





2023

# ST. MARY'S RESEARCH CENTRE ANNUAL REPORT

A research centre as strong as its community.





Director's Message	03
SMRC in Numbers	04
4 Statistical Overview of SMRC 6 Organisational Chart 7 SMRC Team	
Strategic Plan	08
Academic Recruitment	
Academic Recruitment	09
Academic Recruitment Selected Research Highlights	09
	09 11
Selected Research Highlights  11 Researcher Highlights by Domain 13 Selected 2023 Publications 18 SMRC Student Highlights 19 Clinical Trials Program 20 C.A.R.E. Grants	09 11 22
Selected Research Highlights  11 Researcher Highlights by Domain 13 Selected 2023 Publications 18 SMRC Student Highlights 19 Clinical Trials Program 20 C.A.R.E. Grants 21 Oncology Career Development Award	11

**26** 

26 Acknowledgements

**Annual Report Team** 

## Director's Message

#### Dear members of the SMRC community,

I am pleased to bring you St. Mary's Research Centre's Blue Report for 2023. This last year, our team worked tirelessly to establish solid foundational support systems for a successful research environment, including growing our talented team of researchers, providing administrative support for research projects, and more.



This report provides comprehensive insights into our crowning achievements, areas of growth, and initiatives hosted throughout the past year. Everything we do, from our clinical trials to our community events and outreach, is done with our communities' wellbeing at the forefront of our minds.

In 2023, SMRC finalised our 2023-2028 Strategic Plan. In October, we officially unveiled our strategic priorities for the upcoming years at our team retreat. This was the culmination of a collaborative effort involving our key partners, encompassing multiple phases over the previous nine months. Our Strategic Plan will serve as a guiding force, creating avenues for future structuring of research at St. Mary's. To learn more about our strategic priorities, please turn to page 8.

Many of SMRC's achievements in the past year involve strengthening our support services, most notably by creating our Research Support Hub. The RSH provides administrative support to researchers, from creation to completion of their projects. By providing this type of support, we enable our researchers to devote more energy to the research itself.

I would also like to take this opportunity to celebrate all of our community-focused events held in 2023, from our Scientific Series lectures to our Community Conferences. We have made great strides in facilitating knowledge transfer between our own research centre, and the surrounding populations. If the purpose of the research we are carrying out is to benefit the general public, then it is our duty to share this knowledge with whom we hope to serve.

Our successes and achievements in 2023 represent the base we need for growth and support, as we continue in our journey of providing our communities with improved and conscientious patient-centred care. I say with confidence that we are building the foundation for a successful research environment, and will only continue to flourish as the years go on.

#### Dr. Ari Meguerditchian

Scientific Director

### **Scientific Activities**

**98** Peer-Reviewed Scientific Publications (source: SciVal)

Determined using SciVal, an advanced analytics solution built on a core of Scopus® data. All associated and affiliated SMRC researchers are systematically tracked through the platform, allowing SMRC to compile their research outputs, ensuring rigorous data capture and analysis.

#### 19 Knowledge Transfer Events

- 17 Scientific Series
- 2 Community Conferences

SMRC's Knowledge Transfer events refer to the sharing of the knowledge acquired through the research conducted in our RC, back with the communities we serve. Supporting public needs and the advancement of medical knowledge is one of our fundamental purposes in conducting the types of research we do.

### **Our Team**

**5** Non-Clinical Scientists

**30** Clinical Scientists

**47** Research Professionals

14 Administrative & Research

Support Staff

**16** Graduate Students

2 Research Faculty Recruited



### **Active Projects**

**21 Clinical Trials**\* in progress (offered by SMRC at SMHC):

- 15 Oncology Clinical Trials
  - 1 Bladder Cancer Trials
  - 4 Breast Cancer Trials
  - 10 Lung Cancer Trials
- 3 Urogynecology Clinical Trials
- 3 Orthopaedic Clinical Trials

\*Clinical Trials are randomised research studies that evaluate and incorporate new medical practices, innovative methodologies, and cutting edge healthcare solutions, with the goal of shaping the healthcare landscape of the future.

### Finance\*

**\$1,234,000.00** St. Mary's Foundation Contribution

**\$1,543,202.00** New grants (all sources)

**\$898, 188.00** External peer-reviewed competitive grants

**\$112,373.00** Philanthropy

**\$1,331,099.02** Industry Sponsor (based on actual recruitment)

\*Financial statistics are reported according to financial year (April 1, 2023 - March 31, 2024). All other statistics are reported according to calendar year (Jan 2023 -Dec 2023).

