

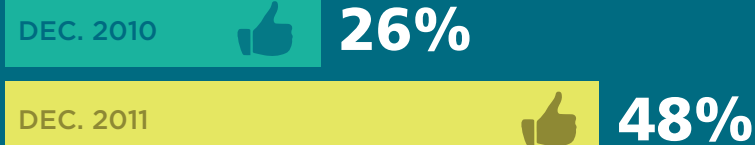
# SEX, GENDER & HEALTH RESEARCH IN CANADA



Our investment in gender, sex and health research is increasing...

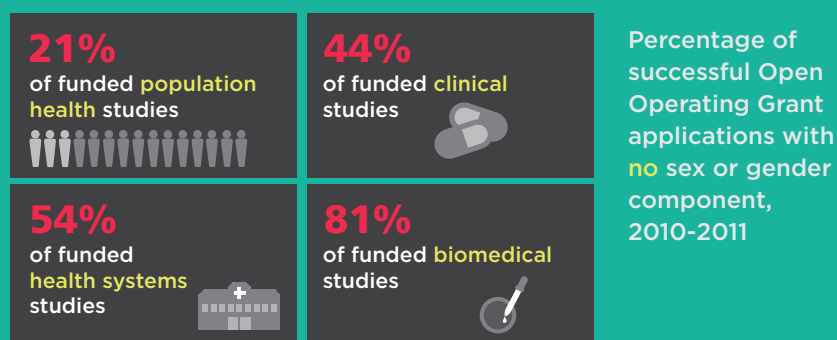


And so are the number of Canadian researchers incorporating sex and gender in their research designs...



Percentage of successful CIHR Open Operating Grant applicants responding positively to incorporating sex or gender in their research designs

But there's more to do in order to mainstream the integration of sex and gender across the full spectrum of health research...



## RESEARCH BREAKTHROUGHS



Dr. Jeffrey Mogil and colleagues report a surprising sex difference in the involvement of toll-like receptors (proteins that act as first responders in our immune systems) in the mediation of chronic pain - one of many new discoveries made in Mogil's lab resulting from the routine testing of male and female mice in all experiments.



By comparing different methodological approaches to analyzing a single dataset for risk factors of musculoskeletal disorders (MSD), Dr. Karen Messing and colleagues demonstrate how stratifying by gender is necessary if a full range of associations between exposures and MSD is to be detected and understood.



A study by Dr. Jens Pruessner and colleagues suggests that estrogen has a selective protective effect on areas of the brain known to be involved in Alzheimer's disease, adding to a growing body of evidence that is clarifying the role of estrogen in women's brain health.



Dr. Jayne Danska and colleagues discover an association between sex differences in the gut microbiome and susceptibility to type-1 diabetes in mice, uncovering potential reasons why females are at greater risk of autoimmune disease compared to males.



Following the identification of gender disparities in rates of use of total hip and knee replacements in Canada, a new study by Dr. Gillian Hawker and colleagues is the first to demonstrate that patient gender affects physicians' treatment recommendations and interpersonal behaviour in clinical practice.



As part of his novel research program on men's depression, Dr. John Oliffe and colleagues uncover new insights into the pathways through which men respond to severe depression and suicidal ideation, including how masculine roles, identities and relations mediate depression-related suicidal ideation.

### Have you considered the possibilities?

Learn more at [www.cihr-irsc.gc.ca/shapingscience.html](http://www.cihr-irsc.gc.ca/shapingscience.html)

