

Société
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Alzheimer Society Research Program

2017 Funded Researchers



BIOMEDICAL



Fernanda De Felice

Queen's University, Kingston, ON

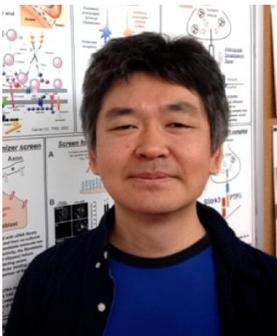
Project: FNDC5/irisin as a novel therapeutic approach in Alzheimer's disease

\$149,945 - Biomedical, Research Grant

"Who would I even be without my memories? I consider that the treatment of dementia is one of the greatest current and future health challenges and I am keen to find ways to protect the brain from the devastating effects of Alzheimer's disease."

Lay Summary:

With an aging population in Canada and increased prevalence of Alzheimer's disease (AD), one of the greatest current and future health challenges is treatment of dementia. Although the specific grounds for brain dysfunction in AD still remain uncertain, numerous studies established that memory centers are affected in AD brains. In particular, synapses that allow communication between brain cells and memory formation are disrupted in AD and the decreased actions of hormones in the brain have been associated to dementia. Here, we will investigate whether irisin – a novel hormone boosted by physical exercise – rescues disrupted synapses and memory in AD models. We already found that AD patients have less irisin in the brain and that memories are not formed when brain irisin is depleted. Counteracting the decreases in brain irisin, either through medication or exercise, has the potential to keep brain cells and synapses healthy, and effectively combat dementia.



Hideto Takahashi

Institut de recherches cliniques de Montréal, QC

Project: Role of the neurexin complex in synaptic pathology in Alzheimer's disease

\$150,000 - Biomedical, Research Grant

"Our research could help us understand how to prevent synapse loss and how to promote the preservation of synaptic connections for cognitive improvement in Alzheimer's disease."

Lay Summary:

The loss of brain cell connections called synapses is an early pathological feature of Alzheimer's disease and is strongly correlated with cognitive impairment. A protein called amyloid-beta that is deposited in plaques in the brains of patients with Alzheimer's disease can induce synapse dysfunction and loss. Our project aims to uncover mechanisms through which amyloid-beta leads to synaptic loss and dysfunction and to reveal how to prevent amyloid-beta-induced synapse pathology. We have recently discovered that amyloid-beta oligomers interact with and disrupt the function of a synaptic cell adhesion molecule called neurexin. We further identified a neurexin-binding protein that may be able to block amyloid-beta-induced neurexin dysfunction. Using advanced techniques in molecular and cellular biology and electrophysiology, we will determine how neurexin and this binding partner influence amyloid-beta-induced synaptic pathology. This study could help us understand how to alleviate synaptic loss and dysfunction for cognitive improvement in Alzheimer's disease.



Majid Mohajerani

University of Lethbridge, Lethbridge, ON

Project: Toward dissecting the etiology of Alzheimer's disease: Is altered neuronal activity a pathology or compensation?

\$150,000 - Biomedical, Research Grant

Lay Summary:

Alzheimer's disease (AD) is a neurodegenerative disorder which leads to dementia and a progressive decline in cognitive functions. In the past decade, research has established that a considerable percentage of neurons become highly active in the early stages of AD when patients show no behavioral symptoms of AD and exhibit normal memory. In the later stages of AD however, neurons become less active with an accompanying decline in patients' mental abilities. It is unknown whether the increase in neuronal activity in the early stages of AD is pathological or a compensatory mechanism to preserve mental abilities. The answer to this question is absolutely necessary for research to design efficient drugs and therapeutic interventions. This study aims to investigate whether highly active cells during early AD are responsible for accumulation of abnormal pieces of protein molecules or whether they are active to sustain the mental abilities.



