTommaso                      | MindCare   | Research designed to inform accessible psychological treatment approaches to reduce sexual pain.   |
| Enrico DiTommaso<br>(Co-Investigator) | MindCare   | The Implementation and Evaluation of a One Stop Shop Approach to Youth Well-being and Mental Health at KV Oasis Youth Centre.  |
| Ross Leckie                           | Canada Council - Grant to Literary & Arts Magazines  | Fiddlehead - 2017 grant for publication support  |
| Ross Leckie                           | Canadian Heritage, Canadian Periodical Fund, Aid to Publishers component   | Fiddlehead - 2017 grant for publication support  |
| Ross Leckie                           | NB Ministry of Tourism, Heritage, & Culture; Arts & Cultural Industries Branch (Publishers & Periodical Operational Grant Program) | Fiddlehead - First installment of 3-year grant for publication support   |
| Triny Finlay                          | Canada Council - Grant for reading tours   | Visiting Readers - four visiting authors whose reading tours were funded (via other Maritime universities) by the Canada Council   |
| Robert Gray                           | Province of NB Film Development Funding  |  |
| Robert Gray                           | City of Fredericton Community Arts Funding   |  |
| Robert Gray                           | Short Film Venture   | For the short film, "My Husband's Jump" (Province of NB/NB Film Co-op)   |
| Robert Gray                           | Telefilm Micro-budget Funding  |  |
| Robert Gray                           | Shaw Fund  | For the short film "Chorus," director Matt Rogers/writer R. W. Gray  |
| Robert Gray                           | Arts Faculty Development Fund  |  |
| Robert Gray                           | Busteed Fund   |  |
| Robert Gray                           | Creation Category B  | For the short film "Imperfect Future" director Jon Dewar   |
| Robert Gray                           | Creation Category B  | For the short film "My Husband's Jump" director R. W. Gray   |
| 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 - Project funding for 2017 productions of Richard III and The Comedy of Errors  |
| Len Falkenstein                       | Downtown Fredericton Grant   | Bard in the Barracks - Project funding for 2017 season production of The Comedy of Errors  |
| 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 2017 production of Gracenotes   |
| Len Falkenstein                       | Department of Canadian Heritage Building Communities through Arts and Heritage   | NotaBle Acts - Operational funding for 2017 summer festival  |
| Len Falkenstein                       | artsnb Artist in Residence program   | NotaBle Acts - Supported the hiring of an Artist/Playwright in Residence for 2017 festival   |
| Len Falkenstein                       | Downtown Fredericton 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   |
| Stefanie Kennedy                      | Harrison McCain Young Scholars Award   | The Atlantic Slave Law Database is the beginning of a long-term program of research that will analyze and provide worldwide access to the English Atlantic slave laws from the earliest comprehensive codes in the seventeenth century to the laws that governed emancipation in the nineteenth century. |

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

| Name  | Grant   | Description  |
|---|---|--|
| Stefanie Kennedy  | URF   | The Atlantic Slave Law Database is the beginning of a long-term program of research that will analyze and provide worldwide access to the English Atlantic slave laws from the earliest comprehensive codes in the seventeenth century to the laws that governed emancipation in the nineteenth century.   |
| Erin Morton & Stefanie Kennedy                                  | Royal Society of Canada Open Academy Program - RSC Atlantic | Dr. Charmaine Nelson lecture and research seminar, "Slave Dress and Hair Styles as Self-Care Unsettling the Settler Artist: Reframing the Canadian Visual Arts, 1867 to the Present: Exploring the Evidence in Art and Fugitive Slave Advertisements of Canada and Jamaica."   |
| Lee Windsor, Cindy Brown, Alan Sears, Blake Seward, Marc Milner | Veterans Affairs Canada Commemorative Partnership Grant     | In summer 2017 Veterans Affairs Canada awarded the Gregg Centre for the Study of War and Society a Commemorative Partnership Community Engagement Grant in support of the 2017 War & the Canadian Experience Teachers Professional Development Program. The project enabled 22 teachers selected from across the country to immerse in the latest research on the history of Canada in both world wars combined with history education methods. The program harnessed the public spotlight cast on centennial commemorations of First World War events at Vimy Ridge and Passchendaele as well as the 75th anniversary of the 1942 Dieppe raid to challenge educators to engage their own students to contribute directly to new research using Library and Archives Canada's digital collections. |
| Marc Milner, Brent Wilson, Lee Windsor                          | New Brunswick Department of Tourism, Heritage, and Culture  | The New Brunswick Department of Tourism, Heritage, and Culture renewed its grant for the New Brunswick Military Heritage Project run by the Gregg Centre for the Study of War and Society. The funding supports the NBMHP book series as well as public engagement events across the province.   |
| Sophie M. Lavoie  | artsNB  | Career Development   |
| Lauren Cruikshank   | artsNB  | Media Artist in Residence  |
| Sophie M. Lavoie  | Harrison McCain Foundation                                  | Harrison McCain Foundation Scholarly Book Publishing   |
| Lauren Cruikshank   | Harrison McCain Foundation                                  | Harrison McCain Foundation Young Scholars  |
| Richard Hornsby   | Harrison McCain Foundation                                  | Harrison McCain Foundation Visiting Professorship  |
| Sophie M. Lavoie  | Arts Faculty Development Fund                               | Conference Participation   |
| Scott Preston   | Arts Faculty Development Fund                               | Conference Participation   |
| Sophie M. Lavoie  | Busteed Fund  | In support of publications   |
| Richard Hornsby   | Dept. of Education Grant                                    | Support for Instrumental Music Camps   |
| Richard Hornsby   | artsNB  | Arts in Residence/Emerging Artist in Residence   |
| Richard Hornsby   | Canada Council  | International Travel grant   |
| Richard Hornsby   | Fredericton Community Foundation                            | NB Summer Music Festival   |
| Richard Hornsby   | City of Fredericton (Arts and Heritage)                     | NB Summer Music Festival   |
| Richard Hornsby   | Fed. Dept. of Canadian Heritage                             | NB Summer Music Festival   |



