Arthritis Society Canada



IMPACT REPORT

Research Update

2025–26

Rewriting the future of arthritis through research

Prepared for

Grand Imperial Conclave of Canada Charitable Foundation

August 2026

arthritis.ca

Thank you for your generosity

Dear Mr. Gould and members,

Your devotion to the six million people in Canada with arthritis is driving real change, and we could not be more grateful for your continued support of arthritis research. Arthritis affects more people than diabetes, heart disease, stroke, cancer and dementia combined, making it Canada's most common chronic health condition. Behind these numbers are millions of people whose daily lives are shaped by pain — from an adult making a meal to a child playing soccer.

Thanks to the generosity of the Grand Imperial Conclave of Canada Charitable Foundation, we are investing in groundbreaking research to create a future where an arthritis diagnosis no longer defines a person's life. As arthritis is expected to impact nine million people by 2045, the need for research has never been more urgent. From advancing prevention strategies and accelerating treatment breakthroughs, every discovery brings us closer to transforming lives.

In 2025–26, we proudly invested $6.5 million in research and innovation, supporting 99 grants and awards across Canada. Our funding advanced the work of 99 lead researchers and 100 highly qualified personnel, and we invested in the future of 129 research trainees.

The Grand Imperial Conclave of Canada Charitable Foundation's continued support plays a critical role in driving arthritis research. We're pleased to share the work your generosity helps make possible — advancing discoveries today that will improve lives tomorrow.

Thank you for joining us in making arthritis research a priority and creating a brighter future for millions.



Elizabeth Hanna
Senior Director, Major Gifts

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2025–26 Impact at a Glance

$6.5 million
toward research and innovation



99
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Our Commitment to Research

Arthritis Society Canada is proud to be the leading charity to fund transformative arthritis research in Canada. Thanks to the generosity of visionary donors like you, we are advancing discoveries that have the potential to transform lives. Your support empowers Canada's leading researchers to confront the toughest questions across more than 100 types of arthritis — driving innovation and improving care. By keeping the voices of those most affected at the centre of our work, we ensure research is grounded in real-world needs and delivers the greatest possible impact.



Presentations by researchers at various conferences and meetings



249
New collaborations



101
Peer-reviewed publications



Every dollar we invested in research was multiplied 2X by other sources

A Look at Research Advances in 2025–26

A potential therapy for painful spine arthritis

Dr. Lisbet Haglund and trainees Matthew Mannarin (PhD candidate) and Dr. Hosni Cherif, McGill Univerisity



Finding: Researchers showed the potential of a new combination treatment for painful spine arthritis in a study of mice with low back pain resulting from deteriorated disks in the spine. The treatment, given by mouth, targets senescent cells — "zombie" cells that resist dying, build up with age and release substances that can trigger deterioration in nearby tissues. The treatment successfully removed these cells, reduced signs of pain and improved bone health in the mice, demonstrating a promising level of safety.

Future: By establishing its potential in a preclinical model of disease, the researchers have laid the foundation for further clinical study to determine if this treatment approach could be safe and effective in humans with arthritis in the spine.

Improving rheumatoid arthritis self-management through digital coaching

Dr. Linda Li, University of British Columbia – Arthritis Research Canada



Finding: Researchers tested whether combining Fitbits, an activity tracking app, and remote physiotherapist phone coaching could help 131 people with rheumatoid arthritis (RA) better self-manage their condition. After 27 weeks, participants showed significant improvements in their confidence to manage their RA, including improved RA disease activity and self-reported walking habits, as well as reduced fatigue and depression.

Future: Remote digital health coaching and self-monitoring tools can enhance individuals' ability to engage in self-care activities and deliver real clinical benefits without in-person visits, potentially transforming arthritis care across Canada.

A Look at Research Advances in 2025–26

Females with osteoarthritis are more likely to develop cardiovascular disease

Dr. Anthony Perruccio, Schroeder Arthritis Institute, University Health Network



Finding: By examining data from thousands of adults with and without osteoarthritis (OA), researchers found that females with OA had a 90 per cent higher risk of developing cardiovascular disease within six years, compared to females of the same age without OA. This increased risk was above and beyond what routine risk prediction tools would suggest and was partially linked to levels of inflammation in their bodies. This relationship was not seen for males.

Future: This research highlights the importance of connecting OA and cardiovascular disease as a women's health issue and a need to further study the causes of the increased risk. It could lead to better ways to prevent cardiovascular disease and associated deaths in females with OA — possibly by reducing inflammation.

A potential new drug target for hip osteoarthritis

Lead author Jingyi Huang (PhD candidate), and Arthritis Society Canada supported author, Dr. Guangju Zhai, Memorial University of Newfoundland



Finding: Researchers analyzed cartilage from over 100 people with and without hip osteoarthritis (OA) and identified 179 genes that behave differently in hip OA compared to healthy joints. Eight key "hub genes" were pinpointed as central players in the disease, with most involved in disrupting the normal formation and balance of collagen — the main structural protein that keeps cartilage healthy and strong. One hub gene called SDC1 emerged as a promising new drug target as it is already classified as "druggable," with some cancer medications targeting SDC1 already in clinical trials.

Future: This molecular roadmap could accelerate the development of targeted OA treatments by repurposing existing drugs or designing new ones that address the root causes of cartilage breakdown rather than just managing symptoms.

Star Career Development Awards

Dr. Christopher Kim, Toronto Western Hospital - University Health Network

Designer cells to treat osteoarthritis with delivery of combinatorial local acting biologics

Strategic Operating Grants

Dr. Tom Appleton, Western University

Lining and LRRC15+ synovial fibroblasts in knee osteoarthritis

Dr. Robert Inman, University Health Network

Targeting exosome-induced regulatory T cell dysfunction in ankylosing spondylitis: A preclinical path to precision therapy

Dr. Lauren King, St. Michael's Hospital - Unity Health Toronto

Melatonin for symptomatic knee osteoarthritis: The MELO randomized controlled trial

Dr. Sarah Manske, University of Calgary

Establishing the interaction between bone and joint biomechanics in radiographic and symptomatic thumb base osteoarthritis

Dr. Hugo Massé-Alarie, Université Laval

Deciphering pain mechanisms underlying symptomatic lumbar spinal osteoarthritis

Dr. Liam O'Neil, University of Manitoba

Who benefits from patient education and exercise therapy? Identifying and predicting knee osteoarthritis outcome trajectories in the GLA:D-KOA cohort

Dr. Reza Sharif-Naeini, McGill University

Validating a novel target in the treatment of osteoarthritis pain





Thank you for propelling research that saves lives

To the Grand Imperial Conclave of Canada Charitable Foundation, thank you for your generous commitment to advancing arthritis research. Your support is helping researchers pursue the discoveries that will transform how arthritis is understood, treated and ultimately overcome. On behalf of Arthritis Society Canada and the millions of people living with arthritis, we are deeply grateful for the hope and progress you are helping to build.

For more information, please contact:

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