



IAGG Global Research Network on Health & Ageing Questionnaire for selection process

Name of the Centre: **Centre for Exercise and Nutrition in falls and Aging Research**
Key Investigator / Head of Department: **Dr. Shanthi Johnson**
Phone: **306-337-3180**
E-mail: **shanthi.johnson@uregina.ca**

Description of the Centre:

a) Type of investigations:

- Basic Science / Fundamental
- Clinical Research
- Health Services Research
- Epidemiologic/Public Health Research
- Other

b) Themes investigated (please specify):

- Dementia
- Frailty
- Sarcopenia
- Other Neurodegenerative Disorders
- Geriatric Disorders
- Cardiovascular Risk Factors
- Metabolism
- Ageing research
- Genetics
- Gerontechnology
- Other

c) Number of investigators in ongoing positions:

- Less than 5
- to 10
- More than 10

d) Number of investigators funded by specific projects:

- 1 to 3
- 4 to 5
- More than 5

e) Does your Centre have a:

- Clinical affiliation
- Academic affiliation

f) Does your Centre have a basic sciences program? (Please specify topic)

- Yes
- No

If your Centre is affiliated to a Geriatric Department, please provide the following information:

a) Types of units:

- Acute Ward - **Number of beds: 0**
- Outpatient Ward - **Number of patients/year: 0**
- Community Care Unit - **Number of visits/year: 0**

- Day Hospital - **Number of places/day: 0**
- Geriatric Rehabilitation Unit - **Number of beds: 0**
- Long-Term Care - **Number of beds: 0**
- Special Units (stroke, memory, ortho-geriatric, psycho-geriatric) - **Number of beds: 0**

b) Number of staff in the Department:

Geriatric: **0**
 Gerontology: **0**
 Other: **0**

c) Does the Day Hospital have specialist services?

- Dementia / Memory
- Cardiovascular clinic
- Rehabilitation
- Falls assessment clinic
- Parkinson's disease clinic
- Other

d) Does your Geriatric Department already cooperate with supervising clinical trials?

- Yes
- No

Management of the Centre:

a) Is your Centre an existing national or government recognized medical research Centre?

- Yes
- No

b) Does the Centre receive funded grants? (Please specify source)

- Yes **Saskatchewan Health Research Foundation, Canadian Foundation for Innovation, CIHR**
- No

c) Does the Centre collaborate with trials funded by pharmaceutical companies?

- Yes
- No

d) Will the Centre shortly begin investigation projects?

- Yes
- No

Indicate the three main publications over the last 2 years:

1/ Name of Journal: Lancet

Title of article: **Recommendations for Action on the Social Determinants of Health ? A Canadian Perspective.**

2/ Name of Journal: Nutrition Journal

Title of article: **The effects of dietary fasting on physical balance**

3/ Name of Journal: Asia Pacific Journal of Public Health

Title of article: **Healthy Life Expectancy in the Context of Population Health and Ageing in India**

Please add short biographies (maximum 1 page) of the Key Investigators and Head of Department

Falls Prevention Research Laboratory Centre for Exercise and Nutrition in falls and Aging Research Faculty of Kinesiology and Health Studies University of Regina Falls are a major threat to the health of the elderly around the world. Thirty-three to 50% suffer a fall each year with substantial physical, psychological, and economic costs. The research program undertaken in the Falls Prevention Research Laboratory is of two fold: 1) Epidemiological research related to the surveillance and monitoring of falls and fall-related injuries among the elderly. This line of research is undertaken to assess the trends and patterns of falls and to develop evidence-based interventions from a system-wide perspective and 2)

Intervention research focusing on the understanding of the underlying mechanisms of factors associated with falls among the elderly. Specifically, the role of community-based interventions involving exercise and nutrition to improve an individual's capacity to carry out activities of daily living and to decrease the frequency of debilitating falls is examined. Funded by the Canadian Foundation for Innovation, the Falls Prevention Research Laboratory/Centre for Exercise and Nutrition in falls and Aging Research at the University of Regina is equipped with equipments to measure functional level, nutritional status, and fall risk among the elderly in the lab- and field-based settings. While some elderly will be able to participate in laboratory based studies, others may not be able to leave their home yet would benefit greatly from targeted interventions. As such, this research program with the infrastructure bridges the lab-based investigation with the applied setting intervention and fills the gap in research involving frail elderly. For lab testing, Gaitway Instrumented Treadmill with built-in force plate, Biodex Stability System, and Life Measurement Inc. BodPod Body Composition System are some of the equipment used. For field testing, Kistler Portable Force Plate, Lunar Achilles Bone Densitometer, Telemetry Electromyography system, and a number of applied functional tests which do not require the use of any equipment except a measuring tape and a timer as in the case of Timed Up and Go test (measures functional mobility), sit to stand test (measure lower extremity strength) and the 6-minute walk (measure functional endurance) are used in this research. In addition, the falls prevention laboratory is equipped with computers and specialized software for assessing the trends and patterns of falls and related injuries using large, provincial and/or national datasets for epidemiological studies. The higher incidence of falls, coupled with substantial human and economic costs, makes it critical to pursue innovative and leading-edge research as well as evidence-based programs and policies to better support health and prevent falls among the elderly. Saskatchewan provides a unique setting for this research program, given the higher percentage of elderly (15%), people living in rural and small towns (43%), and aboriginal peoples (14%). The research program taking place in the Falls Prevention Research Laboratory aims to forge future studies in areas where lab based investigations will not be possible as in the case of working with the elderly in the remote areas and hopes to enhance the quality of life for the elderly through the reduction of falls and the disability that follows from them. If you are interested in more information, please contact Dr. Shanthi Johnson (Professor & Associate Dean ? Research and Graduate Studies at the Faculty of Kinesiology and Health Studies and a research faculty at the Saskatchewan Population Health and Evaluation Research Unit at shanthi.johnson@uregina.ca or 306-337-3180). Dr. Shanthi Johnson is a professor and associate dean (research and graduate studies) at the Faculty of Kinesiology and Health Studies at the University of Regina in Saskatchewan and a research faculty member with the Saskatchewan Population Health and Evaluation Research Unit. Dr. Johnson is a registered dietitian and has been awarded fellow status with Dietitians of Canada (FDC) as well as the American College of Sports Medicine (FACSM). Prior to her appointment at the University of Regina, she was a Professor at the School of Nutrition and Dietetics, Acadia University in Nova Scotia. She completed her post-doctoral training in aging and health at the Canadian Centre for Activity and Aging, doctoral studies in kinesiology at the University of Western Ontario, and her graduate and undergraduate degrees in nutrition in India. Her research program has been funded by agencies such as the Canadian Institutes of Health Research, Saskatchewan Health Research Foundation, Shastri Indo-Canadian Institute/Canadian International Development Agency, and the Canadian Foundation for Innovation. Dr. Johnson has given over 150 presentations at various national and international conferences and has several publications in scientific journals. She has served/is serving in several boards and committees at the provincial, national and international levels such as Shastri Indo-Canadian Institute and Saskatchewan Health Research Foundation. She is also a reviewer for several health, nutrition, exercise sciences and aging journals as well as granting agencies such as Nova Scotia Health Research Foundation, Canadian Institutes of Health Research, Social Sciences and Humanities Research Council, and European Commission.