

St. Mary's Research Centre

MAY 2022

FROM THE SCIENTIFIC DIRECTOR



Dear members of the SMRC community,

In time for International Nurses' Day (May 12th), this month's newsletter highlights patient-centered, innovative research led by a nurse and member of the CIUSSS-ODIM community: Dr. Antonia Arnaert. Despite pandemic challenges, Dr Arnaert has been conducting a trial since June 2020, focusing on the potential of digital wearable technology in remotely monitoring and supporting patients.

Demographic changes and the increasing number of chronic health conditions no longer make traditional, hospital-based approaches to health care delivery sustainable. Integration of novel technology into patient care represents a unique opportunity to better support patients. Having this type of cutting-edge research led by a nurse reflects the importance of nursing in defining the future of health care delivery.

On the occasion of International Nurses' Day, I'd like to thank the nurses at our institution for their dedication to patient care and their leadership in deploying research and academic development initiatives across St-Mary's campus.

This newsletter also introduces a new member of the SMRC, Dr Simona Minotti, who joins us as Scientific Statistical Consultant. Dr. Minotti will provide her expertise in statistics, advanced analytics and composite indicator development. As an integral part of the SMRC's consultation service, she'll be able to support researchers and clinicians as they develop their research plans.

Dr Minotti is well-known to the SMRC where she was a visiting scholar in 2013-15. Through the support of the Molson Fellowship generously provided by St-Mary's Hospital Foundation, Dr Minotti established collaborations with members of the research and clinical community.

I hope you'll enjoy reading about research on campus.

Ari Meguerditchian, MD
Scientific Director

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RESEARCH PROGRAM HIGHLIGHT: Dr. ANTONIA ARNAERT

For the National Nursing Week (May 10-16), the St. Mary's Research Centre presents the work of Dr. Antonia Arnaert an associate member of the SMRC

Dr. Arnaert's research focuses on the transformation of healthcare delivery and education through technology and support of the digital health ecosystem. She is particularly interested in the development and evaluation of digital health technologies such as wearables and, to create new opportunities for innovation in the areas of preventive and personalized healthcare.

One of Dr. Arnaert's research projects is currently taking place at the CIUSSS-ODIM. Since the start of the COVID-19 pandemic (June 2020), the project has provided telenursing services to patients living chronic obstructive pulmonary disease (COPD) using the AlayaCare home telemonitoring platform.

Starting in July 2021, a subgroup of patients have used the Apple Watch Series 6 to monitor their oxygen saturation and heart rate.

All patients were asked to answer five specific COPD-related questions once every day.

1. How would you describe your level of shortness of breath today?
2. How many times did you spit today?
3. What color was your spit today?
4. Was your spit thicker than usual?
5. How often did you cough today?

Tailored patient education material was made available on the telemonitoring platform to support them and complement their knowledge regarding lifestyle changes. When a measurement of clinical data was outside of expected patient-specific parameters, the telenurse would contact the patient, provide the necessary interventions, and if needed communicate with the interdisciplinary team at the COPD clinic.

Utilisation d'un système central d'analyse intelligente pour la télésurveillance à domicile pour des patients vivants avec la maladie pulmonaire obstructive chronique sur le territoire du CIUSSS de l'Ouest-de-l'Île-de-Montréal afin de réduire le nombre d'hospitalisations et visites aux urgences.

Primary investigator : A. Arnaert
Co-Investigator: S. Charbonneau (CIUSSS-ODIM)
Study type: Interventional
Estimated enrollment: 36
Allocation: Implementation study
Primary purpose: Prevention
Sponsor: Medtek; Alaya Care
Duration: 2021-2022

RESEARCH PROGRAM HIGHLIGHT: Dr. ANTONIA ARNAERT

Dr. Antonia Arnaert leads four other funded studies in digital health technologies