UNB Grants (recorded by ORS) - page 1 of 8

| Principal Investigator | Agency                                    | Project Title  |
|------------------------|---|--|
| Sherman Ann            | Atlantic Policy Congress                  | Sub from St. F.X.: Labour Force Readiness: The Pathway for Aboriginal Youth from High School into Post-Secondary Education and Workforce Engagement                                |
| Curry Allen            | Atlantic Salmon Conservation Foundation   | A Literature Review of Feeding Behaviour and Prey Preferences of Striped Bass with Special Attention to Predation on Atlantic Salmon Smolt   |
| Linnansaari Tommi      | Atlantic Salmon Conservation Foundation   | Monitoring Returning Atlantic Salmon (Salmo Salar) Population Size in Miramichi River Using Imaging Sonar  |
| Ni Yonghao             | Canada Research Chair                     | NSERC Tier 1 - Pulp and Paper Science and Engineering  |
| VanBuskirk Kelly       | Canadian Bar Association                  | Interpersonal Skills and the legal Profession  |
| Hebert Jeffrey         | Canadian Chiropractic Research Foundation | CCRF / NBHRF Chiropractic Chair in Musculoskeletal Health  |
| Gupta Neeru            | Canadian Diabetes Association             | The CDA-NBHRF Diabetes Research Chair  |
| Doucet Shelley         | Canadian Institutes of Health Research    | Sub from McGill: Policies and Program Innovations that Connect Primary Health Care, Social Services, Public Health and Community Supports in Canada: a Comparative Policy Analysis |
| McDonald Ted           | Canadian Institutes of Health Research    | Sub from McMaster: Canadian Research Data Centre Network: Integrating New Initiatives for a Stronger Future  |
| Peters Paul            | Canadian Institutes of Health Research    | Forecasting the Burden of Chronic Disease in Small-Areas: a Spatial Epidemiological Approach Using Linked Micro Data   |
| Read Emily             | Canadian Institutes of Health Research    | The Value of Relationships at Work: Examining Nurses' Workplace Social Capital in Hospital Settings  |
| Reiman Anthony         | Canadian Institutes of Health Research    | CIHR SPOR Mentorship Chair in Innovative Cancer Clinical Trials  |
| Edwards Jonathon       | Coaching Association of Canada            | Understanding the Quality and Validity of the Coach Evaluation Experience throughout Canada  |
| Lavoie Sophie          | Concordia University                      | Constructing Memory: Latino-Canadian Women Writers in the New Millennium   |
| O'Donnell Susanne      | Fredericton Community Foundation          | 2017-2018 Open Your Eyes Fredericton Initiative  |
| Seymour Fran           | Fredrik & Catherine Eaton                 | School of Nursing & Midwifery - Queens University Belfast  |
| Hrynck Martin Gabriel  | Grand Lake Meadows                        | Foundational Economic Connections between the GLM & the Greater Northeast  |
| Mancke Elizabeth       | Grand Lake Meadows                        | Floating Bridges, Fences, Ferries and Roads: Historic GLM Transportation Systems   |
| Moir Rob               | Grand Lake Meadows                        | Assessment of the Sustainable Tourism Potential of the Grand Lake Meadows Area   |
| Nocera Joseph          | Grand Lake Meadows                        | Features of Natural Wetland Buffers that Contribute to Avian Diversity   |
| Bateman Scott          | Harrison McCain Foundation                | Dr. Rainer Herpers - Bonn-Rhein-Sieg University of Applied Sciences, Institute of Visual Computing, St. Augustin, Germany  |
| Bell Jason             | Harrison McCain Foundation                | Mapping New Brunswick Treasures: International Influences of 20th Century Philosophy   |
| Benfey Tillmann J.     | Harrison McCain Foundation                | University of British Columbia & DFO-CAER  |
| Blatherwick Mary       | Harrison McCain Foundation                | Creative Dimensions of Teaching and Learning in the 21st Century   |
| Bouchard Danielle      | Harrison McCain Foundation                | Aerobic Intensity While Participating in Walking Groups for Older Adults   |
| Byers Sandra           | Harrison McCain Foundation                | Université de Montréal (U de M)  |
| Byers Terri            | Harrison McCain Foundation                | Dr. Mathieu Winand - University of Stirling  |
| Cruikshank Lauren      | Harrison McCain Foundation                | Tracing Game Development Communities and Culture in Atlantic Canada  |
| Cunjak Rick            | Harrison McCain Foundation                | University of Zagreb (Croatia)   |

