



**2023**  
**ANNUAL**  
**REPORT**

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PRINCESS MARGARET  
GLOBAL CANCER  
PROGRAM

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# Message From the Directors

We are excited to share the activities and accomplishments of the Princess Margaret Global Cancer Program (PM GCP) in 2023. As the number of global cancer cases continues to rise, global oncology and cancer control programs have never been more important. International collaboration and a shared commitment to global cancer education and research are critical to overcome the complexity of cancer treatment, drive innovative approaches to care delivery, and reduce cancer inequalities. As we mark our fourth year of the GCP, we take pride in our accomplishments and remain excited about our potential to contribute to innovative approaches in global cancer control and to improve access to cancer treatment worldwide.

Last year marked the first Princess Margaret Global Partners' Consultation, which brought together over 90 attendees and the leadership from 10 of our international partner organizations in Toronto. This event provided a forum for discussion on the role of comprehensive cancer centres in global cancer control and has catalyzed collaboration between our partners in clinical care innovation, cancer system financing and health policy, research, and education.

Other program highlights include 2 research seed grants awarded to investigators at PM in collaboration with Aga Khan University in Kenya and King Hussein Cancer Centre in Jordan. We also welcomed 48 new Fellows in our Global Oncology Leadership Development (GOLD) program, a nearly 50% increase in cohort size compared to previous years.

We are grateful for the ongoing support of the Princess Margaret Cancer Foundation and the generosity of our donors and supporters, which has allowed us to continue this important work. We are also grateful for the support of our program staff, international partners, trainees, advisory, and everyone who has invested their effort into continuing to develop our program. We are excited to expand our program over the next year and to work with our international partners to improve equity in cancer care and control.

Sincerely,



A handwritten signature in black ink, appearing to be 'DR'.

**Danielle Rodin**

*Director, Global Cancer Program,  
Princess Margaret Cancer Centre*



A handwritten signature in blue ink, appearing to be 'Mary Gospodarowicz'.

**Mary Gospodarowicz**

*Interim Director, Global Cancer Program,  
Princess Margaret Cancer Centre*



The PM Global Cancer Program was launched in 2020 and aims to be an international center of excellence in global health and global cancer. The Program aspires to be an academic centre of excellence in global oncology by establishing international partnerships, promoting education, and driving research and knowledge exchange.

# Our Vision, Mission, and Strategy

Our **vision** is to address the growing disparities in cancer treatment within our communities and internationally to improve health and to achieve equity in cancer for all people worldwide.

Our **mission** is to develop a program in global health and oncology that builds global capacity to deliver cancer services, conducts research with global impact, trains the next generation of international cancer leaders, and mobilizes our community to engage in collective action to advance global cancer control.

The GCP **strategy** guides our projects and initiatives. To view the 2020-2025 strategy [click here](#).

## The Global Cancer Program Team



**Mary Gospodarowicz**  
Interim Director, GCP



**Danielle Rodin**  
Director, GCP  
(Mat Leave)



**Lesley Chalklin**  
Program Manager  
(Mat Leave)



**Laurice Karkaby**  
Research Associate



**Jackie Hutton**  
Education Coordinator



**Arleigh Dean**  
Project Coordinator

The GCP continues to develop and grow. In 2023 we welcomed two new staff to our team. Jackie Hutton joined the team in April as an Education Coordinator for the GCP and the Cancer Education Program. Arleigh Dean joined in September as a Project Coordinator for the GCP.



Arleigh Dean, who joined the team in September, graduated from Western University with a Master of Science in Interdisciplinary Medical Sciences. During his Masters he completed a number of research projects related to cancer control.

**"I am proud to join the GCP's journey towards global cancer equity and excellence"**

# Advisory Committees

The PM GCP is governed by an Advisory Committee comprised of staff from PM and an International Advisory Committee comprised of international experts.

## GCP Advisory

The GCP Advisory is comprised of the PM Directors for cancer strategy, external partnerships, research, education, nursing, allied health, as well as representatives from each of the clinical departments across PM. This committee provides guidance on the GCP's priorities, alignment of programming with strategic goals, allocation of resources, and communication across PM.



**Meredith Giuliani**  
Director of Education



**Meena Merali**  
Director, Cancer Strategy and Transformation



**Geoffrey Liu**  
Lead, Research Partnerships and Collaborations Committee



**Yat Tsang**  
Director, Radiation Therapy



**Anet Julius**  
Director, Clinical Practice



**Monika Krzyzanowska**  
Quality Representative



**Mike Milosevic**  
RMP Representative



**Rebecca Wong**  
RMP Representative



**Vikaash Kumar**  
DMOH Representative



**Rajat Kumar**  
DMOH Representative



**Andrea Covelli**  
DSO Representative



**Tulin Cil**  
DSO Representative



**Beverley Essue**  
Dalla Lana School of Public Health Representative



**Trevor Pugh**  
Research Institute Representative



**Anna Dare**  
UofT Global Surgery Representative



**Ahmed Al-Awamer**  
Supportive Care Representative



**Arun Ghoshal**  
Trainee Representative



**Gayathri Naganathan**  
Trainee Representative



**Abhenil Mittal**  
Trainee Representative

## International Advisory

The International Advisory provides guidance on priority-setting, operational efficiency, impact maximization, and potential future directions. The committee is comprised of international faculty with expertise in global health.