Alexey Kostikov

McGill University, Montreal, QC

Project: Exploring the role of p75 neurotrophin receptors (p75NTR) in Alzheimer's disease using radioisotope imaging

\$150,000 - Biomedical, Research Grant

"Research on Alzheimer's disease and other dementias is important because diseases of the brain are predicted to surpass cancer as the second leading cause of death in developed countries by 2040"

Lay Summary:

Due to their growing incidence, neurodegenerative diseases are predicted to surpass cancer as the second leading cause of death in Canada by 2040. Alzheimer's disease (AD) is the most common neurodegenerative disease, currently affecting close to 15% of all Canadians over the age of 65. The biomolecular mechanisms of AD are still poorly understood, resulting in failure of many drug candidates in clinical trials. Positron Emission Tomography (PET) is a scanning technique which enables visualization of biochemical processes in vivo. Currently, PET imaging of AD relies on visualization of the so called amyloid plaques – large protein aggregates that accumulate in the brain and damage neurons. In this study, we will develop novel radiopharmaceuticals to investigate the interaction of amyloid aggregates with certain receptors in the brain, called p75 neurotrophin receptors (p75NTR), triggering neuronal cell death. Results of this study will accelerate translational research on therapeutics targeting neurodegenerative diseases.



Jannic Boehm

University of Montréal, Montréal, QC

\$147,948 - Biomedical, Research Grant

Project: Development of a brain penetrating peptide to block synaptic depression in Alzheimer disease.

Lay Summary:

Alzheimer disease (AD) patients suffer from impaired memory formation. Memory formation is dependent on the communication between neurons. This communication takes place at specialized regions in the neuron: the synapse. The specific strengthening or weakening of synapses, so called synaptic plasticity, is the cellular mechanism neurons use in the brain for learning and memory formation. Research suggests that in the earlier phase of AD, the rules for synaptic plasticity are changed towards a permanent weakening of synapses. In this grant we will develop a tool in form of a peptide, i.e. a small protein piece, which will interfere with the mechanism that leads to the permanent weakening of synapses. We will modify this peptide so that it can cross the blood-brain-barrier, giving it easier access to the neurons in the brain. Hence, our experiments are the first steps to develop this peptide into a potential intervention strategy for Alzheimer disease.



Abid Oueslati

Laval University, Montreal, QC

Project: Implication of Polo-like kinases in Alzheimer Disease pathogenesis and treatments.

\$225,000 - Biomedical, New Investigator Grant

"I am convinced that the combination of knowledge, technological progress and dedication of researchers are bringing us closer than ever to finding a cure for this devastating disease."

Lay Summary:

Background: Increasing evidence suggests the potential implication of the family of Polo-like kinases (PLKs), more specifically PLK2, in Alzheimer's disease (AD) pathogenesis: 1) abnormal accumulation of PLK2 in AD-affected brains, 2) a genetic link between PLK2 polymorphism and AD risk and 3) PLK2-mediated increase of beta-amyloid accumulation and toxicity in vivo. However, the exact mechanism by which PLK2 contributes to neuronal toxicity in AD remains elusive. Objective: We seek to investigate the role of PLK2 on the phosphorylation and the regulation of tau and amyloid-beta pathogenicity. Method: We will use in vitro and cell culture phosphorylation assays and pre-clinical animal models of AD to assess the impact of genetic and pharmacological manipulations of PLK2 on tau and amyloid-beta toxicity in vivo. Implications: The expected results will help decorticating the role of PLK2 in AD pathogenesis and it will offer the opportunity to develop new pharmacological treatments for this neurodegenerative disorder.