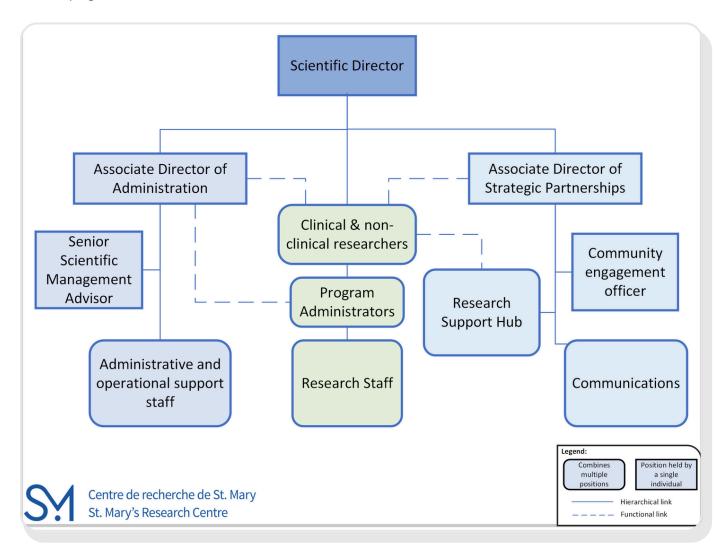


### **Organisational Chart**

In 2023, St. Mary's Research Centre revitalised our organisational structure to better reflect our team functions, the complexity of effectively administering a growing research centre, the diversity of skills within our teams, the formalisation of our interactions with partner organisations across the CIUSSS and McGill University, and the channels through which we can more effectively support our researchers.

See below for the updated organisational chart.

See page 7 for more details on our administrative team.



#### **SMRC Team**



**Ari Meguerditchian** Scientific Director



**Christina Raneburger**Associate Director of Strategic Partnerships



**Jean-Daniel Beauchesne** Associate Director of Administration



**Manon de Raad** Planning, Programming and Research Officer



Marc-André Bélisle Senior Scientific Management Advisor



**Kelly Ingabire** Administrative Technician



**Amaryllis Kaneza** Administrative Assistant



**Tracy Jean Brice** Executive Assistant



Ranime Hassan Administrative Technician



**Chantay Alexander** Communications Specialist

#### **Administrative Highlight**

In 2023, we consolidated the SMRC leadership portfolios to better suit the needs of the research community. Christina Raneburger became Associate Director of Strategic Partnerships and Jean-Daniel Beauchesne was named Associate Director of Administration. This helped the SMRC complete the goal related to establishment of an effective management team.

### Strategic Plan

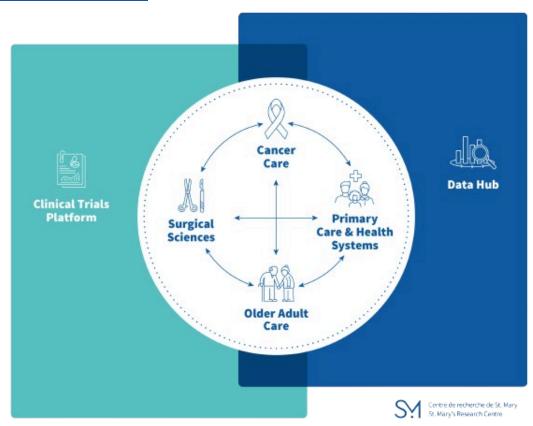
#### Overview of SMRC's Strategic Plan 2023-2028

In the past year, St. Mary's Research Centre's leadership team unveiled its 2023-2028 Strategic Plan, solidifying our goals and priorities for the next five years. This was the culmination of a nine-month collaborative effort involving various key partners and a multi-phase approach including surveys, research domain-oriented retreats, and more.

During this unveiling, representatives from our research domains presented their ambitions and strategic priorities for the coming year. Based on these benchmarks, SMRC now presents a concrete action plan to support this research. Our actions will be organised under five key priorities: Process, Key Partners, Technology, Culture & Talent, and Visibility & Knowledge Transfer.

We are proud to present our research community with our full Strategic Plan.

- Click here to view the English version.
- Click here to view the French version.



Research Matrix featuring our domains and our research support pillars.

### **Academic Recruitment**

#### **Academic Recruitments**

#### Welcoming Dr. Talía Malagón

In May 2023, Dr. Talía Malagón (Assistant Professor, Gerald Bronfman Department of Oncology, McGill University) joined SMRC as an Associate Scientist. Her appointment with SMRC marks a step forward in cancer care and HVP prevention amongst our communities.



Dr. Malagón is an epidemiologist and mathematical modeller, and holds an Assistant Professor title at McGill's Gerald Bronfman Department of Oncology. She teaches graduate-

level and resident courses in cancer epidemiology in the Departments of Oncology and the Department of Epidemiology, Biostatistics, and Occupational Health. Her expertise includes using decision models, repeated and correlated events analyses, multilevel mixed effects modeling, generalised estimating equation, meta-regression models, multistate Markov models, transmission dynamic models, and Bayesian analyses for answering causal questions in the fields of oncology and infectious diseases.

Much of Dr. Malagón's research focuses on the prevention and epidemiology of human papillomavirus (HPV) infections and their associated cancers, as well as decision modeling of cancer prevention, survival, and diagnostic and treatment pathways, and the influence of social determinants of health on cancer risk.

### **Academic Recruitment**

#### Welcoming Dr. Anita Koushik

Dr. Anita Koushik (Full Professor, Gerald Bronfman Department of Oncology) joined our SMRC team in August 2023, as holder of the new Chair in Community Oncology with McGill. Her recruitment was an integral part of SMRC's efforts in bolstering our Cancer Care research domain.



