



PRINCESS MARGARET CANCER CENTRE

ANNUAL REPORT 2017



Leadership Message



A handwritten signature in black ink that reads "Marnie Escaf".

Marnie Escaf MHA, HBBA
Senior Vice President, Executive Lead
Princess Margaret Cancer Centre



A handwritten signature in black ink that reads "Mary Gospodarowicz".

Mary Gospodarowicz MD, FRCPC, FRCR (Hon)
Medical Director
Princess Margaret Cancer Centre

We are pleased to present the 2017 Annual Report for the Princess Margaret Cancer Centre at University Health Network (UHN). This report profiles our progress and activities in clinical care, research and education during the past year.

For the Princess Margaret, 2017 marked a number of transitions and new beginnings. As our current strategic plan will end in 2018, we began work to formulate our new strategic directions to maintain momentum and forge a path for future priorities. UHN also had an important change in leadership with UHN CEO Dr. Peter Pisters returning to MD Anderson Cancer Center in Texas. We continued our efforts to expand access to care and services, including a significant expansion of the Blood and Marrow Transplant Program to increase our capacity to accommodate more patients in need of allogeneic transplants. In addition, with generous support from The Princess Margaret Cancer Foundation, we began the first phase of the Space Transformation Project to revitalize our main floor and clinics.

The Princess Margaret clinical trials program continues to grow in volume and breadth with 2,010 patients enrolled in clinical trials in 2017. Our research efforts enhanced our understanding of the disease, including uncovering new evidence in the role of genetic-predispositions in treatment response and personalizing cancer therapy through a number of initiatives. We expanded our global partnerships with the signing of a memorandum of understanding with the German Cancer Research Center—Deutsches Krebsforschungszentrum or DKFZ—to accelerate progress in cancer care through the generation and exchange of new ideas in research and education.

We acknowledge all Princess Margaret staff and volunteers for their unwavering dedication and determination in providing the very highest standard of care and support for our patients, and for continually pushing the boundaries of innovation and collaboration that position us as one of the Top 5 Cancer Research Centres in the world. For more information, please visit us at theprincessmargaret.ca.

Our Program



SIZE
 850,000 sq. ft. of clinical space
 416,488 sq. ft. of research space
 202 beds



PEOPLE
 >3,200 people
 176 oncologists
 537 nurses
 446 health professions staff
 857 researchers & research staff
 350 volunteers



CLINICAL CARE
 5,884 surgical procedures
 47,677 systemic therapy visits
 89,220 radiation visits
 457 stem cell transplants
 450 ambulatory clinics
 224,498 clinic visits



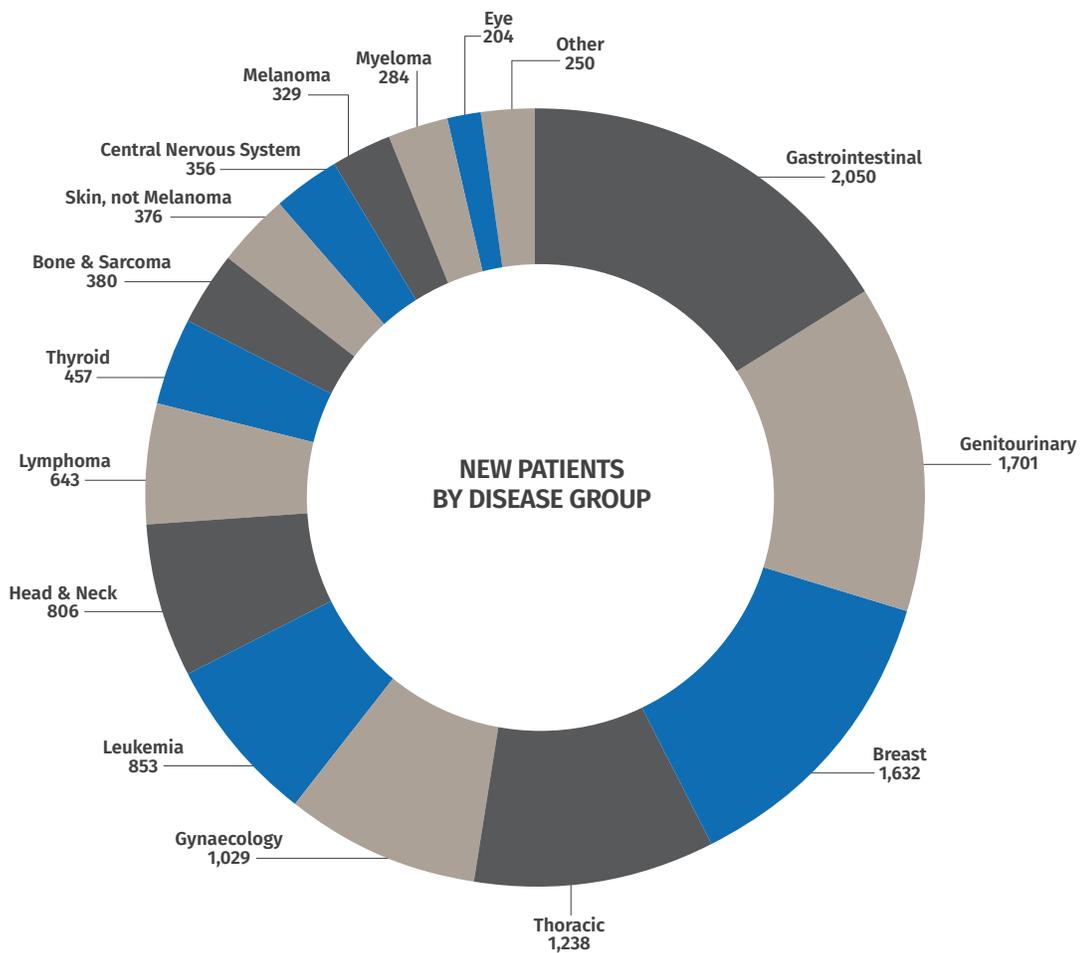
EDUCATION
 332 nursing & health professions students
 112 residents
 112 fellows
 1,559 participants in enrichment programs
 18,028 patient library visits



RESEARCH
 \$143M in research funding
 1,192 peer reviewed publications
 200 new clinical research studies opened
 7,935 patients in clinical research studies
 2010 patients in clinical trials
 17% of patients in clinical trials



NEW PATIENT VOLUMES
 17,797 new patients
 12,588 malignant/in-situ/uncertain behaviour/other
 3,500 non-neoplastic
 1,709 benign



Our Clinical Programs

MEDICAL ONCOLOGY & HEMATOLOGY



Dr. Amit M. Oza MD
Head, Division of Medical Oncology and Hematology
Professor of Medicine, University of Toronto
Director, Cancer Clinical Research Unit, Princess Margaret Cancer Centre
Co-Director, Bras Family Drug Development Program, Princess Margaret Cancer Centre

Medical Oncology and Hematology is dedicated to providing the most advanced and novel approaches to medical and hematologic oncology worldwide. Our team includes 68 medical and hematological oncologists and over 150 practitioners, nurses, trainees, and allied health professionals. We work together to provide compassionate, high quality, patient-centred care for people with common, rare, and complex forms of cancer. Our Blood and Marrow Transplant Program aims to improve outcomes for people with leukemia, lymphoma, myeloma, and other hematological disorders. We are committed to providing the latest developments in new cancer therapies, including immunotherapy and targeted therapies. Together, we endeavour to be global leaders in improving outcomes, and advancing care through continuous innovation and research.

RADIATION MEDICINE



Dr. Fei-Fei Liu MD, FRCPC
Chief, Radiation Medicine Program, Princess Margaret Cancer Centre
Professor and Chair, Department of Radiation Oncology, University of Toronto
Senior Scientist, Ontario Cancer Institute
Dr. Mariano Elia Chair in Head & Neck Oncology
Chair, Medical Advisory Committee, University Health Network

The Radiation Medicine Program is guided by a commitment to patient-centred care with focus on quality, safety, and expertise. Inspired by our Vision of “Precision Radiation Medicine. Personalized Care. Global Impact.” our program endeavours to improve the quality of radiation therapy worldwide through innovative research, education, and the uptake of cutting-edge, novel radiation practices and technologies. Our facilities include 16 linear accelerators, a state-of-the-art Magnetic Resonance-guided Radiation Therapy (MRgRT) suite, and two Leksell Gamma Knife Perfexion units. Our program includes 38 radiation oncologists, 28 medical physicists, and 160 radiation therapists. These core disciplines are supported by clinical, research, administrative, and technical support teams. This interprofessional group of over 350 staff work together to deliver high quality and safe radiation treatment to over 8,000 cancer patients annually.