**Michael Baumann**  
Chairman and Scientific Director, German Cancer Research Center (DKFZ)



**Patrick Loehrer**  
Director, Indiana University Melvin and Bren Simon Cancer Center



**Felicia Knaul**  
Director, Institute for Advanced Study of the Americas, University of Miami



**Richard Sullivan**  
Director, Institute of Cancer Policy, King's College London



**C.S. Pramesh**  
Director, Tata Memorial Hospital, Mumbai, India

# PROGRAM DEVELOPMENT



The GCP is building international collaborative relationships to **advance mutual learning** through clinical care and evidence generation to **advance cancer care now for all patients globally**. The program currently has formal partnerships with 13 organizations across 5 continents.

## Our Partners

Our program aims to establish partnerships to improve cancer outcomes, heighten awareness and connection among staff engaged in global cancer across PM and UHN, and track our global health reach, impact, and key learnings from our global engagement.

### The Princess Margaret Global Cancer Program Partnerships

#### Partnerships

1. A.C. Camargo Cancer Center (São Paulo, Brazil)
2. Aga Khan University (Nairobi, Kenya)
3. City Cancer Challenge (International organization, based in Switzerland)
4. Davidoff Cancer Center (Petah Tikva, Israel)
5. DKFZ /Deutsches Krebsforschungszentrum (Heidelberg, Germany)
6. Institut Curie (Paris, France)
7. King Hussein Cancer Center (Amman, Jordan)
8. Ministry of Health Malaysia (Malaysia)
9. Moi Teaching and Referral Hospital (Eldoret, Kenya)
10. Peter Mac Cancer Centre (Melbourne, Australia)
11. Tata Memorial Centre (Mumbai, India)
12. Toronto Addis Ababa Academic Collaboration (Ethiopia)
13. Vall d'Hebron Institute of Oncology (Barcelona, Spain)



# Strengthening and Exploring Partnerships

The GCP continues to work closely alongside our existing partners to strengthen collaborations.

## Peter MacCallum Cancer Centre, Australia

In April, Professors Ricky Johnstone (Executive Director, Cancer Research) and Jayesh Desai (Associate Director, Clinical Research) from the Peter MacCallum Cancer Centre visited PM. The visit was organized by Dr. Amit Oza and focused on learning about the support systems of PM's clinical, laboratory, and health services research programs. They met with team members in the realms of fundamental, translational, and gynecologic clinical cancer research.

During a separate visit to PM in April, Andrew Dimech (Chief Nursing Officer), Professor Alicia Martin (Director, Allied Health) and Dr. Caroline Owen (Director, Education) of the Peter MacCallum Cancer Centre met with teams across UHN, including Patient Experience and Safety, and the Cancer Education and Experience Programs. During their visit, mutual goals for partnership and learning were identified, such as models of care, patient satisfaction, strategies for recruitment and retention, quality and safety education, and how to optimize advanced practice nurse led programs. PM will be collaborating with their nursing research team to explore potential global partnership opportunities for the Oncology Nursing Research Centre of Excellence.

These visits from Peter MacCallum served as an opportunity to foster an environment conducive to collaboration which helped facilitate the exchange of new ideas and identify mutual goals for learning and future partnership.



Anet Julius meeting with Andrew Dimech



## Black Lion Hospital, Ethiopia

In March, the Radiation Medicine Program hosted a Physicist from the Black Lion Hospital in Ethiopia. During his visit, Dr. Eskadmas Yines learned about the development and implementation of high-quality radiation therapy techniques for his

local centre. The visit was fostered through our partnership with the Toronto Addis Ababa Academic Collaboration, which aims to build capacity in radiation medicine in Ethiopia.



Dr. Rebecca Wong pictured with Dr. Eskadmas Yines



Dr. Geoffrey Liu visiting with Dr. Daniel Paech (top) and Dr. Pei-Wei Chi (bottom)

## DKFZ, Germany

Over the Summer, Dr. Geoffrey Liu visited the German Cancer Research Center (DKFZ). He met with many departments, including the Division of Neuroblastoma Genomics and Pediatric Neuroncology, to determine common research interests with the goal of creating relationships to discuss potential collaborations and projects. The visit was also used to promote the DKFZ-PM international clinician scientist exchange program.

## Pan African Cancer Research Institute



In April, Dr. Zodwa Dlamini (pictured in front of PM), Professor of Molecular Oncology at the University of Pretoria and Founding Director and Executive Head of the Pan African Cancer Research Institute was hosted by the Radiation Medicine Department.

During her time at PM she met with various leaders and scientists and discussed potential collaborations in the context of clinical trials, infrastructure and immunotherapy with a specific focus on breast, colorectal, prostate and cervical cancer.





# KNOWLEDGE MOBILIZATION

The GCP strives to synthesize knowledge generated internationally to allow for the dissemination, **exchange and application of knowledge** to enhance cancer control globally. This includes creating opportunities for **national and international collaboration and engagement with international and non-government organizations** to motivate cancer as a global health priority.

## Global Partners' Consultation

To continue to enhance our global reach, and foster bi-directional learning internationally, the GCP hosted a global partnership meeting to engage leaders in global cancer control, identify global priorities to improve cancer outcomes and provide an opportunity for networking with and between our global partners.



