

Centre for Chronic Disease Prevention and Management Annual Report | 2023



Director's Message

Our trainees are the engine that drives the research in the Centre for Chronic Disease Prevention and Management. It has been a particularly important year for growth and collaborations across the Centre's three strategic research pillars, due in large part to the increased numbers of trainees at all levels. We are particularly grateful for the efforts of our Trainee Engagement Committee (TEC) in leading and building a greater sense of community for all of our trainees.

The Centre's core research team continues to expand. Dr. Sarah Purcell joined our growing team of investigators and was appointed a Tier 2 Canada Research Chair in Nutrition and Metabolism in Chronic Disease based at UBC Okanagan. Dr. Femke Hoekstra also joins the Centre at the beginning of 2024. The latest recruitment is a direct result of the successful Faculty of Medicine renewal application for a researcher with expertise in implementation science in the context of health innovations in rural and remote communities.

We continue to benefit from growth in our research funding including several new grants from the Canadian Institutes for Health Research and the Social Sciences and Humanities Research Council.

Now entering our fifth year of operation, it is important to celebrate our accomplishments and acknowledge the challenges during our Centre's developmental phase. The foundational work is almost complete and the opportunities ahead are endless.



Dr. Kathleen Martin Ginis

Director Centre for Chronic Disease Prevention and Management

Reichwald Family UBC Southern Medical Program Chair in Preventive Medicine



THE UNIVERSITY OF BRITISH COLUMBIA

Centre for Chronic Disease Prevention and Management
Faculty of Medicine



UBC Okanagan lands new Canada Research Chair, \$6M in federal research funding

Dr. Sarah Purcell, CCDPM Investigator, is now recognized as a world-class researcher. As part of the fall 2023 funding announcement from the federal government, Dr. Purcell was introduced as the new Tier 2 Canada Research Chair in Nutrition and Metabolism in Chronic Disease.

Dr. Purcell's research focuses on understanding human energy balance in people with chronic diseases, both through the food they're eating and how that energy is burned. Energy balance for people with chronic diseases—such as obesity, cancer, or diabetes—hasn't

been as well studied as for healthy populations. However, chronic diseases can have a significant impact on factors like appetite, physical activity levels, and even how many calories someone might burn while at rest.

"I'm very honoured to receive this award," says Dr. Purcell. "It's going to help us understand these really complex questions of what impacts energy balance in people with chronic disease. Currently, there's not enough data for these populations to have targeted and evidence-based recommendations for energy intake. In the big picture, perhaps in the next 20 years, I'd love to have more effective nutrition recommendations for these groups."

Thanks to a partnership between the Canada Research Chair (CRC) program and the Canada Foundation for Innovation's John R. Evans Leadership Fund, Dr. Purcell also received funding to build her lab at UBC Okanagan. This infrastructure will include equipment to measure body composition, or the amount of someone's muscle and fat, as well as different tools for the lab to measure how many calories people burn and how much food they eat.

Dr. Kathleen Martin Ginis named to the Royal Society of Canada for 2023

Dr. Kathleen Martin Ginis was named a Fellow of the Royal Society of Canada (RSC) for 2023. Fellows are elected by their peers for their outstanding scholarly, scientific, or artistic achievement. They are distinguished individuals from all branches of learning who have made remarkable contributions in the arts, the humanities, and the sciences, as well as in Canadian public life.

“For over 25 years, I have worked collaboratively with an amazing team of trainees, scientists, and staff to improve the health and well-being of people with disabilities—an equity-owed group often overlooked in health research,” Dr. Martin Ginis said. “I am

deeply honoured to become a new Fellow of the Royal Society of Canada. This prestigious recognition is another glowing affirmation of my decision to come to UBC Okanagan where my research can flourish in a dynamic, energetic, and supportive environment.”

She is among 10 UBC researchers who were announced by the RSC as new Fellows and as new Members of the RSC College of New Scholars, Artists, and Scientists and among 101 newly-elected Fellows across Canada. The 2023 Fellows and Members were welcomed into the RSC in November, at the RSC Celebration of Excellence and Engagement.



Research Highlights

Dr. Christopher West has teamed up with Dr. Glen Foster from the UBC Okanagan School of Health and Exercise Sciences to investigate an emerging therapy for people with spinal cord injuries (SCI). The treatment—acute intermittent hypoxia—involves breathing air with slightly decreased levels of oxygen for short periods of time and has been shown to improve respiratory system capacity as well as increase muscle strength for people with SCI. Given this population is at risk for heart disease earlier and more frequently than the general population, the team is studying how this new hypoxia treatment impacts the cardiovascular system.

Dr. Christine Voss has received a CIHR New Investigator Grant in partnership with SickKids Foundation and the Institute of Human Development, Child and Youth Health to explore how physical activity plays a role in optimizing health, quality of life, and long-term prognosis in children living with chronic conditions such as type 1 diabetes (T1D) and congenital heart disease (CHD). Children with these conditions are typically less active than their peers, in large part due to outdated restrictions over health safety concerns. Co-investigators for the grant include Dr. Erica Bennett, Dr. Kevin Harris, and Dr. Trent Smith.

Resistance exercise may help regulate appetite in breast cancer survivors

A new study by researchers from UBC and the University of Colorado has found that weight-lifting may benefit appetite regulation and energy balance in breast cancer survivors.

The study, published in *Appetite*, involved 16 women who had completed treatment for hormone receptor-positive breast cancer within the past five years. On separate days, the women performed a single bout of resistance exercise, such as lifting weights or sitting quietly. The researchers measured their appetite sensations, appetite-related hormones, and energy intake before and after each session. The results showed that resistance exercise temporarily reduced hunger-inducing hormones and increased appetite-suppressing hormones compared to the sedentary condition.

Dr. Sarah Purcell, the study's lead author, said the findings suggest resistance exercise may help breast cancer survivors maintain healthy body weight and prevent obesity-related complications.

"Breast cancer survivors are often at increased risk of obesity," she says. "We know that exercise can suppress appetite in people without previous cancer, at least in the short term, so we tested that in women with previous breast cancer who have low estrogen as part of their treatment. After a single bout of resistance exercise, we found some modest suggestions that exercise changes hormones to promote fullness and decrease hunger."

CENTRE FOR CHRONIC DISEASE PREVENTION AND MANAGEMENT

CCDPM INVESTIGATORS BY THE NUMBERS 2023

50

Research Publications

\$4.1M

Primary Investigator
Research Funding

\$14.5M

Co-Investigator
Research Funding

RESEARCH PILLARS:

Diabetes and Obesity Lead:
Dr. Jonathan Little

Cardiovascular Health Lead:
Dr. Chris West

Neurological Disorders Leads:
Dr. Brodie Sakakibara and
Dr. Daryl Wile

INVESTIGATORS

Dr. Femke Hoekstra

Dr. Jonathan Little

Dr. Kathleen Martin Ginis

Dr. Sarah McCorquodale

Dr. Sarah Purcell

Dr. Brodie Sakakibara

Dr. Chris West

Dr. Daryl Wile (Clinical)

Dr. Christine Voss

AFFILIATE INVESTIGATORS

Dr. Jennifer Davis

Dr. Neil Eves

Dr. Ilona Hale

Dr. Devin Harris

Dr. Charlotte Jones

Dr. Mary Jung

Dr. Lesley Lutes

Dr. Tricia Tang

Dr. Deanne Taylor

Dr. Paul van Donkelaar

AFFILIATE CLINICIANS

Dr. Janet Evans

Dr. Gayle Klammer

Dr. Jennifer Locke

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