Our Vision:
A world free of cancer.

Our Mission:
To reduce and, where possible, eliminate the burden of cancer on the people of Manitoba through exemplary programs of prevention, diagnosis, treatment, rehabilitation, continuing care, research and education.

Our Values:

**RESPECT FOR PEOPLE**
Dignity, fairness, openness, equity, collaboration, cooperation, sensitivity to cultural diversity and identity, compassion, privacy, confidentiality.

**INTEGRITY**
Honesty, objectivity, reliability, responsibility, fidelity, transparency.

**EXCELLENCE**
Timeliness, efficiency, effectiveness, relevance, diligence, creativity, initiative.

**STEWARDSHIP**
Prudence, sensitivity to risks, opportunities and sustainability of human and material resources and the natural and built environment, accountability.
Message from
The President & CEO

I am proud to present the 2016-2017 Annual Progress Report (APR) for CancerCare Manitoba (CCMB). Within these pages are highlights of the first year of activities toward achieving the strategic priorities set out in CancerCare Manitoba’s strategic plan, Delivering Excellence: 2016-2021 Manitoba Cancer Plan. These pages describe the efforts of CCMB oncologists, scientists and staff to bring quality cancer care to Manitobans.

One of the strategic priorities within the 2016-2021 Manitoba Cancer Plan is broadening the scope and enhancing the strength of cancer research in Manitoba. That is why I am pleased to include, for the first time, a section reporting on research into cancer and blood disorders in this province. It is very well established that institutions with robust research programs deliver better patient outcomes.

This year has also been one of transformation within the health-care system in Manitoba. Along with other health authorities, CCMB is adjusting its priorities and making staff changes to adapt to the new provincial environment. During this period, I have been inspired by the words of Michael Porter, an economist who has written about health-care reform: “In a period of economic downturn, the overwhelming instinct is to pare back, cut costs, and lay off. If you do that, do so with your strategy in mind. The worst mistake is to cut across the board. Instead, reconnect and recommit to a clear strategy that will distinguish you from others.”

CCMB is committed to a clear strategy. We are looking at recent health-care changes in a positive way and as an opportunity to do things differently. Within the APR, you will read how we hope to provide cancer services more efficiently and effectively through delivering additional treatments on an outpatient basis, using technology to improve patient care and improving how we measure and evaluate our services to increase transparency. I am confident that the end result will be better care and support for Manitobans with cancer and their families.

CCMB believes in working with patients, as opposed to working for patients. That is why patients have always been involved at CCMB. This year, we have formalized this work. Patients are being consulted on the use of physical space in the building, the appropriateness of patient educational materials and how CCMB can improve the patient’s experience during cancer treatments. I encourage all current and former patients who wish to contribute their ideas to improving CCMB services to contact our patient engagement office.

CCMB is exceptionally grateful for the support we receive from Manitobans through CancerCare Manitoba Foundation. Your donations make cancer research and improvements in patient care possible. Thank you.

Everyone who works at CCMB is dedicated to delivering quality care to Manitobans with cancer and blood disorders and I am honoured to lead them. If you have any feedback on this report or the services CCMB provides, please contact me at CCMBCEO@cancercare.mb.ca. I would be happy to hear from you.

Sincerely,

Dr. Sri Navaratnam
President and CEO, CancerCare Manitoba

“Our goal is that no Manitoban’s life is cut short by cancer.”
On behalf of the Board of Directors of CancerCare Manitoba, I am pleased to present the Annual Progress Report 2016-2017. This report has been prepared in accordance with The Regional Health Authorities Act, and with guidance from Manitoba Health, Seniors and Active Living (Manitoba Health).

The Annual Progress Report 2016-2017 shows how CCMB is meeting the growing needs of Manitobans dealing with cancer, while planning for a future that includes an expected 50 per cent increase in cancer cases over the next 15-20 years. During the past year, CCMB has continued to work diligently to implement the Manitoba Cancer Plan 2016-2021, which (i) blends innovation and continuity of excellent cancer care, (ii) addresses the need for new knowledge, (iii) provides a focus on quality and safety, while reducing risk, and (iv) balances an unyielding increase for services, with staff and financial limitations.

The past year has been a challenging, but rewarding one. CCMB is challenged by the need to deal with health-care funding. Nevertheless, we take satisfaction from CCMB’s continuing ability to provide the best of care to Manitobans dealing with cancer. I also want to say to all Manitobans we are committed to work with the provincial government to get our much-needed new care facility built and operating as soon as possible.

The CCMB Board of Directors is charged with the governance and direction of CCMB on behalf of all Manitobans. It is a duty that we take seriously and do our very best to carry out. Thanks to our Board members, past and present, for their dedication, hard work and enthusiasm in helping carry out our mandate.

On behalf of the Board of Directors, I thank CancerCare Manitoba Foundation, our other financial supporters, Manitoba Health and, of course, all Manitobans, for their continued support.

Finally, our Board’s thanks to the management, administrative, technical and support staff of CCMB for their exemplary care and compassionate support of Manitoba patients and families facing cancer.

Sincerely,

Gregory Tallon
Chair of the Board of Directors,
CancerCare Manitoba
CancerCare Manitoba is the provincially mandated cancer agency for the province and is responsible for long-term planning and setting strategic priorities for cancer and blood disorders. CCMB provides services to both children and adults. The cancer services the organization provides to Manitobans include prevention, early detection, multidisciplinary outpatient cancer treatment, supportive care, end-of-life care and living with cancer. CCMB is also responsible for radiation protection throughout the province. In addition, the Research Institute at CCMB investigates all aspects of cancer and blood disorders, including research to improve the patient’s experience while at CCMB.

CancerCare Manitoba relies on the ongoing support of Manitoba Health, Seniors and Active Living and its close working relationships with regional health authorities to deliver quality cancer services to Manitobans. CancerCare Manitoba is also supported by the University of Manitoba and Diagnostic Services Manitoba. In addition, the financial assistance provided by the donations of Manitobans to the CancerCare Manitoba Foundation is vital to undertaking research and providing quality care to Manitobans.

CCMB has approximately 900 staff. The organization’s multidisciplinary approach to patient care attracts experts in medical and radiation oncology, the best and brightest scientists, passionate nursing staff and other dedicated health-care professionals.

CCMB has three locations in Winnipeg. The main site at 675 McDermot Avenue provides chemotherapy and radiation treatments, patient support services and houses the Research Institute. The second location at St. Boniface Hospital provides chemotherapy and support services to patients. The third location at Misericordia Hospital includes the three cancer screening programs and the Breast and Gyne Centre of Hope.

In Brandon, in partnership with Prairie Mountain Health, the Western Manitoba Cancer Centre offers residents of western Manitoba access to radiation therapy, chemotherapy and patient support services. Manitoba patients can receive care close to home thanks to CCMB’s partnerships with regional health authorities and Diagnostic Services Manitoba. Community and Regional Cancer Program Hubs provide outpatient care and support services to cancer patients in 17 Manitoba communities.

CCMB patient representative can be reached at (204)787-2065 1-866-561-1026 toll free CCMBpatrep@cancercare.mb.ca
CancerCare Manitoba has completed its first year of the Manitoba Cancer Plan (MCP) 2016-2021, Delivering Excellence. The MCP is a comprehensive plan to deliver the best cancer care to the population of Manitoba and outlines CCMB’s strategic directions, objectives and operational strategies to deliver excellence on a provincial level. The strategic directions are based on three pillars: Clinical Excellence, Operational Excellence and Academic Excellence, and were developed to align closely with Manitoba Health, Seniors and Active Living priorities, goals and health objectives. The six strategic directions are focused on four key areas of patient care, reporting, research and education and operations.

**STATE OF THE ART PATIENT CARE**

Reporting on the first year of the five-year plan, CancerCare Manitoba is encouraged by the progress made in many areas. Improvements in radiation precision and technology including, an upgraded CT simulator, new Edge system and brachytherapy have ensured the delivery of state-of-the-art radiation treatment to Manitobans.

**TIMELY ACCESS TO MULTIDISCIPLINARY CARE**

In the area of chemotherapy, increasingly treatments previously given intravenously are becoming available as oral drugs, reducing the time patients need to spend in treatment at CCMB. The availability of new and more advanced chemotherapy drugs are always expanding and this is good news for everyone. These new drugs are very costly, at times slowing the process of making these available to patients. This will be a continuing challenge for all Manitobans.

**ENHANCED REPORTING ON PERFORMANCE, QUALITY AND SAFETY**

Molecular testing allows for more targeted cancer treatment, personalized for each individual. The result is more effective treatment and improved outcomes.

**BUILDING CAPACITY TO MEET GROWING NEEDS**

**IMPROVED CARE FOR UNDERSERVED POPULATIONS**

**BROADENED SCOPE AND ENHANCED STRENGTH OF RESEARCH**

**PROGRESS**

In the area of chemotherapy, increasingly treatments previously given intravenously are becoming available as oral drugs, reducing the time patients need to spend in treatment at CCMB. The availability of new and more advanced chemotherapy drugs are always expanding and this is good news for everyone. These new drugs are very costly, at times slowing the process of making these available to patients. This will be a continuing challenge for all Manitobans.