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

| Principal Investigator      | Agency  | Project Title   |
|-----------------------------|---|---|
| Dafnos Tia                  | Harrison McCain Foundation                        | National Security and Critical Energy Infrastructure Protection in New Brunswick  |
| Day Jennifer                | Harrison McCain Foundation                        | Geomechanical Rockmass Characterization for Design of Deep Nuclear Waste Storage in NB  |
| Englehart Kevin             | Harrison McCain Foundation                        | Juan Valentin Lorenzo-Ginori - Universidad Central "Marta Abreu" de Las Villas, Cuba  |
| Erdle Thom A.               | Harrison McCain Foundation                        | University of Canterbury, Christchurch, New Zealand   |
| Hamilton Ryan               | Harrison McCain Foundation                        | Running Forward - a Supportive Program for Cancer Survivors   |
| Hamling Anna                | Harrison McCain Foundation                        | Religijne eseje Lwa N Tolstoja i Miguela de Unamuno   |
| Hindmarch Suzanne           | Harrison McCain Foundation                        | Politics of Pathogens: State Sovereignty, Global Cooperation & Antimicrobial Resistance   |
| Holloway A. Gordon L.       | Harrison McCain Foundation                        | University of Queensland, Queensland Australia  |
| Hornsby Richard A.          | Harrison McCain Foundation                        | Dr. Martin Arnold - Trent University  |
| Hrynick Martin Gabriel      | Harrison McCain Foundation                        | Archaeological Investigation of the Eroding Maine Coast   |
| Kennedy Stefanie            | Harrison McCain Foundation                        | The Atlantic World Slave Laws Database  |
| Kidd Karen                  | Harrison McCain Foundation                        | John Gunn, Vale Living with Lakes Centre, Laurentian University   |
| Lavoie Sophie               | Harrison McCain Foundation                        | Constructing Memory: Latino-Canadian Women Writers in the New Millennium  |
| Lawrence Janice             | Harrison McCain Foundation                        | University of Bergen, Norway  |
| Lewis JP                    | Harrison McCain Foundation                        | The Blueprint: Conservative Parties and their Impact on Canadian Politics   |
| Lu Rongxing                 | Harrison McCain Foundation                        | Security and Privacy in Fog Computing-Enhanced IoT  |
| Mullally Sasha              | Harrison McCain Foundation                        | University of Gothenburg  |
| Read Emily                  | Harrison McCain Foundation                        | Ekso Perspectives   |
| Richard Chantal             | Harrison McCain Foundation                        | Les Conventions Nationales Acadiennes (1900-1908). Tome II  |
| Sanchez-Castillo Xiomara A. | Harrison McCain Foundation                        | Effect of Freezing and Thawing Cycles and Deicer Salts on the Durability of Recycled Asphalt  |
| Scott Amy                   | Harrison McCain Foundation                        | Life at Louisberg: Skeletal Explorations of Health in 18th Century Atlantic Canada  |
| Scott Amy                   | Harrison McCain Foundation                        | Anthropology of the Fetus: Biology, Culture and Society   |
| Senechal Martin             | Harrison McCain Foundation                        | Plasma Irisin Secretion in Youth: Is Exercise Intensity Important?  |
| Speers-Roesch Ben           | Harrison McCain Foundation                        | Mechanisms and Significance of Winter Dormancy in Fishes  |
| Tokaryk Dennis              | Harrison McCain Foundation                        | Dr. Amanda Ross, Chercheur CNS, Institut Lumière Matière, Université Lyon 1   |
| McKenna Mary                | Heart and Stroke Foundation of Canada             | Physical Activity Opportunities in Saint John, NB: A neighbourhood assessment by income   |
| Ghorbani Ali                | IBM CANADA  | Analytics for Endpoints System Data   |
| Saha Gobinda                | Imperial Oil                                      | Investigation of Wear and Corrosion Mechanisms and Enhancement of Process Equipment Performance in Hydrocarbon and Inorganic Refinery               |
| MacLean David A.            | JD Irving Limited                                 | Landscape-Level Effects of Intensive Forest Management on Biodiversity: Integrating Monitoring with Retrospective and Projective Landscape Analysis |
| Nason-Clark Nancy           | Louisville Institute                              | Christianity & Abuse  |
| Arjomandi Kaveh             | Natural Sciences and Engineering Research Council | Integration of Hybrid Inspection Data into Structural Health Monitoring   |
| Benfey Tillmann J.          | Natural Sciences and Engineering Research Council | The Physiology of Polyploid Fish  |
| Benfey Tillmann J.          | Natural Sciences and Engineering Research Council | Research Needs for Commercial Application of Triploidy in Arctic Charr Production   |
| Benfey Tillmann J.          | Natural Sciences and Engineering Research Council | Optimizing Egg Production for In Vitro Fertilization in Zebrafish   |