The PM Global Partners' Consultation welcomed 17 leaders from 10 global cancer centres to Toronto to attend sessions and small group discussions covering a range of pressing issues from inequities in cancer care to the economics of cancer care.

Participants included leaders from: A.C. Camargo Cancer Centre; Aga Khan University; DKFZ; Institut Curie; King Hussein Cancer Centre; Peter MacCallum Cancer Centre; Tata Memorial Centre; Vall d'Hebron Institute of Oncology; Clinical Research Malaysia; our International Advisory; and members of the PM's Cancer Care Network.

Dr. Keith Stewart presenting the welcoming address (top), Drs. Monika Krzyzanowska, Victor Andrade, and Patrick Loehrer (bottom)

The event was the first time our Global Partners had a chance to meet one another in person and engage in critical discussions about how to best address inequities in access to cancer care both within certain populations in high-income countries, as well as in lower- and middle-income countries.

**“Together we can effect transformative change in the global landscape of cancer control.”**

The sentiment of global collaboration expressed by Drs. Keith Stewart and Danielle Rodin was reflected in the consultation program, which was developed through many collaborative meetings with our global partners.

Topics debated and discussed throughout the consultation included patient engagement in global cancer control; policy and economics; philanthropy and global cancer control; clinical care innovation; prevention, early detection, and public health; education; and policy.



(L to R), André Picard moderated a panel discussion featuring Drs. Bob Bell, Brad Wouters, Richard Sullivan, Elena Garralda, Felicia Knaul, Thierry Philip, and CS Pramesh (virtual)



Drs. Akhmal Yusof (L) and Ros Suzanna Ahmed Bustamam (R), Clinical Research Malaysia

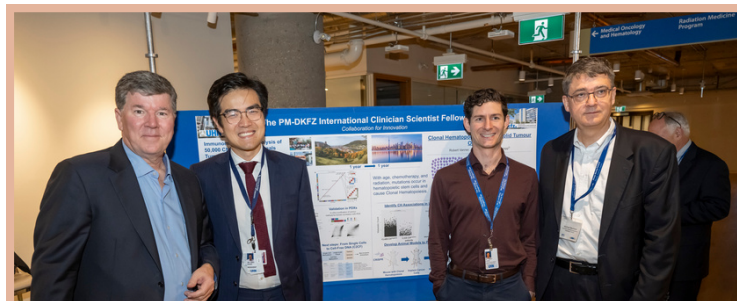


Drs. Akhmal Yusof and Gaya Naganathan attending the poster session

**One main takeaway from the event was the participants desire to continue working together. The Consultation highlighted common challenges and opportunities facing global cancer control, emphasizing the importance of collaboration and Comprehensive Cancer Centres in global access to cancer care.**



(L to R), Dr. Akhmal Yusof, Dr. Ian Tannock, Dr. Ros Suzanna, Dr. Ahmad Bustamam, Dr. Colleen Dickie, Dr. Kate Burbury, and Tina Papadakos at the AGO reception



(L to R) Drs. Keith Stewart, Eric Zhao, Robert Vanner, and Michael Baumann

# Global Grand Rounds

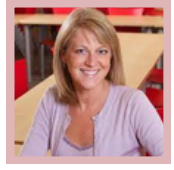
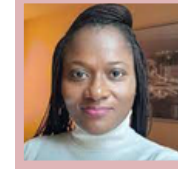
Two Global Grand Rounds were presented in 2023, featuring some of the latest progress in global cancer research.

*Cancer, Surgery and Health Systems: A Global Approach*  
Presented by Dr. Anna Dare, Surgical Oncology Fellow

*Global Seed Grant Awardee Presentations*  
Presented by Nicole Harnett, Dr. Aba Scott, Dr. Rebecca Wong, and Dr. Michael Milosevic



Dr. Anna Dare (top left), Dr. Aba Scott (bottom left) and Nicole Harnett (bottom right).



## Virtual Speaker Series



The Global Cancer Program Virtual Speaker Series aims to build relationships with partnering institutions through a virtual platform.

In 2023, we held a session on Pancreatic Cancer and the Stereotactic Body Radio-Therapy Experience with our partner Tata Memorial Hospital (India). The session was led by Dr. Reena Engineer (Tata Memorial) and Dr. Ali Hosni.

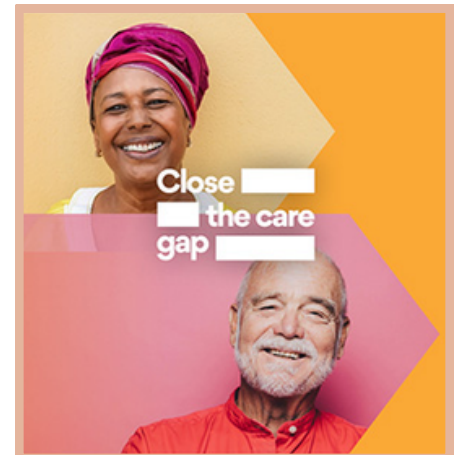
## PM<sup>2</sup> Collaborative Education Series

In 2023, a Collaborative Education Series with the Peter MacCallum Cancer Centre was launched. The purpose of the series is to showcase, share, and build capacity in cancer by enabling collaborations across institutions. Discussions are held quarterly by experts at PM and Peter Mac.