Matthew Parsons

Memorial University, St. John's, Newfoundland and Labrador

Project: The contribution of astrocyte pathology to plasticity and cognitive deficits in Alzheimer disease

\$225,000 - Biomedical, New Investigator Grant

"In order to find more effective treatments for Alzheimer's disease, we need to understand the disease at so many levels; from the behaviour of cells in a dish all the way up to clinical trials in Alzheimer's disease patients, and everywhere in between"

Lay Summary:

One brain cell communicates with another through synapses, those tiny spaces in which a chemical message is sent from one cell to influence the behavior of the next. When we learn something new, the synaptic connection between specific brain cells is strengthened by a process known as synaptic plasticity. Alzheimer disease (AD), a devastating neurodegenerative disease that affects a large percentage of our aging population, is associated with clear deficits in synaptic plasticity. These deficits are widely thought to underlie the cognitive decline that is characteristic of the disease. Here, we propose to use various laboratory models of AD to assess the precise mechanisms by which a disease-associated toxic protein can impair synaptic plasticity. Our overall goal is to pinpoint where and when this fundamental phenomenon fails in the AD brain. Overall, our work may help facilitate the design of therapeutic strategies aimed at treating dementia in AD.



Saira Mirza

University of Toronto, Toronto, ON

Project: Genomics meets neuroimaging: Genetic association study of magnetic resonance imaging (MRI) biomarkers of neurodegeneration across dementias - A data-driven approach.

\$83,000 - Biomedical, Postdoctoral Award

"Our goal is to understand the shared genetic risks across various dementias. Specifically, we aim to discover novel contributions of genetic variants to neuroimaging measures across an entire cohort of dementia patients (Alzheimer's, vascular, Lewy body, and frontotemporal dementias) blinded to diagnosis."

Lay Summary:

Conventional neurodegenerative research has not paid attention to the diversity within clinical diagnostic groups when looking at brain-behavior relationships. Analysis using clinical diagnostic groups is limited as it fails to capture the entirety of an individual's unique genome. The complex interplay between genetics and disease expression needs to be addressed by prospective imaging-genetic studies. We will capitalize on a well-characterized group of patients with dementia (Alzheimer's, vascular, Lewy body, and frontotemporal dementias) to do imaging-genetic investigations using banked DNA and neuroimaging analysis. The main goal is to discover novel contributions of genetic variants to neuroimaging measures across the entire cohort blinded to diagnosis. The results will provide new insights into correlations between genetic markers and areas of brain shrinkage associated with different dementias, as well as small vessel disease. Understanding these patterns may help to improve diagnosis, customize treatment, and better monitor disease-modifying therapies currently under investigation.



Andrew Beaudin

University of Calgary, Calgary, ON

Project: Cerebrovascular reactivity in patients with cerebral amyloid angiopathy

\$90,000 - Biomedical, Postdoctoral Award

This project is jointly supported by the ASRP and the CCNA

“Though foundational research such as mine is aimed at better understanding the cause of dementias to better prevent, diagnose and/or treat dementia, the outcome of this research will not only benefit the patient, but also their family members who care for them.”

Lay Summary:

We are investigating whether reduced cerebrovascular reactivity (the brain’s ability to increase blood flow when needed) is associated with greater brain shrinkage, cognitive decline and stroke in patients with cerebral amyloid angiopathy (CAA) and Alzheimer’s disease (AD). **BACKGROUND:** CAA is caused by accumulation of the protein beta-amyloid in blood vessels of the brain with aging. CAA causes 20% of strokes caused by bleeding within the brain, 7% of dementia and contributes to AD progression. We hypothesize these consequences result, partially, from reduced cerebrovascular reactivity. **OBJECTIVE:** To determine if reduced cerebrovascular reactivity is associated with brain shrinkage, cognitive problems and stroke in CAA and AD. **METHOD:** Using magnetic resonance imaging, cerebrovascular reactivity will be compared between CAA patients, patients with mild AD, individuals with mild cognitive impairment but no CAA, and healthy stroke-free individuals. **IMPLICATIONS:** If our hypothesis is correct, cerebrovascular reactivity could provide a new biomarker for CAA and AD.



Daniel Sparks

University of Toronto, Toronto, ON

Project: Chma5 neurons as a novel target for cognitive rescue in Alzheimer’s disease

\$83,000 - Biomedical, Postdoctoral Award

“I expect that the findings from my research will help to guide the development of treatments that will help to ameliorate some of the cognitive deficits seen in Alzheimer’s Disease.”

