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RESEARCH SITES

Village of  
Winston Park  
KITCHENER

Village of  
Riverside Glen  
GUELPH

Village of  
Wentworth Heights  
HAMILTON

Village of  
Tansley Woods  
BURLINGTON

Village of  
Sandalwood Park  
BRAMPTON

Village of  
Erin Meadows  
MISSISSAUGA

Village of  
Taunton Mills  
WHITBY

Village of  
Humber Heights  
ETOBICOKE



## Schlegel-University of Waterloo Research Institute for Aging (RIA)

The Ontario Health Quality Council's first annual report (2006) identified "spreading the use of proven knowledge and best practices" as one of five key issues affecting the quality of Ontario's health care system. *"We need to focus more on developing ways to turn research into practical knowledge – especially by getting researchers and providers to work together, so successful innovations are more quickly and directly put into use" (page 20).*

The RIA, they say, gets it:

*"The Schlegel-University of Waterloo Research Institute for Aging, a partnership between university researchers and Winston Park and Oakwood Retirement Communities, understands the link between researchers and practitioners is key to creating high quality research and readiness to use it... Front line workers help define concepts and needs for research projects... The research leads to practices which are immediately used and skills are incorporated into training new health care professionals and upgrading training for current practitioners." (page 20)*

The RIA promotes research relevant to aging in both community and congregate settings. It focuses on practice-relevant research as a driving force behind innovation and quality care. Through partnerships with the University of Waterloo and Conestoga College, the RIA attracts research projects to "living research environments" within long-term care and retirement communities, with a view to immediate translation of research to practical training application for caregivers. The "living research environments" include eight Winston-Oakwood facilities offering a continuum of care. These facilities range in size (95–192 long-term care beds), ethnicity (cultural, language, faith), and specialized care populations (e.g., dementia, behaviour management, advanced physical, young adult, etc.)

Residents entering our Winston-Oakwood seniors' continuum of care facilities benefit from the culture of research and innovation that RIA has fostered. However, we think and plan beyond Winston-Oakwood homes to contribute to system-wide policy and practice improvement as well. Materials and information generated through our research-to-practice initiatives are shared with other LTC facilities and system networks to promote research-informed quality care.

RIA is a product of the philanthropic spirit and vision of Dr. Ron Schlegel, whose family has been providing long-term care to Ontario residents since the 1950's. Co-owner of the seven long-term care facilities that operate under Oakwood Retirement Homes Inc., and the Village of Winston Park in Kitchener, he has committed \$6 Million over 10 years (plus additional annual contributions) to develop the Institute. Additional funds and in-kind supports were secured and continue to be solicited. Memoranda of Understanding were put in place with the University of Waterloo and with Conestoga College for research and training activities respectively.

The **goal** of RIA is:

- To enhance the care of seniors in both community-based and long-term care environments.

The **objectives** of RIA are:

- To build a culture of innovation and research within the Winston-Oakwood LTC facilities
- To build the capacity of research teams for practice-relevant research in aging, retirement living and LTC living
- To promote and facilitate the transfer of research to practice by developing evidence-based programs and training.

The **major components** of the RIA include:

- Well-developed research teams within the University of Waterloo that operate under the RIA umbrella
  - Murray Alzheimer Research and Education Program (MAREP) – Dr. Sherry Dupuis (see box below)
  - Functional Abilities Program (FAP) – Dr. Eric Roy (see box below)
  - Vascular Aging Program – Dr. Rich Hughson
- Emerging research teams
  - Spiritual Care for Seniors – Dr. Marianne Mellinger
  - Optimizing Medications for Seniors – Dr. Jake Thiessen.
  - Nutrition and Aging
  - Fitness and Plasticity of Aging Program – Dr. Mike Sharratt
- Training program development in partnership with Conestoga College for registered staff and Personal Support Workers
  - Curriculum development towards gerontology streams of study for RNs, RPNs, PSWs
  - Professional development courses for registered and non-registered staff working in long-term care
- Full time coordinator funded to provide a bridge between research teams and seniors care homes (to facilitate access, match research projects to homes and researcher needs)
- Joint faculty appointments between RIA and the University of Waterloo (Schlegel Research Chairs). Four joint appointments are planned, in each of the following areas: polypharmacy (with the new Kitchener campus School of Pharmacy), neurophysiology, dementia and medicine (potentially with the new Kitchener campus of the McMaster School of Medicine)
- Seed grants to support young researchers to do research in long-term care, or to support established researchers in submitting applications for larger research grants in seniors' care.
- Money for graduate student scholarships to attract the development of new researchers into the field of aging.