Project title	Funding Source
Prototype development of a “SmartBack” wearable health device to prevent and manage recurrent lower back pain among adults. (PI)	Health Brains, Health Lives (HBHL) Ignite Grant McGill University
Safe patient handling and mobility training for English-speaking nursing students using augmented reality: Prototype development and Testing. (PI)	Dialogue McGill University
Implementation and evaluation of a technology-enabled, integrated case management program for complex-needs patients in Northumberland County, New Brunswick. (PI)	Healthy Seniors Pilot Project (HSPP) New Brunswick
Learning how to provide nursing care in a digital health context (Co-PI)	Social Sciences and Humanities Research Council -Insight Development Grant (ISSHRC-IDG)



Dr. Antonia Arnaert is Associate Professor at the McGill Ingram School of Nursing (ISoN), Associate Member of the McGill Department of Surgery, Division of Experimental Surgery, and Associate Researcher at the the Centre intégré de santé et services sociaux de l’Outaouais (CISSS de l’Outaouais).

Before coming to ISoN in 2003, Dr. Arnaert held various nursing management positions in Belgium; both in the private and public healthcare sector. During her career, she evaluated numerous commercially available telehealth solutions for the delivery of telenursing care to various patient populations in Canada and Burkina Faso.

Her current work includes the development of novel augmented reality applications to enhance student learning and professional development.

Dr. Arnaert holds a PhD and Master in Public Health from the Catholic University of Leuven, Belgium, a Master in Public Administration from the European University College Brussels (EHSAL), Belgium and a Registered Nurse diploma from the School of Nursing St-Jan in Bruges, Belgium.

WELCOMING STATISTICIAN SIMONA MINOTTI



Simona Minotti joins the SMRC as Scientific Statistical Consultant on May 2nd, 2022. Dr. Minotti is a Visiting Scholar in Statistics and a Scientist at the Institute for Better Health (IBH), Trillium Health Partners, Mississauga, ON (teaching hospital affiliated to University of Toronto). [LinkedIn](#)

Born and educated in Italy, Dr. Minotti has holds B.S and MS in Economics, Business Management, Informatics and Statistics from the Catholic University of Milan and a PhD in Statistics from the University of Trento.

Between 2006 and her move to Canada in 2022, she was an Assistant Professor (tenured) in the Department of Statistics and Quantitative Methods, School of Economics and Statistics, University of Milan-Bicocca, Italy.

Dr. Minotti was visiting scholar at SMRC in 2013. In 2014 she was awarded the Molson Fellowship in Health Services and Policy Research from McGill University.

In 2016, in collaboration with Dr. Rick Mah, she presented research on Emergency Department patient flow and its effects on patient care at the SMRC seminary series.



My collaborations with SMRC include the development of an index of social vulnerability that predicts potential healthcare inequity with Dr. Jeannie Haggerty, and statistical simulations of different management strategies to reduce SMHC Emergency Department overcrowding with Dr. Rick Mah.



Axes of research

- Statistical validation of scales in ophthalmology
- Quantitative evaluation of clinical programs in mental health
- Data advanced Analytics and Artificial Intelligence for Population and health system
- Latent variable approaches to build composite indicators.

Recent publications

1. Versloot J., Saab H., Minotti S.C., Ali A., Ma J., Reid R.J., Parks S., Zenlea I. (2022) "An integrated care model to support adolescents with diabetes related-quality of life concerns: an intervention study", Canadian Journal of Diabetes, (Accepted with major revision).
2. Versloot J., Ali A., Minotti S.C., Ma J., Sandercock J., Marcinow M., Lok D., Sur D., de Wit M., Mansfield E., Parks S., Zenlea I. (2021) "All Together: Integrated care for youth with Type 1 Diabetes", Pediatric Diabetes, 22, 889-899.
3. Lim M.E., Minotti S.C., D'Silva C., Reid R., Schlenker M.B., Ahmed I.K. (2021) "Predicting changes in cataract surgery health outcomes using a cataract surgery appropriateness and prioritization instrument". PLoS ONE 16(1): e0246104.
4. Minotti S.C., Aluja-Banet T. (2021) "On the properties of consistent PLS estimators and a method for bias correction based on Cronbach's coefficient alpha", Behaviormetrika, (Accepted with major revision).
5. Schlenker M.B., Minotti S.C., Kabanovski A., Lim M., D'Silva C., Ma J., Reid R., Ahmed I.K. (2020) "Catquest-9SF questionnaire and eCAPS: Validation in a Canadian population". PLoS ONE 15(9): e0237788.