Prior to joining McGill, Dr. Koushik was previously a Professor of Epidemiology at l'Université de Montréal School of Public Health and a researcher at the CHUM Research Centre. Her research program aims to better understand the etiology of cancer in order to improve primary prevention and risk assessment efforts, with the main focus of her projects being on exploring the various lifestyle factors that may increase risk of cancer. She also conducts research into the identification of modifiable factors likely to improve the prognosis and quality of life of cancer survivors.

Dr. Koushik's work upholds SMRC's commitments towards advancing the science of patient-centred care, with her rigorous scientific investigations having paved the way for improved prevention strategies, early detection methods, and enhanced treatment options.

#### Highlights per domain

Research at St. Mary's continues to expand. Here are some major highlights from 2023:



Researchers in this domain received important CIHR grants to conduct their work:

- Dr. Anita Koushik received funding to lead a large population-based study exploring the possible impact of intrauterine device use on ovarian cancer risk.
- Dr. Sylvie Lambert received funding to further evaluate how the TEMPO program improves prostate cancer patients and their caregivers' health and quality of life. The study uses a novel trial methodology to explore a stepped approach to care delivery.
- Dr. Talía Malagón launched a new study using next generation sequencing methods to understand which bacteria may be linked to human papillomaviruses (HPV) transmission between sexual partners. This work could help identify novel interventions to reduce the risks of cancers associated with HPV.



- The SMHC Orthopaedics Research group started collecting data for the Arthroplasty Patient Reported Outcomes (PROMs) database. This registry is the first of its kind, tracking PROMs for hip and knee surgeries with a goal of improving outcomes, quality control and patient care. The registry also helps to plan future research that will test new theories, confirm results or improve treatments and tools for disease prevention.
- Dr. Maryse Larouche launched recruitment for her study of the innovative vNOTES surgical approach. The vNOTES technique is an advanced minimally invasive procedure that has been shown to lead to less postoperative pain, faster recovery and fewer postoperative infections. Dr. Larouche's is exploring specifically how the technique impacts patients' symptoms and pain when used for pelvic organ prolapse surgery.



In 2023, Dr. Jeannie Haggerty published several important papers:

- Dr. Haggerty's paper "Development of an individual index of social vulnerability that predicts negative healthcare events: a proposed tool to address healthcare equity in primary care research and practice" in the *International Journal for Equity in Health* describes the development of an Index of social vulnerability that predicts increased risk of negative healthcare events using data from a 3-year cohort of over 2500 adult primary care patients in Québec. The Index is a pragmatic tool to identify patients who require additional support to receive equitable healthcare.
- Additionally, Dr. Haggerty and her team published the results of an ambitious pan-Canadian status report regarding health and social services connections for patients with complex care needs as part of a special issue of Healthcare Policy.



- A research team led by Dr. Jane McCusker (retired) along with Drs. Sylvie Lambert, Mark Yaffe, Ari Meguerditchian and Shek Fung published the outcomes of their study of an implementation of a patient-centered discharge education tool. Despite lower-than-expected uptake, the intervention led to improved transition experiences for patients and caregivers, with one hospital seeing a reduction in three-month return ED visits. (See *Canadian Journal on Aging*, July 26 2023).
- Dr. Julia Chabot was awarded the 2023 McGill Department of Medicine's Leadership Award recognising outstanding leadership contributions by a faculty member.
- The work done by researchers in the Older Adult Care domain was well represented at the 2023 Congrès International Francophone de Gérontologie et Gériatrie.
- A SMRC research team was awarded the 2023 Canadian Coalition for Seniors' Mental Health Outstanding Care & Integrative Practice Award for their work on the DIRECT research program.

#### **Selected 2023 Publications**

This section of the report presents a curated selection of some of our most impactful publications from 2023, showcasing the diversity of expertise within SMRC. The selected studies span our key research domains, highlighting the significant contributions of our researchers and emphasizing the strong teamwork and interdisciplinary collaborations both within our centre and with external partners. Each publication underscores our dedication to advancing healthcare through pioneering research and patient-centric practices, ensuring equitable and effective care for all.

Note: SMRC affiliated researchers listed in bold, SMRC research staff and students in bold with asterisk.

#### Surgical Sciences: enhancing clinical practices and patient safety

In alignment with SMRC's strategic objectives for surgical sciences, our Orthopaedics and Uro-Gynecology research teams have made substantial contributions in 2023. The Orthopaedics team has provided critical insights into improving surgical outcomes and patient care through their publications on infection reduction in arthroplasty, hip dislocation prevention, and knee arthroplasty techniques. These advancements are particularly beneficial for **older adults**, enhancing their surgical outcomes and overall quality of life. Meanwhile, the Uro-Gynecology team has advanced patient care by reporting on perioperative complication rates in colpocleisis and adverse events associated with pessary use, demonstrating our commitment to addressing key health issues affecting women's quality of life.