See Figure 1, page 5 for a graphic depiction of the RIA model, and Figure 2, page 6 for the RIA organizational structure. Below is a description of two of our flagship research-to-practice programs. For a sampling of additional research projects underway, see Attachment A.

### **Murray Alzheimer Research and Education Program (MAREP)**

MAREP (founded in 1993) is one of the key programs of the RIA. MAREP is an innovative program which integrates educational and research activities in an effort to improve dementia care practices in Canada. Winston-Oakwood has had a 14 year relationship with MAREP involving both education and research in our LTC homes.

Over 10 years of research has been incorporated into the following training curricula and delivered to staff (all full time staff have received Levels 1 – 3 and over 100 staff have received Level 4).

- MAREP Dementia Education Series-Level I: Introduction to Dementia and Dementia Care
- MAREP Dementia Education Series-Level II: Issues Faced in Dementia Care
- MAREP Dementia Education Series-Level III: Putting Person-Centred Care Into Practice
- MAREP Dementia Education Series-Level IV: Responsive Behaviours

MAREP has also developed products that can be used in facilitated sessions or as self-study guides, including:

- Dementia Care Education Series, a program designed to make learning more accessible and convenient for those working in dementia care
- "I'm Still Here" DVD and Teaching-Learning Guide, a powerful research-based play that deepens understanding about the dementia journey from the perspective of persons living with dementia and their family partners in care.
- By Us For Us Guide®, the first in a series of guides created by a group of eight talented and passionate persons with dementia as an exercise guide for the mind to help improve or maintain memory and quality of life for others with dementia.
- Managing and Accommodating Responsive Behaviours in Dementia Care, a video vignette series to illustrate ten of the most intense behaviours experienced by staff in long term care homes.
- The Alzheimer Resource Manual (ARM), a resource guide for care providers in long term care settings.

### **Functional Abilities Program (FAP)**

FAP (founded in 1995) is another major program of the RIA. Its primary goal is to improve the quality of life of residents in the Winston-Oakwood Retirement and LTC homes by maintaining or increasing their functional independence. This program was recognized by the Canadian Council on Health Services Accreditation (CCHSA) as a best practice in 2005 and is currently in demand by other LTC facilities as well. Recently, hospitals have also expressed an interest in this program.

Full-time, on-site Kinesiologists assess individual residents to examine cognitive and physical abilities. From these findings and neurobehavioural consultation services provided by the Neurobehavioural Assessment and Rehabilitation Program of the University of Waterloo, a care plan is designed to meet the unique needs of the resident. The program is then carried out and a schedule for reassessment determined to monitor the resident's progress.

FAP staff are trained to provide effective, comprehensive services to the residents at each of the Winston-Oakwood facilities. Because the staff all have degrees in Kinesiology, they understand how the body moves in space and how this movement tends to change with age. They are able to consider the biomechanics of human movement, the neural processes required for movement, as well as physiological responses to exercise.

The following list outlines the types of services that the Kinesiologists are able to offer their clients:

- Comprehensive neurobehavioural assessments
- Falls tracking and prevention
- Individual and group exercise programs
- Seating and mobility referrals
- Education
- Research initiatives
- Clinical collaboration with Registered Physiotherapists

The Kinesiologists are also responsible for the lift and transfer program in the Winston-Oakwood homes. Each resident is individually assessed (and regularly re-assessed) to determine the best practice for transfers or lifts. Residents are regularly assessed and standardized placement of unobtrusive logos on the resident's bed ensures safe transfers for all residents and staff. The kinesiologists develop the policies and procedures for transfers and lifts and then implement the specific staff training programs.

