Research Affiliates interested in supervising for the Undergraduate Student Awards 2021







There are many opportunities for undergraduate students to get involved in research on aging. There are projects on both the Fort Garry and Bannatyne campuses and in many different disciplines. Below are a few opportunities for 2021.

If you are interested in a project, please contact the researcher directly. Contact information is below.

| Principal Investigator | Contact Information | Research Area(s) |
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| Amine Choukou Assistant Professor | College of Rehabilitation Sciences amine.choukou@umanitoba.ca | My research examines the role of technology in increasing social connection between older adults with dementia and their caregivers. We are currently studying the effects of telepresence robots in combatting social isolation and promoting healthy living of both non-indigenous and indigenous older adults. This project is an opportunity for a student from any applied health or humanities discipline to contribute to different component of this research. Indigenous students and students living with disability are encouraged to apply. |
| Todd Duhamel Professor | Faculty of Kinesiology and Recreation Management todd.duhamel@umanitoba.ca | My research examines physical activity and health. We are currently running the WARM Hearts study, which will use cutting-edge, non-invasive techniques to help develop new methods to better identify women who have elevated cardiovascular disease risk. |

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| Christine Kelly Assistant Professor | Community Health Sciences, Rad Faculty of Health Sciences christine.kelly@umanitoba.ca | |
| Debbie Kelly Professor | Department of Psychology Debbie.Kelly@umanitoba.ca | The ability to navigate to familiar and unfamiliar places is of fundamental importance to humans. Yet, the majority of older adults will experience a decline in their ability to accurately navigate, and these spatial difficulties differ for men and women. Despite the impact of such agerelated changes, the underlying biological and cognitive processes associated with spatial memory decline are not fully understood. The general objective of our proposed research is to determine whether the decline in spatial memory, commonly reported in normal aging, is influenced by how individuals use specific spatial cues within real-world and virtual reality environments. Our proposed research will examine how spatial cue use changes across the lifespan and whether the changes we see differ for men and women. The projected impact of this research is to better develop cognitive therapies to help people use spatial cues differently as they age, and to build important synergies with community planners to translate our research knowledge directly into changes in how living spaces are constructed. |

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| Celine Latulipe Associate Professor | Department of Computer Science celine.latulipe@umanitoba.ca | Come work with the HCILab research group in summer 2021, where we focus on research projects related to Human-Computer Interaction! For this particular project, we are investigating ways for older adults to mingle online in 2D worlds like gather.town, and facilitate that interaction using old-fashioned party games. The idea is to understand how to facilitate connection online when situations like the COVID-19 pandemic create barriers to socializing at community centers and seniors centers. This research project will involve devising activities, hosting online sessions with independent older adults, and then surveying and interviewing the older adults to understand how this type of online activity impacts their feelings of isolation, community belonging, etc. We will study which aspects of the online platform help older adults socialize, and which aspects create barriers to participating and socializing. Depending on the state of the pandemic and social distancing guidelines, this may be a fully-online research experience. Students will attend biweekly meetings with graduate students and faculty members of the HCILab, and are exposed to all stages and levels of Human-Computer Interaction research. |
| Christine Leong Assistant Professor | College of Pharmacy, Faculty of Health Sciences christine.leong@umanitoba.ca | My research focuses on drug utilization and optimizing medication use in primary care. Specific areas of focus include polypharmacy and psychotropic medication use. Pharmacoepidemiology systematic reviews and mixed methods studies are primary methods used in my program. Current projects include (1) linking data on addictions to administrative databases to study long term outcomes of substance use, and (2) a scoping review on patient values and preferences with respect to polypharmacy and deprescribing in older adults. The undergraduate student will be involved in data entry, literature searches, and data extraction. There may also be opportunities for manuscript writing and presentation. |
| Hai Luo Assistant Professor | Faculty of Social Work Hai.Luo@umanitoba.ca | My areas of research interest include cross-cultural aging, addictions among older adults, Indigenous aging, gerontological social work, medical assistance in dying, and Home Care services. |