Muwanis, M., Barimani, B., Luo, L., Wang, C. K., **Dimentberg, R.**, & **Albers, A.** (2023). Povidone-iodine irrigation reduces infection after total hip and knee arthroplasty. Archives of orthopaedic and trauma surgery, 143(4), 2175–2180. <a href="https://doi.org/10.1007/s00402-022-04451-z">https://doi.org/10.1007/s00402-022-04451-z</a>

Dimentberg, E., Barimani, B., Alqahtani, M., Tayara, B., **Belzile, E\***., & **Albers, A.** (2023). The incidence of hip dislocation after posterior approach primary total hip arthroplasty: comparison of two different posterior repair techniques. Archives of orthopaedic and trauma surgery, 143(6), 3605–3612. <a href="https://doi.org/10.1007/s00402-022-04609-9">https://doi.org/10.1007/s00402-022-04609-9</a>

**Moisan, P.**, Barimani, B., Al Kindi, M., **Mutch, J.**, & **Albers, A.** (2023). Semiconstrained posterior-stabilized total knee arthroplasty: indications, risks and benefits in primary and revision surgery. Canadian journal of surgery. Journal canadien de chirurgie, 66(2), E103–E108. <a href="https://doi.org/10.1503/cjs.000622">https://doi.org/10.1503/cjs.000622</a>

Raina, J., Bastrash, M. P., Suarthana, E., & **Larouche, M.** (2023). Perioperative complication rates of colpocleisis performed with or without concomitant hysterectomy: a large population-based study. International urogynecology journal, 34(5), 1111–1118. <a href="https://doi.org/10.1007/s00192-023-05457-w">https://doi.org/10.1007/s00192-023-05457-w</a>

Kakkar, A., **Reuveni-Salzman, A.\***, **Bentaleb, J.\***, **Belzile, E.\***, **Merovitz, L.**, & **Larouche, M.** (2023). Adverse events associated with pessary use over one year among women attending a pessary care clinic. International urogynecology journal, 34(8), 1765–1770. <a href="https://doi.org/10.1007/s00192-023-05462-z">https://doi.org/10.1007/s00192-023-05462-z</a>

#### Selected 2023 Publications: continued

### Cancer Care: understanding risk and incidence and exploring patient-centred solutions

In 2023, SMRC welcomed two new epidemiologists, Dr. Anita Koushik and Dr. Talia Malagón, who continue to make important contributions to our understanding of cancer risk and incidence. Their highlighted publications below report significant findings in the areas of ovarian cancer, human papillomavirus (HPV) detection, and cancer incidence variations among more vulnerable population.

**L'Espérance, K.\***, Grundy, A., Abrahamowicz, M., Arseneau, J., Gilbert, L., Gotlieb, W. H., Provencher, D., & **Koushik, A.** (2023). Alcohol intake and the risk of epithelial ovarian cancer. Cancer causes & control: CCC, 34(6), 533–541. <a href="https://doi.org/10.1007/s10552-023-01681-3">https://doi.org/10.1007/s10552-023-01681-3</a>

Leung, L., Lavoué, J., Siemiatycki, J., Guénel, P., & **Koushik, A.** (2023). Occupational environment and ovarian cancer risk. Occupational and environmental medicine, 80(9), 489–497. https://doi.org/10.1136/oemed-2022-108557

**Malagón, T.**, Trottier, H., El-Zein, M., Villa, L. L., Franco, E. L., & Ludwig-McGill Cohort Study (2023). Human Papillomavirus Intermittence and Risk Factors Associated With First Detections and Redetections in the Ludwig-McGill Cohort Study of Adult Women. The Journal of infectious diseases, 228(4), 402–411. https://doi.org/10.1093/infdis/jiad043

**Malagón, T.**, Morais, S., Tope, P., El-Zein, M., & Franco, E. L. (2023). Site-Specific Cancer Incidence by Race and Immigration Status in Canada 2006-2015: A Population-Based Data Linkage Study. Cancer epidemiology, biomarkers & prevention: a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology, 32(7), 906–918. https://doi.org/10.1158/1055-9965.EPI-22-1191

Tope, P., Morais, S., El-Zein, M., Franco, E. L., & **Malagón, T.** (2023). Differences in site-specific cancer incidence by individual- and area-level income in Canada from 2006 to 2015. International journal of cancer, 153(10), 1766–1783. https://doi.org/10.1002/ijc.34661

SMRC researchers in the Cancer Care domain are also advancing patient care through innovative interventions and comprehensive evaluations. The selected publications below encompass a broad range of topics, from the quality of online cancer resources, to ways in which online or telemedicine-based interventions can be delivered for people living with cancer, and the impact of web-based patient reviews on oncologists' competency assessments.

