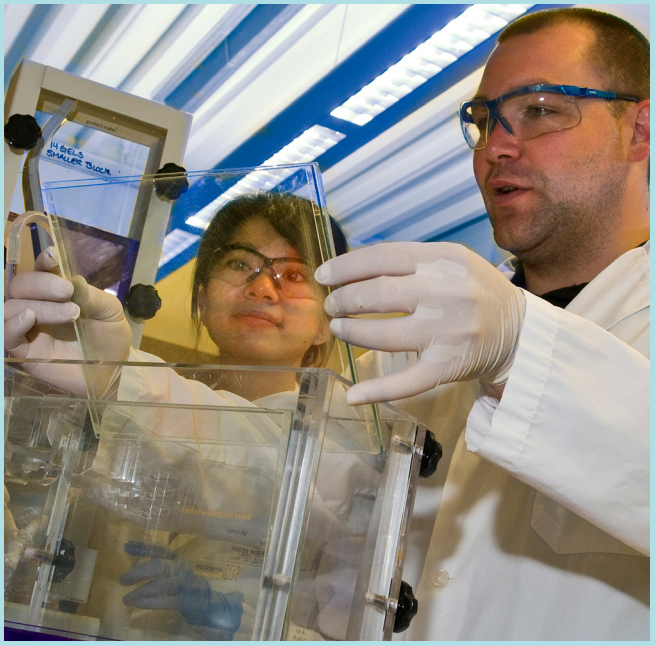
BC Cancer Agency

CARE + RESEARCH

An agency of the Provincial Health Services Authority

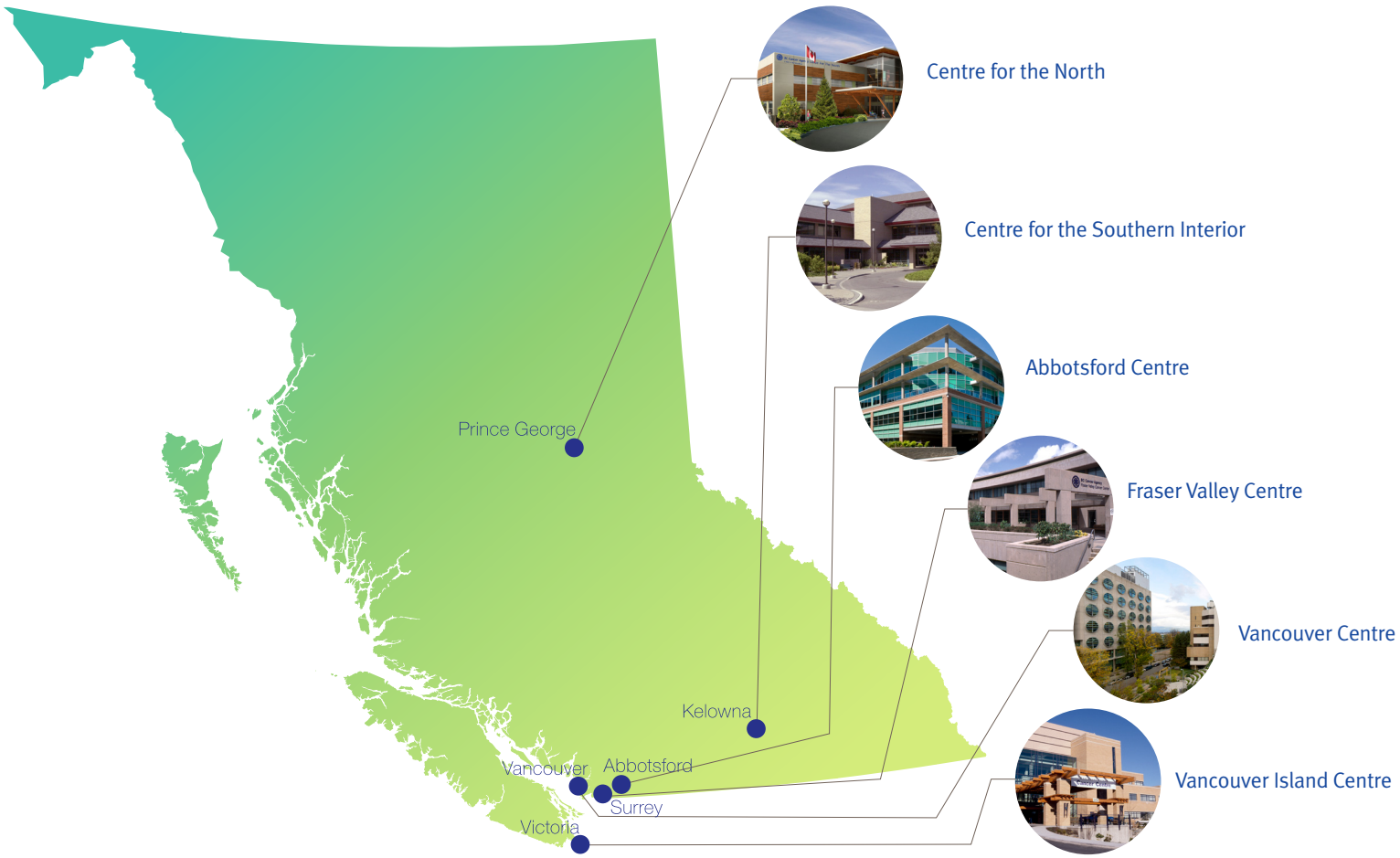








2016 REPORT TO THE COMMUNITY


Prince George
Kelowna
Vancouver
Abbotsford
Surrey
Victoria
Centre for the North
Centre for the Southern Interior
Abbotsford Centre
Fraser Valley Centre
Vancouver Centre
Vancouver Island Centre



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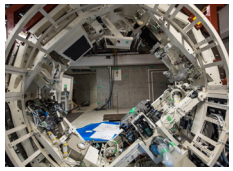




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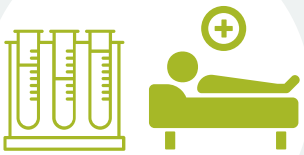
2016 FAST FACTS



6 Regional Cancer Centres



8,017 Telehealth patient consultations



303 active clinical trials



7,035 Referrals to Patient and Family Counselling Services across BC Cancer Agency



36 screening mammography clinics & **3** mobile screening units



747 group sessions offered across BC Cancer Agency

Moving Forward. Together.

Message from Dr. Malcolm Moore
President, BC Cancer Agency

2016 was a year of important advances for the BC Cancer Agency. We have created this inaugural Report to the Community to provide an update to British Columbians and to highlight some of the exciting work that took place across the province in 2016.

Our efforts are guided by the direction, "Provincially planned, regionally delivered". This enables the functions within our agency to play to their strengths. The provincial office plans and develops standards for the system. Our six Regional Cancer Centres have the authority to operate in a way that best suits their strengths and the needs of their community.

Each Regional Cancer Centre is now led by a Regional Dyad, a partnership of Medical and Operational leaders. They work closely together to plan and deliver services.

The introduction of Regional Dyads was part of an Agency Leadership Restructuring introduced in March 2016. I am delighted that we have been able to recruit excellent leaders to fill the Regional Dyad roles and the six Vice President roles. Many leaders within the BC Cancer Agency stepped up to take on these roles, demonstrating a spirit of optimism.

An exciting development is how research is integrating into day-to-day care for patients. For instance, the Personalized Onco-Genomics program, which applies advanced genome sequencing techniques to patients in real time. The focus is on decoding the genome to understand what is enabling it to grow and developing treatment strategies to block its growth. This is the future of cancer care: bringing discoveries and innovation from the bench to the bedside.

While the leadership restructuring was a key focus at the executive level in 2016, most BC Cancer Agency team members were more focused on their work – delivering high quality patient care, innovating and advancing research. You will read many of their stories in this report.