#### **RIA works with Conestoga College to enhance gerontology content in:**

- 4 Year Degree Program in Health Informatics;
- 4 Year Degree Program in Nursing (with McMaster University and Mohawk College);
- 2 Year Diploma Course in Practical Nursing;
- 2 Year Diploma courses in Dietetics and Occupational Therapy;
- 1 Year Certificate Course for PSWs;
- Post Graduate Course in Recreation for Older Adults;
- Post Graduate Courses in Dementia Studies, Gerontology and Palliative Care;
- Leadership Training for RPNs;
- PSW Basic Training Refresher and Upgrading.

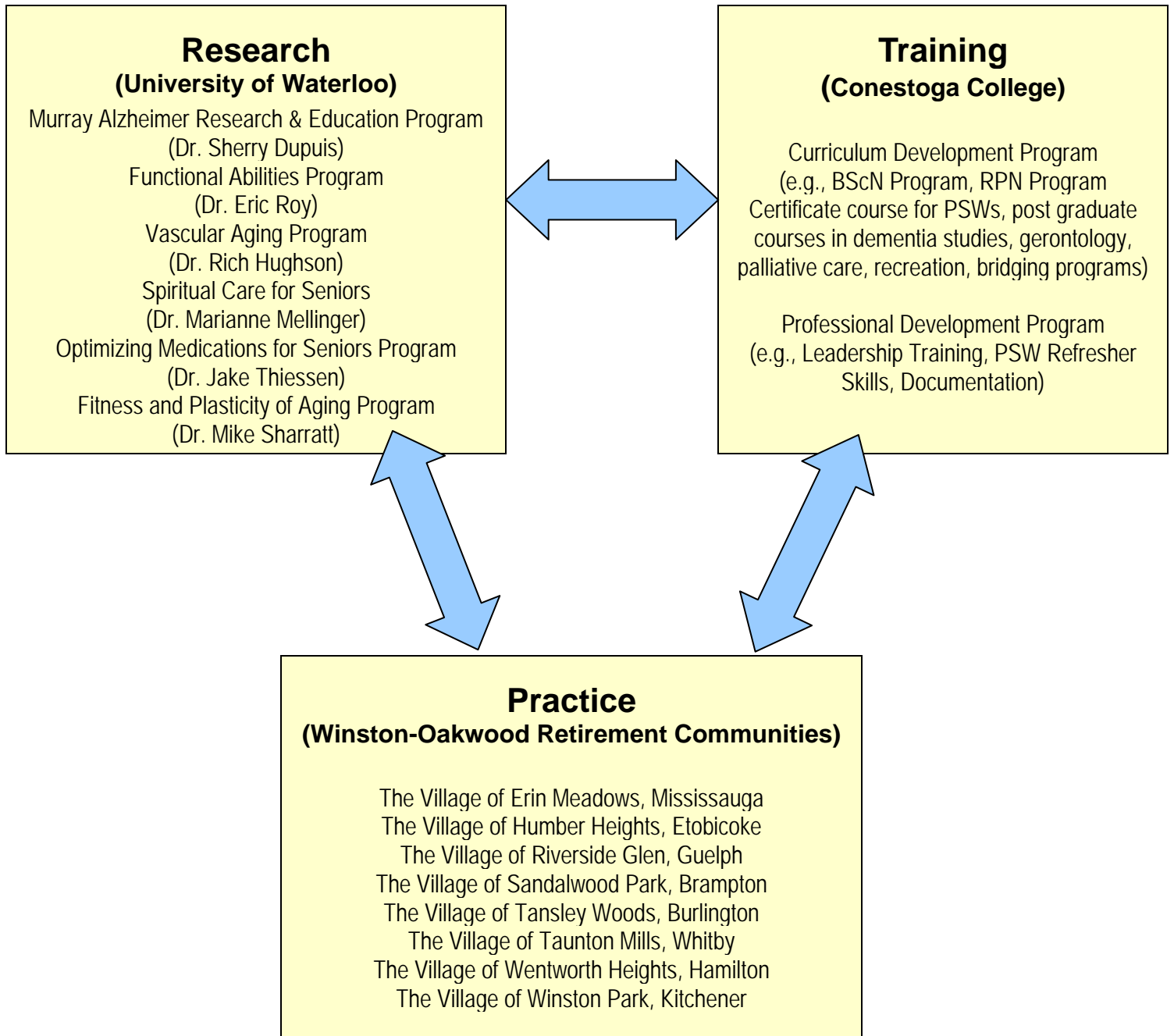
In summary, the RIA affords the following advantages to residents and to the long-term care sector as a whole:

- Immediate translation of research to practice that improves quality of care and quality of life of those living in long-term care
- Some well-established research teams work under the RIA umbrella and are associated with RIA (MAREP, FAP, Hughson)
- Some emerging areas that are gaining momentum (spirituality, pharmacy, nutrition)
- A living research environment, with access to 3,000 participants with varying levels of physical and cognitive ability
- Formal partnerships with the University of Waterloo for research, and with Conestoga College for training
- Strong support for research and a research culture in the LTC facilities by virtue of ownership
- A continuum of care from independent living to assisted living to long term care that offers unique research and training opportunities to assess how residents can maintain more independent levels of functioning for longer periods of time.



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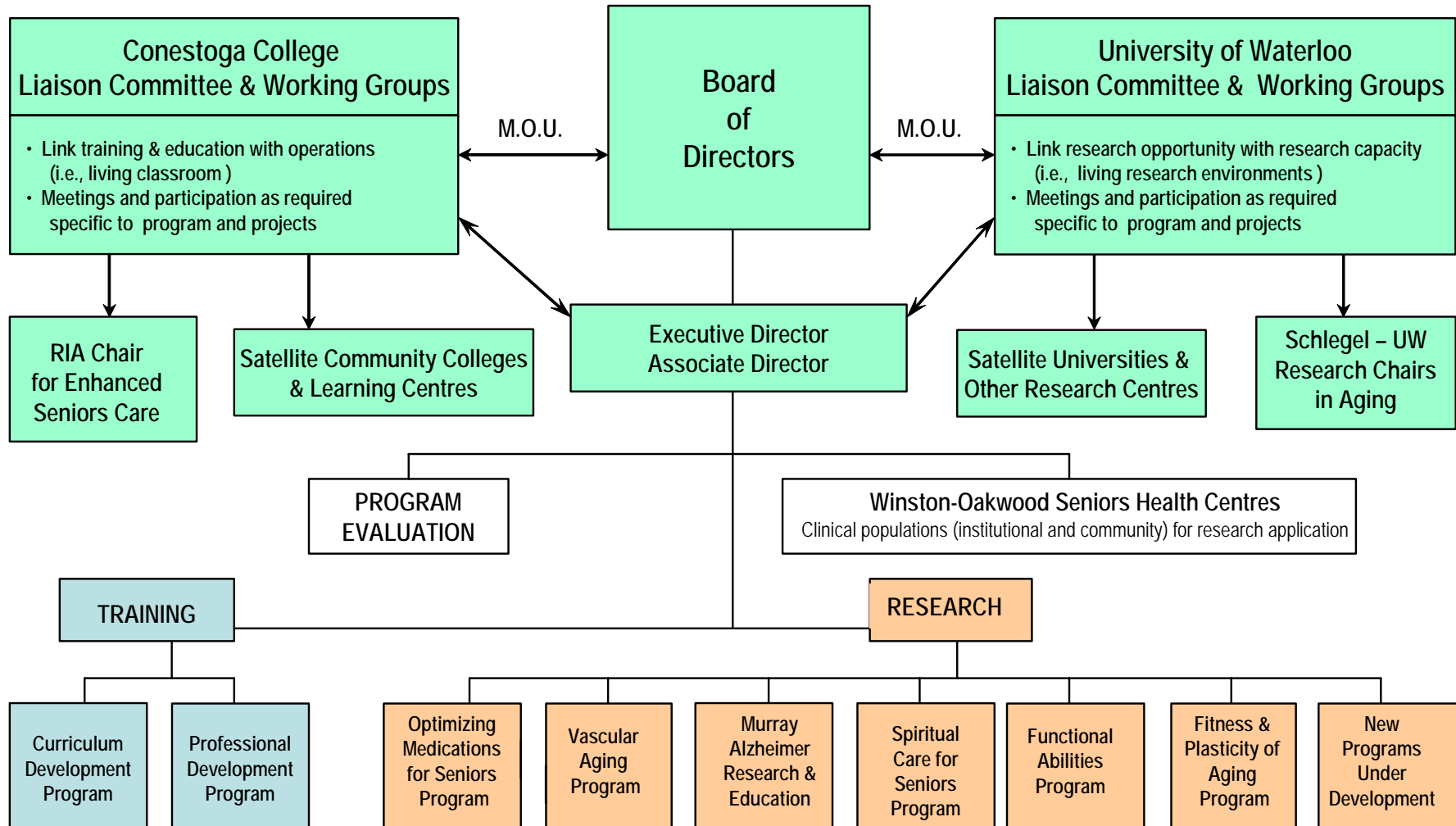
# RIA Model