ACADEMIC OUTPUT

Fellowship awarded

SMRC congratulates Nina Morena, PhD Candidate in Communication Studies at McGill University for being awarded a doctoral scholarship from the Social Sciences and Humanities Research Council (SSHRC).

The SSHRC Doctoral Fellowships support high-calibre students engaged in doctoral programs in the social sciences and humanities. This support allows scholars to fully focus on their doctoral studies, to seek out the best research mentors in their chosen fields, and to contribute to the Canadian research ecosystem during and beyond the tenure of their awards.

Nina's research explores the ways in which breast cancer patients seek and share health information on social media and how this impacts their disease management. She is supervised by Dr. Ari Meguerditchian and Dr. Carrie Rentschler.

Upcoming presentations

Jamjoum G, Araji T, Nguyen D, Meguerditchian AN. Predictors of complication after groin dissection: a contemporary experience. American Association of Clinical Oncology (ASCO) Annual Meeting, Chicago, IL . June 3-7, 2022

Larouche M, Mo S, Lachance C, Walter E. The intra-operative crede maneuver to detect latent stress urinary incontinence: Technique and outcomes. [Video presentation]. The Society of Obstetricians and Gynaecologists of Canada. Quebec City, Canada. June 7-10, 2022

Morena N, Ahisar Y, Wang X, Nguyen D, Rentschler CA, Meguerditchian AN. Are YouTube videos a reliable information source for young women with metastatic breast cancer? [Poster]. American Association of Clinical Oncology (ASCO) Annual Meeting, Chicago IL. June 3-7, 2022.

Academic output
in May at SMRC

Manuscript in press

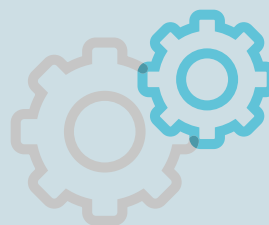
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Manuscript under review

1

Peer-reviewed and other publications

Muwanis M, Barimani B, Luo L, Wang CK, Dimentberg R, Albers A. [Povidone-iodine irrigation reduces infection after total hip and knee arthroplasty](#). Arch Orthop Trauma Surg. 2022 Apr 30. doi: 10.1007/s00402-022-04451-z. Epub ahead of print.

EMPLOYMENT
OPPORTUNITIES

[Research Assistant](#)

[Research Associate](#)

[Project Coordinator - e-IMPAQc](#)

ONCOLOGY CLINICAL TRIALS

Lung cancer

A phase 3 study of Pembrolizumab (MK-3475) in combination with concurrent chemoradiation therapy followed by Pembrolizumab with or without Olaparib vs concurrent chemoradiation therapy followed by Durvalumab in participants with unresectable, locally advanced, stage III non-small cell lung cancer (NSCLC). [MK 7339-012]

A randomized, double-blind, placebo-controlled phase 3 study of Pembrolizumab (MK-3475) in combination with concurrent chemoradiation therapy followed by Pembrolizumab with or without Olaparib (MK-7339), compared to concurrent chemoradiation therapy alone in participants with newly diagnosed treatment-naïve limited-stage small cell lung cancer (LS-SCLC). [MK 7339-013]

A phase 2 precision oncology study of biomarker-directed, Pembrolizumab- (MK-3475, SCH 900457) based combination therapy for advanced non-Small cell lung cancer (KEYNOTE-495; KeyImPaCT). [MK-3475-495]

Bladder cancer

A Phase 3, randomized, study of neoadjuvant chemotherapy alone versus neoadjuvant, chemotherapy plus Nivolumab or Nivolumab and BMS-986205, followed by continued post-surgery therapy with Nivolumab and BMS-986205 in participants with muscle-invasive bladder cancer. [CA017-078]

Breast

An Open-label, Randomized, Multicenter Study Evaluating the Activity of Lasofoxifene Relative to Fulvestrant for the Treatment of Pre- and Postmenopausal Women with Locally Advanced or Metastatic ER+/HER2- Breast Cancer with an ESR1 Mutation (Sermonix SMX-18-001)