Molecular testing allows for more targeted cancer treatment, personalized for each individual. The result is more effective treatment and improved outcomes.
CCMB is working with its partners including government to ensure increased access to these tests for patients. Like new drugs, these tests come with high costs that add to the challenge of availability.

CCMB is providing leadership for cancer surgery to ensure quality is consistent throughout the province. By setting standards, reporting on performance and monitoring the quality of cancer surgery in Manitoba, the progress in this area has been positive. Led by CCMB’s surgical oncology experts, the engagement of surgeons across the province has been high. CCMB is encouraged by the support of all health regions and government on this initiative.

CCMB continues its efforts to improve the care for underserved populations. This year, the Underserved Populations Program has merged with the Community Oncology Program to ensure co-ordinated and strengthened efforts throughout the province. First Nations, Métis and Inuit engagement is well established and ongoing. Increased efforts are focusing on the frail elderly and newcomers to the province – how best to serve their needs in the cancer system.

CCMB is committed to providing state-of-the-art treatment to Manitobans. It is also committed to prevention and early detection activities as the best defence against cancer. CCMB successfully transitioned to digital mammography for breast cancer. Improved screening techniques for colorectal cancer have been implemented. However, CCMB is unable to provide new screening programs for other cancers at this time.

Building capacity to meet growing needs continues to be a challenge. CCMB and CancerCare Manitoba Foundation were on track with planning the new facility to meet the growing needs. However, in February 2017, given the financial challenges the province is facing, the Minister of Health asked CCMB to reimagine the project, which is ongoing. At the same time, CCMB is working to achieve the best efficiencies and use of space within the constraints of our existing facilities so that patients continue to receive the best care possible.

CCMB has completed the first year and is moving into the next year of the five-year Strategic Plan. This is a year in which there is health-care transformation taking place. CCMB is working to achieve its mandate in more sustainable and cost-efficient ways. Some of the initiatives to meet this mandate have already matured and are articulated in this report.

The CCMB mandate under The CancerCare Manitoba Act includes long-term planning for provincial cancer control for the people of Manitoba. CCMB is reviewing the provision of cancer services – past, present and future - to determine how best to continue delivering excellence to Manitobans in cost-efficient and sustainable ways.

CCMB is developing a plan for cancer service delivery aligned with the Manitoba Cancer Plan. This document is the next step in the delivery of cancer services provincially. How CCMB delivers its services is important for all stakeholders, especially for patients.

As care providers and provincial leaders for cancer, CancerCare Manitoba is committed to working to meet its goals, with the ultimate goal of delivering excellence to Manitobans.
Treatment advances in radiation therapy

**CT Simulator**

Used to plan radiation treatment, the CT simulator allows CCMB staff to precisely delineate tumours prior to radiation. This year, CCMB has an upgraded CT simulator, which takes sharper, faster pictures in 3D.

Dr. Rashmi Koul is the Director and head of CCMB’s radiation oncology program. “We had an iPhone 4, now we have an iPhone 7,” she says by way of comparison.

“What we have been doing is decreasing the patients’ side effects and increasing their quality of life because we can more clearly identify where the disease is with these 3D pictures.”

The speed of the machine is a plus to the patient and health-care system.

“It’s faster so patients have to lie down for less time,” she says. “And we can scan more patients in a day.”

There are now three CT simulators in the province, the new one in Winnipeg and existing ones in Winnipeg and Brandon.

**High-dose Rate Brachytherapy**

This next-generation machine for brachytherapy allows CCMB to target the delivery of radiation to a very precise area. This custom, focused treatment means healthy tissue around the cancer isn’t harmed as much by the radiation. This technology is especially beneficial in treating gynecological cancers.

**TrueBeam Radiotherapy**

CCMB will be adding an upgraded linear accelerator in early 2018. The Varian TrueBeam linear accelerator is a radiation unit that rotates around patients and delivers powerful X-rays to tumours.

“It’s a very sophisticated unit,” Koul says. “It helps with our standard of care, with our capacity needs. It does it better, faster, bigger, brighter.”

There are eight linear accelerators in the province, including one in Brandon. The new one will replace a 2001 machine.

**Edge Radiosurgery**

This new technology also increases precision in delivering radiation treatments. The Edge system is a linear accelerator equipped with tracking beacons.

Those beacons allow radiation oncologists to track where a tumour is in real time, including its movement when the patient breathes, so delivery of radiation can be precise.

“It’s a very, very pin-point treatment,” says Koul, noting the system is owned by the Health Sciences Centre and operated by CCMB.

“It gives extremely high doses of radiation to lung and spine patients.”

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**VARIAN TRUE BEAM LINEAR ACCELERATOR**
Today about 80 per cent of all childhood cancers are cured. Thanks to the financial support of CancerCare Manitoba Foundation, CCMB is now a partner in a national research project focused on the other 20 per cent of childhood cancers where the outcomes are not as positive.

Terry Fox PROFYLE is a research project focused on providing personalized medicine to children, adolescents and young adults with difficult-to-treat cancers. It is a multi-institution program across 17 centres in Canada.

Pediatric oncologist Dr. Geoff Cuvelier is the project lead at CCMB. “We are trying to learn more about the individual’s genetic makeup of their cancer, in particular for those patients who have hard-to-treat cancers where we expect the chance of survival is less than 30 per cent.”

The project includes children, adolescents and young adults up to 30 years of age with difficult cancers. CCMB sends tissue samples to Vancouver to have experts in high-level genomics dissect the genetic makeup of an individual patient’s tumour. This information is then used to determine if there is a treatment available that fits the genetic profile.

Cuvelier says the project has two goals, “Learning more about the particular type of tumour. And for the patient, trying to find the mutations for which there are specific drugs to treat them.

“For Manitoba patients, this is a really important project because we wouldn’t be able to do these tests in Manitoba. We don’t have the critical infrastructure, but we are collaborating with others. This is really the future.”

After treatment is over, CCMB continues to support patients as they make the transition into living a full and productive life as a cancer survivor.

To support these patients, CCMB, in partnership with the Reh-Fit Centre, is offering the Moving Forward After Cancer program with the support of CancerCare Manitoba Foundation.

Participants learn to address common post-treatment stressors and health concerns, as well as how to foster healthy eating and exercise as they transition back to life beyond cancer. The aim is to create an environment that encourages support and community with other cancer patients and survivors. Professional staff provide personalized attention to help participants reach and sustain a healthy life. For more information and to register for the free program, call CancerCare Manitoba Patient & Family Support Services at 204-787-2109.
Christopher Meiklejohn didn’t have to be convinced to take part in a clinical trial for his colorectal cancer.

As a University of Winnipeg anthropology and archaeology professor from 1970 to 2007, he conducted research and is still doing so during his retirement.

“I had a good base knowledge of what clinical trials were all about before it was suggested,” says Meiklejohn, who also has a biology degree.

“It’s completely clear to me that this is the only way that medical treatment evolves.”

CCMB depends on CancerCare Manitoba Foundation to fund clinical trials in Manitoba. Its financial support for clinical trials has nearly doubled in the past seven years.

Meiklejohn’s clinical trial is one of dozens taking place at CCMB, most of which are part of national and international trials.

The purpose of clinical trials is to either come up with a better treatment for a cancer, put it into remission, cure it or decrease the acute or long-term side effects of treatment, says Dr. Leonard Minuk, director of the clinical trials unit at CCMB.

“They’re also focused on trying to deliver more of what we call personalized medicine, meaning finding out particular markers within the cancer that are targets for specific drug treatments.”

Trials also save the health-care system money because sponsors such as drug companies often fund the experimental and standard-care parts of trials, Minuk adds, estimating that can be upwards of $1 million in savings to government each year.
Dr. Leonard Minuk had a number of reasons to be excited about getting a new job last year.

The hematologist was moving back to his hometown of Winnipeg, where he and his wife’s parents and extended family still live. He was also going to have the added challenges of being the director of the clinical trials unit at CancerCare Manitoba and an associate professor at the University of Manitoba.

“In London, I ran a smaller clinical trials unit that was just for malignant hematologic disorders,” he says.

“An opportunity came up here and I thought that was the right thing for the family,” says Minuk, the father of two young children.

“CancerCare Manitoba has a reputation for being a world-class cancer institute and is the tertiary care centre for the province and region, which is attractive, and it’s associated with the University of Manitoba.”

Minuk, who joined CCMB in July 2016, graduated in 2004 with a medical degree from the U of Manitoba. He went to Western University in London, Ont., for his internal residency training and hematology subspecialty training.

Over the following seven years, he was a regional and clinical hematologist at the London Health Sciences Centre and its regional cancer program, as well as an associate professor at Western.