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# RIA Organizational Structure



LIVING RESEARCH ENVIRONMENTS -- Village of Winston Park and Oakwood Continuum of Care Facilities  
(Kitchener, Guelph, Hamilton, Burlington, Mississauga, Brampton, Etobicoke, Whitby, London, Windsor)

# Attachment A:

## A Sampling of Research Projects Underway in Winston-Oakwood Homes

Quincy Almeida, *Wilfrid Laurier University* is studying use of the BioStep exercise machine for rehabilitation of individuals with Parkinson's Disease.

Dr. Denise Connelly, *University of Western Ontario* is studying the utility of a semi-recumbent exercise machine as an aerobic training tool in frail older adults.

Dr. Lora Giangregorio, *University of Waterloo* is conducting studies to characterize walking competency in individuals at high risk for falls with a view to developing assessment tools for gait and physical activity. She is also looking at the relationship between vitamin D deficiencies, exercise and falls.

Dr. Rich Hughson and PhD candidate Andrew Robertson, *University of Waterloo*, are examining the effects of cardiovascular changes with aging on motor function. The results will help further the knowledge base on brain blood flow regulation and its role in motor control.

Dr. Marianne Mellinger, *Conrad Grebel University College*, is exploring the various meanings and manifestations of spirituality held by residents in long term care, and how that varies with age.

Dr. Pascal Poupart, *University of Waterloo* is developing prototype models of "smart walkers" for use in long-term care facilities by residents with early to mid-stage dementia. Interventions could include technology to help residents recognize and use their walker effectively as well as technology to monitor gait patterns and warn the user or health care worker when gait patterns suggest the potential for a fall.

Dr. Lori Schindel-Martin, *Ryerson University* has developed and tested gentle persuasive bathing techniques that have been found to be useful for residents with dementia who resist baths as well as many other residents. The techniques were successfully transferred to staff via training workshops for caregivers. Staff continue to use these techniques in the Winston-Oakwood homes.

PhD candidate Tamara Sussman, *University of Waterloo* is exploring the experiences of older persons, family members and service providers in the transition from home to long-term care.

Dr. Jake Thiessen, *University of Waterloo School of Pharmacy* is conducting a needs assessment of polypharmacy use among residents in Winston-Oakwood homes and will use these results to develop a research program to design and test ways to reduce use of medications among seniors.

Dr. Lori Ann Vallis, *University of Guelph* is investigating age-related changes in gaze patterns and avoidance strategies used when negotiating obstacles. In another project, she is also looking at auditory pacing to regulate temporal parameters of gait to reduce the risk of falls.