SURGICAL ONCOLOGY



Dr. Gelareh Zadeh MD, PhD, FRCSC
 Chief, Surgical Oncology
 Head of Surgical Oncology, Cancer Care Ontario - Toronto Central Region
 Associate Professor, Department of Surgery, University of Toronto
 Wilkins Family Chair in Neurosurgical Brain Tumour Research

Surgical Oncology is committed to providing access to leading-edge surgical techniques and technologies that improve patient outcomes, with a focus on delivering comprehensive, compassionate care for our patients. With 70 dedicated cancer surgeons, our multidisciplinary surgical teams offer services for central nervous system, breast, skin and melanoma, sarcoma, urology, head and neck, thoracic, hepatobiliary, colorectal, gynecologic, ocular neoplasms, oncological reconstruction, endocrine, and dental oncology. We have an internationally recognized interdisciplinary program dedicated to clinical and translational research, innovation, and education. We endeavour to meet the increasing demand for the surgical management of cancer, and we are committed to providing the best practice of care through collaboration, outreach, and partnership with our community.

COLLABORATIVE ACADEMIC PRACTICE



Pamela Savage RN, MAEd, CON(C)
 Director of Professional Practice

The Collaborative Academic Practice (CAP) portfolio is firmly rooted in the strength and contribution that each profession brings to the whole. Our portfolio includes 15 health professions comprised of more than 650 people, including staff in Anesthesia, Chiropractic, Clinical Nutrition, Kinesiology, Medical Imaging Technology, Nursing, Occupational Therapy, Physiotherapy, Psychology, Respiratory Therapy, Radiation Therapy, Social Work, Speech Language Pathology, Spiritual Care, and Therapeutic Recreation. Collaboratively we lead the synthesis of practice, education and research within the individual professions and collectively integrating practice among the 15 health professions, connecting knowledge to care.

SUPPORTIVE CARE



Dr. Gary Rodin
 Head, Department of Supportive Care and Al Hertz Centre for Supportive and Palliative Care
 Harold and Shirley Lederman Chair in Psychosocial Oncology and Palliative Care
 Director, Global Institute of Psychosocial, Palliative & End-of-Life Care (GIPPEC)
 Professor of Psychiatry, University of Toronto

Supportive Care is dedicated to supporting patients and families affected by cancer by providing programs and services that address the physical, psychosocial and spiritual needs throughout their cancer journey. Our department is comprised of three divisions: Psychosocial Oncology, Palliative Care, and Cancer Rehabilitation and Survivorship. The clinical care is delivered by a large clinical team of social workers, psychiatrists, psychologists, palliative care physicians, nurses, music therapists, kinesiologists, occupational therapists, physiotherapists, registered massage therapists, dietitians, and other allied health professionals. We have also become an internationally recognized center for research, and education, developing and testing novel approaches to treatment and training supportive care students and clinicians from all over the world. The unique integration of psychosocial, palliative care, and cancer survivorship and rehabilitation supports a holistic and comprehensive approach to supportive care for cancer patients and their families at all stages of the disease.

FEATURE STORY

Rising to the Challenge: Expanding Access to Hematopoietic Stem Cell Transplants



Members of the Blood and Marrow Transplant Team

The Princess Margaret Blood and Marrow Transplant Program is the largest of its kind in Canada. Our history with hematopoietic stem cell transplantation (HSCT) goes back more than 40 years with the first transplant performed in 1970 by Dr. Hans Messner. Since then, the science behind HSCT has evolved from largely experimental to a life-saving treatment offered by a limited number of specialized programs. HSCT is a critical and complex part of treatment for people with leukemia, lymphoma and multiple myeloma and other hematologic malignancies. The treatment is the only option for a cure or long term remission for many benign and malignant hematologic diseases and has significantly increased the survival rates.

In recent years, Ontario faced a crisis in access to allogeneic stem cell transplantation that became increasingly acute in 2015. In response, the Ministry of Health and Long-Term Care (MOHLTC) allocated resources that would double the Princess Margaret's capacity to offer allogeneic transplants by 2019. This expansion required significant planning that included recruiting a larger multidisciplinary team, opening new units, and increasing capacity in pharmacy, laboratories, and pathology.

The first phase of the expansion was completed in 2017 with the addition of 12 new beds (26 total). This resulted in an increase from 126 allogeneic transplants in 2016 to 161 in 2017. Following this expansion, the MOHLTC announced an important decision to fund additional inpatient and outpatient units for HSCT further increasing capacity by 15 new beds and paving the way for an additional 88 allogeneic stem cell transplants by 2022/2023.



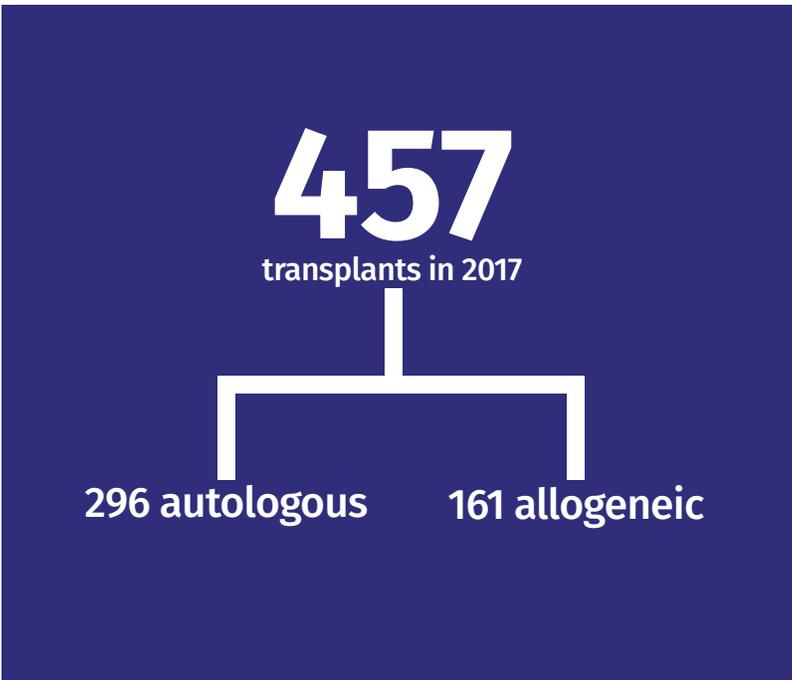
BMT team celebrates the 150th transplant in 1984



Dr. Eric Hoskins, Past Ontario Minister of Health and Long-Term Care, announces an investment in new units at the Princess Margaret for stem cell transplants in 2017.

At the Princess Margaret, researchers and care providers work to continually investigate and implement clinical innovations in HSCT to enhance treatment and improve quality of life. This has included increasing the transplant age to 70, trialing new drug combinations administered prior to transplantation, and the introduction of haploidentical transplants which increase the chances of finding a donor by using relatives that are at least 50% matched to the patient.

In addition, models of care for autologous and allogeneic transplants have undergone a number of changes to enhance safety, reduce wait times and lower the rate of hospital admissions. More than half of autologous transplants were performed as an outpatient procedure in 2017 and shared care partnerships with other hospitals have enabled patients to recover closer to home. A shift to centralize care for allogeneic transplant patients transitioning from inpatient care has enhanced the assessment and treatment of post-transplant complications, better supported patients in managing side effects, and improved the continuity of care.



“We are fortunate to have a dynamic interprofessional BMT team that strive for excellence and have risen to the challenge of responding to the capacity issues in Ontario by planning and implementing expansion plans and revising models of care. They consistently live out the primary value of UHN that above all else, the needs of patients come first. I am immensely proud of their accomplishments.”

Judy Costello,
Senior Clinical Director,
Malignant Hematology and
Palliative Care

FEATURE STORY

Supportive Care for the Patient and Caregiver



CALM Workshop in Ferrara, Italy with Carmine Malfitano and Dr. Gary Rodin from the Department of Supportive Care and Luigi Grassi, ALM Site Lead, University of Ferrara (CENTRE).

The Department of Supportive Care provides a holistic and comprehensive approach to care for patients and families affected by cancer during every stage of the disease. Two unique interventions that exemplify holistic approaches to care through aiming to alleviate the impact of cancer on the patient and the caregiver are the Managing Cancer and Living Meaningfully Program and the Caregiver Clinic.

Managing Cancer and Living Meaningfully (CALM)

A common challenge faced globally by patients with advanced cancer and their families is how to live meaningfully while managing disease and treatment in the face of life-threatening illness. In partnership with 19 cancer centers, The Global Institute of Psychosocial, Palliative and End-of-Life Care (GIPPEC) launched an initiative, the first of its kind, to reduce distress and promote psychosocial wellbeing in patients with advanced cancer and their families, through the expansion of the Managing Cancer and Living Meaningfully (CALM) Program.

Developed by Drs. Gary Rodin, Sarah Hales and Chris Lo, CALM is an individualized therapeutic intervention delivered over six months by a wide range of specially trained health care providers. Training is provided through in-person workshops and online supervision. To-date, clinicians have been trained in over 20 countries. It is the first intervention of its kind to address the practical and profound challenges associated with disease and treatment in a systematic way. Results from a recent randomized controlled trial demonstrated that CALM is effective in reducing depression and distress about death and dying, and in improving the capacity of patients with metastatic and advanced cancer to communicate with their families and health care providers, and to plan for the future. The Global CALM Program aims to make CALM available in diverse settings to individuals facing metastatic or advanced cancer throughout the world as part of usual care through establishing regional sites that will deliver training, conduct research and collaborate globally on CALM and its international implementation.