Lay Summary:

Early disruption in attentional processing is becoming of increasing interest in Alzheimer’s disease. The purpose of this project is to investigate the relationship between AD and a gene found in prefrontal cortex neurons vital for attention. *Chrna5* encodes an unusual subunit of the nicotinic acetylcholine receptor, which is particularly important for attention. While previous research has investigated some aspects of acetylcholine receptors in AD, functional work in the prefrontal cortex is lacking, and no one has looked early in disease progression at receptors containing *chrna5*. I will use genetically altered mice that replicate early attention dysfunction in AD, and cutting edge neuroscience techniques to measure and manipulate brain activity and behaviour. This research is significant because *chrna5* neurons are known to play a disproportionate role in attention relative to their representation in the brain, and understanding their vulnerability to disruption in AD could play a crucial role in developing treatments.



Shraddha Sapkota

Sunnybrook Health Science Centre, Toronto, ON

Project: Network of Genetic and Neuroimaging Biomarkers on Cognitive Trajectories in Dementia: Associations of Hippocampal Atrophy and Genetic Risk in Alzheimer's disease, Vascular Cognitive Disorders, and Parkinson's disease-Lewy Body Dementia

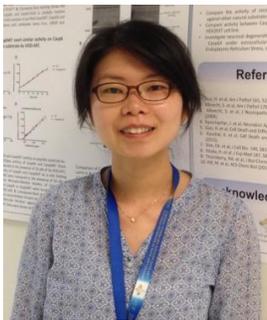
\$90,000 – Biomedical, Postdoctoral Award

This project is jointly supported by the ASRP and the CCNA.

"Research is the key to understanding the neural and molecular underpinnings of Alzheimer's disease with the potential to develop innovative treatments, early detection methods, and intervention programs that will significantly improve the quality of life for those at risk of Alzheimer's disease as well as their caregivers."

Lay Summary:

This research examines neurodegenerative biomarkers that may work in synergy to magnify neurocognitive decline. Background: High life expectancy rates have led to an exponential growth in dementia incidence and prevalence. Approximately 47 million people worldwide are living with dementia and this is projected to increase to 131 million by 2050. Objective: This study examines genetic and neuroimaging risk factors that predict cognitive trajectories in Alzheimer's disease, Vascular Cognitive Disorders, and Parkinson's disease-Lewy Body Dementia. Combining neuroimaging and genetic risk factors to predict differential cognitive performance may promote our understanding of the neural mechanisms in dementia and across neurodegenerative diseases. Method: We will take a growth modeling approach to investigate whether novel combinations of gene-cognition trajectories are mediated through hippocampal volume in clinical groups from the Sunnybrook Dementia Study. Implications: This innovative multimodal approach may lead to early detection, robust clinical diagnoses, and individually tailored intervention programs in neurodegenerative diseases.



Libin Zhou

McGill University, Montreal, QC

Project: The study of rare genetic variant of Caspase-6 associated with hippocampal volume change on neuronal degeneration in Alzheimer disease.

\$66,000 – Biomedical, Doctoral Award

This project is funded by Dr. and Mrs. Spatz.

"Individuals with Alzheimer's disease lose memories that are the backbone of family bonds, friendship, and love"

Lay Summary:

Alzheimer disease (AD) is the most common form of dementia in the elderly, but its cause is poorly understood. Our goal is to determine the initial neurodegenerative events happening in the elderly brain that lead to memory deficits, with the hope of preventing the neurodegeneration. Enhanced Caspase-6 activity appears in the early AD stages, coexisting with AD neuropathologic hallmarks. In this project, a novel variant of Caspase-6 has been identified that is associated with volume changes of the hippocampus, the brain region responsible for memory. It's of great interest to explore whether this Caspase-6 variant shows altered Caspase-6 activity and its role in neuronal degeneration. Identifying a genetic link between Caspase-6 and AD will support Caspase-6 as a novel therapeutic target to prevent or stop age-dependent cognitive impairment and AD.