The trial Meiklejohn is part of is a major one, with a worldwide sample goal of 1,060 patients, Minuk says. Manitoba is playing a large role, having accrued 25 of the 71 Canadian participants as of May 2017.

Meiklejohn was the first patient in Winnipeg enrolled in the trial. The 75-year-old married father of three had been diagnosed with colorectal cancer in late summer 2014. A biopsy revealed the tumour was slow growing and there was no evidence of metastases.

After his first visit to CCMB in January 2015, he was asked to participate in the trial that was looking at whether treatment of only chemotherapy drugs rather than the standard chemotherapy and radiation would be just as effective in treating the cancer and avoiding some common side effects.

Half the participants would be randomly selected for the experimental chemo-only treatment and the other half would have chemo and radiation. He says he was “lucky” to be in the experimental group.

After six rounds of chemo at two-week intervals, doctors looked at Meiklejohn’s tumour to see if it had decreased by at least 20 per cent, he says.

“The eventual figure they got was my tumour had shrunk by somewhere I think in excess of 70 per cent.”

He had surgery to remove the remaining tumour, but doctors discovered the tumour’s location meant he’d need a temporary ileostomy (a bag to collect stool). He then had another six rounds of chemo and the ileostomy was removed in January 2016 and his lower bowel reconnected.

He’ll be checked regularly as part of the trial for a total of five years, and likely for the rest of his life.

“Technically, I’m cancer-free,” Meiklejohn says.

Clinical trials are always underway at CancerCare Manitoba, providing patients with new treatments to improve their care and/or put their disease in remission or cure it.
Alvera Funk is feeling 12 years younger after her recent bone marrow transplant. Why the specific number?

Well, the donated blood that delivered healthy stem cells to her bone marrow was from her younger brother, Walter Sawatzky.

“I feel really encouraged I’ve got this 12-year younger blood in my body,” Funk says with a laugh.

“I feel like I haven’t felt in years,” the 55-year-old says. “I’m ready to do things I haven’t done in years.

“The second experience is just, wow, so much better. The staff and the doctors, we just couldn’t ask for a better team.”

Dr. Kristjan Paulson, a hematologist with CCMB’s Manitoba Blood and Marrow Transplant program, says almost 100 patients had bone marrow transplants in 2016. About 90 per cent are for blood cancers such as leukemias and lymphomas and the rest for congenital disorders related to blood-cell production or the immune system.

Patients used to stay in hospital for up to a month, but about 10 to 15 per cent each year can now have it done as an outpatient.

“For me, it’s very satisfying to know patients can get their transplant done in a way that’s just as safe and effective, but in an environment that’s much more welcoming and feels like home because it actually is home,” Paulson says.

“Probably about up to half of our transplants could be done as an outpatient, but we don’t have a facility to make that happen in.”

Funk endorsed any increase in outpatient transplants. She was only in hospital for one week with her second transplant, compared to almost three months for her first one.

“If you can and are well enough to be able to come and go, it is just so much easier on your heart – the emotional side of it,” she says.
Measuring success with key performance indicators

The Manitoba Cancer Plan 2016-2021 emphasizes the need to expand the measurement and reporting of key performance indicators (KPIs). In 2016-17, major steps were taken to meet this strategic direction. The development and public sharing of these KPIs will assist in accountability, transparency and provide evidence for system improvements to ensure the best possible care for Manitoba’s cancer patients.

CCMB is sharing these indicators with a broad audience – not just health-care managers and policy advisors but patients, families and the public – to demonstrate patients’ experiences and to be transparent and accountable for successes and challenges.

Reporting indicators is not new for CCMB. What is new is the approach, scope and timing of reporting. For many years CCMB has been working with health-care partners to create and report on indicators that span the cancer journey. Initial efforts were featured in CCMB’s Community Health Assessments in 2005, 2010 and 2014 and system reports by the Canadian Partnership Against Cancer.

In the last few years, the use of indicators was accelerated as part of tracking and measurement related to process improvements within the health-care system.

CCMB principles for indicators:

1. Data must be from reliable sources;
2. Definitions should be in use by at least one other partner (provincial or national) wherever possible, to support consistency and benchmarking; and
3. Measurement should indicate whether or not CCMB is improving in a cancer-related area.
CancerCare Manitoba provided 41,645 screening mammograms in 2016. Approximately 900 women were diagnosed with breast cancer that year. Breast cancer represents a significant proportion (15%) of all the new cancers diagnosed every year in Manitoba.

Of the 900 breast cancer patient referrals in 2016

- 624 patients were referred to a Medical Oncologist for consultation for chemotherapy; patients typically waited 18 days to see a Medical Oncologist from the time of referral.

- Once the patient has seen the Medical Oncologist, start time to chemotherapy is 18 days following the first appointment.

- 706 patients were referred to a Radiation Oncologist for consultation for radiation treatment.

- Once the patient has seen the Radiation Oncologist, start time to treatment is 20 days. National recommendation is 28 days. Significant time is required to provide quality assurance in the planning of radiation treatment.

- Breast & Gyne Cancer Centre of Hope, funded by CancerCare Manitoba Foundation, provided information and support to 1,171 Manitobans with breast cancer.

- CCMB is actively working on improvements to reduce the wait times further: data from the first six months of 2017 shows the wait time to see a Medical Oncologist is now 14 days and the time to receive chemotherapy is 15 days.
More than half of all Manitobans with cancer undergo surgery as part of their treatment. For breast and colorectal cancers, surgery is a significant part of the care plan for as many as 90 per cent of patients. That is why part of CCMB’s goal of delivering excellence includes excellence in surgical care.

Delivering excellent surgical care is the goal, but how will CCMB know that it is providing excellence? One way is to measure and compare Manitoba’s data with expert-informed clinical practice guidelines that are widely referenced.

CCMB is using a variety of surgical indicators developed by panels of expert cancer surgeons. By measuring, CCMB can identify areas that need improvement and where to focus educational and training resources.

Currently, CCMB measures 40 quality indicators in surgery. These indicators include the major cancer types: breast, colorectal, lung, prostate, ovarian and thyroid. Data comes from a variety of sources, including the Manitoba Cancer Registry, Manitoba Health, Active Living and Seniors and administrative data, and surgeons’ notes called synoptic surgical reporting. This last source is a form of electronic medical record that has a structured format designed to capture and report on fine details of quality measures not otherwise available. These elements are incorporated into surgical synoptic reports, which capture specifics of surgeries as recorded by the surgeons themselves.

CCMB contributes to national reports for some of these indicators. These reports have demonstrated Manitoba’s ability to provide high-quality cancer surgery. As an example, the graph on this page demonstrates how Manitoba compares to other provinces in breast reconstruction surgery.
In 2016, CancerCare Manitoba conducted the Ambulatory Oncology Patient Satisfaction Survey (AOPSS) to evaluate patient satisfaction for care received at CCMB for a six-month period between July and December 2015. Similar to other provinces, CCMB has used AOPSS to evaluate patient satisfaction on an ongoing two-to four-year cycle since 2004.

A sample of Manitoba patients were invited to share their experiences by completing the national standardized and validated AOPSS questionnaire. A total of 887 patients from across all cancer-care facilities in Manitoba provided completed questionnaires with a response rate of over 53 per cent.

AOPSS looks at several dimensions of patient-centred care including:

- Respect for Patient Preferences
- Access to Care
- Physical Comfort
- Coordination and Integration of Care
- Information, Communication, and Education
- Emotional Support

The effort of CCMB to make improvements to patient care since 2004 is evident by the consistent increase in satisfaction along many of the dimensions. CCMB showed great strides in areas of Physical Comfort and Access to Care, which had scores above the national average. In fact, more patients from CCMB identified they had never waited longer than expected for radiation or chemotherapy treatments compared to the national average. For those who had to wait for treatment such as IV chemo, respondents felt their health-care provider did everything they could to make them feel comfortable during the wait.

### Patient Satisfaction Over Time at CancerCare Manitoba

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<tbody>
<tr>
<td>Overall Satisfaction</td>
<td>95.4%</td>
<td>96.6%</td>
<td>98.5%</td>
<td>➡️</td>
<td>+1.9%</td>
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<tr>
<td>Emotional Support</td>
<td>45.6%</td>
<td>46.4%</td>
<td>49.8%</td>
<td>➡️</td>
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<tr>
<td>Information, Communication and Education</td>
<td>61.9%</td>
<td>62.1%</td>
<td>61.1%</td>
<td>➡️</td>
<td>-1.0%</td>
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<tr>
<td>Co-ordination and Integration of Care</td>
<td>60.6%</td>
<td>65.8%</td>
<td>66.0%</td>
<td>➡️</td>
<td>+0.2%</td>
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<tr>
<td>Access to Care</td>
<td>78.5%</td>
<td>79.7%</td>
<td>73.6%</td>
<td>➡️</td>
<td>-6.1%</td>
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<tr>
<td>Respect for Patient Preferences</td>
<td>76.1%</td>
<td>73.3%</td>
<td>78.2%</td>
<td>➡️</td>
<td>+4.9%</td>
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<tr>
<td>Physical Comfort</td>
<td>76.6%</td>
<td>77.6%</td>
<td>77.5%</td>
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<td>-0.1%</td>
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Note: Trend arrow is based on + or - 10% of the past value.
Colour indicates if the trend is good (green), neutral (yellow) or needs to improve (red).
Patient Experience by the Numbers

74.9% felt that their care provider explained the purpose of their medications they were to take at home in a way they could understand.

