

ARTHRITIS RESEARCH FROM COAST TO COAST

2022/2023 ANNUAL REPORT





MISSION STATEMENT

To transform the lives of people living with arthritis through research and engagement.

VISION STATEMENT

A future where research-based services, tools and knowledge empower people living with arthritis to triumph over pain and disability.



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MESSAGE FROM THE SCIENTIFIC DIRECTOR

Dr. Diane Lacaille

It has been a busy year as scientists, patient partners, and trainees continue to work tirelessly to improve quality of life for millions of people living with arthritis. The diversity of our research mirrors the complexity of the many diseases under the umbrella of arthritis and the many ways arthritis affects a person's life.

To that end, we have continued to build our multidisciplinary team by welcoming new scientists, expanding our scope of expertise and collaborations from coast to coast, including the announcement of a new centre at Dalhousie University in Nova Scotia.

The next generation of scientists is critical to the future of arthritis research. The creation of an Arthritis Research Canada Trainee Network, led by Scientist Dr. Mary De Vera, reflects our commitment to nurturing promising talent. We are also excited to announce our partnership with the University of British Columbia and the launch of the Dr. John Esdaile Professorship in Arthritis Research that will support the career of an arthritis scientist in perpetuity.



My congratulations to the scientific team for their continued success in securing competitive funding grants of \$11.5 million in 2022/23 and their leadership in presenting research at conferences around the world. We are making tremendous progress in research that improves delivery of care and health outcomes for people living with arthritis.

I would like to wish a happy and fulfilling retirement to Arthritis Research Canada Senior Scientists, Dr. Jacek Kopec and Dr. Catherine Backman. We, along with millions of Canadians, have benefitted from their immense knowledge and tremendous contributions.

Although we have made great strides in research, there is still a significant need to find solutions to the challenges of living with arthritis. Life-changing arthritis research is made possible through the generosity of individuals, businesses, funding partners, and our government.

Thank you for investing in us.

MESSAGE FROM THE EXECUTIVE DIRECTOR



Rob Appleton

My role allows me the unique opportunity to see innovative arthritis research in action every day. The collaboration between research teams and patient partners is what distinguishes Arthritis Research Canada/Arthrite-recherche Canada. It provides that important connection that ensures our research is meaningful and directly benefits millions of people living with arthritis.

I am pleased to report that Arthritis Research Canada has completed another successful annual audit. Each year our organization meets and exceeds accountability requirements through rigorous and transparent practices. We are proud of our low administrative cost, knowing that each dollar we receive is being used to achieve the greatest impact in leading-edge arthritis research.

As we look forward and prepare for Arthritis Research Canada's next three-year Strategic Plan, I am excited for the opportunities and growth that will carry us to 2027. Patient engagement and equity, diversity and inclusion will be paramount across all strategic directions. None of this would be possible without the ongoing support of our donors and volunteers- individuals, organizations, businesses and foundations who are committed to investing in vital arthritis research. We are extremely grateful to everyone who supports our research so that all people with arthritis can get back to living life to the fullest.

Thank you for being a part of our community and for allowing critical arthritis research to advance.

MESSAGE FROM THE BOARD CHAIR

Jordan Langlois

Partner Kornfeld LLP

This past year has seen the organization achieve numerous milestones as we expanded our presence across Canada, exceeded our funding goals and celebrated a successful 10th Annual ARThritis Soirée.

We are pleased to welcome two new board members, Anna Shojania and Jatinder Sidhu, both of whom bring exceptional skills and experience to further complement the board team and our efforts to stay squarely focused on the mission and vision of Arthritis Research Canada/Arthrite-recherche Canada. I extend my appreciation to all board members for their strategic guidance and governance that pushes the organization to achieve extraordinary success.



Arthritis Research Canada is a leader in innovative research that is changing and saving lives. Having seen firsthand the significant toll arthritis can take on someone's life, I am committed to doing all I can to help this worthy cause.

We need to work together to change the trajectory of this disease. To everyone who contributes to finding answers and shining a spotlight on arthritis – thank you from the bottom of my heart.



I am honoured to have been appointed as the Board Chair for Arthritis Research Canada/Arthrite-recherche Canada this past December. It is a privilege to serve the organization in this capacity and I am excited for the opportunities that lay ahead.

BOARD OF DIRECTORS



Jim Dales Retired



Don Elkington Owner Elkington Investments PAST CHAIR



Rahim Esmail Senior Counsel TELUS



Pauline Hadley-Beauregard Partner,

Strategic Clarity Crux

Rodrigue Lussier

Investment Counsellor, Private Wealth Fiera Capital Corporation





Joy MacPhail Retired



Samantha Rogers Patient Advisory Board Liaison



Stephen Schwartz Partner Burns Fitzpatrick LLP



Anna Shojania Chief Executive Officer AS Search & HR



Jatinder Sidhu Chief Operating Officer Keith Scott Group

PATIENT PARTNERS

Patient partners are at the core of Arthritis Research Canada/ Arthrite-recherche Canada. The lived experience and knowledge of our Arthritis Patient Advisory Board and Patients Interesses Par La Recherche Sur L'arthrite members are vital to shaping and guiding our research.

Members of the Board work closely with research scientists and trainees to bring research closer to people with arthritis. They develop important plain language summaries to communicate current and completed research, attend and present abstracts at two of the most highly regarded rheumatology conferences in Canada and the United States, participate as team members on a variety of studies, and contribute extensively to our Education Series, quarterly eNewsletter, and fundraising campaigns.

Arthritis Research Canada joins the Arthritis Patient Advisory Board in recognizing and thanking Kelly English, who steps down from the board after ten years of tireless dedication as a member and past co-chair. We also acknowledge Alison Legge, who leaves the board after two and a half years. Their valuable contributions will remain in the fabric of our organization for years to come.