## World Cancer Day

On February 4th, we acknowledged World Cancer Day by showcasing our commitment to closing the care gap at PM, highlighting the transformative impact of the Global Oncology Leadership Development (GOLD) program in empowering fellows worldwide and fostering leadership in cancer care, and initiatives of the Sexual and Gender Diversity in Cancer Care (SGDc) Program to improve healthcare experiences for 2SLGBTQIA+ communities. The PMCF also hosted a special spin session to promote the Ride To Conquer Cancer, and Dr. Mary Gospodarowicz gave a presentation on the GOLD program at the PeterMac World Cancer Day Symposium.



**"On World Cancer Day, we recognize the work of the committee in transforming cancer care by delivering high quality care that is equitable for all patients regardless of their race, ethnicity, income, ability, gender identity and sexual orientation"**

Dr. Keith Stewart on the work of the SGDc Program



# EDUCATION



The goal of our education program is to **inform the broader cancer community on global cancer control and develop infrastructure to support knowledge exchange**. This includes the development of curricula for trainees and faculty in health systems and global cancer control, leveraging of new platforms to enable teaching and learning across international borders, and the establishment of fellowship opportunities to develop shared learning opportunities between different institutions.

## Global Oncology Leadership Development

The GOLD program is an interdisciplinary opportunity for clinical Fellows at PM to enhance their leadership skills.

In 2023, the GOLD program:

- Welcomed 48 Fellows to the program
  - Almost all came from abroad, including Argentina, Chile, Pakistan, Israel, and India
- Included interpersonal, organizational and systems leadership skills training
- Was delivered through a mix of lectures, workshops, networking events, online learning, and a formal mentorship

Presenters were healthcare providers with expertise in leadership, health policy and social networking, and service researchers, economists, philanthropists, and specialists in health communication and organizational change.



Running for its fifth year, GOLD is designed to equip clinical fellows with the skills to develop as leaders in cancer care. In collaboration with the PM Cancer Education Program, 124 fellows, from 38 countries, have graduated from GOLD to date. Since GOLD targets fellows who will be responsible for future cancer care systems and have an interest in health systems leadership to advance the cancer care agenda, participants are well positioned to have significant impact through their combined medical and leadership training.



# GOLD Grows a New Generation of Global Cancer Leaders



Dr. Benazir Khan, a 2023 graduate of the GOLD program

In 2023, a pilot qualitative evaluation was completed to understand how GOLD participants were impacted by the program and why the program was effective. Semi-structured interviews were conducted, and GOLD graduates were asked to reflect on how the program impacted them.

The evaluation revealed that GOLD has strongly impacted participants' leadership skills by showing them that these skills can be learned. One participant shared:

**“I thought leaders were born. Before GOLD, I did not think I was leadership material.”**

-GOLD participant

Another graduate shared:

**“The program opened my eyes to the skills needed in order to be a leader, let alone a good leader”**

Overall, GOLD strongly impacted participants' leadership skills and confidence. Many participants have gone on to take leadership roles at their institutions and led global collaborations in oncology.

## Global Oncology Enrichment Program

The Global Oncology Enrichment Program offers trainees and junior faculty a chance to learn about global oncology and cancer control. In collaboration with the Canadian Association of Radiation Oncology and the American Association of Residents in Oncology, the program has engaged 532 participants from 56 countries. It includes 10 webinars on topics like cancer policy, advocacy, and cancer care economics.



# UICC Master Course: Comprehensive Cancer Centres

The GCP continues to evolve. In 2023, we re-ran the Comprehensive Cancer Centres: a cornerstone for improving cancer control systems Master Course organized with the Union for International Cancer Control (UICC). The course was led by experts at PM, A.C. Camargo Cancer Center in Brazil, King Hussein Cancer Centre in Jordan, and the Tata Memorial Centre in India.

**“I find the live sessions very valuable because it is a real-time interaction and an opportunity to ask for clarifications for the topics discussed in all the modules.”**

- Advocacy committee member, Icanserve Foundation Inc, Philippines

The online course included 6 modules and 7 live sessions hosted by content experts. The course was accredited by the Accreditation Council of Oncology in Europe, and course completion granted 8 European Continuing Medical Education Credits. The participants' feedback was very positive with an average rating of 4.79 out of 5 for improving knowledge on topics covered in the course.

**“Hearing medical professionals from other countries sharing their health systems and how they got there was invaluable.”**

-Master Course participant



## UICC Technical Fellowships

The UICC technical fellowships focus on supporting cancer professionals working in cancer prevention and early detection in low-and-middle income countries. In 2023, PM welcomed three fellows from Mexico and Rwanda for fellowship visits on psycho-oncology and geriatric oncology.