Caring for the Caregiver

Cancer is a family problem. The diagnosis of cancer can be devastating, and often even more so for a patient's informal caregiver such as their spouse, sibling or child. More and more, the caregiver is relied upon to support the patient with their medical care, logistical and mental health needs. This increasing reliance on caregivers is due to the increase in the use of outpatient cancer care services, as well as the increasing number of people who are surviving cancer and therefore require more complex care throughout their recovery. It is often harder for caregivers to receive support as they are juggling multiple responsibilities and do not have time to care for themselves.

In an effort to formally acknowledge and recognize the important role of caregivers, we launched a new clinical and research program for caregivers. Leveraging clinical assets that already exist within the Princess Margaret, the Caregiver Clinic is a formalized resource for people who are experiencing the distress, anxiety and depression that often comes with the responsibility of caring for a loved one. The design of the clinic is based on research conducted by Psychologist Rinat Nissim. She has conducted focus groups to identify the main ways that caregivers prefer to receive treatment, as well as the barriers that prevent them from seeking help. The new Caregiver Clinic focuses on engaging with caregivers early to prepare for and prevent emotional stress and ways to reduce burnout. It also provides a dedicated mental health clinician to see caregivers separately from the patient, such that they receive personalized psychosocial support.

“Going through this unique experience, it affects everything that’s important in your life, from your partner to your children to your work. . . . Your whole life starts to disintegrate, and you have to pick up those pieces and manage.”

Caregiver focus group participant



FEATURE STORY

Fostering Innovation in Cancer Surgery



A team of 70 cancer surgeons with wide-ranging expertise

Surgical Oncology includes a team of 70 surgeons from approximately 10 subspecialty areas that together comprise one of the world's greatest breadth of expertise in cancer surgery. Some of the key unique programs include Endoscopic Multidisciplinary Care of Skull Base and Head and Neck Cancer, Image Guided Therapeutics, Living Donor Transplant for Cancer Surgery, Comprehensive Multidisciplinary Mesothelioma, Major Ablative and Reconstructive Head and Neck Surgery, Robotic Surgery for Trachelectomy, Robotics for Rectal Surgery, Intraoperative Radiotherapy, Early Kidney Cancer Care, Bladder Preservation for Muscle Invasive Bladder Cancer, Hyperthermic Intraperitoneal Chemotherapy (HIPEC) Program, Guided Sarcoma Therapeutics, Complex Oral and Dental Management of Cancer Patients, Multidisciplinary Sentinel Lymph Node Program, Thoracic Image Guided Surgery, and Airway Laser Surgery. A distinguishing strength of the program is the partnership with surgeons in our team with specialty expertise in vascular, cardiac and transplant surgery.

The Princess Margaret is a leader in the development and implementation of new technologies in surgical treatment designed to improve outcomes and improve quality of life. Examples of the advances in surgical oncology in 2017 include:

- **Driving innovation in cancer surgery.** Discoveries, innovation, knowledge-transfer and collaboration are the foundation of shaping and defining the forefront of cancer practice. In 2017, the Doctors of Cancer Surgery Innovation Fund was established to dedicate funds to support young investigators in leading high impact, inter-disciplinary research and innovation that can support transformative care. The funds facilitate the execution of interventions and research that reduce cancer risk, enhance care delivery and improve outcomes.



A surgical team utilizes a 3D navigation system designed to enhance surgical precision

- **Real time diagnosis for brain tumours.** The use of technology to assess the chemical and molecular make-up of cells (mass spectroscopy) now allows for real time diagnosis during surgical procedures to diagnose and treat brain tumours. This enables diagnosis at the molecular level and allows surgeons to determine how much tissue to remove and to administer molecular targeted therapy at the time of the first surgery, avoiding the need for repeat invasive procedures.
- **Robotic surgery for testicular cancer enhances precision.** The most common site of relapse or metastases for testicular cancer are the retroperitoneal lymph nodes which lie close to major veins and arteries in the abdomen. Removal of these nodes- called a retroperitoneal lymph node dissection (RPLND) - requires a complex surgery that results in a lengthy hospital stay and recovery period. The Princess Margaret is the only centre in Canada to offer RPLND utilizing robotics. This minimally invasive surgery has been shown to be a safe, effective approach that significantly reduces length of hospital stay and recovery and is expected to transform how RPLND is performed in the future.
- **3D navigation system enhances orthopedic sarcoma surgery.** A new clinical trial is underway to assess the use of surgical navigation tools to treat sarcoma that affects the mandible (jawbone). Navigational sensors are mounted on the surgical saw to monitor the precision of the cut and effectively remove the tumour while preserving surrounding healthy tissue and bone resulting in better outcomes and quality of life for patients. The trial aims to assess 3D system performance and applications to clinical care.



IN-DEPTH SPOTLIGHT

Hans Messner, MD PhD



Passionate. Courageous. Mentor. Imagineer. Pioneer. These are just a few words that patients and colleagues have used to describe Dr. Hans Messner.

On May 29, 1969, Dr. Messner arrived in Toronto and walked the hallways of the Princess Margaret for the first time. He began his PhD program at the University of Toronto under the mentorship of Dr. Ernest McCulloch, one of the “Fathers of Stem Cell Science”. In 1970, Dr. Messner completed his first allogeneic transplant – the first of many.

In a career spanning close to fifty years, Dr. Messner is recognized as a renowned scientist and physician who has made significant clinical and scientific contributions to the field of blood and marrow transplantation. He established Canada’s first and largest bone marrow transplant program at the Princess Margaret and has trained and mentored scores of Canadian and international trainees in hematopoietic stem cell transplantation. His pioneering work has contributed to extending the lives of thousands of patients.

Dr. Messner retired in 2013 but was asked to return as Medical Director of the Allogeneic Transplant Program in 2014 to lead the program through a significant expansion. He was the founding president of the Canadian Blood and Marrow Transplant Group and is the recipient of many distinguished awards, including the Order of Ontario in 2015 and the Lifetime Achievement Award from the American Society for Blood and Marrow Transplantation in 2017.

“With Hans, commitment to patients always comes first. In the 1970s, there was no funding to do bone marrow transplants. His grassroots initiative has since grown into Canada’s leading transplant program. This is the dedication and clarity of purpose for which Hans is rightly renowned,” says Dr. Mary Gospodarowicz, Princess Margaret Medical Director.

Beyond his scientific contributions, Dr. Messner has an immense commitment to the patients he treats. “I was introduced to [Hans] first as a patient dying of blood cancer. From our first handshake, his truthfulness, knowledge, critical thinking, and patient communication skills provide the foundation for my respect of this great physician,” says Chris Taylor. “He is my doctor, a researcher, a teacher, mentor, medical imagineer, and a friend to me, and my family.”



ACCELERATING CANCER RESEARCH

Versions of genes could be used to predict anti-cancer drug effectiveness



Dr. Benjamin Haibe-Kains and Dr. Zhaleh Safikhani

“This work reveals a new area of focus—one that could be used to develop more robust methods of selecting effective anti-cancer therapies for individual patients.”

Dr. Benjamin Haibe-Kains, Scientist

A team of researchers led by Dr. Benjamin Haibe-Kains have shown that the different versions of genes, known as gene isoforms may constitute a rich source of information that could be used to predict whether anti-cancer drugs will be effective. Until recently, specific gene isoforms could not be easily measured in tumours. Advances in sequencing technologies enabled the quantification of all gene isoforms in a robust and cost-effective way.

The team used publicly available genomic data from more than 1,400 cancer models and applied advanced computational methods to create profiles of all of the genes and their various isoforms in these models. They then determined which isoforms could be used to predict response to 148 anti-cancer drugs. The researchers found that gene isoforms can better predict the response to anti-cancer drugs than the profile of genes that are turned on. They then selected their four most promising isoform-based tests and found that the tests could accurately predict whether cancer cells responded to the certain drugs in subsequent experiments. “Our study is the first large-scale initiative to demonstrate that gene isoforms are a rich resource for developing predictive tools,” explains Dr. Haibe-Kains.

Genes that drive brain cancer



Dr. Gelareh Zadeh

Dr. Kenneth Aldape

Radiation therapy is an invaluable tool for treating cancer that can help save lives, particularly in childhood cancers. Unfortunately, the treatment itself can cause genetic damage and lead to new tumours that appear decades later. A team led by Dr. Gelareh Zadeh and Dr. Kenneth Aldape studied radiation-induced meningiomas (RIMs)—a type of brain tumour that occurs 10-30 years after radiation therapy for childhood cancer. They looked at the patterns of genetic abnormalities in these tumours and compared them to meningiomas that occur in the general population without prior radiation, called sporadic meningiomas.