ARTHRITIS PATIENT ADVISORY BOARD

Samantha Rogers (Chair) Nikki Bhatti Eileen Davidson Kevin Dombrova Keeva Duffey Sharona Franklin Christine Graveline Alison Hoens Sadiq Jiwa Nadine Lalonde Corinne McCrimmon Annette McKinnon Shanon McQuitty Philippa Mennell Kohle Merry Chris Pudlak Charlotte Ryder-Burbidge Louella Segueira Trish Silvester-Lee Steve Sutherland Natasha Trehan Karen Tsui Yvonne Wallace

PATIENTS INTERESSES PAR LA RECHERCHE SUR L'ARTHRITE

Dr. Marie-Claude Beaulieu Paul R Fortin France Gervais Jean Légaré Denise St-Pierre



SCIENTIFIC TEAM

Diane Lacaille - MDCM, MHSc, FRCPC Scientific Director

APPOINTMENTS

Mary Pack Chair in Rheumatology Research

Professor, Division of Rheumatology, Department of Medicine, University of British Columbia

Michal Abrahamowicz - PhD

Research Scientist, Biostatistics

APPOINTMENTS

James McGill Professor of Biostatistics, Department of Epidemiology, Biostatistics and Occupational Health, Faculty of Medicine, McGill University

Medical Scientist, Division of Clinical Epidemiology, Research Institute, McGill University Health Centre

Aslam H. Anis - PhD, FCAHS

Senior Scientist, Health Economics

APPOINTMENTS

Professor and Director pro tem, School of Population and Public Health, University of British Columbia

Director, Centre for Advancing Health Outcomes, Providence Health Care Research Institute

National Director, CIHR Canadian HIV Trials Network (CTN)

J. Antonio Aviña-Zubieta - MD, MSc, PhD, FRCPC

Senior Scientist, Rheumatology

APPOINTMENTS

Associate Professor and Head, Division of Rheumatology, Department of Medicine, University of British Columbia

BC Lupus Society Research Scholar

Walter & Marilyn Booth Research Scholar

Catherine Backman - PhD, FCAOT

Senior Scientist, Rehabilitation Sciences

APPOINTMENTS

Professor Emeritus, Department of Occupational Science & Occupational Therapy, University of British Columbia

Affiliated Researcher, Vancouver Coastal Health Research Institute Nick Bansback - MSc, PhD Research Scientist, Health Economics

APPOINTMENTS

Associate Professor, School of Population and Public Health, University of British Columbia

Scientist, Centre for Advancing Health Outcomes, Providence Health Care Research Institute

Claire Barber - MD, PhD, FRCPC

Research Scientist, Rheumatology

APPOINTMENTS

Associate Professor, Division of Rheumatology, Department of Medicine and Department of Community Health Sciences, Cumming School of Medicine, University of Calgary

Scientific Director, Bone and Joint Health Strategic Clinical Network (BJH SCN), Alberta Health Services

Megan Barber - BSc (Honours), MD, PhD

Research Scientist, Rheumatology APPOINTMENTS

Clinical Assistant Professor, Division of Rheumatology, Department of Medicine, Cumming School of Medicine, University of Calgary

Associate Director of Clinical Research and Clinical Trials, Lupus Centre of Excellence, University of Calgary

Cheryl Barnabe - MD, MSc, FRCPC

Senior Scientist, Rheumatology

APPOINTMENTS

Deputy Director, McCaig Institute for Bone and Joint Health, University of Calgary

Professor, Division of Rheumatology, Department of Medicine and Department of Community Health Sciences, Cumming School of Medicine, University of Calgary

Canada Research Chair, Rheumatoid Arthritis and Autoimmune Diseases

Susan J. Bartlett - PhD

Research Scientist, Psychology

APPOINTMENTS

Professor, Department of Medicine, Faculty of Medicine, McGill University

Senior Scientist, Research Institute, McGill University Health Centre

Adjunct Professor of Medicine, Johns Hopkins Medicine



Susanne Benseler – MD, PhD

Research Scientist, Pediatric Rheumatology

APPOINTMENTS

Director, Alberta Children's Hospital Research Institute

Professor, Department of Pediatrics, Cumming School of Medicine, University of Calgary

Cenovus Energy Chair in Child and Maternal Health

Alberta Children's Hospital Foundation Chair in Pediatric Research

Hyon K. Choi - MD, DrPH, FRCPC

Research Scientist, Rheumatology

APPOINTMENTS

Professor of Medicine, Harvard Medical School

Adjunct Professor of Medicine, University of British Columbia

Director, Clinical Epidemiology and Health Outcomes, Division of Rheumatology, Allergy, and Immunology, Department of Medicine, Massachusetts General Hospital

Director, Gout and Crystal Arthropathy Center, Department of Medicine, Massachusetts General Hospital

May Y. Choi - MD, MPH, FRCPC

Research Scientist, Rheumatology

APPOINTMENTS

Associate Professor, Division of Rheumatology, Department of Medicine, Cumming School of Medicine, University of Calgary

Jolanda Cibere - MD, PhD, FRCPC

Senior Scientist, Rheumatology

APPOINTMENTS

Associate Professor, Division of Rheumatology, Department of Medicine, University of British Columbia

Ann Clarke - MD, MSc, FRCPC

Research Scientist, Immunology

APPOINTMENTS

Arthritis Society Chair in Rheumatic Diseases

Professor, Division of Rheumatology, Department of Medicine, University of Calgary

Professor, Department of Community Health Sciences, University of Calgary

Immediate Past Chair of the Systemic Lupus International Collaborating Clinics (SLICC)

Inés Colmegna – MD

Research Scientist, Rheumatology

APPOINTMENTS

Associate Professor, Division of Rheumatology, Department of Medicine, McGill University

Scientist, Research Institute, McGill University Health Sciences, Infectious Diseases and Immunity in Global Health Program Centre for Translational Biology

Deborah Da Costa – PhD

Research Scientist, Psychology

APPOINTMENTS

Associate Professor, Department of Medicine, Faculty of Medicine, McGill University

Scientist, Research Institute, McGill University Health Centre, Metabolic Disorders and Complications Program, Centre for Outcomes Research and Evaluation