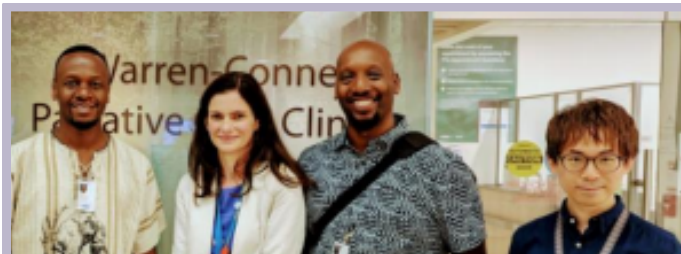
**“We gained valuable knowledge and practices from this experience, which we have brought back to Rwanda, significantly improving our approach to comprehensive patient care and fostering cross-cultural understanding in oncology and palliative care.”**

-Christian Ntizimira, African Center for Research on End-of-Life Care, Rwanda

Right: Dr. Enrique Soto from the National Institute of Medical Science



Below: Dr. Jason Bakundukize (left) and Dr. Christian Ntizimira (second from right) with Dr. Breffni Hannon and Dr. Ernie Mak



## Princess Margaret hosts two lung cancer preceptorships

Dr. Geoffrey Liu hosted two Pfizer-sponsored preceptorships as part of the Fostering Lung-cancer Innovation for Global Health Translation at PM (FLIGHT@PM) Program. Five Irish medical oncology residents visited PM in November 2023 and in December 2023, Dr. Geoffrey Liu virtually hosted a preceptorship for 50+ medical oncology fellows from India.



From left: Dr Calvin Flynn, Dr Christopher Cluxton, Dr Orla Fitzpatrick, Dr Zac Coyne, Dr Ronan McLaughlin, Dr Nadia Ghazali, Ailbhe O'Toole , and Dr Geoffrey Liu

The virtual preceptorship was highly successful and given the unprecedented response, they have requested that Dr. Liu offer this program again in April 2024.

## Global Cancer Program Trainees



### Meet Dr. Gayathri Naganathan, One of the GCP's Newest Trainees

Dr. Gaya Naganathan grew up in Scarborough as a third culture kid with roots in Jaffna, Sri Lanka, and has a desire to make a difference in global cancer care.

After completing her first year of medical training at McMaster University, she embarked on a clinical elective in Jaffna, where her passion for general surgery and global health blossomed.

**"I discovered my passion for general surgery and decided that I wanted to incorporate global surgery into my career in some way."**

Fast forward a few years, Dr. Naganathan matched to her top choice program for residency in General Surgery at the University of Toronto, where her passion for global health continued to thrive.

During her residency, she actively participated in the Post Graduate Medical Education Global Health Education Initiative and leveraged her connections in Jaffna to develop a research project examining surgeon decision-making around breast cancer care in the Northern Province of Sri Lanka. This project, supported by a 2021 GCP seed grant, reflects Dr. Naganathan's commitment to addressing global health challenges.

Now, Dr. Naganathan is excited to elevate her knowledge and skills as a GCP trainee.

**"As I learned more about the program and its initiatives, I realized that it brought together my interests in global health and oncology and addressed an area of global need that is often overlooked - non-communicable disease."**

Looking ahead, she envisions a career as a surgeon that integrates health equity, global surgery, teaching, and research to build towards a more equitable world where high-quality cancer care is accessible to all.

## GCP Trainees Cont.

### Arun Ghoshal



Dr. Arun Ghoshal completed his medical training in Mumbai, India and specialized in palliative medicine at Tata Memorial Cancer Center. He holds a master's degree in translational research in cancer medicine from King's College London.

At present, along with his clinical work, Dr. Ghoshal is working on developing his research skills conducting a systemic review of the cost of cancer, and a literature review on the application of machine learning and natural language processing in cancer palliative care. He was recently awarded a GCP seed grant in 2022 on a study on the referral practices of Indian oncologists for palliative care.

### Bahar Rafinejad-Farahani



Bahar Rafinejad-Farahani completed her Master of Public Health degree at George Washington University and is interested in global oncology and the impact of social determinants on access to cancer care in low- and middle-income countries.

Her Master's research explored the impact of health literacy on perceptions of lung cancer care in the United States. During her time with the GCP, Bahar has been involved in numerous projects related to the assessment of disparities in cancer care and cancer burden, including collaborations with Tata Memorial Hospital, Harvard T.H. Chan School of Public Health, and the Lancet Commission on Cancer and Health Systems.

## Farewell to Our 2022-2023 Trainee

### Abhenil Mittal



Dr. Abhenil Mittal completed his medical training in New Delhi, India and specialized in Medical Oncology from All India Institute of Medical Sciences, New Delhi. Dr. Mittal has completed several projects in breast, genitourinary, thoracic, and global oncology looking at treatment optimization, biomarker validation, drug toxicity and quality of life. In the fall of 2023 he joined as a staff Medical Oncologist at Health Sciences North in Sudbury and Assistant Professor of Medicine at the Northern Ontario School of Medicine.





# RESEARCH

The goal of our research program is to **drive research and innovation that addresses disparities in cancer control**, the biology, epidemiology, and clinical outcomes of cancer in different settings, and the evaluation of cost-effective programs to improve the delivery of care. Our research **prioritizes international collaborative research** that brings together investigators from different settings to share knowledge and expertise, and improve capacity to accelerate discovery in cancer control.

## Funding Research in Global Oncology

### NEW Seed Grants Awarded in 2023

The fourth annual call for global oncology seed funding was initiated in October 2023 with a focus on implementation science and health equity.

Awards of up to \$20,000 were offered for a 2-year funding period. Multi-disciplinary proposals that strengthen existing collaborations between PM and partnering institutions were encouraged. The focus is on supporting early-stage projects to get off the ground to establish a scope of work.