They found that RIMs had a distinct genetic profile versus sporadic meningiomas. Furthermore, RIMs lacked mutations that are commonly found in meningiomas. The findings have implications for survivors of childhood cancer and others who previously received radiation therapy. Since RIMs are known to be more clinically aggressive than sporadic meningiomas, treatment options are needed, and by providing insight into the type of meningiomas that develop decades after radiation therapy, researchers will be better equipped to identify therapeutic approaches.

ACCELERATING CANCER RESEARCH

Genetic predispositions to prostate cancer



Within the cell there are different types of RNA, the ‘working copy’ of the genetic code. A form of RNA known as ‘long non-coding RNA’ (lncRNA) has recently been implicated in a number of diseases, but its exact function in the cell is a mystery. To shed light on lncRNA function, Dr. Housheng (Hansen) He carried out a detailed analysis of the role of lncRNA in prostate cancer. Drawing on large, publicly available genetic and genomic datasets, his team identified 45 lncRNAs that are associated with an increased risk of prostate cancer. The top hit, known as PCAT1, was studied in-depth. Using experimental models, the researchers found that PCAT1 promotes tumour growth. Furthermore, PCAT1 was found to be involved in cell changes that are linked to prostate cancer development and progression (e.g., changes in gene regulation that occur after prolonged exposure to male sex hormones). Exploration of these regions, which are relatively unstudied because they were previously believed to be ‘junk’ DNA, could unveil new targetable drivers of cancer growth.

Liquid biopsy: Blood test may fast track personalized cancer therapy

Liquid biopsies are changing the way we test biomarkers to personalized cancer therapy. A Pan-Canadian multicentre validation study led by Drs. Ming-Sound Tsao, Suzanne Kamel-Reid, Natasha Leighl and Tracey Stockley at the UHN/Princess Margaret has shown that a blood test can reliably detect a mutation causing a lung cancer patient to be resistant to a targeted therapy. This non-invasive test is now offered to patients across Ontario as of October 2017. Most lung cancer patients with the tumour carrying mutant EGFR gene respond dramatically to EGFR inhibitor drugs, but they eventually will develop resistance. Treatment with a new drug that can overcome this resistance caused by a new mutation normally requires a re-biopsy of the tumour. Highly sensitive methods to detect cancer cell mutations in the blood have been developed, and blood test can simplify the detection of the new resistant mutation and fast-track treatment with the new drug. “We’ve been able to optimize and validate this simple blood test, and now implement it clinically,” says Dr. Kamel-Reid.

New research in the application of liquid biopsy includes work led by Drs. Daniel De Carvalho, Scott Bratman, and Trevor Pugh to advance tumour detection in blood samples. This research, currently in early stage development, could enable clinicians to detect tumour presence at much earlier stages of disease than current imaging or blood biopsy permits.



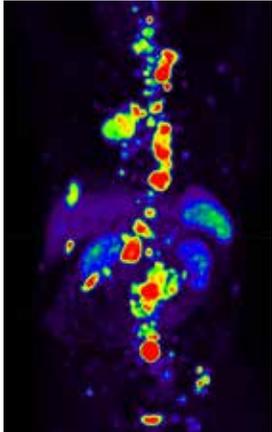
Dr. Ming-Sound Tsao, Dr. Suzanne Kamel-Reid,
Dr. Tracy Stockley, Dr. Natasha Leighl

“This blood-based test may also offer significant cost savings over traditional testing by avoiding the need of re-biopsy.”

**Dr. Natasha Leighl,
Medical Oncologist and Researcher**

ACCELERATING CANCER RESEARCH

Improving clinical care for patients with metastatic neuroendocrine tumours



Whole body Ga68 DOTATATE PET scan showing neuroendocrine tumours

Tumours arising from neuroendocrine cells can be of many different types and therefore require specific clinical management. The Cancer Care Ontario NET (CNET) Consortium, of which Princess Margaret/UHN is a member, launched a Health Canada approved clinical trial which makes radionuclide therapy available to patients that can benefit from it. Led by Dr. Rebecca Wong as Principal Investigator, this study has come to fruition thanks to the hard work and contributions of a multi-disciplinary team, including staff from Radiation Medicine, Nuclear Medicine, Medical Imaging, Nursing, Radiation Safety, Clinical Trials as well as TECHNA's Quantitative Imaging for Personalized Cancer Medicine (QIPCM) Core Lab and the TECHNA - Joint Department of Medical Imaging (JDMI) Molecular Imaging Program.

The trial includes the use of a Ga68 DOTATATE PET scan considered to be one of the most effective tests for identifying patients who will benefit from radionuclide therapy. Eligible patients go on to receive treatment with the radioisotope Lutetium-177 (Lu177) DOTATATE. Results of the trial are expected to generate data that will contribute to expanded access for patients in other Canadian provinces. At the Princess Margaret, 27 patients have been recruited and 24 have received at least one dose of Lu177 as of December 2017.

“The commencement of the Ontario Consortium trial is a significant positive move forward for the Ontario neuroendocrine cancer patient community.”

Jackie Herman, President of CNET

Investigating the impact of proactive swallowing therapy on dysphagia



A fluoroscopic assessment of swallowing

Dysphagia (difficulty swallowing) is a common and potentially life-threatening toxicity of radiotherapy for patients with head and neck cancer (HNC). Dysphagia can lead to aspiration pneumonia, malnutrition, feeding tube dependency, anxiety, depression and even social isolation.

A multidisciplinary Head and Neck team has worked on a series of three studies focused on dysphagia and its impact. This team is led by Dr. Rosemary Martino and includes Dr. Jolie Ringash, Lisa Durkin and other clinician researchers at the Princess Margaret. The studies identified that although several swallowing interventions are available, there is yet no evidence to indicate which has the most benefit to patients. The results from this collective work provided the necessary foundation for future research aiming to derive this evidence. In 2017, Dr. Martino, designate co-principal investigator, and 14 other investigators, together representing a total of 7 cancer centres across North America, were awarded 8.5 million USD from the Patient-Centered Outcomes Research Institute to investigate the effectiveness of proactive swallow interventions for patients with HNC. The results of this study could inform best clinical practice for patients with HNC in North America and the world.

EDUCATION

Helping patients and caregivers navigate cancer consumer health information online



The Cancer Health Literacy Research Centre (CHLRC) is focused on leading cancer health literacy research to enable healthcare providers, health care systems, and patients to work together to achieve better health. In cancer, the accessibility of services and subsequent navigation is complex, even for those with adequate health literacy. Cancer patients and their caregivers want information about their disease and are interested in finding health information online. Despite the abundance of cancer information online, it is often fragmented, its quality is highly variable, and it can be difficult to navigate without expert-level knowledge of the cancer system. The CHLRC conducted a study to deconstruct patrons' information-seeking behaviors. Findings from the study were used to inform the development of a patient-focused cancer information search engine, Princess Margaret Cancer Answers, to help individuals with low health literacy find reliable cancer-related information. Cancer Answers is a specialized search engine built to help patients and families find trusted information from the Princess Margaret and other reputable organizations around the world. It is available on thePrincessMargaret.ca and includes features such as pre-defined browse by categories, free text search; 'narrow by' filters and Librarian's choice.

Cancer Campus – a digital hub for provider education

The Cancer Education program launched the Princess Margaret Cancer Campus, a major step forward in bridging the knowledge to gap in education locally and globally. PMCancerCampus.ca is a digital hub for cancer healthcare provider and trainee education that provides a space for development and evaluation of innovative curricula that push the envelope in transformative cancer care. Nine programs currently reside in Cancer Campus, including a searchable index of the Princess Margaret Innovation Rounds, Young Leaders in Cancer, the Cancer Trainee Professional Enrichment Program, the Summer Student Learning Series and Difficult Conversations in Cancer. Cancer Education developed 12 new eLearning modules and 36 videos in 2017 for these programs. Since launched, over 500 learners have registered in Cancer Campus, including global partners with over 90% satisfaction rate with the programs offered.

The Difficult Conversations in Cancer program includes five eLearning modules and four videos as part its design to improve provider-patient communication. The program is a 'flipped classroom' where theoretical learning and discussions are conducted online as preparation for in-person practice opportunities. This program will become a requirement for new trainees in the cancer program to underscore that communication is as an integral component of excellence in clinical care.



A snapshot from a video for Difficult Conversations designed to model effective communication



PROGRAMS & INITIATIVES

A new standard of care for malignant bowel obstruction

Malignant bowel obstruction (MBO) is a common complication in women with advanced gynecologic cancer that can be life threatening. Women with MBO face significant physical and psychological symptoms that are difficult to manage and often require extended or repeated hospitalizations. Despite being a major cause of morbidity and mortality, MBO is not an area of active clinical or research investigation. Recognizing these issues, an interdisciplinary team created the MBO program to improve care management, reduce hospital admissions or emergency visits and improve quality of life. For the first time, a team of healthcare providers can closely monitor patients with or at risk of MBO through the use of a standardized triage tool. The team has also developed standardized practices that integrate access to a multidisciplinary healthcare team and proactive symptom monitoring that has lowered the number of visits to the emergency department and reduced the time patients spend admitted to hospital. The MBO program continues to examine the impact these new approaches have on quality of life and continuity of care.