92.8% felt they were treated with dignity and respect.

86.3% of respondents felt that care providers at CCMB did everything they could to treat their cancer.

72.5% felt they were told to take their medications in a clear and understandable way.

89.1% would recommend the health-care providers at CCMB to family and friends.

80% thought their care providers knew enough about therapies for treating cancer.

84.5% felt that while they waited for IV chemo, their care providers did everything they could to make them feel comfortable.

74.3% felt that their care providers did everything they could to help with oral cancer medication side effects.

78.6% felt they had received enough information about what would happen next and the follow-up care they required after their treatments.

88.4% felt completely safe receiving care at CCMB.

74.6% felt they had enough information to manage their oral cancer medication at home.

93.6% felt that their health-care providers were usually or always aware of their test results.

74.9% felt that their health-care providers explained the purpose of their medications they were to take at home in a way they could understand.

89.5% felt that they could trust their care providers with confidential information.

89.1% would recommend the health-care providers at CCMB to family and friends.

77.3% felt comfortable talking with the staff about clinical trials or new treatments for their cancer.

70.3% felt that their care providers did everything they could to control their pain or discomfort.

76.6% felt that their health-care team usually or always worked with them to make a plan to manage the symptoms or concerns that they had identified on COMPASS.

82.3% felt that their health-care providers did everything they could to help them with IV chemo side effects.

79.3% felt they received all the services they thought they needed for their cancer treatment.

80% thought their care providers knew enough about therapies for treating cancer.
According to a new report, one in two Canadians will be diagnosed with cancer in their lifetime. The good news is that because of early diagnosis and advancements in treatments, only one out of five patients will die of the disease. This means cancer is becoming more of a chronic disease requiring ongoing monitoring, treatment and support to live well. It also means every year CancerCare Manitoba is providing care to more Manitobans over a longer period of time.

Last year at this time, CCMB and CancerCare Manitoba Foundation were on track with planning the expansion of the CCMB facility to meet this growing need. However, in February of 2017, given the financial challenges the province is facing, the Minister of Health asked CCMB to reimagine the building of a new facility connected to the existing facility on McDermot.

The result will be a comprehensive cancer-care facility serving all Manitobans. CCMB welcomes this opportunity, and since February the boards of the Foundation and CancerCare Manitoba have been working together on a new plan.

CancerCare Manitoba has been re-examining how patient care is delivered to determine whether services could be provided in new ways with smaller space requirements. In addition, CCMB is examining how to use its existing space more efficiently. A joint committee of CCMB and Foundation board members has been examining alternative ways to fund and construct the expansion. The goal is to present the Minister of Health with a reimagined plan for the building in the near future.

Improving patient flow

With cancer diagnosis on the rise, patient flow and optimal use of clinic space at CancerCare Manitoba is more important than ever.

Jonathon Drabik, a process engineer at CCMB, is observing clinics, meeting individually with staff and seeking input from a patient advisor to better understand how CCMB works.

“The patient experience is paramount to CancerCare Manitoba, but at the same time we need more efficiency, resulting in more capacity to meet future increased demands,” says Drabik, who’s teamed up with a three-person working group.

Part of accomplishing that is standardizing work, focusing on making process steps very clear, he says.

“If a clinic is short-staffed, having standardized work allows management more flexibility in cross coverage from other areas.”

He’s observed the work flow in a variety of clinics. Physicians see different numbers of patients, with length of appointments varying due to complexity and appointment type. Such as new patients or follow-ups.

While the construction of a new CCMB building is being reimagined, there’s also a need to improve the use of space in the existing facility.

Staff has been sharing their experiences and suggestions, he says, noting he’s encouraging them to be part of changes that will translate into planned, efficient ways to do their work rather than extra work.

“What we’re looking at here is really trying to embed more Lean thinking into how the business is run,” Drabik says. “So it’s a project, but it’s also trying to change the culture into thinking more about how to problem solve in your daily work.”
Patients helping patients

It’s always nice to be asked for your opinion, especially if people actually listen and act on your suggestions.

CancerCare Manitoba has always sought patient input, but now a formalized program has put together a database of volunteer advisors made up of patients and family members.

“Patients need to be heard, and I think it’s great this is happening,” says Benji Harvey, one of about 60 patients registered as an advisor.

She’s been a peer supporter since finishing treatment for breast cancer in 2008 and was quick to offer her firsthand experience when the advisor program began in early 2017.

When CCMB staff was drafting patient material about breast radiation and skin toxicity, she took part in a focus group of patients discussing their experiences.

“Staff wrote down a lot of notes. They said it was very helpful,” Harvey says.

Susan Kapilik is in charge of the program’s recruitment, screening and training. The database aims to include a range of volunteers, including new Canadians and those who don’t speak English as a first language.

“It takes a certain person to do this kind of work,” Kapilik says, noting they need to be emotionally ready and able to think broadly about programming and services.

It’s also a “culture shift” for staff.

“It’s easier to just do the work and not consult,” says Kapilik, who’s also the volunteer and community support co-ordinator for CCMB’s Underserved Populations Program.

“It takes time to consult. It means you need to speak a language everybody understands. It’s more difficult, but the reality is it’s so valuable.”

One researcher preparing a grant application for a project that would impact a patient service received recommendations from advisors that experts hadn’t thought about, Kapilik adds.

That’s exactly why Harvey wants to participate.

“They know what needs to be done medically, but unless they’ve been there and done that personally, they have no idea,” she says. “The more change I can make happen, the better it is for everybody else.”

If you would like to be involved call the volunteer and community support co-ordinator at 204 784 2773
Dr. Tanya Brown

Dr. Brown is a Pediatric Hematologist/Oncologist. She received a bachelor’s degree in Medicine and Surgery from the University of West Indies in Jamaica, and an MSc Oncology with Merit from the University of Nottingham. Later she completed a Pediatric Hematology/Oncology fellowship at the Children’s Hospital in Vancouver, British Columbia before serving as a Pediatric Oncologist at the Allan Blair Cancer Centre in Regina, Saskatchewan.

*Pediatric patients are so resilient, so forgiving. They see the best in a situation even if there is a lot of cloud around. They find something to be happy and smile about.*  

dr. tanya brown

Dr. Benjamin Goldenberg

Dr. Goldenberg was born and raised in Manitoba. He completed medical school and Internal Medicine Residency at the University of Manitoba, and subsequently trained in Medical Oncology at the BC Cancer Agency and the University of British Columbia in Vancouver. Subsequently, he completed an advanced fellowship in Gastrointestinal Oncology at Princess Margaret Cancer Centre in Toronto, while at the same time doing an MSc in Health Services Research at the University of Toronto. Dr. Goldenberg’s focus is gastrointestinal and breast cancers.

Dr. Craig Harlos

Dr. Harlos graduated from medical school at the University of Manitoba, where he also pursued residency training in internal medicine followed by subspecialty training in Medical Oncology. He recently completed a clinical fellowship in Neuro-Oncology through the University of Toronto at the Princess Margaret Cancer Centre.

Dr. William (Bill) Hunter

Dr. Hunter is a Radiation Oncologist. He has a bachelor degree in electrical engineering from the University of Alberta and worked in research and development as a professional radio frequency engineer. He received his undergraduate medical education at the University of Calgary and went on to residency training in Radiation Oncology at CancerCare Manitoba. He has recently completed additional fellowship training at the Tom Baker Cancer Centre. Dr. Hunter treats thoracic, breast and gastrointestinal cancers at the Western Manitoba Cancer Centre in Brandon.

Dr. Roopesh Kansara

Dr. Kansara, who hails originally from Tanzania, obtained his degree in Medicine at the University of Manitoba before pursuing specialty training as a Hematologist Oncologist at the University of British Columbia. He treats lymphoma, myeloma, and chronic lymphocytic leukemia.

*My desire to improve my patients’ outcomes is what drives me the most. I get immense satisfaction when my patients attain the desired results from their treatments. Such positive experiences make me want to do more. My profession, unfortunately, also has to deal with less-than-desired patient outcomes. From these, I learn and strive to improve future outcomes.*

dr. roopesh kansara
Dr. Leonard Minuk
Dr. Minuk is part of the Department of Medical Oncology and Hematology. He provides outpatient services in the lymphoproliferative and general hematology disease site groups.