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

| Principal Investigator | Agency  | Project Title   |
|------------------------|---|---|
| Burns David            | Natural Sciences and Engineering Research Council | Determination of Cleaning Efficiency of Used Cleaning and Degreasing Solutions by Optical and Acoustic Spectroscopy   |
| Cacic Branimir         | Natural Sciences and Engineering Research Council | Principal Bundles in Noncommutative Differential Geometry   |
| Carretero Juan A.      | Natural Sciences and Engineering Research Council | Cable-Driven Parallel Manipulators with Extensible Rods   |
| Chang Liuchen          | Natural Sciences and Engineering Research Council | Development of New Power Decoupling and Pulse Energy Modulation Technologies for Single-Phase Distributed Generation Inverters  |
| Cook William           | Natural Sciences and Engineering Research Council | Performance Testing and Evaluation of Diffusion Coatings for Application in Supercritical Water Cooled Reactors and Power Plants                                      |
| Du Weichang            | Natural Sciences and Engineering Research Council | Semantics Based Text Matching for Unstructured Text Documents   |
| Du Weichang            | Natural Sciences and Engineering Research Council | Semantics Based Text Matching for Unstructured Text Documents   |
| Dubay Rickey           | Natural Sciences and Engineering Research Council | 3-D Sensory Feedback for Robotic Control  |
| Dubay Rickey           | Natural Sciences and Engineering Research Council | Advanced Control of a Large-Scale Paten Heating System  |
| Dueck Gerhard          | Natural Sciences and Engineering Research Council | Memory Organization Based on Data Temperature   |
| Eisler Sara            | Natural Sciences and Engineering Research Council | Synthesizing Complex Conjugated Molecular Materials   |
| El Smaily Mohammad     | Natural Sciences and Engineering Research Council | Nonlinear Partial Differential Equations in Heterogeneous Frameworks  |
| Gerber Andrew G.       | Natural Sciences and Engineering Research Council | Accelerating Manycore Fluid Flow Predictions Including Wave/Ship Motions Using Parareal   |
| Ghorbani Ali           | Natural Sciences and Engineering Research Council | A Neural Network Based Cyber Insurance Risk Classification Tool   |
| Gong Meng              | Natural Sciences and Engineering Research Council | Interfacial Adhesion and Fracture Behavior of Laminated Engineered Wood Products  |
| Gong Meng              | Natural Sciences and Engineering Research Council | "From Field to Forest" Non Timber Forest Products Conference  |
| Gong Meng              | Natural Sciences and Engineering Research Council | Development of Engineered Wooden Drumsticks   |
| Hasan Tariqul          | Natural Sciences and Engineering Research Council | Random Effects Modeling of a Longitudinal and Spatial Data With and Without Zero-Inflation  |
| Heard Stephen          | Natural Sciences and Engineering Research Council | Tree Species Effects on Btk Control of Spruce Budworm   |
| Husain Viqar           | Natural Sciences and Engineering Research Council | Black Holes and Cosmology in Quantum Gravity  |
| Ingalls Colin          | Natural Sciences and Engineering Research Council | Noncommutative Algebraic Geometry   |
| Jeans Tiger            | Natural Sciences and Engineering Research Council | Sub from U of Alberta: Endurance Increase of Autonomous Underwater Vehicles Using Polymeric Coating Technology for Effective Arctic Seabed Exploration and Monitoring |
| Kent Kenneth           | Natural Sciences and Engineering Research Council | Optimizing and Integrating Node.js on Distributed and Multicore Clouds  |
| Kieffer James          | Natural Sciences and Engineering Research Council | Physiological and Behavioural Aspects of Swimming in Sturgeon   |