Mary De Vera - MSc, PhD

Research Scientist, Pharmacoepidemiology Associate Director of Training

APPOINTMENTS

Associate Professor, Faculty of Pharmaceutical Sciences, University of British Columbia

Associate Dean Postdoctoral Fellows, Faculty of Graduate and Postdoctoral Studies, University of British Columbia

Associate Director Education, Collaboration for Outcomes Research and Evaluation

Scientist, Centre for Advancing Health Outcomes

Paul R. Fortin - MD, MPH, FRCPC

Senior Scientist, Rheumatology

APPOINTMENTS

Professor, Division of Rheumatology, Department of Medicine, Université Laval

Clinician-Scientist, Axe Maladies Infectieuses et Immunitaires, Centre de recherche du CHU de Québec-Université Laval Director, Centre ARThrite de l'Université Laval

Donald Garbuz - MD, MHSc, FRCSC

Research Scientist, Orthopaedics

APPOINTMENTS

Professor, Department of Orthopaedics Surgery, University of British Columbia

Nelson Greidanus - MD, MPH, FRCSC

Research Scientist, Orthopaedics

APPOINTMENTS

Assistant Professor, Department of Orthopaedics Surgery, University of British Columbia

SCIENTIFIC TEAM

Glen Hazlewood - MD, PhD, FRCPC *Research Scientist, Rheumatology*

APPOINTMENTS

Associate Professor, Division of Rheumatology, Department of Medicine and Department of Community Health Sciences, Cumming School of Medicine, University of Calgary

Sabrina Hoa - MD, MSc, FRCPC

Research Scientist, Rheumatology

APPOINTMENTS

Clinician-scientist, Centre hospitalier de l'Université de Montréal Assistant Professor, Department of Medicine, Université de Montréal Université de Montréal Chair in Scleroderma Research

Marie Hudson – MD, MPH, FRCPC

Research Scientist, Rheumatology

APPOINTMENTS

Clinician-Scientist, Jewish General Hospital and Lady Davis Institute

Associate Professor, Department of Medicine, McGill University

Alexandra Legge - MD, MSc, FRCPC

Research Scientist, Rheumatology

APPOINTMENTS

Assistant Professor, Division of Rheumatology, Department of Medicine, Dalhousie University

Adult Rheumatologist, Queen Elizabeth II Health Sciences Centre, Halifax Nova Scotia Director, Dalhousie Lupus Clinic

Linda Li - BSc(PT), MSc, PhD, FCAHS

Senior Scientist, Implementation Science

APPOINTMENTS

Professor, Department of Physical Therapy, University of British Columbia

Harold Robinson Chair/Arthritis Society Chair in Arthritic Diseases Canada Research Chair, Patient-oriented Knowledge Translation

Carlo Marra - BSc (Pharm), PharmD, PhD

Research Scientist, Pharmacoepidemiology

APPOINTMENTS

Professor and Dean, School of Pharmacy, University of Otago, Dunedin, New Zealand

Deborah A. Marshall - PhD

Senior Scientist, Health Economics and Preferences Research

APPOINTMENTS

Professor, Departments of Community Health Sciences, Medicine Cumming School of Medicine, University of Calgary Scientific Director, Research Evaluation, Partnership and Impact, Alberta Children's Hospital Research Institute (ACHRI)

Laëtitia Michou - MD, PhD

Research Scientist, Rheumatology

APPOINTMENTS

Associate Professor, Division of Rheumatology, Department of Medicine, Université Laval

Clinician Scientist, Endocrinology and Nephrology Axis, Centre de recherche du CHU de Québec-Université Laval

Kamran Shojania - MD, FRCPC

Clinical Trialist, Rheumatology

APPOINTMENTS

Clinical Professor, Division of Rheumatology, University of British Columbia

Head, Division of Rheumatology, Vancouver General Hospital

Medical Director, Mary Pack Arthritis Program

Jackie Whittaker – BScPT, PhD

Research Scientist, Musculoskeletal Rehabilitation Sciences

APPOINTMENTS

Associate Professor, Department of Physical Therapy, Faculty of Medicine, University of British Columbia

Adjunct Associate Professor, Sport Injury Prevention Research Centre, University of Calgary

Adjunct Associate Professor, Faculty of Rehabilitation Medicine, University of Alberta

Hui Xie – BSc, MS, PhD

Research Scientist, Biostatistics

APPOINTMENTS

Professor, Faculty of Health Sciences, Simon Fraser University

Milan and Maureen Ilich/Merck Chair in Statistics for Arthritis and Musculoskeletal Diseases



AFFILIATE KNOWLEDGE BROKER

Alison Hoens - MSc, BScPT

Knowledge Broker

APPOINTMENTS

Knowledge Broker and Clinical Professor, Department of Physical Therapy, Faculty of Medicine, University of British Columbia

Research Associate, Centre for Advancing Health Outcomes, University of British Columbia

SCIENTISTS EMERITUS

John M. Esdaile - MD, MPH, FRCPC, FCAHS, MACR Scientific Director Emeritus

APPOINTMENTS

Professor Emeritus of Medicine, Division of Rheumatology, Department of Medicine, University of British Columbia Adjunct Professor of Medicine, University of Calgary

Jacek Kopec - MD, MSc, PhD

Senior Scientist Emeritus, Epidemiology

APPOINTMENTS

Professor, School of Population and Public Health, University of British Columbia Matthew H. Liang – MD, MPH Professor Emeritus, Rheumatology

APPOINTMENTS

Professor of Medicine, Harvard Medical School Professor of Health Policy and Management, Harvard T.H. Chan School of Public Health

AFFILIATE SCIENTISTS

Jan Dutz - MD, FRCPC

Affiliate Scientist, Dermatology and Immunology

APPOINTMENTS

Professor and Head, Department of Dermatology and Skin Science, Faculty of Medicine, University of British Columbia

Scientist, Children and Family Research Institute

Mark Harrison - MSc, PhD

Affiliate Scientist, Health Economics

APPOINTMENTS

Associate Professor, Faculty of Pharmaceutical Sciences, University of British Columbia

Scientist, Centre for Advancing Health Outcomes, Providence Health Care Research Institute