Dr. James Paul
Dr. Paul completed medical school with residencies in Internal Medicine followed by Medical Oncology at the University of Manitoba. Before directing his attention to medicine, Dr. Paul studied and worked as a researcher at the Research Institute at CCMB. He completed a Master of Science in Human Genetics from the University of Manitoba. After completing a fellowship in Palliative Medicine with a special interest in lung cancer in Ottawa, he returned home to Manitoba. Dr. Paul is in the Department of Medical Oncology and Hematology and treats thoracic, breast and gastrointestinal cancers.

Palliative care isn’t about dying, it’s about symptom control. It’s a matter of dealing with their symptoms earlier on in their illness because we know patients who have better symptom control, who are on palliative care earlier, do better from a survival perspective.

Dr. Shrinivas Rathod
Dr. Rathod is a Radiation Oncologist. He completed his early medical education in Mumbai, India. He pursued a Clinical Fellowship in the Radiation Oncology Program at Princess Margaret Hospital, University of Toronto. During his fellowship, he served as the Chief Fellow for the Radiation Oncology Program at the Princess Margaret Hospital. Dr. Rathod is part of the Gamma Knife team and treats central nervous system cancers.

Dr. Vamsee Torri
Dr. Vamsee Torri is a Medical Oncologist. He completed his residency in Internal Medicine and a fellowship in Medical Oncology and Hematology in New York. After completing his training, he worked at the University of Saskatchewan as an Assistant Professor of Medicine and at the Saskatchewan Cancer Agency. His special interests include symptom management and methods to improve clinical trial enrolment. He treats thoracic, genitourinary and melanoma cancers.
CCMB established the First Nations, Metis Inuit Cancer Control Unit more than 10 years ago, one of the first in Canada. The program has expanded to also include newcomers and the elderly. It is now called the Underserved Populations Program.

People age 70 and older make up 45 per cent of new cancer patients, says Dr. David Dawe, a CCMB oncologist and the initiative’s medical lead.

“Overall, the population is living longer so the 70 and above age group is growing. What we’re seeing over time is an increasing number of people with cancer in this age group,” Dawe says.

Historically, this age group hasn’t been well included in clinical trials and research, he notes.

Funded by CancerCare Manitoba Foundation, Dawe is leading a team within CCMB’s Underserved Populations Program to look at four areas with regard to these patients: research, clinical practice, education and engagement.

The team will look at which cancers are being diagnosed more often in older people and how treatment patterns change with increasing age, he says. Screening-tool questionnaires will be developed to identify frailty.

“Basically, frailty means the person’s body isn’t as strong and they’re vulnerable to toxicity from treatments,” Dawe says.

“The initiative is figuring out ways to better assess older people. You’ve got your age 70, 80, 90 – that’s your chronologic age. What’s your physiologic age, which reflects how well your body functions?”

The education component will help ensure health-care providers, patients and their families have a better understanding of the principles and differences around treatment and cancer in an older or frail group. Engagement will aim to get the perspective of patients and families.

“It’s not that we’re expecting to change the treatment that all older or frail people receive,” Dawe says. “Many of them are receiving appropriate care now.

“It’s trying to better select the people who will most benefit from services and treatment. That may mean increasing numbers of referrals. It may mean the same number of referrals or treatment, but better selected people getting the potentially toxic treatment.”

45% of Manitobans diagnosed with cancer are 70 years of age or older.

Quality care for the elderly
CancerCare Manitoba is planning for a future that will include more elderly cancer patients
Cancer research is possible in the province thanks to the enormous support of Manitobans through their generous donations to CancerCare Manitoba Foundation.

The Research Institute at CCMB, in partnership with the University of Manitoba was unveiled in 2015 with an expanded mandate covering all aspects of cancer and blood disorder research. Currently, the Institute has 39 scientists: Senior Scientists, Scientists, Affiliate Scientists and Adjunct Scientists, plus 11 members. With this expansion, the Institute’s leadership was altered to reflect this new mandate: Leaders for Clinical Research and Cell Biology have been appointed.

CancerCare Manitoba is proud of the productivity of the Institute. During the past two years publications have increased from 58 to 130. This reflects the quality of new appointments to the Institute and continuing productivity of current CCMB Scientists.

This productivity increase has occurred within a challenging funding environment for all scientific research nationwide. The total value of research funding for the Institute increased from 2015 to 2016, but this was due to increasing the number of Scientists appointed to the Institute. By individual Scientist, the amount of funding continues to decrease. One area where funding is increasing is from CancerCare Manitoba Foundation. CCMB appreciates donors’ continued commitment to supporting cancer research.

This year, CCMB conducted an external review that found the Research Institute at CCMB has strong research potential but needs to increase its collaborative research and concentrate on research areas of strength within a defined number of cancers. This review will be the Institute’s blueprint for strategic planning going forward.

CCMB is pleased to present for the first time within its Annual Progress Report, highlights of the research currently being undertaken at the Research Institute.
Profile: Dr. Spencer Gibson
Head of cell biology at the Research Institute at CancerCare Manitoba

Spencer Gibson may spend most of his time in a lab, but the long-time researcher makes sure he stays in touch with the people who give his work meaning.

The head of cell biology at the Research Institute at CancerCare Manitoba is part of an advocacy group made up of patients.

“It gives me purpose because what we’re doing is actually going to have the potential to affect people so it has meaning,” Gibson says of meeting patients.

Born in Sudbury, Ont., Gibson obtained a bachelor of science degree in biochemistry from Carleton University in Ottawa in 1991. He got his PhD from the University of Toronto and attended the University of Texas MD Anderson Cancer Center in Houston as a pre-doctoral fellow.

His interest in cancer research took root as a post-doctoral fellow at the National Jewish Medical and Research Center in Denver, Colo., after his advisor encouraged him to do some projects related to targeted therapy.

He came to CCMB in 1999 and has focused on the mechanisms of cell death in leukemia and tumours.

“One of the hallmarks of cancer is a cancer cell has decided to live when it’s not supposed to,” notes Gibson, who’s also a professor at the University of Manitoba.
“If you understand that, maybe then you can target a cancer cell to induce death, where a normal cell would not.”

That could be done through targeted drug therapy, which means administering the right drug to the “right patient at the right time.” The right patient refers to how stressed their cancer cells are, he explains.

Gibson is familiar with the struggles of patients facing serious medical conditions. His father had chronic heart failure and then colon cancer before he passed away. His brother was in and out of hospital because of hemophilia and died at age 34.

“My brother’s death drives my ability to whatever work I’m doing to have meaning towards making people’s lives better,” Gibson says.

He and his wife have daughters aged nine and 12. His wife was a technician in his lab the first year after they arrived in Winnipeg, but decided to get a master’s degree in business administration and works for the federal government.
A CancerCare Manitoba research project is underway that could help clinical researchers do their work faster, more efficiently and be less expensive.

The project, funded by CancerCare Manitoba Foundation, is developing an algorithm or formula that will be used as a tool to predict recurrence of breast and colorectal cancers, but could also benefit future cancer studies.

“I’m not aware of other work nationally looking at combining electronic medical record data, administrative health-care data, treatment data, cancer registry data, and certainly not adding in natural language processing,” says Dr. Marshall Pitz, a CCMB oncologist who treats patients with breast cancer and is the clinical research lead at the Research Institute at CCMB.

“I think the combination of these data sets and the addition of natural language processing makes this unique.”

Natural language processing is a new technique that trains computer software to identify specific words or phrases in a document.

The project’s leaders include Pitz, gastroenterologist Dr. Harminder Singh and epidemiologist Dr. Kathleen Decker, who analyzes cancer data at the Research Institute at CCMB.
To understand the potential impact of the project, Pitz explains the typical process.

For example, if clinical researchers want to know whether a certain treatment is effective, they have to look through various databases such as paper or electronic health records. A research associate or physician would then manually pull out specific pieces of information related to the study. The time that takes usually limits the number of patients included in the study.

In this new project (breast and colorectal cancer was chosen because they’re common cancers with a high number of patients), team members will use databases to select patients based on particular variables.

One key is the electronic health records, which usually contain doctors’ transcribed progress notes, Pitz says. “What we’re going to do is use some special software that will look for words or phrases indicative of cancer recurrence,” he says. “The computer will read all those notes, look for those phrases and determine recurrence or no recurrence, and the dates associated with that.”

Those results will then be compared to manual checking of the particular patients to find out if the computer was correct.

If there’s an algorithm that’s very accurate, it could be applied in future studies in Manitoba and elsewhere. “We want to do our best to facilitate clinical research, so this is one of those ways,” Pitz says.
Prostate cancer is the most common cancer affecting men in Manitoba. Being diagnosed with prostate cancer can be a life-altering experience. It requires making difficult decisions about treatment. Prostate surgery or radiation may cause sexual dysfunction and incontinence. These consequences can affect not only the life of the man diagnosed with prostate cancer, but also the lives of his family members.

That is why researchers at CCMB are exploring new methods in prostate cancer treatment. Lawrence Ryner, a medical physicist at CCMB, together with Dr. Aldrich Ong from the Health Sciences Centre is leading a research study into improving the delivery of radiation therapy to prostate cancer patients in Manitoba. Their research is funded by CancerCare Manitoba Foundation.