The Malignant Bowel Obstruction Team

SPOTLIGHT

Nazlin Jivraj, RN



Nazlin Jivraj graduated from Ryerson University with a Bachelor of Science Degree in Nursing, is certified in oncology and is enrolled in the Masters in Nursing Degree program at Athabasca University. She has been with the Princess Margaret for 20 years. In 2016, she received the Thompson Collaborative Academic Practice Nursing Innovation Fellowship which enabled her to develop a novel, nurse-led colour-coded algorithm that focuses on identifying patients with or at risk of MBO to facilitate standardized assessments and early intervention. In 2017, Nazlin was awarded the Mary Ferguson-Paré Prize for Innovation in Nursing.

Transplant matches quicker, more detailed with Next Generation Sequencing

UHN's Laboratory Medicine Program (LMP), with support from the Princess Margaret Cancer Centre and Cancer Care Ontario, has become one of the first Canadian laboratories to implement next generation sequencing (NGS) for donor and recipient matching in stem cell and solid organ transplant, providing patients more timely and accurate matches. "NGS will allow us to quantify and identify previously undetected differences between transplant donors and recipients," says Dr. Kathryn Tinckam, Lab Director, Histocompatibility, LMP. "A match thought to be identical previously, may now reveal slight differences giving us a better understanding of long-term outcomes." Before NGS there were two steps to compatibility testing – intermediate resolution testing and high-resolution testing. Combined, testing would require about 10 days to determine if a donor is compatible. Now, with NGS, Dr. Tinckam says some patients could save days to weeks when waiting for a match.

High resolution typing through NGS is the most efficient way to get all the information needed by recipients – and direct to HR typing means a national and international search for donors can occur even earlier in the treatment process."

Dr. Kathryn Tinckam, Lab Director, Histocompatibility, LMP

PROGRAMS & INITIATIVES

New technology improves access to medical imaging for cancer patients



CT scanner ribbon cutting ceremony

In September 2017, Medical Imaging completed the installation of a Toshiba Aquilion One Vision dual energy CT scanner, enabling our patients to access the next generation of CT imaging technology. This further supports the pursuit of personalized cancer medicine through faster image acquisition, greater accuracy and improved tumour detection and mapping. The scanner's ability for dual energy acquisition will also enable various new research investigations with activity currently underway in dual energy acquisitions application to improve head and neck oncologic imaging.

SPOTLIGHT

Patrick Veit-Haibach, MD



Dr. Veit-Haibach is a dual-certified Radiologist and Nuclear Medicine Physician. He joined the Joint Department of Medical Imaging in April 2017 as the Director of PET-MRI program. Positron emission tomography–magnetic resonance imaging (PET-MRI) is a hybrid technology that uses state-of-the-art MRI with established molecular imaging tracers and new experimental radiopharmaceuticals to enhance disease characterization. In his new role, Dr. Veit-Haibach aims to explore combining the PET-MRI technology to improve diagnostic imaging for patients. This new area of research is showing promising results in detection of primary tumours that were not well diagnosed before. His current projects include molecular imaging research in breast cancer, hepatocellular carcinoma, sarcoma and lymphoma as well as molecular cardio-vascular imaging.

Dentistry after dark

The Dental Oncology Department, partnering with the Faculty of Dentistry at University of Toronto, began offering “night clinics”. The night clinic provides an opportunity for dental students to obtain valuable experience treating cancer patients while accommodating patients who have difficulty attending daytime appointments and expedites preparation of patient care prior to the start of treatment. This has relieved daytime clinic space and allowed the clinic to “expand” in the same footprint while using existing clinic resources. As the clinic is less busy in the evening, this allows students to work at a comfortable pace, facilitating their learning experience. This novel approach to clinic scheduling has had an overwhelmingly positive response from patients, students and staff.



Dr. Jeff Chadwick, Dr. Bob Wood, Bomee Kim, Grace Chen

PROGRAMS & INITIATIVES

Quality and safety: Working together to prevent harm



Good Catch Winners (L to R: Radiation Medicine, Systemic Therapy, Inpatient Leukemia, Blood and Marrow Transplant)

“Quality is at the core of everything we do at the Princess Margaret. We are constantly learning and adapting to enable the highest standard of care and performance.”

Marnie Escaf, Senior Vice President, UHN and Executive Lead, Princess Margaret Cancer Centre

The Princess Margaret has a relentless focus on quality and safety to ensure the needs of patients come first. In 2017, the Princess Margaret Quality Committee’s structure and approach to set priorities, review incidents and ensure accountability was adopted and implemented as the gold standard across UHN.

Great success was achieved through team recognition with a Good Catch Reporting Competition. A good catch—sometimes also thought of as a near miss—is the prevention of an event or circumstance which has the potential to cause harm through the actions and/or timely intervention on the part of one or more people. The Princess Margaret’s good catch reporting increased by 75% over the past year. This reporting greatly facilitated our ability to think proactively to prevent future harm or injury to patients and staff. We also demonstrated exceptional success with the roll out and completion of the Safety Behaviors and Error Prevention Tool training with over 80% of our staff completing training in seven months. This training is essential to ensuring we communicate effectively and share a common language to prevent future harm.

SPOTLIGHT

Sean Kilpatrick, UHN Patient Partner



Sean Kilpatrick received care at Princess Margaret and now serves as a Patient Partner and volunteer. Sean views his contributions as a means of giving back for the excellent care he and his family have received at the Princess Margaret and UHN. In his role as Patient Partner, Sean sits on the Princess Margaret Quality Committee. Sean believes his role is challenging due to the critical nature of the discussions, but also rewarding due to how actively the committee incorporates the patient perspective at every meeting.

Real time access to health information

myUHN Patient Portal expanded across UHN in January 2017. myUHN provides patients real time access to their health record, appointment schedules and links to patient education resources. Over 40,000 patients have registered and nearly half are patients at the Princess Margaret. myUHN is enabling patients to better partner in their care and improve communication with their health care team.



PROGRAMS & INITIATIVES

The Toronto Central Regional Cancer Program



Singers Ceylne Gaspe, Rose Stella and Elder, Andrew Wesley at the National Indigenous Peoples Day Event



Burning of sage during a smudging ceremony

The Toronto Central Regional Cancer Program (TRCP) is one of 14 Regional Cancer Programs in Cancer Care Ontario. TRCP South is comprised of the Princess Margaret, as the Regional Cancer Centre, and four partner hospitals that include Sinai Health System, St. Joseph's Health Centre, St. Michael's Hospital and Women's College Hospital. The TRCP leadership teams has 22 people who develop and implement program priorities guided by Ontario Cancer Plan IV.

In 2017, our priorities were Complex Malignant Hematology (CMH), Cancer Screening Program development and the Indigenous Cancer Program strategy. The Princess Margaret has the largest CMH program in the province and it expanded again in 2017 with the addition of 12 beds in a new unit built to deliver exceptional, safe and state-of-the-art care. Demand, however, still exceeds our capacity. The Cancer Screening Program focused on planning for the 2018 launch of the Fecal Immunochemistry Test for colorectal cancer screening. The Indigenous Cancer Program continues to support ongoing education to leaders, implementation of new policies to support Indigenous health and build productive relationships.

The Princess Margaret, in partnership with the TRCP, made progress in advancing the Regional Indigenous Cancer Program strategy of reconciliation and an enhanced cancer care experience for First Nations, Inuit and Métis people, and their families. Highlights include:

- Hosting the inaugural celebration of the National Indigenous Peoples Day
- Supporting the newly formed UHN smudging policy working group and UHN Indigenous Council
- Launching of the Smudging Ceremony Policy at the Princess Margaret (first site at UHN)

Other highlights from the TRCP Indigenous Cancer Program include:

- Promoted awareness of screening in the Indigenous community through train the trainer sessions for community organizations and multiple health fairs
- Held a successful regional leadership event to strengthened understanding and support of the reconciliation calls to action

For more details about Cancer Care Ontario, visit cancercare.on.ca and TRCP, visit trcp.ca.

“Our Toronto Central Region Indigenous Team looks forward to staying the course, continuing to build and enhance our relationships with the Princess Margaret towards the improvement of the cancer journey for First Nations, Inuit & Métis.”