Tharick Pascoal

McGill University, Montreal, QC

Project: Tracking the progression of neuroinflammation and tau aggregates in mild cognitive impairment using positron emission tomography

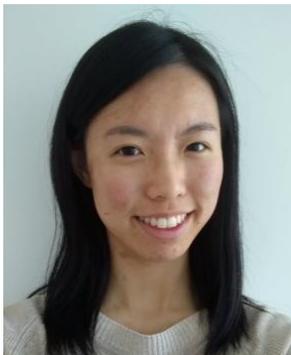
\$75,000 – Biomedical, Doctoral Award

This project is jointly funded by Dr. and Mrs. Spatz, the Barrett Family and is supported by CCNA.

“This project might offer the blueprints for new treatments aiming to mitigate AD targeting the interface between AD hallmark proteins and neuroinflammation.”

Lay Summary:

The goal of this proposal is to leverage the COMPASS-ND cohort to advance the understanding of the relationship between the brain presence of abnormal amyloid and tau proteins, and brain inflammation. Although manifestations of Alzheimer’s disease (AD) such brain deposition of the pathological proteins, amyloid and tau, and neuroinflammation have been studied; no previous studies have assessed the interactions between these pathologies. We will conduct a baseline and an 18-month observation in 100 individuals with mild cognitive impairment who will perform brain image with positron emission tomography for amyloid, tau and neuroinflammation. For this analysis, we will use a new statistical tool (published) developed in our laboratory specifically for this study that allows complex statistical analysis with multiple brain image modalities, which is not possible using current methods. This project might offer the blueprints for new treatments aiming to mitigate AD targeting the interface between AD proteins and neuroinflammation.



Sonja Soo

University of British Columbia, Vancouver, BC

Project: The role of High Density Lipoproteins (HDL) in attenuating ApoE4-induced inflammation in pericytes.

\$40,000 – Biomedical, Masters Award

This project is jointly supported by ASRP and CCNA

“Alzheimer’s Disease affects millions of people world-wide. The prevalence as well as the complexity of Alzheimer’s disease motivates me to study this disease.”

Lay Summary:

We aim to test the anti-inflammatory effects of “good cholesterol” (high density lipoprotein, HDL) on blood vessels in the brain, building on the known anti-inflammatory roles of HDL on blood vessels elsewhere in the body. Pericytes are specialized cells that surround blood vessels. In the brain, they help form a barrier that keeps toxins from entering and damaging the brain. Pericyte inflammation may contribute to Alzheimer’s Disease (AD) by making this barrier “leaky” and damaging brain cells. However, this is known mainly from studies in mice, but has not yet been tested in human cells. We want to know whether AD-like inflammation occurs in human pericytes and whether HDL can reduce this inflammation. We will use an innovative 3 dimensional engineered vessel built entirely from human cells, which we have shown acts like real blood vessels from the brain. We hope to use HDL as a potential treatment for AD.



Jennifer Walker

Laurentien University, Sudbury, ON

Project: Understanding the challenge of dementia in Saskatchewan First Nations populations

\$119,920 – Quality of Life, Grant

Lay Summary:

This research is a partnership between First Nations in Saskatchewan and researchers to better understand dementia rates and health care use in First Nations populations. Dementia has been identified as a priority by First Nations in Saskatchewan because of growing awareness and increasing rates. However, they have little data available to help plan for the future of dementia in their communities. A 2016 Saskatchewan First Nations' health survey included questions on dementia for the first time. By combining the findings with information from the Saskatchewan health system, First Nations organizations have the opportunity to understand the profile of First Nations people with dementia and describe how they use the health care system. The project builds on the First Nations principles of data ownership, control, access and possession (OCAP®). Two knowledge keepers and a Community Advisory Group of people from First Nations communities will guide the research from First Nations perspectives.