| Principal Investigator | Contact Information | Research Area(s) |
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| Kristin Reynolds Assistant Professor | Department of Psychology Kristin.Reynolds@umanitoba.ca | Dr. Reynolds is the Director of the Health Information Exchange Lab, with work focusing on decreasing gaps in the translation of health-related knowledge to the public and increasing access to health-related services. The Health Information Exchange Lab collaborates with community partners in provincial and national sectors in the development and evaluation of mental health information and services for the public. At present, major projects with a focus on aging and mental health in the lab include: 1) The CONNECT Program: Development and Evaluation of a Telephone-Based Mental Health Program for Adults 65+ Experiencing Loneliness, Social Isolation, and Co-Occurring Mental Health Problems; 2) Mental Health in Long-Term Care Facilities During COVID-19; 3) Mental Health Literacy Among Adults Ages 65+; and 4) Community Program Participation Among Adults ages 65+. |
| Kerstin Stieber Roger Professor | Department of Community Health Sciences, Max Rady College of Medicine, Rady Faculty of Health Sciences Kerstin.Roger@umanitoba.ca | Due to COVID-19, concerns regarding the well-being of older adults both in long term care and in the community has never been greater. I continue to lead and participate in multi-site local and inter-provincial research teams exploring how we can better support self-disclosure, reporting, education and awareness of abuse of older adults living in the community. Continuing this community-based work would be one focus for the summer, learning general research skills, and overall, participating in other social science oriented research. I have supervised several students with undergraduate research awards, and look forward to working with new students interested in family, health and well-being. |
| Ayesha Saleem Assistant Professor | Faculty of Kinesiology and Recreation Management ayesha.saleem@umanitoba.ca The Children's Hospital Research Institute of Manitoba asaleem@chrim.ca | My research focuses on cell-to-cell communication as executed through extracellular vesicles (EVs) and its effect on metabolism using different models of health and diseases. We are looking for undergraduate students who can help with the analysis of EVs from young vs. old organisms, their molecular cargo, and their effect on recipient cells. |
| Veronica Silva Assistant Professor | Faculty of Kinesiology and Recreation Management veronica.silva@umanitoba.ca | My research relates to the problem of falls in the aging population and how people use vision to keep their balance and walk safely. Vision provides information about our surroundings that allows us to avoid obstacles, navigate on uneven terrains and even walk while engaged in another activity (e.g., talking, texting). The goal of my research is to understand how we use visual information to walk under varying conditions and how that changes as we age. Undergraduate students will assist with research experiment setup, participant recruitment, data collection and analysis, while learning about 3D motion analysis, eyetracking, visual attention, and aging. |

Principal Investigator Contact Information Research Area(s) Jonathan Singer Faculty of Kinesiology and My lab aims to understand how individuals control and **Recreation Management** maintain upright stability during normal activities of daily Associate Professor living and under situations that pose a considerable Jonathan.Singer@umanitoba.ca balance challenge. We use this information to identify the biomechanical factors that may lead to increased fallrisk among clinical populations, such as older adults and stroke survivors. The long-term goal is to use these findings to inform the development of exercise-based balance rehabilitation programs, targeted at an individual's specific stability control challenges. Rodrigo Villar Faculty of Kinesiology and My research laboratory explores the integrative **Recreation Management** cardiovascular, respiratory and muscular responses and **Assistant Professor** adaptations to exercise and postural challenges across rodrigo.villar@umanitoba.ca the lifespan. Undergraduate students will be trained to work with cardiovascular, respiratory, and muscular measurements (i.e., heart rate, blood pressure, cardiac

the lifespan. Undergraduate students will be trained to work with cardiovascular, respiratory, and muscular measurements (i.e., heart rate, blood pressure, cardiac output, oxygen uptake, etc.) using high-tech laboratory equipment (electrocardiogram, blood pressure beat-by-beat, metabolic cart system, etc.). Students also will be responsible for laboratory set-up, participants' recruitment, data collection, and data analysis. Abstract writing and poster preparation and presentation at a scientific conference may become an opportunity for students.

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