### **Liquid Biopsies of Lung Cancer and Next Generation Sequencing at the Aga Khan University (LUNGS@AKU)**

This project is led by Dr. Nadia Ghazali, a clinical research fellow at PM in the Department of Medical Oncology and Hematology. Together with her team at Aga Khan University, Kenya (Drs. Mansoor Saleh and Shahin Sayed) and PM (Drs. Geoff Liu and Trevor Pugh) the project aims to reduce disparities in lung cancer diagnostics and treatment by implementing liquid biopsy next-generation sequencing for molecular testing. This pilot aims to inform the creation of a Sub-Saharan African Lung Cancer Atlas.



Dr. Nadia Ghazali

## The Evaluation of a LMIC-HIC education & change management collaborative program in accelerating technology implementation - A King Hussein - Princess Margaret SBRT project

This project is led by Dr. Sara Mheid, a current clinical fellow at PM who will be starting her staff position as a Radiation Oncologist at King Hussein Cancer Center (KHCC) in Jordan. Together with her team at KHCC (Dr. Jamal Khader), their local network of partners (Jordan, Bahrain, Iraq, and Libya), and PM (Dr. Meredith Giuliani, Nicole Harnett, Dr. Rebecca Wong) they will leverage the expertise from the PM Accelerated Education Program to develop a professional development model to accelerate the implementation of advanced radiotherapy techniques.



Dr. Sara Mheid

## Continuing Seed Grants

The four proposals funded in 2022 are still underway and will conclude in December 2024. Their progress will be presented to the GCP Advisory at the midway point and cancer-program wide rounds are scheduled for the end of the funding term.



Dr. Arun Goshal

### Referral to palliative care services by Indian oncologists- a cross-sectional mixed methods survey

Dr. Arun Ghoshal, a Palliative Care Fellow at PM and GCP trainee, is the lead applicant on this project. Arun and his team (Dr. Camilla Zimmerman, PM, and Drs. CS Pramesh and Jayita Deodhar, Tata Memorial) will survey oncologists in India to identify palliative care referral practices, attitudes, and the impact of COVID-19 to inform the development of palliative care in India.

### Implementation of screening for emotional distress at Aga Khan University Hospital

The research project is led by Dr. Madeline Li, the Co-Lead of Psychosocial Oncology at the PM Department of Supportive Care. Project team members include Dr. Gary Rodin (PM), as well as Dr. Mansoor Saleh, Dr. Zul Merali, Zarafsheen Veerjee, and Zahra Haji (Aga Khan). Their project aims to adapt, implement, and evaluate a distress screening tool in a Kenyan population to promote cancer equity and improve population outcomes. Zahra was trained at PM from July-August before returning to Aga Khan to begin implementing the tool.



Dr. Madeline Li



Dr. Beverley Essue

## Examining the economic burden and equity impacts of breast cancer in India: a pilot study

The project is led by Dr. Beverley Essue from the Institute of Health Policy, Management and Evaluation at the Dalla Lana School of Public Health. She is supported by team members Drs. Anna Dare and Danielle Rodin from PM, Sujata Mishra from the University of Toronto (UofT), Dr. Revathy Krishnamurthy from Tata Memorial, and Dr. Bidhu Mohanti from KIMS Cancer Centre India. They are using a mixed-methods approach to examine the economic burden and equity impacts of breast cancer in India.

**In 2023, Dr. Beverley Essue and Dr. Danielle Rodin were awarded \$100,000 from the Canadian Institute of Health Research priority scheme to support the seed grant pilot project. Their team's work will tie in to work for the Lancet Commission on Cancer and Health Systems.**



## De-escalating mastectomy to facilitate breast conservation in Nigerian women with a complete response to neo-adjuvant chemotherapy using wire localization



Dr. Funmi Wuraola

Dr. Funmi Wuraola, a Surgical Oncology Physician, is the lead applicant on this project. Team members include Dr. Anna Dare and Dr. Danielle Rodin from PM, Dr. Olusegun Alatise, Dr. Olalekan Olasehinde and Dr. Adeleye Omisore from Obafemi Awolowo University Teaching Hospital, Nigeria. The project aims to facilitate greater rates of breast-conserving surgery in Nigeria by evaluating the feasibility and acceptability of using wire localization.

## Surgeon perspectives on the approach to breast surgical oncology in Northern Province, Sri Lanka: A qualitative analysis

Dr. Gayathri Naganathan is a General Surgery Resident Physician at UofT and a GCP Trainee. She is working with her supervisor, Dr. Andrea Covelli, and team members at the University of Jaffna (Dr. Sreekanthan Gobishangar, Dr. Chishanthi Rajasooriya) and UofT (Dr. Anna Dare) to evaluate surgeon perspectives on the approach to breast surgical oncology in a northern province in Sri Lanka.



Dr. Gayathri Naganathan

## Availability of palliative care and referral practices of oncologists in Mexico before and during the COVID-19 pandemic

Dr. Jacqueline Alcalde Castro, a Palliative Care Fellow at PM, and her supervisor Dr. Camilla Zimmermann are leading this project. Along with their study team, Dr. Felicia Knaul, Dr. Silvia Allende, Dr. Emma Verastegui Aviles, and Dr. Paula Cabrera, they hope to identify factors associated with the availability of specialized palliative care before and during COVID-19 that could inform best-practice health policies.