Bourdache, L. R., **Ould Brahim, L.\***, **Wasserman, S.\***, Nicolas-Joseph, M., Frati, F. Y. E., **Belzile, E\***., & **Lambert, S. D.** (2023). Evaluation of quality, readability, suitability, and usefulness of online resources available to cancer survivors. Journal of cancer survivorship: research and practice, 17(2), 544–555. <a href="https://doi.org/10.1007/s11764-022-01318-5">https://doi.org/10.1007/s11764-022-01318-5</a>

**Wasserman, S.\*, Ould Brahim, L.\***, Attiya, A., **Belzile, E.\***, & **Lambert, S. D.** (2023). An Evaluation of Interactive mHealth Applications for Adults Living with Cancer. Current oncology (Toronto, Ont.), 30(8), 7151–7166. https://doi.org/10.3390/curroncol30080518

#### Selected 2023 Publications: continued

Morena, N.\*, Ahisar, Y., Wang, X., Nguyen, D., Rentschler, C. A., & Meguerditchian, A. N. (2023). Content Quality of YouTube Videos About Metastatic Breast Cancer in Young Women: Systematic Assessment. JMIR cancer, 9, e45101. https://doi.org/10.2196/45101

Piché, A., Santa Mina, D., **Lambert, S.**, & Doré, I. (2023). Assessing real-world implementability of a multimodal group-based tele-prehabilitation program in cancer care: a pragmatic feasibility study. Frontiers in oncology, 13, 1271812. <a href="https://doi.org/10.3389/fonc.2023.127181">https://doi.org/10.3389/fonc.2023.127181</a>

Morena, N., Zelt, N., Nguyen, D., Dionne, E., Rentschler, C. A., Greyson, D., & Meguerditchian, A. N. (2023). The Use of Web-Based Patient Reviews to Assess Medical Oncologists' Competency: Mixed Methods Sequential Explanatory Study. JMIR formative research, 7, e39857. https://doi.org/10.2196/39857

#### Primary Care and Health Systems: enhancing equity and access

The Primary Care+ domain at SMRC encompasses diverse research areas aimed at enhancing healthcare delivery. In 2023, our work spanned family medicine, emergency services, chronic disease management, and healthcare policy, with a strong focus on patient-centered care and system improvements. Here again, the theme of **Older Adult Care** permeates the research domain, reflecting our commitment to improving healthcare outcomes for aging populations.

In 2023, SMRC researchers' work provided insight into how to:

- Enhance healthcare equity in primary care through better identification and support of at-risk populations:
  - **Haggerty, J., Minotti, S. C.\***, & **Bouharaoui, F.\*** (2023). Development of an individual index of social vulnerability that predicts negative healthcare events: a proposed tool to address healthcare equity in primary care research and practice. International journal for equity in health, 22(1), 157. <a href="https://doi.org/10.1186/s12939-023-01965-9">https://doi.org/10.1186/s12939-023-01965-9</a>
- Guide future telemedicine strategies to improve healthcare access for vulnerable populations:
  - Adams, A. M., **Williams, K. K. A.\***, Langill, J. C., Arsenault, M., **Leblanc, I.,** Munro, K., & **Haggerty, J.** (2023). Telemedicine perceptions and experiences of socially vulnerable households during the early stages of the COVID-19 pandemic: a qualitative study. CMAJ open, 11(2), E219–E226. <a href="https://doi.org/10.9778/cmajo.20220083">https://doi.org/10.9778/cmajo.20220083</a>
- Improve self-management of mental health issues, particularly in diverse populations:
  - **McCusker, J., Lambert, S., Yaffe, M., Schwartz, H., Haggerty, J., Belzile, E.\***, Pelland, M. E., **Minotti, S. C.\***, & **de Raad, M.\*** (2023). Adaptation and outcomes of a lay-guided mental health self-care model: Results of six trials. General hospital psychiatry, 85, 63–70. <a href="https://doi.org/10.1016/j.genhosppsych.2023.09.010">https://doi.org/10.1016/j.genhosppsych.2023.09.010</a>
- Advance care delivery by targeting high-risk patients for better resource allocation and support:
  - Kurteva, S., Tamblyn, R., & **Meguerditchian, A. N.** (2023). Predictors of frequent emergency department visits among hospitalized cancer patients: a comparative cohort study using integrated clinical and administrative data to improve care delivery. BMC health services research, 23(1), 887. <a href="https://doi.org/10.1186/s12913-023-09854-1">https://doi.org/10.1186/s12913-023-09854-1</a>

#### Selected 2023 Publications: continued

A number of papers reported on implementation studies involving interventions aimed directly at benefiting SMHC patients and the SMHC community. These reports help us better understand how to:

• Foster a more collaborative care environment within the hospital:

Law, S., Antonacci, R., Ormel, I.\*, Hidalgo, M.\*, Ma, J., Dyachenko, A.\*, Laframboise, D., & Doucette, E. (2023). Engaging patients, families and professionals at the bedside using whiteboards. Journal of interprofessional care, 37(3), 400–409. https://doi.org/10.1080/13561820.2022.2074379

 Improve care continuity and patient satisfaction for older patients' returning home after a hospitalization:

McCusker, J., Beauchamp, S., Lambert, S., Yaffe, M., Meguerditchian, A. N., John, B. T., Bourbonnais, M. P., Fung, S., de Raad, M.\*, & Belzile, E\*. (2023). Improving Transitional Care for Older Adults: Results of a Patient-Centred Quality Improvement Intervention. Canadian journal on aging = La revue canadienne du vieillissement, 42(4), 678–687. https://doi.org/10.1017/S0714980823000247

Connect patients with appropriate healthcare services in the community:

**Haggerty, J., Smithman, M. A.\***, **Beaulieu, C.\***, Breton, M., **Dionne, É.\***, & Lewis, V. (2023). Telephone outreach by volunteer navigators: a theory-based evaluation of an intervention to improve access to appropriate primary care. BMC primary care, 24(1), 161. <a href="https://doi.org/10.1186/s12875-023-02096-4">https://doi.org/10.1186/s12875-023-02096-4</a>

SMHC is recognized as a leader in perinatal health care. This expertise is ALSO reflected in some of our 2023 publications:

Tomlinson, C., & **Haiek, L. N**. (2023). Breastfeeding and human milk in the NICU: From birth to discharge. Paediatrics & child health, 28(8), 510–526. https://doi.org/10.1093/pch/pxad034

**Schwartz, H., McCusker, J.**, Da Costa, D., **Singh, S.**, **Baskaran, S.\***, **Belzile, E.\***, & Van Roost, K. (2022). A pilot randomized controlled trial of a lay telephone coaching and web-based intervention for postpartum depression and anxiety: The MPOWER study. Internet interventions, 31, 100597. https://doi.org/10.1016/j.invent.2022.100597

Finally, our commitment to advancing comprehensive and coordinated healthcare solutions is exemplified by the multiple publications from Dr. Haggerty and her team in the special issue of Healthcare Policy. An example of how our work in integrating health and social services for complex care patients across Canada offers valuable policy insights:

**Haggerty, J.**, Scott, C. M., Couturier, Y., Quesnel-Vallée, A., **Dionne, É.\***, Stewart, T., Urquhart, R., Montelpare, W., Doucet, S., & Oelke, N. D. (2023). Connecting Health and Social Services for Patients with Complex Care Needs: A Pan-Canadian Comparative Policy Research Program. Healthcare Policy, 19(SP), 10–23. https://doi.org/10.12927/hcpol.2023.27182

#### Selected 2023 Publications: continued

#### **General methodological contributions**

In addition, 2023 saw SMRC researchers making significant contributions to advancing research methodologies. Sylvie Lambert's book chapter on Sequential Multiple Assignment Randomized Trials (SMARTs) underscores her expertise in this innovative methodology, offering new approaches that enhance the efficacy and adaptability of behavioral interventions and providing a robust framework for future research. Similarly, Anita Koushik's invited commentary on the complexities of causal inference in cross-sectional studies advances methodological rigor in epidemiological research, providing critical insights that enhance the validity and reliability of research findings. These contributions help maintain SMRC's leadership in developing robust research frameworks that inform public health policies and intervention design and delivery.

**Lambert, S., Ould Brahim, L.\***, & Moodie, E. (2024). Being SMART in behavioral intervention trials for the management of chronic conditions: Lessons learned using sequential multiple assignment randomized trials (SMARTs). In S. Althoff & M. Chee (Eds.), Behavioral Intervention Trials for the Management of Chronic Conditions (pp. 45-62). CRC Press. https://doi.org/10.1201/9781003288640-3

Barnett, T. A., **Koushik, A.**, & Schuster, T. (2023). Invited Commentary: Cross-Sectional Studies and Causal Inference-It's Complicated. American Journal of Epidemiology, 192(4), 517–519. <a href="https://doi.org/10.1093/aje/kwad026">https://doi.org/10.1093/aje/kwad026</a>

#### **Conclusion**

These selected publications from 2023 offer a snapshot into the breadth and depth of research conducted at SMRC, showcasing our dedication to advancing healthcare across various domains. These efforts underscore SMRC's commitment to pioneering research, fostering interdisciplinary collaborations, and ensuring equitable and effective care for all.

#### **SMRC Students**

#### 2023 saw several successes for students working under the supervision of SMRC researchers:

- Nina Morena (PhD candidate, co-supervised by Dr Ari Meguerditchian) received the Wolfe Chair Graduate Fellowship.
- Antoine Przybylak-Brouillard (PhD candidate, co-supervised by Dr. Sylvie Lambert) received a threeyear scholarship through FRQs.
- Sydney Wasserman received the Canadian Behavioural Interventions Trials Network (CBITN) 2023-24 Scholars Program funded by the Canadian Institutes of Health Research as part of its Clinical Trials Fund initiative.

### As the chair holder of the Oncology Community Chair, SMRC's Dr. Anita Koushik's team continues to grow:

- Mélanie Benoit (MSc program in Epidemiology, UdeM; CIHR Masters scholarship)
- Kevin L'Espérance (PhD program in Epidemiology, UdeM; FRQS PhD scholarship)
- Jennifer Ritonja (Postdoctoral fellow, Dept of Oncology, McGill; fellowships from both CIHR and FRQS)

These three new students are working on projects within Dr. Koushik's research program on ovarian cancer prevention and survivorship. Jennifer and Kevin's work focuses on different aspects of body size over adulthood in relation to ovarian cancer risk. Jennifer is also studying physical activity from multiple sources. Mélanie's research is on the relation between characteristics of sleep and ovarian cancer recurrence among survivors.