Allyson Jones - PT, PhD

Affiliate Scientist, Rehabilitation Sciences

APPOINTMENTS

Professor, Department of Physical Therapy, Faculty of Rehabilitation, University of Alberta

Adjunct Professor, School of Public Health, University of Alberta

Anne Townsend - MA, PhD

Affiliate Scientist, Bioethics

APPOINTMENTS

Senior Research Associate, Liverpool and Lancaster Collaboration for Public Health Research, Division of Health Research, Health Innovation One, Lancaster University, UK





CLINICIAN INVESTIGATORS

Neda Amiri – BSc, MD, MHSC, FRCPC

Clinician Investigator, Rheumatology

APPOINTMENTS

Clinical Associate Professor, Department of Medicine, Division of Rheumatology, University of British Columbia Director of Pregnancy and Rheumatic Diseases Clinic (PReDICT), Mary Pack Arthritis Centre Rheumatologist, Summit Medical Specialists

Mollie Carruthers – MD, FRCPC

Clinician Investigator, Rheumatology

APPOINTMENTS

Clinical Associate Professor, Division of Rheumatology, Department of Medicine, University of British Columbia,

Rheumatologist, Artus Health Centre Vancouver

Jonathan Chan – MD, FRCPC

Clinician Investigator, Rheumatology

APPOINTMENTS

Clinical Assistant Professor, Division of Rheumatology, Department of Medicine, University of British Columbia,

Rheumatologist, Artus Health Centre Vancouver

Shahin Jamal – MD, FRCPC, MSc

Clinician Investigator, Rheumatology

APPOINTMENTS

Clinical Associate Professor, Division of Rheumatology, Department of Medicine, University of British Columbia,

Rheumatologist, Diamond Health Care Centre, Vancouver

Raheem B Kherani - BSc (Pharm), MD, MHPE Clinician Investigator, Rheumatology

APPOINTMENTS

Clinical Associate Professor, University of British Columbia, Department of Medicine, Division of Rheumatology

Rheumatologist at West Coast Rheumatology Associates, Richmond, BC

Jasmin Ma – PhD, P.Kin Clinician Investigator, Kinesiology

APPOINTMENTS

Assistant Professor of Teaching, School of Kinesiology, University of British Columbia

Investigator, International Collaboration on Repair Discoveries

Janet Roberts – MD, FRCP(C)

Clinician Investigator, Rheumatology

APPOINTMENTS

Assistant Professor, Division of Rheumatology, Department of Medicine, Dalhousie University

CONDUCTING ARTHRITIS RESEARCH FROM



Arthritis Research Canada/Arthrite recherche Canada's world-class scientific team is focused on understanding, advancing and sharing knowledge about the causes of arthritis and addressing the issues that impact the lives of people living with this disease.

Our multidisciplinary team conducts arthritis research across Canada through the lenses of rheumatology, orthopaedics, physiotherapy, occupational therapy, pharmacy, rehabilitation science, public health, epidemiology, health psychology and behavioural change, health economics, health systems assessment, biostatistics, education, pediatrics, and knowledge mobilization.

We are committed to practical research that provides solutions to improve everyday living, reduce the burden of arthritis, and give people with arthritis access to better, more timely, and cost-effective treatments.





6+ million

Canadians of all ages are affected by arthritis















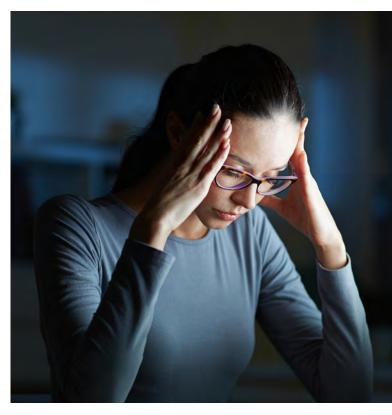
PREVENTION

Arthritis prevention is crucial to reducing the burden of arthritis and improving the lives of millions of Canadians. This includes stopping or delaying the onset of arthritis and minimizing its impact by preventing complications. Our scientists are leading the way with research on lifestyle modifications, exercise, early intervention, and the use of technology to predict the risk of and prevent diseases that occur as complications of inflammation, such as heart attacks and strokes.

People in their 20s and 30s with sport-related knee injuries have an increased risk of developing osteoarthritis. **Research Scientist, Dr. Jackie Whittaker's** SOAR study is aimed at reducing this risk. This online, exercise-based program includes education, a personalized exercise program, physical activity tracking and weekly action planning.

Previous research has shown that older adults can better manage chronic diseases and prevent frailty by increasing their physical activity. **Senior Scientist**, **Dr. Linda Li**, is leading a team that developed and is testing a program, based on the new Canadian 24-hour Movement Guidelines, that provides physical activity counselling to older adults with chronic diseases who are at an early state of frailty. Cardiovascular diseases are more common in people with lupus. In collaboration with researchers at Harvard University, **Research Scientist**, **Dr. May Choi**, created a novel cardiovascular risk calculator tool that includes lupus-specific information to more accurately predict the risk of cardiovascular events, such as heart attacks, strokes and deaths from heart disease, in people with lupus. Accurately identifying this risk is an essential step in preventing heart disease in this population.

Lupus can affect many parts of the body, including the brain, causing a wide range of neurologic and psychiatric symptoms. A common one is mild cognitive impairment that comes and goes, which patients often describe as "lupus brain fog." **Research Scientist, Dr. Alexandra Legge,** is part of a team working on better understanding what causes brain fog in lupus by using state-of-the-art MRI scans of the brain that measure the leakiness of the blood-brain barrier, to see how it changes over time and how it corresponds to fluctuations in cognitive function.



REDUCING HEALTH INEQUITIES

Inequities in health outcomes remain a persistent and concerning issue perpetuated by disparities in access to care and quality of care received.

At Arthritis Research Canada, bridging this gap is a priority. Our research evaluates ways to make arthritis care more accessible, culturally safe and free of discrimination, so everyone can receive the best care available, regardless of ethnicity, gender identity or socioeconomic situation.