Dr. Jacqueline Alcalde Castro

# Completed Seed Grants

## Title and Applicants

## Highlights

### Expanding access to three-dimensional radiotherapy for cervical cancer in Ghana



#### Dr. Aba Scott

Dr. Michael Milosevic, Dr. Rebecca Wong, Dr. Joel Yarney, Tony Tadic, Tony Lam, Lian Pablo, Evans Sasu, Tony Obeng-Mensah

- CT scans for cervical cancer staging are now standard practice at the National Centre for Radiotherapy and Nuclear Medicine in Ghana
- Improved quality of care with enhanced staging accuracy and reduced toxicity

### Building radiation therapy capacity through a case-based, distant simulation learning program (CB-DSLP) – a demonstration project



#### Nicole Harnett

Dr. Rebecca Wong, Vanessa Wan, Kelly Guo, Renate Bradley, Reshika Balakrishnan, Wongel Bekalu, Dr. Eskadmas Yines, and Edom Seif

- Developed and delivered curriculum in collaboration with local faculty at Black Lion Hospital in Ethiopia
- Learner evaluation showed improved post-test scores and positive survey feedback
- Training lead to improved clinical technique and updated CT-simulator processes

### Partial breast reirradiation using ultrahypofractionation: A phase 2 multi-institutional study (PRESERVE)



#### Dr. Fadwa Abdel-Rahman

Dr. Danielle Rodin, Dr. Anne Koch, Dr. Sara Mheid, Dr. Guilherme Rocha Melo Gondim

- Determining feasibility of patient accrual
- Expanded participation to now include 10 centres globally
- Secured Institutional Review Board approval at 4 centres



Canadian  
Cancer  
Society

**We are pleased to announce that the PRESERVE study has now been awarded a \$500,000 Emerging Scholar Research Grant for 5 years from the Canadian Cancer Society to expand into a larger, multicenter phase II study. Congratulations to the study team on this great accomplishment!**

# Completed PM- DKFZ Clinician Scientist Fellowships



Dr. Robert Vanner was the recipient of the PM-DKFZ Clinician and Medical-Scientist Fellowship from 2020-2023. His project, Clonal Hematopoiesis as a Determinant of Metastasis and Immunotherapy Response in Breast Cancer, assessed if clonal hematopoiesis alters the tumour microenvironment in ways that could favour metastasis, or influences response to therapy.



Dr. Eric Zhao, the 2021 recipient of our PM-DKFZ Clinician and Medical Scientist Award, developed methodological advances in cell-type specific methylation analysis in CNS tumours and liquid biopsy methylomes from cerebrospinal fluid. He was awarded the Yamana Gold Discovery to Impact Grant to study CNS immune biomarkers using single-cell methylation data and translate those biomarkers into liquid biopsies.

## Publications

The Global Cancer Program generated 17 publications in 2023, continuing to drive global research in advancing cancer priorities internationally. For a full list of publications, see Appendix: Journal Publications.



Dr. Meredith Giuliani

### Using a Nominal Group Technique to Develop a Science Communication Curriculum for Health Professionals and Clinical Researchers

Featuring the work led by **Dr. Meredith Giuliani**, Dr. Janet Papadakos, **Tina Papadakos**, and colleagues at A.C. Camargo, Tata Memorial Hospital, and DKFZ for their 2020 GCP Seed Grant project.



Dr. Vanessa Freitas-Bratti

### Scoping review protocol on the impact of antimicrobial resistance on cancer management and outcomes

Led by former GCP MPH Practicum student, **Dr. Vanessa Freitas-Bratti**, the study aims to explore the relationship between antimicrobial resistance and cancer to develop effective antimicrobial stewardship in cancer patients and minimize its adverse effects on cancer outcomes.