Dr. Bernice Downey, Regional Aboriginal Cancer Lead, Toronto Central Region

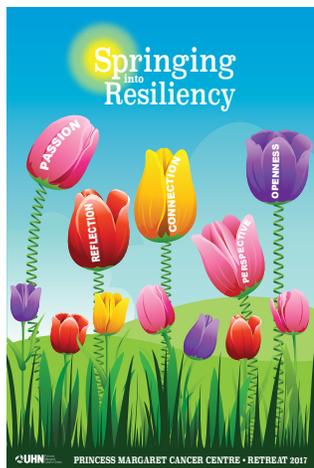
SPOTLIGHT

Daniela Fierini, RD



Daniela Fierini is a Registered Dietitian and Clinical Nutrition Practice leader. She is the co-chair for the Dietitians of Canada Oncology Network. In collaboration with Registered Dietitians, Patient Education, cancer patients and The Princess Margaret Cancer Foundation, Daniela led the development of the first Canadian oncology nutrition cookbook for symptom management – the Canadian bestseller “Goes Down Easy: Recipes to Help You Cope with the Challenge of Eating during Cancer Treatment”. She also contributed to international partnerships in Kuwait and Qatar, through advancing dietitian best practice and promoting collaborative practice amongst health professionals. As practice leader, Daniela has been instrumental in ensuring a holistic approach to care that takes into account the complex nutritional needs of people with cancer without forgetting the important social, cultural and emotional connection to food.

Springing into resiliency...All year long



At the Princess Margaret, we highly value our people and teams. We recognize that our staff are fundamental to our ability to provide exceptional care. Resilience is the capacity to bounce back and respond to pressure, unpredictability or adversity in an adaptive and effective manner that leads to learning and positive outcomes. Strengthening employee resilience enhances well being and engagement, which is instrumental to improving safety, quality, efficiency, staff satisfaction and patient experience.

Our focus on resilience in 2017 began with the Princess Margaret Retreat “Springing into Resiliency”. The retreat included a focus on brief resilience practices that could be easily integrated into busy work environments. A range of practices from mindful walking to workplace yoga were offered all year long in a variety of formats. The practices were supplemented with a newly developed resiliency intranet page with resources for staff, a comprehensive special edition newsletter, and drop in resiliency programs. Due to the success of this year, a comprehensive Princess Margaret Resiliency Program will launch in 2018.

Rapid access to urgent care

Following the successful expansion of hours and new competency guidelines for clinic staff in 2016, the Urgent Care Clinic (UCC) has been working to continually improve patient outcomes and experience. Established as a pilot in 2009, the Clinic volumes have continued to grow with 2,320 visits in 2017 – a 19% increase from 2016. To enhance care, a process of notifying the care team of patients seen at the UCC who require an admission was implemented as an important step in emergency department avoidance. In addition, 2017 has seen a stronger focus on quality and safety. The UCC has started a number of initiatives to collect quality and performance metrics, including expediting treatment for patients who require antibiotics for febrile neutropenia, assessing the number of patients who become more acute after arrival in the clinic and focusing on patient experience. The changes implemented in 2017 reflect the continuing emphasis of the UCC team on excellence and putting the needs of patients first by advancing our focus on quality and safety in a high reliable organization.



Members of the Urgent Care Clinic team

OUTREACH AND PARTNERSHIPS

International collaboration aims to accelerate progress



Dr. Mary Gospodarowicz, signs the MOU with Dr. Michael Baumann, Chairman and Scientific Director, DKFZ, Dr. Josef Puchta, Administrative Director, DKFZ, Dr. Peter Pisters, Past UHN President & CEO

With joint bilateral research projects and a new international clinician and medical scientist program, the cooperation will be a powerful driver of innovative cancer research at a global level.”

Dr. Michael Baumann
Chairman and Scientific Director, DKFZ

Two leading cancer research centres with a shared vision will collaborate to advance world-class research programs and education to benefit patients around the globe. Princess Margaret Cancer Centre and the German Cancer Research Center (Deutsches Krebsforschungszentrum “DKFZ”), Heidelberg, signed a Memorandum of Understanding (MOU) establishing the principles and framework for the collaboration. Under terms of the MOU, Princess Margaret and DKFZ will share best-practice information in basic, translational and clinical research, support innovation in cancer research programs, establish a joint clinician and medical scientist program, and promote faculty, student and trainee exchange visits.

With joint bilateral research projects and a new international clinician and medical scientist program, the cooperation will be a powerful driver of innovative cancer research at a global level.” Dr. Michael Baumann, Chairman and Scientific Director, DKFZ.

Signing on behalf of the Princess Margaret, Dr. Mary Gospodarowicz, Medical Director, said: “The partnership between DKFZ and the Princess Margaret Cancer Centre will provide an international platform for generating new ideas, exchanging information, and creating new opportunities in research and education with the ultimate goal of improving patient outcomes and conquering cancer.”

Building capacity for radiation medicine in Shenzhen

The Radiation Medicine Program (RMP) and the University of Hong Kong-Shenzhen Hospital (HKU-SZH) in Shenzhen launched the Sanming Project of Medicine. The project aims to build clinical and research capacity in radiation medicine by focusing on areas such as establishing a precision radiotherapy program, tumour banking, as well as training programs for local radiation oncologists, physicists and therapists. To mark the launch of the new partnership, RMP and HKU-SZH co-hosted the First International Symposium on Specialist Education and Advances in Radiation Oncology in Shenzhen. This partnership is expected to provide a platform to exchange knowledge and experiences in patient care, research, education and training, with the aim of advancing HKU-SZH as a world-class cancer centre.



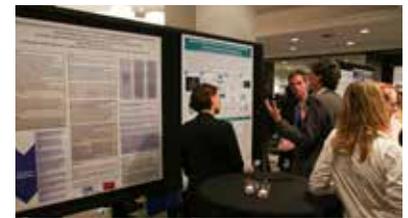
The RMP Team with staff at HKU-SZH

OUTREACH AND PARTNERSHIPS

Personalizing Cancer Medicine in 2017 – Harnessing the Cross Disciplinary Approach Conference

The Princess Margaret strives to generate and share new knowledge in personalized medicine and to meet the needs of our professional community. 'Personalizing Cancer Medicine in 2017 – Harnessing the Cross Disciplinary Approach Conference' was a two-day scientific forum and continuing education event designed to facilitate discussion and debate among those tackling the challenges of personalized medicine. The event enabled and promoted knowledge exchange, innovation and collaboration with the aim of moving the promise of personalized medicine closer to the patient.

We welcomed over 340 participants and the conference featured keynotes and plenary sessions, interactive breakout sessions, and 104 peer reviewed abstracts that included rapid fire presentations and posters. The first keynote was entitled "Personalized Genomic Medicine for Cancer – Learning from HIV" and delivered by Dr. Thomas Lengauer, Director at the Max Planck Institute for Informatics in Saarbrücken, Germany. The second keynote was "Recent Updates in the Management of Genitourinary Cancer: Focus on Immunotherapy" by Dr. Petros Grivas, Clinical & Translational Investigator, Department of Hematology & Medical Oncology at the Cleveland Clinic.



Keynote and poster presentations at the Personalizing Cancer Medicine Conference

Early career exposure for high school students



2017 cohort of the Summer Student Clinician Scientist Program

Cancer Education partnered with the UHN Toronto District School Board (TDSB) Partners Office to launch the first Summer Student Clinician Scientist Program. The program aims to facilitate access to career sampling opportunities for students and provide them with early exposure to the research, education and clinical aspects of healthcare. The program matches high school students with clinical and research supervisors at the Princess Margaret. For the program's pilot year, nine students worked with teams in areas such as MRI-guided radiotherapy for liver cancer, patient-reported outcomes research, and laboratory studies in cervical cancer biology. Few opportunities for high school students exist that allow them to work and learn at the same time. Through the series, the students attended interactive seminars, had access to the Cancer Campus online learning hub, and competed in the Summer Series Research Poster Contest which included students in undergraduate and graduate programs. Four TDSB students took home top prizes for Best Research Poster.

Chemotherapy class wins Rising Star Award

The partnership between the Princess Margaret and the National Center for Cancer Care and Research (NCCCR) at the Hamad Medical Corporation (HMC) was established to build capacity at the NCCCR with the aim of improving cancer care for Qataris and the substantial ex-patriate population in Qatar. As part of this partnership, a multidisciplinary team co-led by teams from breast site groups at the Princess Margaret and the NCCCR outlined a set of priorities to improve care for patients treated for breast cancer. This included a recommendation to enhance education provided to patients receiving chemotherapy. The result was developing and implementing "Improving the Oncology Patient Journey: A Multidisciplinary Chemotherapy Class". The project team was awarded the Rising Star Award at the HMC Stars of Excellence Awards in recognition of the impact the class has had on improving the patient experience.

Our People

TRANSITIONS

DR. RAMA KHOKHA TO DR. MITSU IKURA



Dr. Khokha was the Interim Research Director from 2016 to late 2017. She is a Professor in the Department of Medical Biophysics. She is a world renowned leader in tumour biology including adult stem cell niches and tumour microenvironment. Dr. Khokha is one of the Princess Margaret's top scientists and has won several prestigious awards including the Robert L. Noble Prize from the Canadian Cancer Society. We thank Dr. Khokha for her service and leadership during her time as Interim Research Director.



Dr. Ikura assumed the role of Interim Research Director in late 2017. He is a Senior Scientist at the Princess Margaret and a Professor in the Department of Medical Biophysics, University of Toronto. Dr. Ikura is a Tier 1 Canada Research Chair in Cancer Structural Biology and has won numerous awards including the HHMI International Research Scholar Award and Robert L. Noble Prize from the Canadian Cancer Society. He is a world renowned leader in the fields of nuclear magnetic resonance spectroscopy and structural biology.