Senior Scientist, Dr. Cheryl Barnabe, is part of two research teams investigating inequities in the healthcare system in Alberta. Their studies identified explicit and implicit interpersonal anti-Indigenous biases among Albertan physicians, validating existing patient reports and emphasizing the need for effective interventions to stop anti-Indigenous racism in healthcare. They also evaluated the experiences of harassment and discrimination in medicine across Albertan physicians and found the prevalence to be high by intersectional identities of race and gender. Dr. Barnabe also led a study of the lived experiences with arthritis care of people of colour, black people, and people with diverse gender identities and sexual orientations. This study resulted in the development of recommendations to clinicians to help make healthcare more inclusive and culturally safe.

People with inflammatory arthritis can have different health outcomes based on race, gender identity, age, location, and education. With this in mind, **Research Trainee, Meghan Thomas** along with **Research Scientists, Dr. Mary De Vera** and **Dr. Mark Harrison**, are conducting the ACCESS study, which aims to improve how participants are recruited for inflammatory arthritis research to ensure better diversity of representation.





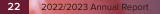


MENTAL HEALTH

The emotional burden of arthritis is often overlooked but is as important as the physical symptoms. Stress, anxiety, and depression can make pain and other arthritis symptoms worse. Moreover, the emotional distress associated with living with a chronic illness can make it more difficult for individuals to deal with the physical challenges of arthritis and follow their treatment plans.

During the past year, our team of researchers has worked on a number of studies to address the intricate relationship between the physical and emotional aspects of arthritis to improve overall well-being. Research led by **Research Trainee**, **Alyssa Howren**, and **Research Scientist**, **Dr. Mary De Vera**, linked loneliness and isolation during the COVID-19 pandemic to depression and anxiety in people with rheumatic diseases. The study's main objective was to understand how the pandemic affected disease management, focusing on medications and mental health. By identifying these connections, this research provided insights that go beyond the context of the pandemic.

Research Scientist, Dr. Susan Bartlett, was the principal investigator of a research team that also included Dr. Glen Hazlewood. This study aimed to understand the emotional impact of the COVID-19 pandemic on people with rheumatoid arthritis. Her research showed that anxiety and depression were increased, particularly in people who reported having had prior mood disorders. Depression was twice as common as reported in Canadians without arthritis, and anxiety increased with each successive wave of the pandemic.





Scientific Director, Dr. Diane Lacaille, is leading a multidisciplinary research team from across Canada, that is co-developing, with patients and health care professionals, a new, more flexible, way of delivering Care for Arthritis (FlexCAre). This new model will gather medical information and monitor patients' symptoms remotely, between visits, to guide when and what care they need, who they see, and whether they need to receive care in person or virtually.

The currently fixed scheduling of follow-up appointments for people with rheumatoid arthritis leaves little time for last-minute or urgent care appointments. **Research Scientist, Dr. Claire Barber,** is evaluating a 'patient-initiated' model of delivering care where patients will be followed by their family doctor when their disease is stable, and arrange rheumatology follow-up visits when needed, rather than at fixed, pre-determined intervals.



The current way of delivering arthritis care does not leverage new technologies or use limited healthcare resources efficiently, and often fails to meet patients' needs. As a result, many people are not receiving the best care available, and this particularly affects people already facing healthcare inequities.

Our scientific team is leading several studies to help ensure people with arthritis have timely access to the best care possible.



Research Scientist, Dr. Susanne Benseler, is leading a team whose research will provide a better understanding of individual, biological characteristics of children's arthritis to help select the biologic therapy most likely to be effective for each child. This information will allow their arthritis to get better faster and will avoid side effects from unnecessary medications. It will also reduce healthcare costs and burden for patients and families.

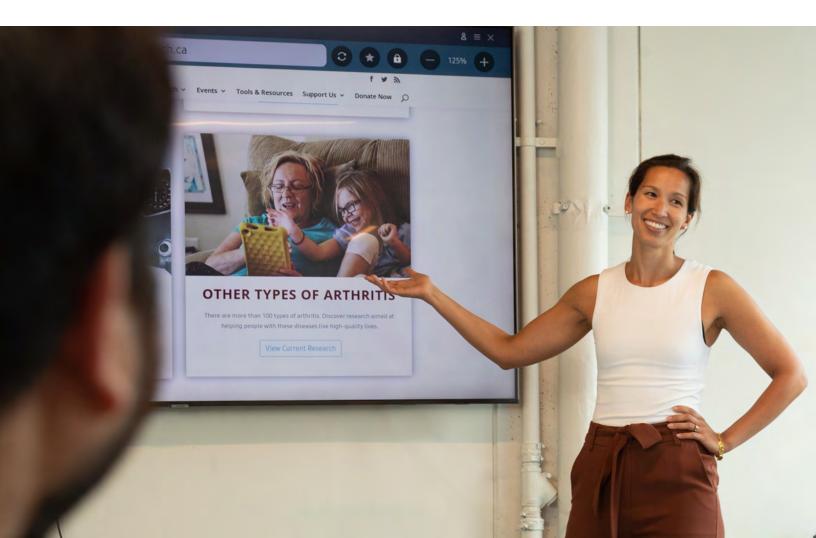
Personalized treatment options for people with rheumatoid arthritis should be based on the most up-to-date data about their effectiveness and safety, tailored to the specific situation of each person, as well as patient preferences. **Research Scientists, Dr. Nick Bansback, Dr. Claire Barber** and **Dr. Glen Hazlewood,** are part of a research team that will develop a custom-made decision tool to help patients choose the best treatment for them.