# Appendix: Journal Publications

1. Bratti, V. F., Wilson, B. E., Fazelzad, R., Pabani, A., Zurn, S. J., Johnson, S., Sung, L., & Rodin, D. (2023). Scoping review protocol on the Impact of antimicrobial resistance on cancer management and outcomes. *BMJ Open*, 13(2), e068122. <https://doi.org/10.1136/bmjopen-2022-068122>
2. Castro, J. A., Hannon, B., & Zimmermann, C. (2023). Integrating palliative care into oncology care worldwide: The right care in the right place at the right time. *Current Treatment Options in Oncology*, 24(4), 353–372. <https://doi.org/10.1007/s11864-023-01060-9>
3. Chukwu, O. A., Nnogo, C. C., & Essue, B. (2023). Task shifting to nonphysician health workers for improving access to care and treatment for cancer in low- and middle-income countries- a systematic review. *Research in Social & Administrative Pharmacy: RSAP*, 19(12), 1511–1519. <https://doi.org/10.1016/j.sapharm.2023.08.010>
4. Dare, A. J., Bayle, A., Hatoqai, A., Mungo, C., Velilla, D. G., Soto-Perez-de-Celis, E., Gnanngnon, F. H. R., Lim, M. S. H., Ralefala, T., & Mushininga, V. D. (2023). Ensuring global access to cancer medicines: A generational call to action. *Cancer Discovery*, 13(2), 269–274. <https://doi.org/10.1158/2159-8290.CD-22-1372>
5. Dare, A. J., Olatoke, S. A., Okereke, C. E., Abdulkareem, F. B., Adeyeye, A., Badejo, O., Du, M., Fayenuwo, O. J., Gali, B. M., Kahn, R., Knapp, G., Ntiamoah, P., Olcese, C., Oludara, M. A., Omisore, A., Omoyiola, O. Z., Owoade, I. A., Brennan, M. F., Kingham, T. P., ... African Research Group for Oncology (ARGO). (2023). The african research group for oncology: A decade fostering colorectal cancer research in nigeria. *Journal of Surgical Oncology*, 128(6), 1011–1020. <https://doi.org/10.1002/jso.27444>
6. García-Pardo, M., Chang, A., Schmid, S., Dong, M., Brown, M. C., Christiani, D., Tindel, H. A., Brennan, P., Chen, C., Zhang, J., Ryan, B. M., Zaridze, D., Schabath, M. B., Leal, L. F., Reis, R. M., Tardon, A., Fernández-Tardon, G., Shete, S. S., Andrew, A., ... Liu, G. (2023). Respiratory and cardiometabolic comorbidities and stages I to III NSCLC survival: A pooled analysis from the International Lung Cancer Consortium. *Journal of Thoracic Oncology*, 18(3), 313–323. <https://doi.org/10.1016/j.jtho.2022.10.020>
7. Ghoshal, A., Mathew, A., & R, R. M. (2023). Dying with dignity in India: What is new in 2023? *BMJ Supportive & Palliative Care*, spcare-2023-004353. <https://doi.org/10.1136/spcare-2023-004353>
8. Giuliani, M. E., Papadakos, T., Coolens, C., Fregnani, J., Gebhardt, P., Julius, A., Pramesh, C. S., Quartey, N. K., & Papadakos, J. (2023). Using a nominal group technique to develop a science communication curriculum for health professionals and clinical researchers. *Journal of Cancer Education*, 38(5), 1459–1465. <https://doi.org/10.1007/s13187-023-02282-z>
9. Goombs, M., Mah, K., Namisango, E., Luyirika, E., Mwangi-Powell, F., Gikaara, N., Chalklin, L., Rydall, A., Zimmermann, C., Hales, S., Wolofsky, K., Tilly, A., Powell, R. A., & Rodin, G. (2023). The quality of death and dying of patients with advanced cancer in hospice care in Uganda and Kenya. *Palliative and Supportive Care*, 1–10. <https://doi.org/10.1017/S1478951523001463>
10. Gospodarowicz, M., Dare, A., & Jaffray, D. A. (2023). Cancer surgery: Orchestrating cancer control by strengthening health systems. *The Lancet Oncology*, 24(12), 1297–1298. [https://doi.org/10.1016/S1470-2045\(23\)00484-9](https://doi.org/10.1016/S1470-2045(23)00484-9)

11. Jaffray, D. A., Knaul, F., Baumann, M., & Gospodarowicz, M. (2023). Harnessing progress in radiotherapy for global cancer control. *Nature Cancer*, 4(9), 1228–1238. <https://doi.org/10.1038/s43018-023-00619-7>
12. Mah, K., Namisango, E., Luyirika, E., Ntizimira, C., Hales, S., Zimmermann, C., Malfitano, C., Tilly, A., Wolofsky, K., & Rodin, G. (2023). Quality of dying and death of patients with cancer in hospice care in Uganda. *JCO Global Oncology*, 9, e2200386. <https://doi.org/10.1200/GO.22.00386>
13. Mushonga, M., Weiss, J., Liu, Z. A., Nyakabau, A.-M., Mohamad, O., Tawk, B., Moraes, F. Y., Grover, S., Yap, M. L., Zubizarreta, E., Lievens, Y., & Rodin, D. (2023). Hypofractionation in breast cancer radiotherapy across World Bank income groups: Results of an international survey. *JCO Global Oncology*, 9, e2200127. <https://doi.org/10.1200/GO.22.00127>
14. Mushonga, M., Zhu, H., Gospodarowicz, M., & Lopes, G. (2023). Advancing global oncology readership needs: Pushing forward since 2015. *JCO Global Oncology*, 9, e2200414. <https://doi.org/10.1200/GO.22.00414>
15. Oldfield, L. E., Jones, V., Gill, B., Kodous, N., Fazelzad, R., Rodin, D., Sandhu, H., Umakanthan, B., Papadakos, J., & Giuliani, M. E. (2023). Synthesis of existent oncology curricula for primary care providers: A scoping review with a global equity lens. *JCO Global Oncology*, 9, e2200298. <https://doi.org/10.1200/GO.22.00298>
16. Voon, P., Lai, W., Bustaman, R. S., Siu, L. L., Razak, A. R. A., Yusof, A., & Abdullah, N. H. (2023). Early phase oncology clinical trials in Malaysia: Current status and future perspectives. *Asia-Pacific Journal of Clinical Oncology*, 19(3), 296–304. <https://doi.org/10.1111/ajco.13886>
17. Zeng, Y., Ye, W., Stutheit-Zhao, E. Y., Han, M., Bratman, S. V., Pugh, T. J., & He, H. H. (2023). MEDIPIPE: An automated and comprehensive pipeline for cfMeDIP-seq data quality control and analysis. *Bioinformatics*, 39(7), btad423. <https://doi.org/10.1093/bioinformatics/btad423>