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

| Principal Investigator | Agency  | Project Title   |
|------------------------|---|---|
| Lu Rongxing            | Natural Sciences and Engineering Research Council | Advanced Security and Privacy Technologies for Data Protection: Analysis, Design and Application in Big Data Era  |
| MacLean David A.       | Natural Sciences and Engineering Research Council | Landscape-Level Effects of Intensive Forest Management on Biodiversity: Integrating Monitoring with Retrospective and Projective Landscape Analysis             |
| Mohammadi Mohsen       | Natural Sciences and Engineering Research Council | Exploring Advanced Manufacturing Technologies   |
| Mohammadi Mohsen       | Natural Sciences and Engineering Research Council | Metal 3D Planning: Applications in Marine and Heavy Industries  |
| Mohammadi Mohsen       | Natural Sciences and Engineering Research Council | Marine Additive Manufacturing and Cold Spray  |
| Newling Ben            | Natural Sciences and Engineering Research Council | Advancing Magnetic Resonance Measurements of Mass Transport   |
| Rajora Om              | Natural Sciences and Engineering Research Council | Local Adaptation and Evolutionary and Adaptive Genetic Potential of Marginal Populations of Northern Forest Trees Under Climate Change                          |
| Ray Suprio             | Natural Sciences and Engineering Research Council | Smart Load Allocation Algorithm   |
| Rochette Rémy          | Natural Sciences and Engineering Research Council | The Contribution of Behaviour to the Population and Fisheries Ecology of the American Lobster Homarus Americanus  |
| Saha Gobinda           | Natural Sciences and Engineering Research Council | Development and Industrial Manufacturing of Pultruded Fiber-Reinforced Thermoplastic Polymer Matrix Composites  |
| Scheme Erik            | Natural Sciences and Engineering Research Council | Evaluation of Respiratory Rate Measurements Using the CloudDX Pulsewave Device  |
| Singh Kripa            | Natural Sciences and Engineering Research Council | Advancing Anaerobic Membrane Bioreactor Treatment for Value Addition to Starch Based High Particulate Wastes  |
| Speers-Roesch Ben      | Natural Sciences and Engineering Research Council | Mechanisms and Significance of Physiological Plasticity in Winter-Dormant Fishes: a Model to Understand Constraints on Performance in Cold Environments         |
| Spray John G.          | Natural Sciences and Engineering Research Council | Impact-Resistant Materials for Space-Based Infrastructure   |
| Stakhanova Natalia     | Natural Sciences and Engineering Research Council | Detection of Tampering with Document Object model (DOM) Tree  |
| Stakhanova Natalia     | Natural Sciences and Engineering Research Council | Meeting with TrendMicro (Cybersecurity Solutions for Businesses)  |
| Thomas Michael         | Natural Sciences and Engineering Research Council | Carbon Dioxide Utilization for the Concrete Industry  |
| Tokaryk Dennis         | Natural Sciences and Engineering Research Council | High-Resolution Molecular Spectroscopy Using Laser and Synchrotron Radiation  |
| Voyer Daniel           | Natural Sciences and Engineering Research Council | Correlates of Perceptual Asymmetries in Dichotic Listening  |
| Watmough James         | Natural Sciences and Engineering Research Council | The Effect of Heterogeneity on Host-Pathogen, Plant-Herbivore and Disease-Transmission Systems  |
| Xiao Huining           | Natural Sciences and Engineering Research Council | Responsive Cellulose Fiber and Polymer-Based Adsorbents for Contaminant Removal   |
| Xu Li-Hong             | Natural Sciences and Engineering Research Council | Spectroscopic Studies of Large-Amplitude Motions in Methyl-Rotor-Containing Molecules Important to Fundamental Physics, Astronomy and Chemical Dynamics         |
| McFarlane Christopher  | NB Department of Natural Resources & Energy       | Evaluation of Petrochemical Characteristics and Genesis of the Lamprophyre Dykes Associated with Various Styles of Precious Metal Mineralization, New Brunswick |