DIGITAL TOOLS

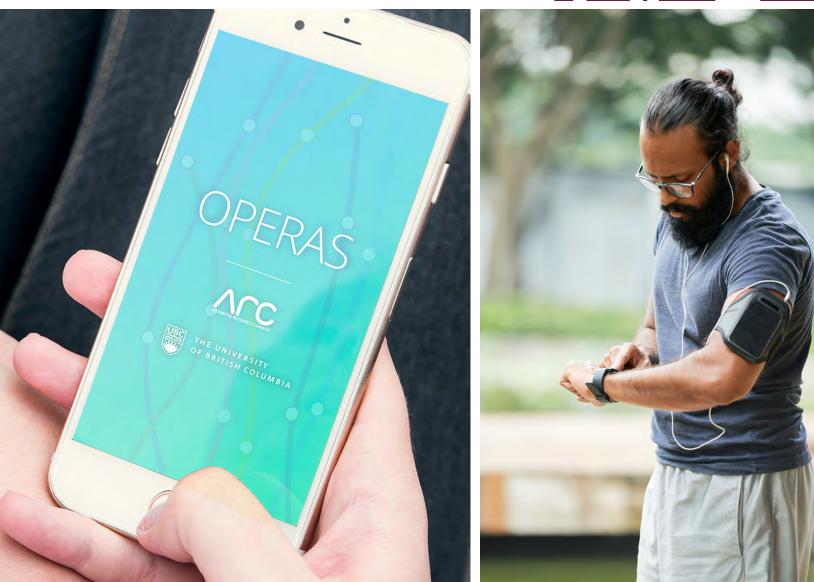
Digital tools are increasingly used in the day-to-day management of arthritis. These innovative technologies offer a range of benefits that help people navigate the challenges of living with arthritis and improve their overall well-being.

Our scientists are leading the way in the use of machine learning and artificial intelligence to support predicting different types of autoimmune rheumatic diseases. This will allow for earlier diagnosis and treatment, leading to an overall improvement in quality of life.

A study led by **Research Scientists**, **Dr. Nick Bansback** and **Dr. Deborah Marshall**, evaluated the benefits of an online patient decision aid they created, to help people with osteoarthritis considering knee replacement surgery make an informed decision. The study demonstrated that integrating the decision aid into an online, pre-surgical assessment in routine clinical care improved the quality of decisions.







To help people with rheumatoid arthritis in their self-care, **Senior Scientist**, **Dr. Linda Li** and **Scientific Director**, **Dr. Diane Lacaille**, along with their teams, have developed and tested a web/mobile app called OPERAS (On-demand Program to EmpoweR Active Self-management). This tool allows people to monitor their arthritis symptoms and mood over time; track their physical activity; and help them set self-care goals, with guidance from a physiotherapist. Researchers found OPERAS improved people's self-care ability, reduced arthritis symptoms and increased physical activity.

Research Scientist, Dr. May Choi, and her team developed a machine learning/AI tool that uses information from blood samples to predict the risk of developing lupus and guide early treatment strategies. This study will also advance our understanding of how this disease develops and may identify new targets for treatment.

NEXT GENERATION OF SCIENTISTS



ARTHRITIS TRAINEE NETWORK

Supporting the careers of trainees at the Master, Ph.D., and Post-doctoral levels has been a priority at Arthritis Research Canada/Arthrite-recherche Canada since day one.

Led by Associate Director of Training, Dr. Mary De Vera, the Arthritis Trainee Network creates a graduate student arthritis community and strengthens Arthritis Research Canada's ability to foster collaboration across all centres.

Our commitment to mentoring the next generation of arthritis research scientists remains strong and we are extremely proud of our trainees' talent and success. Their innovative discoveries are promising for the future of arthritis research.





Nicole Andersen, PhD in Counselling Psychology, McGill University

Kawami Cao, BSc in Kinesiology, UBC

Jesse Charlton, PhD in Physical Therapy, UBC

Joey Cheng, BSc in Kinesiology, UBC

Kelsey Chomistek, Medical Student, University of Calgary

Dani Contreras, Masters in Community Health Sciences, University of Calgary

Faye Cooles, visiting Postdoctoral Fellow, Newcastle University

Jamon Couch, PhD in Physical Therapy, La Trobe University, Australia

Narsis Daftarian, PhD in Experimental Medicine, UBC

Lulu Guo, PhD in Biostatistics, Simon Fraser University

Sarah Hansen, Postdoctoral Fellowship in Rheumatology, UBC

Nejat Hassen, Masters in Epidemiology, UBC completed December 2022

Rashedul Hoque, PhD in Biostatistics, Simon Fraser University

Alyssa Howren, PhD in Pharmaceutical Sciences, UBC

Kara Irwin, PhD in Community Health Services, University of Calgary

Bocheng Jing, Masters in Biostatistics, Simon Fraser University

Derin Karacabeyli, Fellowship in Rheumatology, UBC

Chris Lamb, Masters in Rehabilitation Sciences, UBC

Christina Le, PhD in Rehabilitation Medicine, University of Alberta

Jenny Leese, Postdoctoral Fellowship, Knowledge Translation, UBC and University of Ottawa

Lingyi Li, PhD in Experimental Medicine, UBC

Xiaoxiao Liu, Postdoctoral Fellowship in Health Systems Impact, University of Calgary

Justin Losciale, PhD in Rehabilitation Sciences, UBC

Darren Mazzei, PhD in Health Economics, University of Calgary Natalie McCormick, Postdoctoral Fellowship in Rheumatology, Harvard University