“This is a study where we are trying to combine advanced MRI information to guide the radiation boost to the aggressive parts of the prostate cancer,” says Ryner.

Currently, when a prostate cancer patient receives radiation, basically the whole gland is treated, plus a bit of extra tissue. The whole prostate is treated uniformly. “We know if you look at the pathology, some sub-areas of the prostate can have more aggressive cancer. This project looks to identify the small areas of aggressive cancer and we’ll hit those harder with a higher dose of radiotherapy,” says Boyd McCurdy, a medical physicist at CCMB and an investigator in the study.

“This is a step toward personalized medicine, where that person’s radiation treatment is completely unique to them,” according to McCurdy. “The reason you want to limit the dosage is because of side effects. The less radiation you deliver, the fewer side effects the patient should have.”

The study combines advanced magnetic resonance imaging (MRI) techniques with new stereotactic body radiation therapy (SBRT) to precisely target the tumour in the prostate. This is cutting-edge research that will hopefully lead to changes in clinical practice.

During the next 18 months, Ryner hopes to recruit 77 Manitoba men with prostate cancer into this study.
Often when oncologists and scientists at CCMB get together, they talk about how to help patients. Dr. Julian Kim is a radiation oncologist and researcher at CCMB. He is concerned that non-small cell lung cancer is often detected at a late stage when it is difficult to offer the patient a reasonable chance at a positive outcome. Talking with Dr. Shantanu Banerji, a medical oncologist and scientist at CCMB, he realized they both had the same concern.

“Lung cancer is the No. 1 cause of cancer mortality in Canada,” said Dr. Kim. “The reason behind that is that most people present with lung cancer when it is too far gone for a cure, when it is at an advanced or metastatic stage. Currently, there are no lung cancer screening tests in use in Manitoba.”

“We all want a better test to diagnose lung cancer,” said Dr. Banerji. “Something easier, less invasive, quicker and one that costs the health-care system less money.”

The doctors knew the work of Dr. Michel Aliani from the Department of Human Nutritional Services at the University of Manitoba, who specializes in metabolomics—the study of the molecules that are present in bodily fluids, which can serve as a chemical fingerprint of medical conditions within a patient’s body. Their research project is using metabolomics to study the blood of people with and without lung cancer to determine if there are metabolites in the blood of patients to identify a signature or pattern specific for lung cancer.

Kim emphasizes that lung cancer isn’t just one cancer; it is many cancers and each sub-type is treated differently. That is why Kim and Banerji also hope they can take the same blood test one step further to determine if sub-types of lung cancers have their own kind of signature.

We all want a better test for lung cancer. Something easier, less invasive, quicker and one that costs the health-care system less money. **Dr. Shantanu Banerji**

“Identifying the sub-type would help people get treatment quicker because, at present, it takes considerable time to get a proper diagnosis of the lung cancer sub-type through a biopsy,” said Dr. Kim.

This is an interdisciplinary research project. The blood samples have been collected since 2008 by the Manitoba Tumour Bank, which is part of CCMB. There are scientists who will be testing the samples and computer scientists who will be doing an artificial intelligence method of analysis of the information collected.

“Most of research is assembling a team and keeping the team happy,” Dr. Kim said about the experts he has brought together for this project. Funding for this project is through a Canadian Institute of Health Research grant.
CancerCare Manitoba Research Institute Scientists

Leadership

SRI NAVARATNAM
Acting Director of Research

MARSHALL PITZ
Lead of Clinical Research Medical Oncologist

SPENCER GIBSON
Head, Cell Biology
Professor Immunology, Biochemistry and Medical Genetics

Senior Scientists

HARVEY CHOCHINOV
Patient Experience Palliative Care

JIM DAVIE
Biomedical
Breast, Colorectal, Epigenetics, Cancer Biology
Professor Biochemistry and Medical Genetics

KATHLEEN DECKER
Health Services Population Health – Epidemiology Cancer Screening, Outcomes

THOMAS HACK
Patient Experience Psychosocial Oncology Visiting Professor University of Central Lancashire

SPENCER GIBSON
Biomedical
Brain, Breast, Cancer Biology, Chronic Lymphocytic Leukemia

GEOFF HICKS
Biomedical Cancer Biology, Leukemia Professor Biochemistry and Medical Genetics

SACHIN KATYAL
Biomedical
Brain, Chronic Lymphocytic Leukemia Assistant Professor Pharmacology and Therapeutics

ETIENNE LEYGUE
Biomedical
Breast, Colorectal Professor Biochemistry and Medical Genetics

SABINE MAI
Biomedical
Brain, Cancer Biology, Multiple Myeloma, Non-Hodgkin’s Lymphoma, Prostate Professor Physiology, Biochemistry and Medical Genetics, Human Anatomy and Cell Science
Senior Scientists

KIRK McMANUS
Biomedical
Breast, Cancer Biology, Colorectal
Associate Professor
Biochemistry and Medical Genetics

MICHAEL MOWAT
Biomedical
Breast, Cancer Biology, Colorectal
Professor
Biochemistry and Medical Genetics

LEIGH MURPHY
Biomedical
Breast
Professor
Biochemistry and Medical Genetics

AFSHIN RAOUF
Biomedical
Breast, Cancer Biology
Assistant Professor
Immunology

MARK NACHTIGAL
Biomedical
Breast, Ovarian
Associate Professor
Biochemistry and Medical Genetics

LEIGH MURPHY
Biomedical
Breast
Professor
Biochemistry and Medical Genetics

KIRK McMANUS
Biomedical
Breast, Cancer Biology, Colorectal
Associate Professor
Biochemistry and Medical Genetics

AFSHIN RAOUF
Biomedical
Breast, Cancer Biology
Assistant Professor
Immunology

WAYNE XU
Biomedical
Breast, Colorectal, Lung
Assistant Professor
Biochemistry and Medical Genetics

YVONNE MYAL
Biomedical
Breast
Professor
Pathology

STEPHEN PISTORIUS
Biomedical / Clinical Research
Breast Cancer, Medical Physics and Imaging
Professor
Physics and Astronomy, Radiology

SHANTANU BANERJI
Medical Oncology
Next Generation Sequencing
Assistant Professor
Internal Medicine

VERSHA BANERJI
Hematology / Metabolics
Chronic Lymphocytic Leukemia
Assistant Professor
Internal Medicine, Biochemistry and Medical Genetics

SARA ISRAELS
Pediatric Oncology
Platelet Dysfunction
Professor
Pediatrics and Child Health

JAMES JOHNSTON
Hematology
Chronic Lymphocytic Leukemia
Associate Professor
Internal Medicine

RYAN ZARYCHANSKI
Hematology
Bleeding Disorders, Meta-analysis, Clinical Trial Design
Assistant Professor
University of Manitoba
## Affiliate Scientists

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<tr>
<th>NAME</th>
<th>DEPARTMENT</th>
<th>SPECIALIZATION</th>
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<tbody>
<tr>
<td>JULIAN KIM</td>
<td>Radiation Oncology</td>
<td>Lung, Prostate</td>
</tr>
<tr>
<td>RAMI KOTB</td>
<td>Hematology</td>
<td>Multiple myeloma</td>
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<td>BOYD McCURDY</td>
<td>Medical Physics</td>
<td>Medical Physics and Imaging</td>
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<td>Assistant Professor Medical Physics</td>
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<td>ALOK PATHAK</td>
<td>Surgical Oncology</td>
<td>Head &amp; Neck, Thyroid</td>
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<tr>
<td>KRISTJAN PAULSON</td>
<td>Hematology</td>
<td>Blood and Marrow Transplant, Leukemia</td>
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<tr>
<td>MARSHALL PIZT</td>
<td>Medical Oncology</td>
<td>Brain, Breast, Lung</td>
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<td>Assistant Professor Medical Oncology</td>
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<tr>
<td>SAROJ NIRAULA</td>
<td>Medical Oncology</td>
<td>Breast, Kidney, Prostate</td>
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<td>LAWRENCE RYNER</td>
<td>Medical Physics</td>
<td>Medical Physics and Imaging</td>
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<td>ISSAI VIANAN</td>
<td>Pediatric Oncology</td>
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<td>Assistant Professor Pediatrics and Child Health</td>
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## Adjunct Scientists

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<tr>
<td>MARCO ESSIG</td>
<td>Radiology</td>
<td>Neuro-Oncology</td>
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<td>DAVINDER JASSAL</td>
<td>Cardio-Oncology</td>
<td>Cardiovascular Imaging</td>
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<td>Associate Professor Internal Medicine, Cardiovascular Imaging, Institute of Cardiovascular Sciences</td>
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<tr>
<td>THOMAS KLOKISCH</td>
<td>Biomedical</td>
<td>Neuro-Oncology</td>
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<td>Professor Human Anatomy and Cell Sciences, Medical Microbiology and Infectious Disease</td>
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<td>TAMRA OGILVIE</td>
<td>Biomedical</td>
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<td>Associate Professor Biochemistry and Medical Genetics</td>
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<td>ANURAAG SHRIVASTAV</td>
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<td>Biology, University of Winnipeg</td>
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<tr>
<td>HARMINDER SINGH</td>
<td>Gastroenterology</td>
<td>Health Services Research</td>
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Research Institute at CCMB attracts best and brightest trainees

Laura Thompson is a bright PhD candidate in the Department of Biochemistry and Medical Genetics at the University of Manitoba. Under the supervision of Dr. Kirk McManus’ laboratory at CancerCare Manitoba, Laura obtained her undergraduate degree and received a BSc. Honours degree in Genetics. Laura's area of research is genetics. She studies how genes can become altered to cause diseases like cancer, and is interested to see if there are ways to exploit these changes into new and improved cancer treatments. The goal of her research is to identify and characterize the altered genes that cause cancer cells to gain and lose chromosomes faster than healthy cells. Chromosome gains and losses dramatically alter a cell’s genetic makeup and create highly aggressive cancers.