"A Clinical Trial to Determine the Efficacy of Five Years of Letrozole Compared to Placebo in Patients Completing Five Years of Hormonal Therapy Consisting of an Aromatase Inhibitor (AI) or Tamoxifen Followed by an AI in Prolonging Disease-Free Survival in Postmenopausal Woman with Hormone Receptor Positive Breast Cancer" (NSABP-42)

A Randomized Phase III Trial of Adjuvant Therapy Comparing Chemotherapy Alone (Six Cycles of Docetaxel Plus Cyclophosphamide or Four Cycles of Doxorubicin Plus Cyclophosphamide Followed by Weekly Paclitaxel) to Chemotherapy Plus Trastuzumab in Woman With Node- Positive or High-Risk Node-Negative HER2-Low Invasive Breast Cancer (NSABP-47)

Gastric

A Phase 3, Global, Multi-Center, Double-Blind, Randomized, Efficacy Study of Zolbetuximab (IMAB362) Plus mFOLFOX6 Compared with Placebo Plus mFOLFOX6 as First-line Treatment of Subjects with Claudin (CLDN)18.2-Positive, HER2-Negative, Locally Advanced Unresectable or Metastatic Gastric or Gastroesophageal Junction (GEJ) Adenocarcinoma (Astellas SPOTLIGHT)

Contact information: franca.cantini.comtl@ssss.gouv.qc.ca

SMRC NEWS

DR. MARIANNE McCULLUM VISITS FROM THE UNIVERSITY OF GLASGOW

In June, [Dr. Marianne McCallum](#), a clinical academic fellow will be visiting the SMRC as part of a McGill-University of Glasgow exchange program, to collaborate with Dr. Jeannie Haggerty.

Dr. Marianne McCallum is a practicing primary care physician in Scotland and who is doing her PhD (“clinical academic PhD fellow”) in the Department of General Practice and Primary care (GPPC) at the Institute of Health and Wellbeing (University of Glasgow). She has been a member of the “GPs at the Deep End” group for the last five years.



Her doctoral dissertation is a mixed-method exploration of individual and community factors that influence management of multimorbidity in the context of high socio-economic deprivation. Methods include a meta-ethnography, a quantitative analysis of the influence of individual and community factors on mortality, and an ethnography as a primary care physician in a community experiencing high levels of socioeconomic deprivation.

SMRC WELLNESS CHALLENGE

From April 15th to May 13th staff challenged themselves and their colleagues in a wellness challenge that helps develop and maintain healthy habits.

Total sessions completed:

157

Total hours spent training:

167

Average session duration:

64 min.

Top trending activities:

Walking/Running 69%

Lift sessions 7%

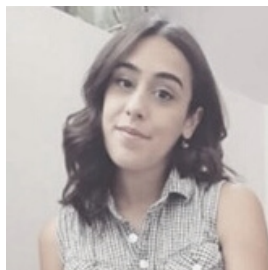
Cycling/Spinning 5%

Yoga 1%

Participants:

- Cindy Ibberson
- Isabelle Crépeau
- Jean-Daniel Beauchesne
- Lisa Starr
- Manon de Raad
- Rachelle Dumas
- Sandhya Baskaran
- Victoria Wicks

STAFF NEWS



Anne-Marie Bissonnette joins the SMRC as research assistant for the Music Interventions for the Facilitation of Sleep in the Acute Geriatric Setting project under the supervision of Dr. Julia Chabot. She is currently working on recruitment and data collection with patients of the GAU (5 north) at St. Mary's Hospital. Before joining Dr Chabot's team, she worked as a research assistant under the supervision of Dr. Isabelle Peretz for the International Laboratory for Brain, Music and Sound Research, where she studied neurocognition of music. Candidate for graduate studies in neuropsychology, Anne-Marie is interested in cognitive strategies to promote communication and well-being. Anne-Marie is completing her undergraduate studies in cognitive neuroscience at Université de Montréal. [LinkedIn](#)