DR. PETER PISTERS TO DR. CHARLIE CHAN



Dr. Pisters was the President and CEO of UHN in from 2015 to late 2017. He led UHN on a journey of organizational renewal, including a refresh of our Purpose, Values and Principles and a deep commitment to patient safety through the Caring Safely Transformation. Dr. Pisters continues his successful career as a cancer surgeon, researcher, professor and hospital administrator as President of MD Anderson. We thank Dr. Pisters for his leadership and look forward to working with him in his new role at MD Anderson.



Dr. Chan took on the role of Interim President and CEO of UHN in addition to his roles as Chief Medical Officer and Executive Vice President of Clinical Programs, Quality and Safety. His priorities include partnering with physicians and staff to manage the delivery of safe, evidence-based quality care across all sites and programs at UHN. Outside UHN, Dr. Chan serves on and chairs numerous national and international expert panels for respiratory condition treatment guidelines.

MR. PAUL ALOFS TO MR. MICHAEL BURNS



Mr. Alofs joined The Princess Margaret Cancer Foundation in 2003. During his time at the Foundation, he led the successful five-year Billion Dollar Challenge, and raised more than \$1.2 Billion during his term. He was instrumental in starting a number of new fundraising programs and has transformed the face of fundraising at the Princess Margaret. We thank Mr. Alofs for his exceptional leadership and wish him the best in his future pursuits.



Mr. Burns was appointed to the position of President & CEO of The Princess Margaret Cancer Foundation effective January 2018. Mr. Burns brings more than 20 years of experience in marketing, financial services, technology and entrepreneurship. His past leadership roles include CEO of the Invictus Games Toronto 2017 and Chair of the Michael Garron Hospital Foundation Board. We welcome Mr. Burns and look forward to working with him.

TRIBUTE

Paul Alofs: 14 years of dedication, passion, commitment



After 14 years of exceptional leadership, Paul Alofs stepped down from his role as President & CEO of The Princess Margaret Cancer Foundation (PMCF). During his time at the Foundation, Paul transformed the face of fundraising at the Princess Margaret.

Paul joined The PMCF in 2003 after spending a month as a volunteer at Princess Margaret Cancer Centre. His passion for the cancer cause is a constant, inspired by his own family story as a caregiver for his mother Patricia, who died of cancer in November 2002. During his time at the Foundation, Paul led the successful five-year Billion Dollar Challenge, and raised more than \$1.2 Billion. Paul’s passion, dedication and fundraising success had a profound impact on research and patient care at the Princess Margaret that will endure for many years. Under Paul’s tenure, the Princess Margaret brand has strengthened, new fundraising programs such as The Ride to Conquer Cancer have been created, and unprecedented growth has been achieved in the lottery program with these events raising undesignated funds to support the priorities of the Cancer Centre.

In addition to his exceptional leadership, Paul is the author of the national bestseller “Passion Capital: The World’s Most Valuable Asset” in which he provides a blueprint to build change and maintain a competitive edge. Paul’s passion to make a profound impact on cancer research and patient care was evident to all who worked with him. On behalf of the Princess Margaret and the patients and families impacted by cancer, we thank Paul Alofs for his dedication, passion and commitment.

“Paul has been an inspiration to me. He’s really made me see the big picture, and for that I will always thank him.”

Emmanuelle Gattuso, Philanthropist



“He’s allowed the Cancer Centre to become really one of the top five cancer centres in the world.”

Dr. Bradly Wouters,
Executive VP, Science and Research, UHN

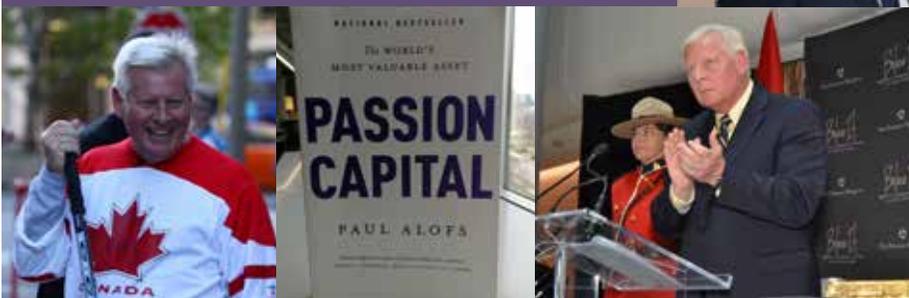
“I learned a lot from Paul...he taught me to be more courageous.”

Dr. Mary Gospodarowicz,
Medical Director, Princess Margaret Cancer Centre



“The Board is very grateful for the wonderful leadership Paul has provided to The Foundation and his very significant personal contribution to conquering cancer in our lifetime.”

Glenn Ives,
Board Chair, The Princess Margaret Cancer Foundation



NEW RECRUITS



DR. ALI HOSNI ABDALATY

Dr. Hosni is a Radiation Oncologist and Assistant Professor, Department of Radiation Oncology at the University of Toronto. He completed his medical degree in 2006 and obtained his Radiation Oncology certification in 2013. He completed a Ph.D. with global interest in clinical and experimental radiobiology. His clinical work is focused on the head and neck and gastrointestinal malignancies, and his research is centered on the image-guided stereotactic body radiotherapy, radiological biomarkers, individualized radiation dose selection.



DR. AISLING BARRY

Dr. Barry is a Radiation Oncologist and Assistant Professor of Radiation Oncology at the University of Toronto. She received her medical degree at Trinity College Dublin, Ireland and her radiation oncology specialist training at St. Luke's Hospital, Dublin. She completed a breast fellowship and a stereotactic body fellowship at the Princess Margaret. She works within the GI, Breast and PROP groups, with an interest in palliative radiotherapy, oligo-progression, oligo-metastatic disease and upper GI cancers.



DR. LIAT HOGEN

Dr. Hogen is a Gynecologic-Oncologist and Assistant Professor, Department of Obstetrics and Gynecology, University of Toronto. She obtained her medical degree from Tel-Aviv University in 2005 and completed a three-year fellowship in gynecologic-oncology at the University of Toronto in 2017. Her clinical and research interests include debulking surgery in ovarian cancer, clear cell ovarian cancer, and surgical innovation and minimally invasive surgery in gynecologic-oncology.



DR. ROBERT KRIDEL

Dr. Kridel is a Medical Oncologist in the Lymphoma Myeloma Site Group, Affiliate Scientist and Assistant Professor in the Department of Medicine at the University of Toronto. He went to medical school in Belgium, followed by internal medicine and medical oncology training in Switzerland and a lymphoma fellowship at the BC Cancer Agency. Dr. Kridel treats lymphoma patients and his research interests include lymphoma genomics and how they correlate with treatment response and patient outcomes.



DR. BENJAMIN LOK

Dr. Lok is a Radiation Oncologist – Clinician Scientist, an Affiliate Scientist and an Assistant Professor, Department of Radiation Oncology at the University of Toronto. Dr. Lok obtained his medical degree in 2012 from New York University and completed his residency training at Memorial Sloan Kettering Cancer Center. His research interests include investigating the role of PARP inhibitors in small cell lung cancer. Dr. Lok was awarded the Young Investigator Award from the American Society of Clinical Oncology in 2016.



DR. JESSE PASTERNAK

Dr. Pasternak is a Surgical Oncologist. He completed his medical degree at McMaster University and the Orlo Clark Fellowship at University of California-San Francisco in Endocrine Surgery and Oncology. His research interests include outcomes in endocrine surgical oncology, clinical trials in endocrine surgery, and surgical innovation in minimally invasive endocrine surgery. Completing his Masters in clinical epidemiology and biostatistics at Harvard University, is interested in the use of large datasets to affect health policy change.



DR. NATHAN PERLIS

Dr. Perlis is a Uro-Oncologist. He obtained his medical degree in 2008 at the University of Toronto and completed a Society of Urologic Oncology Fellowship at UHN. He completed a Masters in Clinical Epidemiology with a focus on quantifying quality of life assessments in bladder cancer. His clinical practice focuses on image-guided focal therapy for prostate cancer and image-guided therapeutics. His research interests are in the area of urologic oncology, outcomes and patient-centered report development.



DR. DEREK TSANG

Dr. Tsang is a Radiation Oncologist and Assistant Professor, Department of Radiation Oncology at the University of Toronto. He obtained his Medical Degree from Queen's University in 2011 and completed a fellowship in pediatric radiation oncology at St. Jude Children's Research Hospital in 2017. His clinical interests include treatment of pediatric solid tumours and treatment of primary central nervous system and benign brain tumours in adults. His research interests include modelling late effects in children treated with radiation and proton therapy.

DEPARTURES



DR. ROBERT BRISTOW

Dr. Bristow was with the Princess Margaret for over two decades as a clinician-scientist in Radiation Medicine. He made invaluable contributions to the field of prostate cancer genomics and tumour hypoxia that have advanced research and clinical care. He was regarded as an excellent mentor to numerous trainees. In recognition of his contributions, Dr. Bristow was recruited as Director of the Manchester Cancer Research Centre in the United Kingdom.