Carol Hudon

Université Laval, Quebec City, QC

Project: Impacts of a mindfulness-based intervention in older adults with mild cognitive impairment.

\$120,000 – Quality of Life, Grant

“We are hopeful that regular mindfulness meditation can provide fast and concrete relief from the loss of brain capacity in older age and the acute distress caused by this loss.”

Lay Summary:

Several scientists try to identify means to prevent Alzheimer's disease or to improve the clinical condition of individuals at risk for developing the disease. This project will examine the efficacy of a mindfulness-based intervention to improve cognitive functioning (memory, attention) and alleviate psychological symptoms (depression, anxiety, stress) of persons having mild cognitive impairment. The project will also measure the impact of the intervention on quality of life and several biological characteristics (cerebral volume and functioning, stress hormone, inflammation). Participants will receive a mindfulness-based intervention and will be compared to a control group receiving information sessions on aging. This project will be the first to measure the impact of mindfulness to improve the symptoms and the general condition of individuals being at risk for Alzheimer's disease. The results will have repercussions for medical care of Alzheimer's disease in its early stage.



Tamara Sussman

McGill University, Montreal, QC

Project: Advance Care Planning for Persons with Dementia: Challenges, Opportunities and Solutions

\$120,000 – Quality of Life Grant

Lay Summary:

Advance care planning (ACP) helps people with progressive, life limiting illnesses reflect on and communicate values, wishes and preferences for future care to family, legally appointed decisionmakers and health providers. Despite the opportunities ACP affords to empower older adults with dementia to participate in their own future care wishes, ACP conversations with persons with dementia are rarely activated in practice due to the combination of health provider and family discomfort initiating such conversations, and limited materials to support such conversations for persons with dementia. The proposed study aims to address this critical gap by exploring how workbooks, websites, and other tools could be used by professionals in home-care settings and local Alzheimer Society Chapters to help older persons with dementia discuss their preferences, fears and wishes for future care with their families and health providers. Feedback on the tools will be sought from all parties via focus groups and surveys.



Vanessa Taler

University of Ottawa, Ottawa, ON

Project: A Semantic Screening Battery for MCI and Alzheimer's disease

\$119,798 – Quality of Life Grant

“Alzheimer's disease is a devastating diagnosis and the number of people affected is ever-increasing. It is critical to invest in research in this area if we are to reduce the impact of the disease and eventually find a cure!”

Lay Summary:

Semantic knowledge refers to our knowledge about the meaning of words and objects, and is one of the first cognitive domains to be affected in mild cognitive impairment (MCI) and Alzheimer's disease (AD). While several tests exist to assess semantic function, they often provide limited information and/or are too time-consuming to be used in a clinical setting. We aim to develop a short (5-minute) but sensitive screening tool for use by geriatricians, neurologists, and other health professionals to quickly and accurately identify deficits in semantic function. The research involves two stages. First, we will identify stimuli that are sensitive to semantic declines in MCI and AD, to be included in the screening tool. Second, we will test the screening tool on cognitively healthy older adults and people with MCI or AD, in order to demonstrate that it can identify MCI and AD, and to establish norms for performance.



Debra Sheets

University of Victoria, Victoria, BC

Title: Voices in Motion: An Intergenerational Community Choir to Support Social Inclusion and Quality of Life for Persons with Alzheimer’s Disease and their Caregivers
\$119,130 – Quality of Life Grant

This project is jointly by the ASRP and the Pacific Alzheimer Research Foundation (PARF).

Lay Summary:

Background. Arts-based approaches to dementia prevention shift attention from disease-related declines and losses toward innovation and creative action. Singing potentially improves mood, increases energy, reduces stress, and supports self-esteem and confidence. Importantly, singing with others is fun and can reinforce one’s sense of identity, competence, and accomplishment. **Objective.** Our purpose is to identify the effects of participation in an intergenerational community choir involving persons with Alzheimer’s disease, their caregivers and students on social inclusion, health and well-being. **Method.** A mixed methods design using qualitative and quantitative approaches will be used to evaluate the choir intervention. Data analyses include interviews, social network analysis and a series of psychometric measurements. The findings and tools developed will allow other organizations to replicate best practices in sustaining choir participation and engagement. **Implications.** Choirs are an inexpensive intervention that may reduce healthcare costs and improve quality of life for persons with dementia and their caregivers.