RESEARCHER PORTRAIT: Dr. RICK MAH

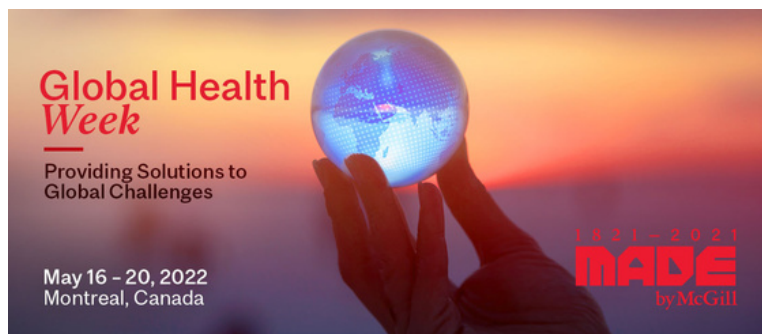


Dr. Rick Mah's interests include emergency department operations, quality improvement, resource utilization, and geriatric emergency medicine

Dr. Mah, born and raised in Alberta, completed his medical degree at the University of Alberta before moving to Montreal to complete his residency in Family Medicine at McGill. Following a circuitous route including family practice, obstetrics, home care, palliative care, and locums in Northern Quebec, he decided to try his hand in the Emergency at the Montreal General Hospital. After 10 years at the MGH, he moved to St. Mary's to become the chief of the Emergency Department in 2009 and stepped down in 2018. During this time, he also completed a Masters in Biomedical Informatics from Oregon Health & Science University.

Dr. Mah considers himself a bit of a dabbler in academic medicine and research. He was involved with the creation of the academic Department of Emergency Medicine at McGill and with the development of one of the first Emergency Medicine Health Informatics post-graduate fellowship programs in Canada. His only published original work (first author) was an article entitled, Emergency department overcrowding as a threat to patient dignity, which sufficiently traumatized him to avoid most scholarly activity for a number of years.

GLOBAL HEALTH WEEK



2022 Victor Dzau and Ruth Cooper-Dzau Distinguished Lecture in Global and Population Health

Closing the equity gap in preparation for the next health threat
Speaker: Agnes Binagwaho, MD

Wednesday, May 18 at 5:30 p.m.
McGill Faculty Club Ballroom (3450 McTavish St.) and online

Dr. Binagwaho will speak about how we can change the way health care is delivered around the world by training the next generation of global health professionals to deliver more equitable, quality health services for all.

Agnes Binagwaho, MD, is the Vice Chancellor of the University of Global Health Equity, a Senior Lecturer at Harvard Medical School and Senior Advisor to the Director General of the World Health Organization. She is a Rwandan pediatrician who has served the health sector in various high-level government positions, including five years as Minister of Health.

[Read more](#) about Dr. Binagwaho and about the Victor Dzau and Ruth Cooper-Dzau Distinguished Lecture in Global and Population Health.

Celebratory Launch of the Global Oncology Program (GOP)

Wednesday, May 18, 1:30pm-3:00pm
McGill Faculty Club (3450 McTavish St.)

The event is part of Global Health Week, a signature event of McGill's Bicentennial celebrations. You will hear about the great initiatives that the oncology community has taken on to make a difference much beyond our borders.

[Full program details](#)

[Registration](#)

SMRC EVENTS

TELEPHONE COACHING AND WEB-BASED INTERVENTION FOR WOMEN WITH POST- PARTUM DEPRESSION

*Lunch & Learn
with Dr. Hannah Schwartz
May 19, 12pm*

*A Pilot Randomized Controlled
Trial of a Lay Telephone Coaching
and Web-Based Intervention for
Postpartum Depression and
Anxiety: the MPOWER Study*



COMING UP!
LUNCH & LEARN
12PM-1PM

<https://us02web.zoom.us/j/409644888>

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| May 29 | Dr. Antonia Arnaert and Team
Ingram School of Nursing
McGill University |
| June 2nd | Lydia Ould Brahim
Ingram School of Nursing
McGill University |
| June 16 | Marie-Pierre Gagnon PhD
Faculté des sciences infirmières
Université Laval |