Kasra Moolooghy, Masters in Experimental Medicine, UBC

Julia Mucha, Masters in Physical Therapy, UBC

Kamso Mohammed Mujaab, PhD in Community Health Sciences, University of Calgary

Maureen O'Brien, Masters in Medical Science, University of Calgary

Thalia Otamendi, PhD in Rehabilitation Sciences, UBC

André Luiz Luquini Pereira, PhD in Experimental Medicine, UBC

Anh Pham, PhD in Rehabilitation Medicine, University of Alberta

Codie Primeau, Postdoctoral Fellowship in Implementation Science, UBC

Sharan Rai, PhD in Nutrition, Harvard University

Smruthi Ramachandran, Masters in Rehabilitation Sciences, UBC

Nevena Rebić, PhD in Pharmaceutical Sciences, UBC

Fatima Shah, Masters in Community Health Sciences, University of Calgary

Tita Szlachetka, Masters in Experimental Medicine, UBC

Jocelyn Thomas, Masters in Community Health Sciences, University of Calgary

Megan Thomas, PhD in Pharmaceutical Sciences, UBC

Viviane Ta, Masters in Counselling Psychology, McGill University

Linda Truong, PhD in Physical Therapy, UBC

Ellen Wang, PhD in Physical Therapy, UBC

Heather Worthington, PhD in Rehabilitation Sciences, UBC

John Xian He Yan, Masters in Rehabilitation Sciences, UBC

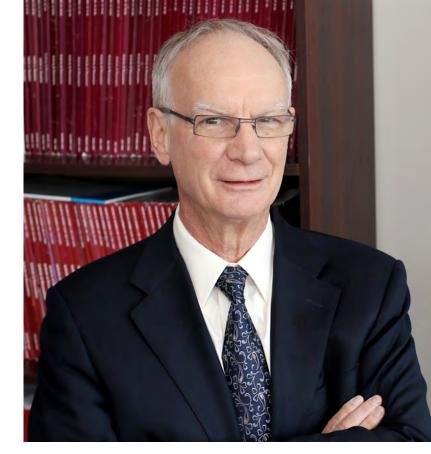
Saania Zafar, Masters in Community Health Sciences, University of Calgary

Vivienne Yuetong Zhou, PhD in Biostatistics, Simon Fraser University

Kai Zhao, PhD in Biostatistics, Simon Fraser University

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DR. JOHN ESDAILE PROFESSORSHIP IN ARTHRITIS RESEARCH



I am honoured by this initiative and proud of the role Arthritis Research Canada plays in training and mentoring the arthritis scientists of tomorrow.

Dr. John Esdaile

Scientific Director, Emeritus

Dr. Esdaile nurtured the organization's development from a single centre with one scientist, trainee, and assistant to the largest clinical arthritis research institute in North America. He prioritized investing in people and created a culture dedicated to mentoring young scientists in a wide variety of disciplines relevant to helping people live well with arthritis.

The Professorship honours Dr. Esdaile's incredible legacy, which includes more than four decades of excellence in rheumatology care and research. It is designated for the purpose of faculty renewal, ensuring innovative arthritis research continues now and in the future. Arthritis Research Canada has partnered with the University of British Columbia, through the President's Academic Excellence Initiative, to establish the Dr. John Esdaile Professorship in Arthritis Research. The endowed fund will support a clinician scientist in the Division of Rheumatology at UBC and at Arthritis Research Canada forever.

Arthritis Research Canada has set out to raise \$2.5 million for the professorship, which will leverage an additional \$2 million from UBC, essentially doubling donor support.

Investing in people will translate into practical research that will benefit millions of people living with arthritis, today and into the future.



SUPPORTING THE NEXT GENERATION OF ARTHRITIS SCIENTISTS

The Virani family came to Canada as refugees in 1972 after Ugandan Dictator, Idi Amin, expelled 60,000 people of South Asian descent from Uganda. Today, they give back to the country that welcomed them with open arms through The Amir and Yasmin Virani Family Foundation.

The foundation gives generously in British Columbia, supporting marginalized youth, the arts, academic and medical institutions, as well as organizations that aid women and children across the globe. Through the years, they have helped many charities make life-changing programs possible.

On May 11 at the ARThritis Soirée, Arthritis Research Canada's signature event, The Virani Foundation donated an amazing \$250,000 to help launch the Dr. John Esdaile Professorship in Arthritis Research campaign to raise \$2.5 million. The Professorship will support the career of an arthritis researcher forever and ensure Arthritis Research Canada continues to find answers for millions living with arthritis. "Our foundation is delighted to support this Professorship. It is critical to the future of arthritis research that we are able to attract the best and brightest to lead cutting-edge research. As someone living with arthritis, I know firsthand the tremendous impact research can have. It quite literally gives you back your life. We hope this gift will inspire others to give and together we can make this professorship a reality."

Anisha Virani, on behalf of The Amir and Yasmin Virani Family Foundation

Arthritis Research Canada is extremely grateful to The Virani Foundation for its generosity and for encouraging others to support arthritis research and the next generation of scientists.



Left to Right: Dr. Diane Lacaille, Scientific Director, Yasmin Virani, and Anisha Virani

WITH THANKS

Arthritis Research Canada/Arthrite-recherche Canada is honoured to recognize our Fellows Circle donors for their important and extraordinary generosity. Your support allows our research scientists and patient partners to conduct leading-edge research that is finding life-changing solutions for more than six million Canadians living with arthritis.

Thank you for making arthritis research a priority.





VISIONARY CIRCLE (\$1.000.000+)

Milan & Maureen Ilich Foundation Ministry of Health, Province of British Columbia

DISCOVERY CIRCLE (\$150,000 - \$999,999)

Lohn Foundation Pfizer Canada Inc. The Amir & Yasmin Virani Family Foundation

PATRONS CIRCLE (\$25,000 - \$49,999)

Don & Carolyn Elkington

BENEFACTORS CIRCLE

(\$50,000 - \$149,999)

BC Lupus Society Catherine Booth & Michael Kirk Lianne Gulka & Carl Hoyt Lynn Hsu

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FELLOWS CIRCLE (\$1.000 - \$9.999)

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Troy Estensen Ann Forbes Stephen & Heather Frishling D&B Geddes Charitable Fund Ken & Bev Gelhorn Amanda & Mike Girling Peter & Elsa Girling Dr. Kun Huang Kirk Hudson Marietta Hurst Catherine & Doug Jagger Janssen Inc. Norma Johnstone Michael Jonker & Catherine Morgan Shauneen Kellner Dr. Raheem Kherani Dr. Barry & Mary Koehler Cheryl Koehn Jill Komlos Dr. Jacek & Alina Kopec Violette Cadrin Lacaille, In Memory Judy Langdon