Part of our goal as a research centre affiliated with McGill University is to support the next generation of researchers, and plant seeds for future innovation and growth within the healthcare system. To support this goal, SMRC has dedicated office spaces for students to conduct their work, aiming to create a motivated and positively reinforced research environment. We are incredibly proud of all our graduate student researchers who call SMRC home.





#### **Clinical Trials at SMRC**

In 2023, St. Mary's Research Centre, the Clinical Trials Research Team, and DAUER (CIUSSS-ODIM) recommitted themselves to advancing healthcare excellence through collaborative efforts.

Acknowledging the significant impact of clinical trials on scientific progress and patient care, particularly in oncology, the creation of the Clinical Trials Implementation Committee - Oncology (CTIC-O) reflects the institution's unwavering dedication to innovation and patient-centred healthcare.

The CITC-O has made numerous strides in seamlessly integrating our clinical trials into the hospital's core clinical functions, including but not limited to:

- The recruitment of a pharmacist with mandate of research coordination.
- Process mapping to streamline and identify bottlenecks in order to optimise the start up procedures for Oncology Clinical Trials.
- Streamlining contract verification and signature process.

The continuous work and dedication of the CITC-O fosters an environment of collaboration and dedication to ensure that oncology clinical trials are successfully offered to patients here at St. Mary's Hospital.

#### Competition Attracting Research Excellence (CARE) Grants

The CARE grants program, established in 2008 with the generous support of the St. Mary's Hospital Foundation, supports projects that contribute towards the development of clinical and health services research capacity at SMHC and have the potential to result in increased external research funding and peer-reviewed publications.

The aim of the CARE program is to help staff members interested in research gain valuable experience in designing and leading a research project that is attuned to the needs and priorities of the Hospital.

Updated CARE guidelines are available on the SMRC website, accessible here.

Two new projects were funded in 2023:

**Dr. Jennifer Mutch** (Assistant Professor in the Division of Orthopedic Surgery at McGill University) received \$30,000 for her project titled "The increased use of tranexamic acid (TXA) for total knee arthroplasty (TKA) and total hip arthroplasty (THA)".

 This two-year project investigates the use of TXA for reduced blood loss and improved recovery time for hip and knee replacement surgeries. Despite the physical toll TKA and THA surgeries take on patients, the procedures can often be conducted during the day with increasingly shortened lengths of stay. Increasing post-operative TXA dosages may improve surgery outcomes.



**Dr. Julia Chabot** (Assistant Professor in the Division of Geriatric Medicine at McGill University) received \$28,930 for her project "Virtual Reality based Music Intervention in an Acute Geriatric Setting".

Along with **Dr. Harmehr Sekhon**, Dr. Chabot is conducting an open-label feasibility trial examining a virtual reality music-based intervention in a clinical setting. The use of Virtual Reality-based musical interventions has been found to be tolerable, comfortable, and safe for geriatric patients and can improve mental health and shorten hospital stays. This study assesses tolerability and acceptability factors at SMHC in addition to the effects of musical VR on positive emotions, pain, and mental health in older adult inpatients.





#### **Oncology Career Development Award**

The Oncology Career Development Award provides funding to support the initial phase of career development for specialists in oncology with a confirmed position at St. Mary's Hospital Centre. The focus of this award is to enhance research productivity among newly recruited health professionals joining St. Mary's. The award is accessible to new members of the St. Mary's Oncology Department within their first five years of practice.

**Dr. Khashayar Esfahani** (Assistant Professor in the Department of Oncology at McGill University) was the 2023 recipient of this award. Dr. Esfahani founded one of Canada's largest collaborative efforts to study immune-related adverse events (irAEs). This award will enable further study of irAEs through the iMmunotherapy and Immune-Related Adverse Events (MIRAE) project. The study aims at personalizing Immune checkpoint inhibitors (ICI) to each patient and exploring novel biomarkers and treatments.



### Strategic Initiative

#### **SMRC Research Support Hub**

In 2023, SMRC formalized the structure and functions of its Research Support Hub.

Through the Hub, a dedicated team of core staff provide comprehensive support at every stage of SMHC researchers' projects, from conception to completion. By offering a range of pre- and post-award services, scientific productivity tracking, and knowledge translation mechanisms, the Hubs supports a streamlined research process, empowering researchers to focus on the essence of their work.

Structured along four functions representing the research life-cycle the Hub helps to uphold SMRC's culture of curiosity, collaboration, and knowledge sharing and nurtures a diverse and growing research community.

- Identify funding opportunities
- Support and consult for proposal development
- Administrative coordination for grant applications
- Administrative coordination for internal awards and research privileges

Project development and funding Administrative and technical support for active projects

- Grant management
- Support with REB and institutional reviews
- Data management support and tools
- Project management support
- Participant recruitment planning
- Hiring and training research staff
- Statistical analyses
- Communications
- Publications and presentations

- Training and professional development
  - Research skills
  - Mentorship
  - Capacity building
- Collaboration and community engagement
  - Networking and knowledge sharing events
  - Community outreach
  - Patient expert committee

Knowledge translation and engagement Tracking scientific productivity of the SMRC

- Collect, organize, and maintain productivity data
- Create reports and dashboards
- Identify opportunities

## **Knowledge Transfer Events**

#### **Scientific Series**

Our Scientific Series lectures provide a platform for academics and healthcare experts across Canada to present their research to our own research community. The goal of these sessions is to facilitate knowledge transfer across disciplines and communities. The areas of research typically presented will focus on these four domains in healthcare: Cancer Care, Primary Care & Health Systems, Older Adult Care, and Surgical Sciences.