Nancy Presse

Université de Montréal, Montréal, QC

Project: The Med-Pass program to improve nutritional status and health outcomes of nursing home residents with dementia: a promising approach in need of high quality research

\$59,615 – Quality of Life, New Investigator Grant

“The increasing prevalence of dementia is a growing concern worldwide. While waiting for a cure to be found, we need to learn how to manage malnutrition in dementia.”

Lay Summary:

BACKGROUND: Meeting dietary needs of nursing home residents, particularly those with dementia, is a daily challenge. To improve intakes, nutritional supplements are often prescribed. However, residents consume them only partially. The Med-Pass program suggests prescribing small doses of supplements at medication passes, instead of offering them as snacks or at meals. This strategy remains to be tested. **OBJECTIVE:** Evaluate the Med-Pass program at improving nutritional status of residents and reducing complications of malnutrition. **METHOD:** A clinical trial will be conducted in a large hospital facility comprising 9 long-term care wards. Each ward will be randomly selected to implement the Med-Pass program or pursuing usual care. Residents will then be followed for a year. Changes in body weight, use of antibiotics and presence of bedsores will be compared between wards. **IMPLICATIONS:** If effective, the Med-Pass program could significantly improve quality of care of residents, and most particularly those living with dementia.



Gloria Puurveen

University of British Columbia, Vancouver, BC

Project: Exploring the process and outcomes of end-of-life decision-making between people with dementia and their family members

\$83,000 – Quality of Life, Postdoctoral Award

“Considering the increasing numbers of individuals living with dementia, it is imperative that we listen to their perspective about what is important to them and how to live well with the illness.”

Lay Summary:

Objective: This study examines end-of-life preferences and shared decision-making processes of people living with dementia and their families. **Background:** With growing numbers of people living with dementia, it is imperative to understand what they envision for their end-of-life care. However, when discussing end-of-life care, people with dementia are often excluded from the decision-making process. While some research suggests they are able to discuss their preferences for care, few studies have examined what people with dementia themselves envision for their end-of-life care. **Methods:** This research employs novel qualitative approaches utilizing the visual arts and storytelling to elicit the perspectives of people with dementia and their family. **Implications:** By foregrounding individuals with dementias’ perspectives about end-of-life care, this research will inform end-of-life care policy and practice and influence public perceptions about dementia which can lead to the betterment of care and quality of life for Canadians living with dementia and their families.



Heather Cooke

University of British Columbia, Vancouver, BC

Project: No Time for Nice? Exploring the Nature and Influence of Workplace Incivility and Bullying in Long-Term Residential Care

\$83,000 – Quality of Life, Postdoctoral Award

“Exploring the experiences of residents with dementia and those who care for them will help us create evidence-informed, therapeutic and responsive care facilities that promote quality of life for all who live and work within their walls.”

Lay Summary:

Objective: This study examines workplace incivility/bullying among residential care aides (RCAs) in long-term care (LTC) and its consequences for the care of persons with dementia. **Background:** Seventy percent of Canadians with dementia will live in LTC, where RCAs provide the majority of care. Quality person-centred dementia care depends on respectful and collaborative relationships among RCAs yet workplace incivility/bullying can significantly disrupt such relationships. Little is known about RCAs’ experiences of incivility/bullying. This is a significant gap as workplace incivility/bullying is associated with staff turnover and absenteeism, factors which negatively impact residents’ quality of care and quality of life. **Method:** To examine incivility/bullying among RCAs and the consequences for dementia care provision, I will use observations and interviews. **Implications:** Understanding how incivility/bullying influences dementia care provision will help us generate practice and policy recommendations for improving staff relationships that will, in turn, improve residents’ quality of care and quality of life.