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

| Principal Investigator   | Agency                        | Project Title  |
|--------------------------|-------------------------------|--|
| Adishesh Linganatha Anil | NB Health Research Foundation | Advances in Concussion: Diagnosis and Management   |
| D'Entremont Barbara      | NB Health Research Foundation | Sharing Evidence and Perspectives on the Impact of Preschool Autism Treatment  |
| Doucet Shelley           | NB Health Research Foundation | Sub from U de Moncton: Connected Voices - Bouctouche   |
| Doucet Shelley           | NB Health Research Foundation | Sub from McGill: Policies and Program Innovations that Connect Primary Health Care, Social Services, Public Health and Community Supports in Canada: a Comparative Policy Analysis |
| Englehart Kevin          | NB Health Research Foundation | Myoelectric Controls Symposium and Workshop  |
| Furlong Dolores          | NB Health Research Foundation | AGEWELL-National Innovation Hub in Advancing Policies and Practices in Technology and Aging  |
| Gupta Neeru              | NB Health Research Foundation | The CDA-NBHRF Diabetes Research Chair  |
| Hebert Jeffrey           | NB Health Research Foundation | CCRF / NBHRF Chiropractic Chair in Musculoskeletal Health  |
| McDonald Ted             | NB Health Research Foundation | The Impact of Rural Hospital Closures on Access to Hospital Services and Health Outcomes in New Brunswick: a Matched Case-Control Study  |
| McGibbon Chris           | NB Health Research Foundation | A Polypharmacy App to Improve Health Outcomes for Seniors in Long-Term Care  |
| Mullally Sasha           | NB Health Research Foundation | Therapeutic Craft in the Sanatoria: Creativity, Productivity and Early Occupational Therapy, 1909-1919   |
| Poulin Carmen            | NB Health Research Foundation | Healthy or Not? The Perils of Firefighting for Women   |
| Pulinilkunnil Thomas     | NB Health Research Foundation | Role of Amino Acid Metabolizing Enzymes in Triple Negative Breast Cancer   |
| Pulinilkunnil Thomas     | NB Health Research Foundation | Role of Branch Chain Amino Acid Metabolizing Enzyme in Myocardial Insulin Resistance and Glucolipototoxicity   |
| Read Emily               | NB Health Research Foundation | Examining the Use and Effectiveness of Workplace Employee Family Assistance Programs for the Identification and Treatment of Employee Depression                                   |
| Reiman Anthony           | NB Health Research Foundation | Investigating the Role of Exosomes in Myeloma Disease Progression  |
| Reiman Anthony           | NB Health Research Foundation | CIHR SPOR Mentorship Chair in Innovative Cancer Clinical Trials  |
| Rickards Tracey          | NB Health Research Foundation | Embedded Clinician Research Assistant - Improving Health Outcomes of Vulnerable Populations  |
| Scheme Erik              | NB Health Research Foundation | A Comparison of Quality Assessment Strategies for Surface Electromyography   |
| Senechal Martin          | NB Health Research Foundation | Personalized Exercise: Are My Myokines a Response to Our Problem in New Brunswick  |
| Senechal Martin          | NB Health Research Foundation | Plasma Irisin Secretion in Youth: is Exercise Intensity Important?   |
| Sensing Jon              | NB Health Research Foundation | Development of an Assistive Control Strategy for a Powered Orthosis  |
| Sensing Jon              | NB Health Research Foundation | Self-Aligning Powered Hip Orthosis: Co-Optimization of Passive and Active Joints   |
| Balcom Bruce J.          | NB Innovation Foundation      | Variable Field Magnetic Resonance Imaging (MRI) of Petroleum Reservoir Rock Cores  |
| Brunt Keith              | NB Innovation Foundation      | BioBank Analyst for Bioscience Innovation Development & Commercialization  |
| Chang Liuchen            | NB Innovation Foundation      | Alternative Power System Resources Based on Distributed Energy Resources   |
| Colpitts Bruce G.        | NB Innovation Foundation      | Harmonic Radar Insect Tracking Systems   |
| Cook William             | NB Innovation Foundation      | Hydrogen Permeation Device (HPD) for Industrial Corrosion Sensors  |
| Crawford Bryan           | NB Innovation Foundation      | Modular Confocal Microscope for 3D Fluorescence Imaging in Vivo  |
| Dubay Rickey             | NB Innovation Foundation      | CA-CAN (Control Ant, Control Ant Nest) Development for Advanced Controls in Industry   |

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

| Principal Investigator | Agency                            | Project Title  |
|------------------------|-----------------------------------|--|
| Dubay Rickey           | NB Innovation Foundation          | Machine Learning Development and Implementation for Plastic Injection Molding  |
| Dueck Gerhard          | NB Innovation Foundation          | Memory Organization Based on Data Temperature  |
| Dyker Adam             | NB Innovation Foundation          | Organic Anode Materials for Redox Flow Batteries   |
| Eic Mladen             | NB Innovation Foundation          | Fast Screening of Adsorbents for Gas Separation and Purification of Commercial Interests   |
| Englehart Kevin        | NB Innovation Foundation          | Myoelectric Control of Prosthetic Limbs  |
| Gong Meng              | NB Innovation Foundation          | Nail-Laminated Timber Panel  |
| Gray Christopher       | NB Innovation Foundation          | Natural Products from New Brunswick Endophytic Fungi as Antibiotic Drug Leads  |
| Hall Joseph            | NB Innovation Foundation          | Multi-Point Accelerating Cylinder Measurements for Computational Fluid Dynamics Validation   |
| Kent Kenneth           | NB Innovation Foundation          | Optimizing and Integrating Node.js On Distributed and Multicore Clouds   |
| Kent Kenneth           | NB Innovation Foundation          | OMR in Resource Constrained Environments   |
| Kershaw John A.        | NB Innovation Foundation          | Assessment of Uncertainty in Forest Inventory and Growth Projections   |
| Linnansaari Tommi      | NB Innovation Foundation          | Collaboration for Atlantic Salmon Tomorrow (CAST): A Made in New Brunswick Research Consortium to Reverse the Decline in Atlantic Salmon Populations               |
| Lloyd Alan             | NB Innovation Foundation          | IVF Voucher - Plixo Corporation  |
| McGibbon Chris         | NB Innovation Foundation          | Undergraduate and Master's Training in Exoskeleton Biomechanics for Mobility Restoration   |
| Mohammadi Mohsen       | NB Innovation Foundation          | Sustainable Additive Manufacturing Techniques to Develop Lighter Yet Stronger Metal 3D Printed Products Using Multi-scale Modeling and Materials Characterizations |
| Mohammadi Mohsen       | NB Innovation Foundation          | Developing Metal Additively Manufactured Propeller for Marine Application Using Stainless Steel 316L   |
| Mohammadi Mohsen       | NB Innovation Foundation          | Developing 3D Printed Composite Armor Plates for Marine Applications   |
| Mohammadi Mohsen       | NB Innovation Foundation          | Marine Additive Manufacturing Centre of Excellence   |
| Ni Yonghao             | NB Innovation Foundation          | Flow Characteristics of Chemical Pulp Fibers in Pipe Lines   |
| Ni Yonghao             | NB Innovation Foundation          | Research Technician in Cellulose Based Packaging Products  |
| Ni Yonghao             | NB Innovation Foundation          | Cellulose Biomaterial Research Laboratory  |
| Reiman Anthony         | NB Innovation Foundation          | A Novel Pharmacological Approach to the Treatment of Resorptive Bone Diseases Shrew Venom Derived Peptides   |
| Saha Gobinda           | NB Innovation Foundation          | Development of Multifunctional Materials and Coatings By Cost-Effective Advanced Sol-Gel Processes for Water Purification Systems                                  |
| Scheme Erik            | NB Innovation Foundation          | Intelligent Health Technologies  |
| Stakhanova Natalia     | NB Innovation Foundation          | Security of Mobile Financial Services  |
| Xiao Huining           | NB Innovation Foundation          | Antibacterial Cellulose Nanofibers and Bio-composites Prepared by Electrospinning and Extrusion  |
| Bouchard Danielle      | Networks of Centers of Excellence | Student - Amanda Lee   |
| Bouchard Danielle      | Networks of Centers of Excellence | 2017 Interdisciplinary Fellowship Program - Amanda Lee   |
| Burns David            | Networks of Centers of Excellence | Profiling Microbial Volatile Organic Compounds (MVOC); Progress Towards Detection of Various Mold Species via Gas Chromatography-Mass Spectrometry                 |
| Church Ian             | Networks of Centers of Excellence | 1.6 Ocean Mapping  |
| Couturier Michel F.    | Networks of Centers of Excellence | Optimization of Conventional and Novel Methods for Removing Carbon Dioxide from Recirculating Aquaculture Systems  |
| Eic Mladen             | Networks of Centers of Excellence | Evaluation of Adsorbents' Properties and Optimization of Adsorption Based Processes for Gas Separations  |
| Ghorbani Ali           | Networks of Centers of Excellence | Network Traffic Profiling for Generating Intrusion Detection Evaluation Datasets   |