Using state-of-the-art imaging equipment at CancerCare Manitoba, Laura designed and performed a cutting-edge screen of about 200 human genes that allowed her to quickly identify genes that cause chromosomes to become unstable when altered. Studying these genes provides a better understanding of how chromosomally unstable cancers develop and progress. Chromosome instability is frequently seen in aggressive cancers, and is a common feature in tumours of the breast, colorectal and prostate.

Laura’s research has won her several accolades, including the Caroline A. Cope Award for Excellence in Oncology Research, the Mindel Rady Olenick Fellowship in Human Genetics, and the Emil & Lynette Hain Oncology Award, to name a few.

Following her PhD, Laura wishes to apply to a postdoctoral training program in diagnostics (Cytogenetics and Molecular Genetics), so she can achieve her ultimate career goal of directing a diagnostics laboratory.

CCMB thanks CancerCare Manitoba Foundation for supporting best and brightest trainees like Laura and many others.

“I started at CancerCare Manitoba as a lab technician, then became a Master’s student and transitioned into the PhD program after two years. I am now in my final year and currently writing my PhD thesis.”

Laura Thompson, Student
New space for research office and research conference room
The 4th-floor library in the CCMB building was renovated to create office space for clinical scientists and research staff. It will also be the office for the new Director for the Institute and for Research Officers in the Institute. The conference room will be dedicated to research meetings, especially for clinical and population-based researchers to increase collaboration.

Research day for trainees in basic and clinical medical sciences
This annual event is an opportunity for all trainees participating in research projects on cancer and blood disorders at CancerCare Manitoba to share their research results with peers and the wider research community. Participation in Research Day is an important aspect of their training – to communicate their results, to put their work into context within the larger framework of all research activities in CancerCare Manitoba and network with their peers.

In 2015, a recommendation was made to centralize the organization of this event through the Research office. As a result of this transition, the total number of abstracts significantly increased from 37 to 64. In 2016, the number of projects in cell biology and clinical sciences were equally highlighted and the event was extended to include the University of Manitoba, University of Winnipeg and Brandon University.

Let’s celebrate research
Research isn’t limited to the laboratory or research setting, it occurs at all levels of CCMB. Everyone in the organization plays a significant role in the advancement of research. On May 17, 2016, CancerCare Manitoba held an event for all staff to mark the one-year anniversary of the broadened scope of the Research Institute at CancerCare Manitoba.
In the past year, thanks to the generous donations of Manitobans, CancerCare Manitoba Foundation was able to provide $5.1 M for research and clinical trials at CCMB.

This investment has leveraged additional investment in cancer research in Manitoba from other competitive national and international agencies. The Research Institute at CCMB received more than $5.5 million from these agencies.

CCMB is committed to increasing the number of clinical trials offered to Manitobans. Thanks to CancerCare Manitoba Foundation’s support toward the operations of clinical trials, CCMB was able to attract an additional $2.4 million from academic entities and industry to fund clinical trials in Manitoba.

Cancer research and clinical trials for Manitobans, from Manitobans

$5.1 Million

Combined other funding agencies for research

$5.5 Million

Including $1.8 million from CIHR

Combined other funding agencies for clinical trials

$2.4 Million
## CancerCare Manitoba

### Condensed Statement of Financial Position

Year ended March 31, 2017, with comparative information for 2016

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<th>CAPITAL FUND</th>
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<td>Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short-term investments</td>
<td>4,941,129</td>
<td>-</td>
<td>831,924</td>
<td>5,773,053</td>
<td>5,704,744</td>
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<tr>
<td>Due from Manitoba Health</td>
<td>3,504,205</td>
<td>-</td>
<td>-</td>
<td>3,504,205</td>
<td>4,072,623</td>
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<tr>
<td>Accounts receivable</td>
<td>5,116,966</td>
<td>-</td>
<td>10,688,434</td>
<td>15,805,400</td>
<td>14,451,281</td>
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<tr>
<td>Inter-fund accounts</td>
<td>2,663,504</td>
<td>777,340</td>
<td>(3,440,844)</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Inventory</td>
<td>5,173,498</td>
<td>-</td>
<td>-</td>
<td>5,173,498</td>
<td>4,540,342</td>
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<tr>
<td>Prepaid expenses</td>
<td>247,783</td>
<td>-</td>
<td>-</td>
<td>247,783</td>
<td>1,113,476</td>
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<tr>
<td>Vacation entitlesments receivable</td>
<td>1,730,141</td>
<td>-</td>
<td>-</td>
<td>1,730,141</td>
<td>1,730,141</td>
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<tr>
<td></td>
<td>29,599,807</td>
<td>777,340</td>
<td>8,098,448</td>
<td>38,475,595</td>
<td>32,944,696</td>
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<tr>
<td>Restricted cash</td>
<td>1,445,995</td>
<td>-</td>
<td>-</td>
<td>1,445,995</td>
<td>1,432,357</td>
</tr>
<tr>
<td>Retirement entitlements payable</td>
<td>1,419,400</td>
<td>-</td>
<td>-</td>
<td>1,419,400</td>
<td>1,419,400</td>
</tr>
<tr>
<td>Investments</td>
<td>19,218,715</td>
<td>-</td>
<td>3,303,948</td>
<td>22,522,663</td>
<td>22,137,188</td>
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<tr>
<td>Capital assets</td>
<td>-</td>
<td>49,529,957</td>
<td>1,373,888</td>
<td>50,903,845</td>
<td>51,930,400</td>
</tr>
<tr>
<td></td>
<td>$ 51,683,917</td>
<td>$ 50,307,297</td>
<td>$ 12,776,284</td>
<td>$ 114,767,498</td>
<td>$ 109,864,041</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities, Deferred Contributions and Fund Balances</th>
<th>GENERAL FUND</th>
<th>CAPITAL FUND</th>
<th>CLINICAL, BASIC RESEARCH AND SPECIAL PROJECTS FUND</th>
<th>TOTAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current liabilities</td>
<td>$ 17,904,385</td>
<td>$ -</td>
<td>$ 6,411</td>
<td>$ 17,910,796</td>
<td>$ 19,492,685</td>
</tr>
<tr>
<td>Accounts payable and accrued liabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Due to Manitoba Health</td>
<td>15,692,218</td>
<td>-</td>
<td>-</td>
<td>15,692,218</td>
<td>6,234,416</td>
</tr>
<tr>
<td>Deferred contributions - expenses of future periods</td>
<td>668,431</td>
<td>-</td>
<td>-</td>
<td>668,431</td>
<td>2,420,529</td>
</tr>
<tr>
<td></td>
<td>34,265,034</td>
<td>-</td>
<td>6,411</td>
<td>34,271,445</td>
<td>28,147,630</td>
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<tr>
<td>Deferred contributions - capital assets</td>
<td>-</td>
<td>50,146,852</td>
<td>247,329</td>
<td>50,394,181</td>
<td>51,494,981</td>
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<tr>
<td>Employee future benefits</td>
<td>9,072,030</td>
<td>-</td>
<td>-</td>
<td>9,072,030</td>
<td>8,549,000</td>
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<tr>
<td></td>
<td>43,337,064</td>
<td>50,146,852</td>
<td>253,740</td>
<td>93,737,656</td>
<td>88,191,611</td>
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<tr>
<td>Fund balances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invested in capital assets</td>
<td>-</td>
<td>160,445</td>
<td>1,126,559</td>
<td>1,287,004</td>
<td>1,326,860</td>
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<tr>
<td>Externally restricted</td>
<td>-</td>
<td>-</td>
<td>10,513,581</td>
<td>10,513,581</td>
<td>10,718,173</td>
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<tr>
<td>Internally restricted</td>
<td>7,310,341</td>
<td>-</td>
<td>1,055,121</td>
<td>8,365,462</td>
<td>7,657,351</td>
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<tr>
<td>Unrestricted</td>
<td>1,225,067</td>
<td>-</td>
<td>-</td>
<td>1,225,067</td>
<td>1,914,941</td>
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<tr>
<td></td>
<td>8,535,408</td>
<td>160,445</td>
<td>12,695,261</td>
<td>21,391,114</td>
<td>21,617,325</td>
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<tr>
<td>Accumulated remeasurement gains (losses)</td>
<td>(188,555)</td>
<td>-</td>
<td>(172,717)</td>
<td>(361,272)</td>
<td>55,105</td>
</tr>
<tr>
<td></td>
<td>8,346,853</td>
<td>160,445</td>
<td>12,522,544</td>
<td>21,029,842</td>
<td>21,672,430</td>
</tr>
<tr>
<td></td>
<td>$ 51,683,917</td>
<td>$ 50,307,297</td>
<td>$ 12,776,284</td>
<td>$ 114,767,498</td>
<td>$ 109,864,041</td>
</tr>
</tbody>
</table>