SMRC is proud to host these Scientific Series lectures and highlight the important research being done across domains and fields of research. We are increasingly inviting more speakers from outside the McGill network, including international speakers whose work has contributed significantly to their field.

SMRC Scientific Series presentations are self-approved group learning activities (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada and recognized by the College of Family Physicians of Canada.



### **Knowledge Transfer Events**

#### In 2023, SMRC held 14 Scientific Series events:

Anita Koushik, St. Mary's Research Centre and Gerald Bronfman Department of Oncology, McGill University: Towards excellence in cancer control research. (January 12)

**Sheila Garland**, Department of Psychology & Oncology, Memorial University: Leveraging the Power of the Community to Improve Cancer Survivorship. (January 19)

John William Kayser, CIUSSS-ODIM and Ingram School of Nursing, McGill University: The implementation of Strengths-Based Nursing and Healthcare at the Montreal West Island Integrated University Health and Social Services Centre. (January 26)

**Talía Malagón**, St. Mary's Research Centre and Gerald Bronfman Department of Oncology, McGill University: Where are the missing cancer cases? How the pandemic will keep impacting cancer prevention and care into the future. (February 2)

Miriam Carver & Tamara Carver, Carver Institute Inc. and McGill Executive Institute, Desautels Faculty of Management: Let's Talk Conflict! (February 16)

**Jeannie Haggerty & Victoria Wicks**, St. Mary's Research Centre and Department of Family Medicine, McGill University: Jobs to be done: A new perspective on needs assessment. (March 16)

**Dan Bilsker**, Department of Health Sciences, Simon Fraser University: Supported selfmanagement (SSM) for depression: a 15-year project. (March 30)

**Dorothy Williams,** Loyola College for Diversity and Sustainability, Concordia University: Exploring Black care-giving in Quebec predating the 20th century. (April 20)

**Sydney Wasserman,** St. Mary's Research Centre and Ingram School of Nursing, McGill University: Coping-Together Advanced: Evaluating the acceptability of Coping-Together for patients with advanced cancer and their caregivers. (May 4)

**Hinatea Lai & Bertine Sandra Akouamba**, UETMIS-SS of CIUSSS-ODIM: Self-care for mental health: concept definition and models. (May 18)

Julia Chabot & Sophia Mondestin, St. Mary's Research Centre and Division of Geriatric Medicine, Department of Family Medicine, McGill University: Music Interventions for the Facilitation of Sleep in the Acute Geriatric Setting: a 3arm Randomized Controlled Trial. (June 1)

**Walter Marcantoni,** UETMIS-SS of CIUSSS-ODIM: Efficacy of intravenous ketamine infusion for treatment resistant depression. (September 7)

**Mylaine Breton**, Department of Social Science and Medicine, Université de Sherbrooke: Access to front-line services: an ever-present challenge. (October 5)

**Raphaël Guyard & Thomas Baracos,** Maison de l'innovation sociale: Social innovation: from developing local services to changing systems. (November 9)

**Pierre Lemay,** The Douglas Research Centre, CIUSSS-ODIM: COMTL's clinical-administrative data warehouse: leveraging our data to innovate in patient care. (November 16)

**Sara Ahmed,** School of Physical & Occupational Therapy, McGill University: Integration of digital health and data to achieve patient-centered care. (December 7)

**Elena Parvez,** Department of Surgery, McMaster University: Immigration status and disparities in breast cancer outcomes in Ontario. (December 14)

## **Knowledge Transfer Events**

#### **Community Conferences**

SMRC's Community Conferences aim to disseminate academic and scientific research throughout Côte-des-Neiges and Montreal, ensuring that the knowledge acquired through institutions like our own is shared back with the communities we serve.

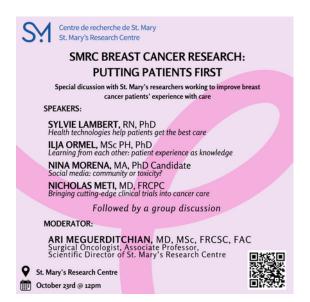
In 2023, SMRC held 2 Community Conferences:

**Anthony Albers**, Osteoarthritis: Myths and Misconceptions (September 15)



#### Sylvie Lambert, Ilja Ormel, Nina Morena and Nicholas Meti, SMRC

Breast Cancer Research: Putting Patients First (October 23)







#### St. Mary's Research Centre

Hayes Pavilion, Suite 4720 3777 rue Jean-Brillant Montreal, QC, H3T 0A2 514-345-3511 ext. 5060

research.stmary@ssss.gouv.qc.ca



FONDATION DE L'HÔPITAL ST. MARY

ST. MARY'S HOSPITAL FOUNDATION

3830 Lacombe Ave., Suite 1510 Montréal, QC, H3T 1M5