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| Principal Investigator  | Agency  | Project Title  |
|-------------------------|---|--|
| Hall Joseph             | Networks of Centers of Excellence               | Calibration of a Novel Orifice Plate Flow-Meter  |
| McCloskey Rose          | Networks of Centers of Excellence               | Understanding Who Falls in a Hospital and Why They Fall  |
| Ni Yonghao              | Networks of Centers of Excellence               | Development of Natural Antimicrobial Formulations for Food Safety  |
| Ni Yonghao              | Networks of Centers of Excellence               | Understanding the Effect of Wood Quality and Pulping Conditions on the Properties of Dissolving Pulp   |
| Sherman Ann             | Networks of Centers of Excellence               | Early Childhood Education Project  |
| Shukla Dharendra        | Networks of Centers of Excellence               | SIEMENS Perceived Value of Energy Consumers Project: Research & Development for Modeling the Perceived Value of Energy Consumers   |
| Valentine Kathleen      | Networks of Centers of Excellence               | Frailty in the Context of Adult Day Programming (ADP): Validating a Frailty Assessment Tool  |
| Mullally Sasha          | NS Heath Research Foundation                    | Therapeutic Craft in the Sanatoria: Creativity, Productivity and Early Occupational Therapy, 1909-1919   |
| Major Heather           | Polar Knowledge Canada                          | UNB Northern Studies Committee   |
| Huskins Bonnie          | Royal Society of Canada                         | "Re-examining Refugees: Loyalists and Maroons in a Global Context:" Research seminar and public lecture. Dr. Ruma Chopra from San Jose State University discussed her research on Jamaican maroons in a seminar at the NB Archives. Layla Rahmeh, an activist from Syria, ended the session by discussing her own experiences and the policy challenges facing refugees today. |
| Morton Erin             | Royal Society of Canada                         | From African to Creole: Examining Creolization through the Art and Fugitive Slave Advertisements of Eighteenth- and Nineteenth-Century Canada and Jamaica  |
| Blair Susan             | Social Sciences and Humanities Research Council | Food, Place and People in the Maritime Woodland Period of the Quoddy Region of Northeastern, Northern America  |
| Cameron Ann             | Social Sciences and Humanities Research Council | Sub from UBC: Development of Honesty and Trust in Children: East-West Comparisons  |
| Hofmann David           | Social Sciences and Humanities Research Council | Sub from U of Waterloo: Research on Terrorism, Security and Society in Canada: a Collaborative Approach  |
| Hughes Julia            | Social Sciences and Humanities Research Council | Looking Out for Each Other - Assisting Aboriginal Families & Communities When an Aboriginal Woman Goes Missing   |
| McDonald Ted            | Social Sciences and Humanities Research Council | Sub from McMaster: Canadian Research Data Centre Network: Integrating New Initiatives for a Stronger Future  |
| Morton Erin             | Social Sciences and Humanities Research Council | Unsettling the Settler Artist: Reframing the Canadian Visual Arts, 1867 to the Present   |
| Munoz-Martinez Hepzibah | Social Sciences and Humanities Research Council | (In)Securities in Development: Crises and Financial Derivatives in Mexico  |
| O'Sullivan Lucia        | Social Sciences and Humanities Research Council | Maintaining Exclusivity and Managing Attraction to Others in Intimate Relationships  |
| Perley David            | Social Sciences and Humanities Research Council | Education for Reconciliation: What Role Can Universities Play in Building Peace and Friendship?  |
| Sherman Ann             | Social Sciences and Humanities Research Council | Sub from Aurora College: Decolonizing Learning in Communities Across Canada: Stories of Hope   |
| Sensinger Jon           | Springboard Atlantic                            | Power Lower Limb Devices & Methods of Control  |
| Zhang Yun               | Springboard Atlantic                            | Software System Development for High-Resolution Change Detection   |
| Bouchard Danielle       | University of New Brunswick                     | Association between New Physical Activity Indexes and Functional Outcomes for Canadian Adults  |
| Cacic Branimir          | University of New Brunswick                     | Principal Bundles in Noncommutative Differential Geometry  |
| Chowdhury Murshed       | University of New Brunswick                     | Who Moves? A Longitudinal Study of Internal Migration Behaviour of Recent Canadian Immigrants  |
| Church Ian              | University of New Brunswick                     | Developing Multi-Beam Sonar Water Column Processing Tools and Methodologies  |
| Crawford Bryan          | University of New Brunswick                     | Modular Confocal Microscope for 3D Fluorescence Imaging in Vivo  |
| Crawford Lucas          | University of New Brunswick                     | Slender Trouble: Contemporary British Women's Fiction and the Figuring of "Figure"   |