Jordan Langlois Dr. Linda Li & Paul Lee **Rodrigue Lussier** Joyce Ma Robert Mackay Joy MacPhail Nora Martin Marie McKersie, In Memory Stephen McKersie Cameron & Linda McKie **Barrie McLeod Gisele Mortimer** Patti Nakatsu Shaun & Kathy Ouellette Patrick Palmer Naz Panahi Raindrop Foundation **RBC** Foundation Diana Reid & Chris Nelson Wendy Reid Brian & Melanie Reynolds John Rideout

John and Mata Rinke Fund Nick & Lynn Ross **Charitable Foundation** Dr. Robert Rothwell Royal Canadian Legion #6 Royal Canadian Legion #139 Royal Canadian Legion #263 Anne & Don Russell Pat Sargent Dr. Tim Schmidt & Dr. Nancy Hudson Louise Scott Dr. Kam & Anna Shojania Mitra & Nasser Shojania Lee and Karl Soberlak Foundation Raymond To Kerry Townson Maria & Chris Tsoromocos Brenda Viney Ulrika Wallersteiner Christina Weston Jane & Maurice Wong Dr. Hui Xie & Dr. Yi Qian

IOTH ANNUAL ARThritis SOIRÉE2023

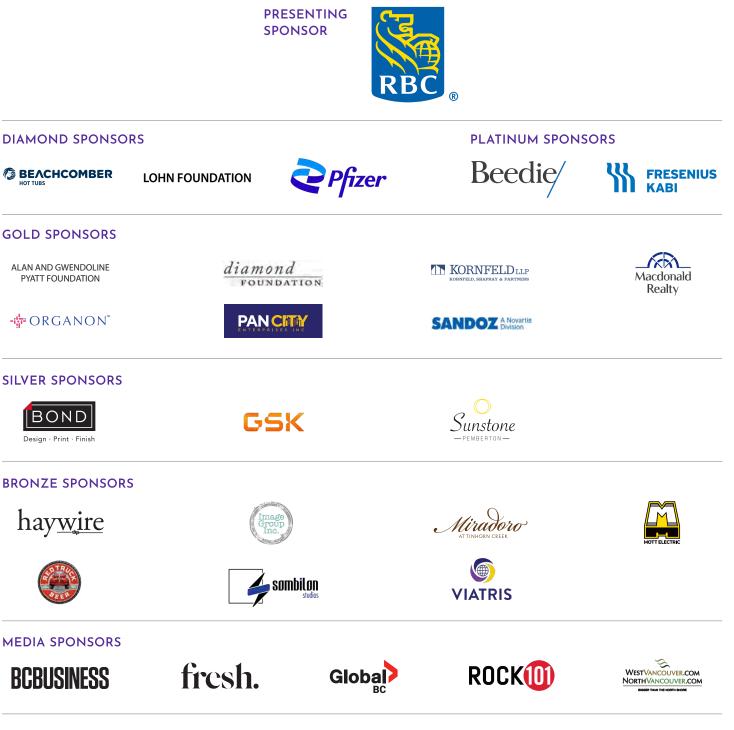
This year saw Arthritis Research Canada celebrate its 10th Annual ARThritis Soirée with our signature fundraising event raising an impressive \$790,000 in support of life-changing arthritis research.

Presented by RBC, the elegant cocktail event provided guests with a wonderful evening of mingling, fabulous food and wine, an amazing prize draw by Montecristo Jewellers, along with fantastic art, silent and live auctions, a live painting experience, and a memorable set by The Legendary Powder Blues. Hosts Coleen Christie (Global BC) and Jake Edwards along with auctioneer, Howard Blank did an excellent job guiding the night from start to finish.

We are deeply grateful to our sponsors, guests, artists, volunteers, and donors all of whom contributed to making our 10th Annual event such a success.







PRIZE DRAW SPONSOR

MONTECRISTO Dal 1978 THANK YOU TO OUR GENEROUS SPONSORS FOR SUPPORTING ARTHRITIS RESEARCH

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FINANCIALS

THE ARTHRITIS RESEARCH CENTRE SOCIETY OF CANADA

STATEMENT OF FINANCIAL POSITION AS AT MARCH 31, 2023

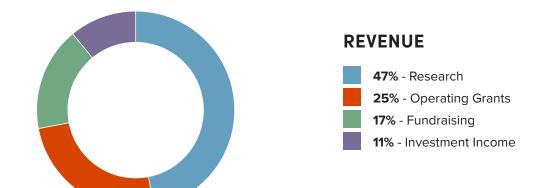
ASSETS

	\$27,415,566
CAPITAL ASSETS	9,559,052
INVESTMENTS	16,887,216
	\$969,298
Prepaid expenses	24,522
Recoverable from government – GST	18,046
Accounts receivable	436,585
Cash and Cash Equivalents	\$490,145
CURRENT	

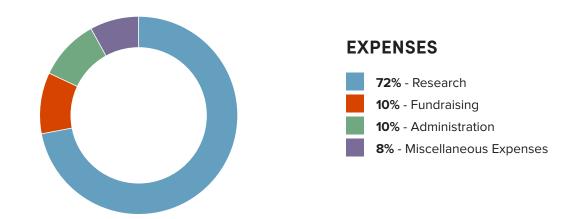
LIABILITIES AND NET ASSETS

	\$12,362,169
LONG TERM DEBT	6,304,884
DEFERRED CAPITAL REVENUE	172,556
DEFERRED REVENUES	4,004,987
	\$1,879,742
Current portion of long term debt	204,017
Current portion of deferred revenue	1,436,807
Accounts payable & accrued liabilities Payables – Payroll deductions	\$215,303 23,615





Revenue after unrealized investment losses	\$3,840,246
Unrealized Investment Losses	(927,417)
Gross Revenue	4,767,663
Investment Income	545,107
Fundraising and Donations	823,918
Operating Grants	1,178,984
Research	\$2,219,654



Excess (Deficiency) of Revenues over Expenses	(726,228)
Total Expenses	\$4,566,474
Miscellaneous Expenses	352,839
Fundraising	440,360
Administration	464,506
Research	\$3,308,769

Leading research. Finding answers. Saving lives.



230-2238 Yukon Street, Vancouver, BC V5Y 3P2 | 604-207-0400

arthritisresearch.ca