## CancerCare Manitoba Administrative Costs

<table>
<thead>
<tr>
<th>Summary of Administrative Expense</th>
<th>2016/17 EXPENSES</th>
<th>2015/16 EXPENSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>2.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Patient-Care Related</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Human Resources and Recruitment</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4.6</strong></td>
<td><strong>4.0</strong></td>
</tr>
</tbody>
</table>

A complete set of financial statements, Public Sector Compensation Disclosure Report, and the Auditors’ report can be obtained from CancerCare Manitoba. Call (204)787-1662.
These condensed financial statements do not contain all of the disclosures required by Canadian public sector accounting standards. Readers are cautioned that these statements may not be appropriate for their purposes. For more information on the Company’s financial position, results of operations, changes in fund balances, cash flows and remeasurement gains (losses), reference should be made to the related complete financial statements of CancerCare Manitoba as at and for the year ended March 31, 2017, on which KPMG LLP expressed an opinion without reservation in their report dated June 16, 2017. The complete set of financial statements can be downloaded at www.cancercare.mb.ca
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CHAIR

Mr. Jeffrey Chipman  
VICE-CHAIR

Vacant  
SECRETARY

Ms. Alyson Kennedy  
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Ms. Anna Maria Magnifico  

Mr. David Mortimer  

Dr. Arnold Naimark  

Ms. Gloria Paziuk  

Judge Rocky Pollack  

Dr. Brent Schacter  

Ms. Fern Swedlove  

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Mr. Robert Shaffer  

cdenote the chair and president & ceo are members of each committee by virtue of their positions

*Denotes the Chair and President & CEO are members of each committee by virtue of their positions.
Growing up, Fred Clark says his family was very poor. He would often dream about reaching the summit of Mount Everest. He studied it and because it seemed so elusive, it was incredible to imagine.

Years later when he had his own family, wife Karin, and daughters Meagan and Alysha, he volunteered at his church running a youth group. During that time he met a girl who was battling anorexia, who ended up spending months in the hospital. Fred urged her to consider the way someone ascends Mount Everest was just how she needed to approach her recovery.

“You can’t just take a helicopter to the top, it’s a process,” Fred recalls. “I said to her, ‘you get better. Then I’ll go to Mount Everest, I’ll get my picture taken, and that will be a testament to you that you did this.’”

His Mount Everest promise really seemed to resonate and her health improved. A few years later, Fred’s own life hung in the balance.

He had been experiencing ear pain, a crushing headache and couldn’t sleep. He was taken to the ER and upon undergoing a painful needle biopsy, he received the devastating news – “you have throat cancer.”

“I lost it on the phone,” says Fred. “I couldn’t talk, I was sobbing. I said, ‘am I going to die?’”

The doctor didn’t mince words; he might. Fred had a 1.2 cm tumour in his throat, stage IV cancer.

Fortunately, there was a clinical trial available to him that could potentially save his life. The trial offered Fred accelerated radiation therapy and a new drug option. He was scheduled for 38 radiation treatments and three rounds of chemotherapy.

Ten years ago, a case like Fred’s would have had an outlook of 50 per cent survival at best. With new treatment advances, patients with this diagnosis who are treated at CancerCare Manitoba have hope for an 80-85 per cent three-year survival rate.

Fred considered how he might not survive his diagnosis. This is when his wife Karin reminded him of the promise he’d made a few years earlier. She told him “you have to live. You still have to climb Mount Everest.”
By his five month post-treatment scan, Fred’s lymph nodes and tonsils had continued to recover and were showing a complete response. Five months became a year, and another year. He was cancer free.

Fred thought there was no way he would come out the other side of this experience as the same person. So he took this new opportunity into his own hands.

“I went out and bought a Harley. Got tattoos, got an earring. My kids thought I’d lost my mind”, laughs Fred.

And what about the special promise made to that special girl? Fred kept his promise. This fall he is making his dream trip to Mount Everest with his daughter.

They will do the base camp trek and once there, he will plant prayer flags in honour of those who have helped him at CancerCare Manitoba and CancerCare Manitoba Foundation donors who are providing thousands of individuals and families each and every day in our province with more tomorrows together.

In October he will reach the place he believed to be unreachable, and conquer what he thought was unconquerable. Cancer has changed Fred, but thanks to your tremendous support, it has not defeated him.

Donor Dollars

The Foundation’s mandate is to support CancerCare Manitoba’s strategic priorities by funding programs and services that may not be eligible for government funding.

CancerCare Manitoba Foundation’s Board of Directors takes its donor stewardship responsibilities very seriously. Annually the Board considers peer-reviewed research and program proposals submitted by CCMB which align with its strategic plan. Funding requests are thoughtfully reviewed by the Foundation’s Project, Grants & Awards Committee and are recommended for approval.

This fiscal year the Foundation granted $6.01 million in funding to support CancerCare Manitoba’s strategic priorities. Since 2000, the Foundation has granted over $104 million to CancerCare Manitoba.

Research into all aspects of cancer is essential to reduce the burden of this complex disease on current and future patients. The Foundation invested $5.1 million into research, equipment and clinical trials in 16/17. This support to CancerCare Manitoba accounts for 85% of the Foundation’s grants this year. The funds were directed to many disease site research priorities, including $1.8 million in core operating support for CancerCare Manitoba’s Research Institute and $1.4 million to researchers and clinicians. They were also provided to CancerCare Manitoba’s clinical trials unit for adult and pediatric trials and to the Department of Epidemiology for core funding and the cancer registry.

The Foundation annually grants funds to CancerCare Manitoba dedicated to improving the cancer experience for patients and their families. This year $685,000 was provided for various programs, initiatives and services, including adolescent and young adult psychosocial clinical care, the Guardian Angel Caring Room, a smoking cessation program and Camp Indigo for pediatric cancer patients and their siblings. Investment in prevention and risk reduction initiatives continue to be a priority.

In total more than 30 specific projects were funded this year. For more information on the grants, please refer to the Foundation’s website http://www.cancercarefdn.mb.ca/current-grants/
The Public Interest Disclosure (Whistleblower Protection) Act came into effect in April 2007. This law gives employees a clear process for disclosing concerns about significant and serious matters (wrongdoing) in the Manitoba public service, and strengthens protection from reprisal. The Act builds on protections already in place under other statutes, as well as collective bargaining rights, policies, practices and processes in the Manitoba public service.

Wrongdoing under the Act may be: contravention of federal or provincial legislation; an act or omission that endangers public safety, public health or the environment; gross mismanagement; or, knowingly directing or counseling a person to commit a wrongdoing. The Act is not intended to deal with routine operational or administrative/human resource matters.

A disclosure made by an employee in good faith, in accordance with the Act, and with a reasonable belief that wrongdoing has been or is about to be committed is considered to be a disclosure under the Act, whether or not the subject matter constitutes wrongdoing. All disclosures receive careful and thorough review to determine if action is required under the Act, and must be reported in the regions annual report in accordance with Section 18 of the Act.

Pursuant to section 18 of The Public Interest Disclosure (Whistleblower Protection) Act, CancerCare Manitoba reports the following with respect to 2017:

1. - CCMB received two disclosures of wrongdoing, both of which were acted on by CCMB;

2. - Two investigations were commenced as a result of the disclosures of wrongdoing referred to in point 1 above. One of the investigations was conducted by a third party engaged by CCMB and the other investigation was conducted by the Manitoba Ombudsman; and

3. - The investigation conducted by the third party investigator resulted in a finding that confidential information of CCMB was inappropriately disclosed by a CCMB employee to a third party and a recommendation that CCMB remind its employees of the importance of maintaining confidential information of CCMB in strict confidence, which recommendation has been acted on by CCMB. The employee who was found to have inappropriately disclosed confidential information of CCMB to a third party is no longer employed with CCMB. CCMB has yet to receive the report of the Manitoba Ombudsman.
CCMB PHYSICIANS AND STAFF
AT CANCERCARE MANITOBA FOUNDATION CHALLENGE FOR LIFE EVENT - JUNE 10, 2017.