Michelle Greason

St. Thomas University, Fredericton NB

Project: Micro-citizenship, dementia and long-term care.

\$83,000 – Quality of Life, Postdoctoral Award

This project is jointly supported by the ASRP and New Brunswick Health

Research Foundation

"Through a micro-citizenship model of care, the scope of resident engagement is broadened and residents living with dementia are perceived, and treated, not just as individuals (as in person-centred care), but as citizens with power – power to initiate and shape, and become equals in the D/LTC community, contributing as much as they receive."

Lay Summary:

Recently there has been increasing interest in citizenship as a lens through which to understand dementia- and long-term care (D/LTC) practice, moving towards an understanding of people living with dementia as a group facing structural and social discrimination. Citizenship, with regard to people living with dementia, remains under-theorized and under-researched, and contains few empirically based studies. This research project aims to theorize micro-citizenship (MC) in the context of D/LTC and to generate a practice model through participatory action research, drawing on discourses of organizational theory and change management; asking, what impact does MC as a practice have on: a) residents meaningful engagement and quality of life, b) staff experiences of moral distress and workplace satisfaction, c) organizational efficiency and effectiveness. Embedding citizenship into D/LTC practice might be realized at a variety of levels and consequently residents living with dementia become equals in the community, contributing as much as they receive.

Jordan Ali

University of Victoria, Victoria, BC

Project: A qualitative characterization of concerns, complaints, and experiential predictors of objective cognitive decline in older adults with subjective cognitive decline (SCD)

\$66,000 – Quality of Life, Doctoral

This project is funded by Dr. and Mrs. Spatz.

"A major motivator for me is the knowledge that, due to an aging population and growing incidence of all-cause dementia, Alzheimer's disease and other dementias are likely to personally impact the majority of Canadians, whether they are family members, friends, caretakers, or colleagues of those affected, or are affected themselves."

Lay Summary:

Subjective cognitive decline (SCD) is where individuals report concerns that their cognitive abilities are diminishing, despite performing within the normal range on cognitive tests. For some individuals, perceptions of cognitive decline actually do herald measurable cognitive deficits in subsequent years. Although studies have investigated which tests may be sensitive to objective cognitive declines in SCD, little is known about the experience of SCD, particularly the types of concerns and problems these individuals face. This is important given that, as part of normal healthy aging, older adults often experience minor changes in their thinking abilities. This study will use in-depth interviews paired with cognitive testing to determine the experiences of those with SCD versus healthy older adults. Further, this study will produce screening items based on the qualitative data that may serve as good predictors of pathology. The results of this study have implications for the early detection of cognitive decline.



Sarah Wu

University of Waterloo, Waterloo, ON

Project: Towards relationship-centred mealtimes: A mixed methods approach to understanding relationship-centred dining for persons living with dementia in long-term care

\$66,000 – Quality of Life Doctoral Award

This project is funded by Dr. and Mrs. Spatz.

“We are all interdependent upon one another; by supporting research that promotes the importance of relationships through familiar daily rituals, such as mealtimes, we can improve the quality of life of residents living with dementia and their family members.”

Lay Summary:

Supporting family participation in relationship-centred eating assistance in long-term care.

BACKGROUND: Meals are times for family members to connect with one another. When a person living with dementia moves into a long-term care facility, it can be difficult for family members to take part in mealtimes, especially if that person needs help with eating. **OBJECTIVE:** This study will try to improve mealtimes for residents living with dementia who need help eating by supporting relationship-centred eating assistance with families and care staff. **METHOD:** This innovative mixed methods approach will gather multiple types of data from families, residents, care staff, and facility management to improve mealtimes. **IMPLICATIONS:** It is anticipated that the study results and development of educational materials will help to improve the quality of life for residents living with dementia by supporting the active and meaningful participation of families during relationship-centred eating assistance at mealtimes.