MR. RUDY DAHDAL

Mr. Dahdal joined UHN in 1994. He held a number of progressive leadership roles before becoming Senior Director, Facilities and Redevelopment & Support Services – TGH & the Princess Margaret. He joins North York Hospital as the Vice President of Planning, Facilities and Support Services.



DR. RONALD FELD

Dr. Feld retired after over 40 years at the Princess Margaret as a Medical Oncologist with the lung site group. He is recognized nationally and internationally for his contributions in the advancement of lung cancer treatment. Dr. Feld maintains his role as Professor Emeritus with the University of Toronto.



DR. MICHAEL JEWETT

Dr. Jewett joined the Princess Margaret as a surgeon in 1976. He served two terms as Chairman and Program Director of the Division of Urology at the University of Toronto and Head of Urology at UHN. He has won many teaching awards and made numerous scientific contributions to the surgical management of testicular cancer. He transitioned from clinical to academic practice with a focus on teaching, research and creative professional activities.



DR. KATHY PISTERS

Dr. Pisters joined the Princess Margaret in 2016 as a Medical Oncologist. She held the position of Director, DMOH Education and Fellowship Program and oversaw more than 65 sub-specialty trained fellows from Canada and abroad. She returns to Texas to continue her clinical practice and leadership in education.



MS. BARBARA TIANO

Ms. Tiano retired after more than 42 years of being one of the most recognizable faces at the Princess Margaret in her role as Receptionist at the main lobby information desk. She assisted countless patients and families from the moment they walked through our doors. As a testament to her impact on patients and families, Ms. Tiano was named “Torontonians of the Year” in 2015 by CBC Metro Morning.

Our Leaders

SENIOR MANAGEMENT TEAM

Marnie Escaf (Chair)	Senior Vice President, UHN Executive Lead, Princess Margaret Cancer Centre
Judy Costello	Senior Clinical Director, Hematology, Hematologic Oncology & Palliative Care UHN
Jane Finlayson	Senior Public Affairs Advisor
Zsolt Hering	Finance Manager
Jin-Hyen Huh	Director of Pharmacy Operations
Terri Stuart-McEwan	Executive Director, Solid Tumour Oncology and Gattuso Rapid Diagnostic Centre
Pamela Savage	Director of Professional Practice
Sophie Foxcroft	Director of Operations, Radiation Medicine Program
Terra Ierasts	Site Manager
Natasha Kuzmanov	Director of Human Resources
Martha Wyatt	Director, Regional Cancer Program & Medical Affairs
Hayley Panet	Manager, Strategic Projects
Paul Cornacchione	Clinical Director of Radiology Management

CANCER EXECUTIVE COMMITTEE

Mary Gospodarowicz (Chair)	Medical Director, Princess Margaret Cancer Centre
Marnie Escaf	Senior Vice President, UHN Executive Lead, Princess Margaret Cancer Centre
Gelareh Zadeh	Head, Surgical Oncology
Gary Rodin	Head, Supportive Care
Amit Oza	Head, Medical Oncology and Hematology
Fei-Fei Liu	Head, Radiation Medicine Program
Pamela Savage	Director, Professional Practice
Terri Stuart-McEwan	Executive Director, Solid Tumour Oncology and Gattuso Rapid Diagnostic Centre
Judy Costello	Senior Clinical Director, Hematology, Hematologic Oncology & UHN Palliative Care
Meredith Giuliani	Medical Director, Cancer Education
Peter Ferguson	Chair, Cancer Committee
Meena Merali	Director, Cancer Strategy Stewardship
Martha Wyatt	Director, Regional Cancer Program and Medical Affairs

DISEASE SITE GROUP LEADERS

Anne Koch	Breast
Ken Aldape/Normand Laperriere	Central Nervous System
James Brierley	Endocrine
Anthony Finelli	Genitourinary
Stephanie Lheureux	Gynecology
John Waldron	Head and Neck
Karen Yee	Leukemia
Fayez Qureshy	Lower Gastrointestinal
Marc de Perrot	Lung
Anca Prica	Lymphoma
Peter Ferguson (Chair)	Sarcoma
Danny Ghazarian	Skin
Laura Dawson	Upper Gastrointestinal

Awards

Philippe Bedard – William E. Rawls Prize, Canadian Cancer Society Awards for Excellence

Dave Cescon – Dr. Elizabeth Eisenhower Early Drug Development Young Investigator Award, Canadian Cancer Trials Group

Daniel De Carvalho – Bernard and Francine Dorval Prize, Canadian Cancer Society Awards for Excellence

John Dick – Tobias Award Lecture, International Society for Stem Cell Research

John Dick – Gold Leaf Prize, Canadian Institutes of Health Research

John Dick – Keio Medical Science Prize Laureate

Marcia Flynn-Post – Pfizer Award of Excellence in Nursing Leadership, Canadian Association of Nurses in Oncology

Mary Gospodarowicz – Women Who Conquer Cancer Mentorship Award, American Society of Clinical Oncology

Mary Gospodarowicz – Wendy Lack Women of Action Scientific Award, Israel Cancer Research Fund

Doris Howell – Award of Distinction, Canadian Association of Nurses in Oncology

Michael Jewett – Exceptional Leadership in Patient Involvement in Cancer Research, Canadian Cancer Research Alliance

Nazlin Jivraj – Mary Ferguson-Paré Prize for Innovation in Nursing

Armand Keating – Lifetime Achievement Award, Canadian Hematology Society

Mathieu Lupien – Bernard and Francine Dorval Prize, Canadian Cancer Society Awards for Excellence

Hans Messner – Lifetime Achievement Award, American Society for Blood and Marrow Transplantation

Brian O’Sullivan – O. Harold Warwick Prize, Canadian Cancer Society Awards for Excellence

Amit Oza – Presidential Medal, Society of Gynecologic Oncology of Canada

Christopher Paige – Leadership in Advocacy Award, Research Canada

Gary Rodin – Bernard Fox Award, International Psycho-Oncology Society

Gary Rodin – Canadian Association of Psychosocial Oncology Research Excellence Award, The CIHR – Institute for Cancer Research

Frances Shepherd – Addario Lectureship Award, The Bonnie J. Addario Lung Cancer Foundation

Frances Shepherd – Women for Oncology Award, European Society for Medical Oncology

Frances Shepherd – Fellow of the American Society of Clinical Oncology

Rodger Tiedemann – Medical Research Award, J.P. Bickell Foundation

Michael Velec, Tony Tadic and Vickie Kong – Chesney Research Award, International Society of Radiographers and Radiological Technologists

Alex Vitkin – Michael S. Patterson Publication Impact Prize in Medical Physics, Canadian Organization of Medical Physicists

TRANSFORMING

CARE AND THE PATIENT EXPERIENCE



An ambitious multi-phase project to transform cancer care with donor support

The Princess Margaret Cancer Foundation launched the \$50 Million Transformation Campaign to improve the experience of patients, from the moment they step through our doors. This multi-phase project will create a welcoming and supportive environment in order to foster feelings of comfort, hope, and confidence for patients and their loved ones. We are building cancer care capacity for the future and putting patients' needs first.

The pressure on our facilities will only intensify as cancer cases continue to rise. The Princess Margaret is committed to meeting that growing need, while delivering on our promise of providing Personalized Cancer Medicine, tailored to individual patient needs. Our Transformation Campaign will dramatically improve the patient experience by providing a comfortable environment every step of the way for every patient.

Ongoing Renovations



As with any major renovation, the impact on individuals who walk through our facilities is considerable. We thank patients, families and staff for their patience as we make progress in this multi-phase project to build the Cancer Centre of the future.

Blood Collection Centre & Outpatient Pharmacy



The Outpatient Pharmacy and Blood Collection Centre are part of nearly every patient's experience. Expansion and re-organization of these key areas will accommodate current and future patient growth.

The new space will accommodate two automated prescription refill machines, an expanded staff of pharmacists, a private consult room, and nine patient stations, four of which will be accessible.

The new Blood Collection Centre will also include three accessible collection stations, an expanded reception and waiting area, and key functional upgrades.

New Clinics



The Princess Margaret's first dedicated Outpatient Palliative Care Clinic will be located on the 5th floor. This clinic will give its multidisciplinary team more space and resources to meet the unique needs of palliative care patients and their families. The new Gynecologic Oncology Clinic will move to the 5th floor, consolidating three spaces into one convenient location. The clinic is a leader in managing cancers of the female reproductive system.

Patient Library



The Patient Education team at The Princess Margaret has nearly 900 unique pamphlets and an even greater number of digital resources and articles to help guide patients through every stage of their treatment. The new space will allow for improved access to this information including open and accessible displays of pamphlets and books, an expanded multilingual collection, digital kiosks, a private consult room, and access to resources in a beautiful, library-like space.



*The new Princess Margaret lobby, artist's rendering subject to change.