



# THE GRAY CENTRE FOR MOBILITY AND ACTIVITY

*Innovating to improve the  
mobility and activity of  
people living with disease,  
disability or injury.*

# WHO WE ARE

Established in 2020, The Gray Centre for Mobility and Activity at St. Joseph's Health Care London is expanding and advancing mobility and rehabilitation treatment and prevention solutions through research, collaborations and the latest technology to improve the lives of those living with disease, disability or injury.

The Gray Centre is located at St. Joseph's Parkwood Institute, Southwestern Ontario's regional provider of rehabilitation health care and a national hub for treatment, research and education in mobility and activity. Through Lawson Health Research Institute, scientists at Parkwood Institute are leading the way in integrating technology platforms and solutions in care and tracking real-time data to enhance patient mobility outcomes. Researchers work side-by-side with clinicians, patients and their caregivers to uncover optimal methods for maintaining a person's mobility throughout their life. This model of linked research and care is truly unique in Canada. A formal partnership with Western University has also provided novel learning opportunities within The Gray Centre for students in various health disciplines.

*The Gray Centre is made possible through a \$7.5 million gift to St. Joseph's Health Care Foundation from William and Lynne Gray.*



# WHAT WE WANT TO ACCOMPLISH

Through discovery and collaborations, we will:

- Co-design approaches to solve mobility and activity challenges for patients and their caregivers.
- Provide training and education for tomorrow's clinicians and researchers.
- Develop novel and accessible programming for patients and community members that address their unique needs.
- Utilize cutting-edge technologies and research to enhance assessment and treatment strategies.
- Ensure a consistent focus on the whole person – body, mind and spirit.



## Making a lasting difference in the quest to live fully

In the Spring of 2019, Londoner Paul Garrett's life changed forever. He was left paralyzed from the waist down after suddenly developing a rare neuroimmune disorder called acute onset transverse myelitis. The condition causes inflammation in the body that damages the insulating material (myelin) covering the nerves along the spine. In the span of a day, Paul went from an active small business owner to not being able to sit, stand or walk. Paul was fortunate to have access to specialized rehabilitation equipment and expertise of members of St. Joseph's Gray Centre for Mobility and Activity as part of his treatment at Parkwood Institute. Utilizing technology such as a body weight support treadmill and wearable devices that helped his care team track and measure his movements, Paul was taught how to strengthen his muscles and legs, retraining his brain and body to work together. After several months of hard work Paul achieved his ultimate goal of walking out of the building on his own.

# HOW

## Core Activities for Improving Mobility and Activity Outcomes

As the regional provider of rehabilitation and recovery for patients with neurological, musculoskeletal, age-related and mental health disorders in Southern Ontario, Parkwood Institute is uniquely positioned to catapult assessments, treatments and knowledge in these areas. To do this, we will:

- Enhance the productivity and impact of researchers at Parkwood Institute that focus on mobility and activity by:
  - Investing in cutting-edge technology, enabling our researchers to find new solutions.
  - Providing seed grants to address and solve new and important problems.
  - Embedding researchers from Western University within Parkwood Institute's clinical environment.
  - Leveraging clinical expertise and patient insights to generate impactful research.
  - Attracting world-class researchers to partner with or join the Gray Centre.



- Translate new knowledge into clinical practice and incorporating what we learn into patient care by:
  - Investing in the education and training of students and clinicians on leading practices.
  - Providing clinicians expert coaching on incorporating science-based assessments and treatments in care and fostering sustainable practice change.
- Work with researchers, academics, clinicians and patient and family partners to better understand which treatments resulted in the best mobility and activity outcomes for each individual, striving towards personalized rehabilitation by:
  - Investing in assessment technology to better understand mobility and activity disorders.
  - Co-creating treatment and therapy strategies with academic, clinical and community partners to meet the needs of those with mobility and activity dysfunction.
  - Whenever possible, creating systems which measure the impact of treatment strategies on outcomes for a given patient population.



## Paving the way through partnering

Through partnerships with health care providers, industry leaders, researchers and organizations around the world, our mobility experts are tapping into shared knowledge to further the understanding of diseases and conditions such as stroke, brain injury, chronic pain, amputations, spinal cord injury, chronic pain and neuromuscular disorders.

### Want to partner with us?

Learn more about our mobility experts and their work at [sjhc.london.on.ca/gray-centre/mobility-and-activity/our-mobility-experts](https://sjhc.london.on.ca/gray-centre/mobility-and-activity/our-mobility-experts) or contact Gray Centre Coordinator Jeff Weiler at [jeff.weiler@sjhc.london.on.ca](mailto:jeff.weiler@sjhc.london.on.ca).

### How to donate

The Gray Centre was made possible by a generous donation from William (Bill) and Lynne Gray and family to St. Joseph's Health Care Foundation. The Gray's know first-hand how vitally important mobility and activity can be, and responded in kind providing a \$7.5 million gift to establish The Gray Centre. Donations remain a key way forward to fostering innovation and discovery in the Gray Centre. Learn more at [sjhc.london.on.ca/ways-to-give/donate-now](https://sjhc.london.on.ca/ways-to-give/donate-now).

# BY WHEN

## By 2026 we will have:

- Provided approximately 500,000 dollars in seed-funding for research projects that will produce clear clinical and scientific impact in the field of mobility and activity.
- Significantly increased the publication rate and research funding of our mobility and activity experts.
- Invested in novel, cutting-edge technologies to support research, assessment and treatment interventions.
- Established national and international partnerships and participated in multicentered trials focused on mobility and activity.
- Implemented, refined and evaluated the impact of a nationally recognized training and coaching model.
- Developed and improved access to community programming for those with significant mobility and activity impairment.
- Developed a Mobility and Activity Clinic that improves the outcomes of complex patients by leveraging therapeutic, technological and programming expertise.



# FOSTERING EXCELLENCE THROUGH LEADERSHIP

The William and Lynne Gray Chair in Mobility and Activity was established with joint funding from the Gray Centre and the Faculty of Health Science, Western University. Professor Siobhan Schabrun, a physiotherapist/PhD and highly accomplished researcher from Australia is the inaugural William and Lynne Gray Chair. Several new researchers have already joined the Gray Centre from the Faculty of Health Science and are being integrated into a strong cadre of researchers from Schulich School of Medicine and Dentistry and Lawson Research Institute who are housed at Parkwood Institute.



## PIONEERING RESEARCH

There are more than 50 ongoing rehabilitation research projects related to activity and mobility at Parkwood Institute such as:

- the world's best research syntheses of the literature in stroke, spinal cord and traumatic brain injury rehabilitation;
- an analysis of community and long-term outcomes for amputees, adults with childhood onset physical disabilities, spinal cord injury and stroke survivors;
- the implementation of research knowledge for individuals with spinal cord injury;
- an internet-delivered exercise and cognitive behavioural therapy for persons with neurological conditions;
- a self-management programs for individuals with spinal cord injuries and amputations;
- gait and dual tasking as a measure of progression to dementia;
- mobility, exercise and cognition in elderly individuals;
- national clinical trials network in stroke rehabilitation and recovery.