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| Principal Investigator | Agency                      | Project Title   |
|------------------------|-----------------------------|---|
| Cull Barry W.          | University of New Brunswick | D-READ: Deep Reading and Academic Discourse   |
| Dira Mohamed           | University of New Brunswick | Cognitive and Non-Cognitive Skills, Strategic Reasoning Training and Auditor Skepticism   |
| Effinger Elizabeth     | University of New Brunswick | In the Pages of the Earth: Romantic Literature, Earth Sciences and the Waning of Human Exceptionalism   |
| Fury Cheryl            | University of New Brunswick | Diet, Disease & Disorder in the Early East India Company, 1600-1650   |
| Gill Carmen            | University of New Brunswick | Collaborative Police Action on Intimate Partner Violence  |
| Gray Christopher       | University of New Brunswick | University Research Scholar 2017-2019   |
| Gupta Neeru            | University of New Brunswick | Leveraging of Existing Data Sources to Assess Disparities in the Progression of Diabetes and Other Chronic Conditions to Inform Policy & Prevention |
| Hofmann David          | University of New Brunswick | Testing the Reliability, Validity and Equity of Terrorism Risk Assessment Tools   |
| Hrynck Martin Gabriel  | University of New Brunswick | Developing Capacity for Paleoethnobotany in the Wabanaki Homeland   |
| Hunt Heather           | University of New Brunswick | Impact of Salmon Aquaculture on the Diversity and Health of Benthic Communities in Shallow Coastal Habitats of the Canadian Gulf of Maine           |
| Husain Viqar           | University of New Brunswick | University Research Scholar Award 2017-2019   |
| Kennedy Stefanie       | University of New Brunswick | Atlantic World Slave Law Database   |
| Lu Rongxing            | University of New Brunswick | Achieve Privacy Preserving Healthcare Data Analytics in Big Data Era  |
| Maier Sarah E.         | University of New Brunswick | Neo-Victorian Narratives in Young Adult Fiction   |
| Nasierowski Wojciech   | University of New Brunswick | Assessment of Technical Efficiency of Innovative Policies   |
| Ni Yonghao             | University of New Brunswick | Cellulose Biomaterial Research Laboratory   |
| Rogers Matthew         | University of New Brunswick | Participatory Filmmaking in Atlantic Canadian Schools   |
| Scott Amy              | University of New Brunswick | Excavating Louisbourg: A multi-component exploration of the lived experience in 18th century Atlantic Canada  |
| Shaikh Ibrahim         | University of New Brunswick | The Governance of R & D and Technological Innovation  |
| Snook Edith            | University of New Brunswick | University Research Scholar 2017-2019   |
| Speers-Roesch Ben      | University of New Brunswick | Physiological and Behavioral Mechanisms Underlying Winter Dormancy in Fishes  |
| Tubb Daniel            | University of New Brunswick | Constructing a Culture of Peace: Development, Security and Extraction in Tibu, Columbia   |

