Quality of Life & Mobility: MSK Research on the Rise

"As more people of all ages experience painful bone and joint conditions, musculoskeletal (MSK) health research becomes more important."

The Canadian Orthopaedic Care Strategy Group estimates as many as 15 million Canadians will have a condition affecting their bones and joints by 2035. This global trend in MSK health has already begun to influence research and industry investments and innovations. Western University launched the Bone and Joint Institute (BJI) in 2015 and continues to invest in this interconnected group of experts that study all aspects of MSK health.

Western’s BJI has a vision of lifelong mobility and by consequence quality of life for all people. Its programs and services bring together trainees, established investigators, industry and diverse community partners to catalyze transdisciplinary research, innovation, translation and education to improve MSK health. BJI members investigate the causes, prevention, diagnosis, and treatments for MSK conditions as they strive to enhance movement, mobility, and participation in daily life. Their work also endeavours to improve support systems and rehabilitation for a wide range of MSK conditions.

"We now have several Facilities working in a collaborative, symbiotic way under the umbrella of an institute," Cecil Rorabeck, a retired orthopaedic surgeon and Chair of the Bone and Joint Institute’s board, said. "The BJI’s approach is catapulting research in both the orthopaedic and MSK area to a whole new level. "I’ve spent my life doing hip surgery and knee surgery and trying to understand the ravages of arthritis," Rorabeck said. "It’s fascinating to me to see the changes, and the very positive changes, that we’re able to make in this area."

Canada’s population health trends have given decision-makers and industry leaders reason to believe that MSK research is a viable investment. A 2017 report revealed that from 2000 to 2015 the Canadian Institutes of Health Research increased funding to its Institute of Musculoskeletal Health and Arthritis from $25 million to $103 million. BJI is ahead of the curve and uniquely positioned Western University as an environment where experts can capitalize on major funding opportunities. Some experts come to London, Ontario specifically to benefit from BJI, like Western Research Chair in Musculoskeletal Exercise, Mobility and Health, Michelle Critics Battéi, who called it the “big draw” at Western University when she agreed to accept her new post in 2018. Others who were already here experience a huge added-value.

BJI’s expanding network connects hundreds of researchers, trainees, and partners locally, nationally and internationally. “We’re talking about a collection of conditions that will affect nearly everyone at some point in their lives,” Dave Walton, a scientist in Western’s School of Physiotherapy, said. “The potential for high-impact knowledge and societal benefit. “Collaboration is key to get the message out on movement and mobility,” emphasized Jackie Sadi, a physiotherapist and faculty member in Western University’s School of Physiotherapy. “We need to make sure that not only healthcare providers, but also government regulators are all on the same page about the importance of MSK research as well as in funding and providing opportunities for people to move, work and live better."

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"Our work . . . is focused on finding solutions that will support a high-quality, pain-free life for people of any age."

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"I definitely need to work with people in biology and cell biology," Schulz added. "I explained that when studying the most common and painful joint disease, transdisciplinary collaboration greatly enhance her research and potential for impact."

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