The success of the BC Cancer Agency is due to our team – the sense of professionalism that our people have and the passion they have for the work that they do. They provide a strong foundation for our work going forward. The Agency has been given the mandate to plan the entire cancer services system in the province. Working with all our healthcare partners, we are leading development of a comprehensive BC Cancer Plan for the province. We are moving forward together with confidence, in a spirit of collaboration and always focused on providing the best care for British Columbians.

Cancer care for BC

Our mission is three-fold:

- ***To reduce*** the incidence of cancer
- ***To reduce*** the mortality rate of people with cancer
- ***To improve*** the quality of life of people living with cancer

This mission drives everything we do, including providing screening, diagnosis and care, setting treatment standards, and conducting research into causes of, and cures for, cancer.

Dr. Malcolm Moore (bottom left) and the BC Cancer Agency executive team, March 2017



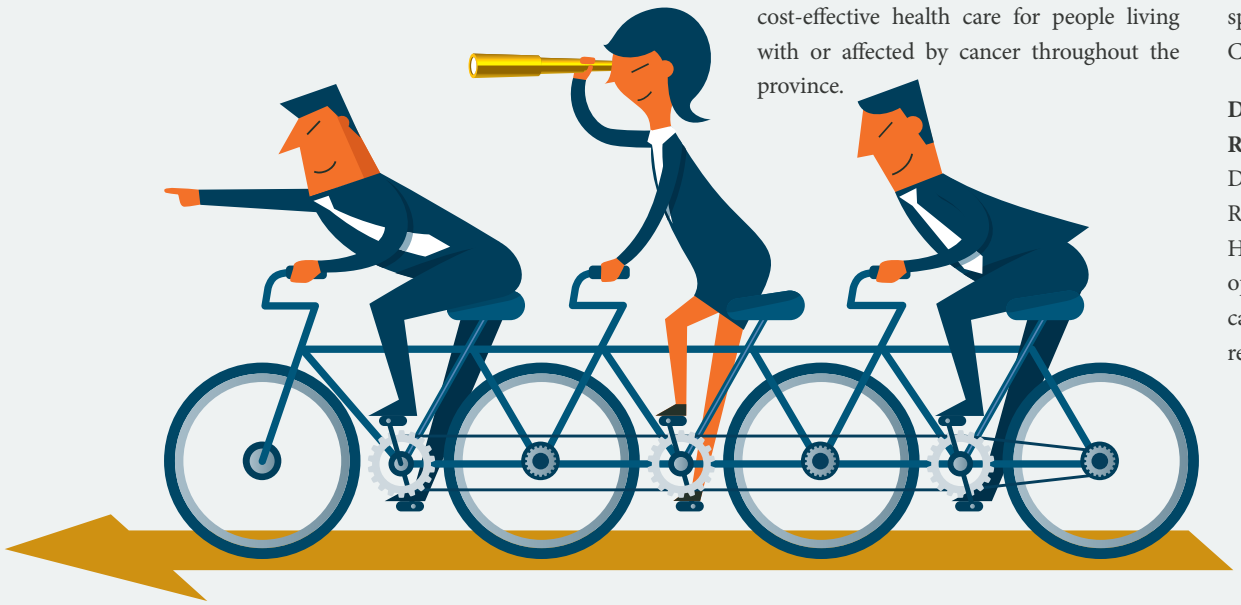
2016 AGENCY LEADERS

Dr. François Bénard, vice president, Research

Dr. François Bénard is vice president of Research at BC Cancer Agency. He sets and facilitates a comprehensive cancer research strategy and agenda for British Columbia in collaboration with research leadership provincially, nationally and internationally.

Dr. John Spinelli, vice president, Population Oncology

Dr. John Spinelli is vice president of Population Oncology at BC Cancer Agency. He leads population health services and research in support of province-wide cancer control. He oversees three provincial screening programs, surveillance, prevention, research informatics, indigenous cancer care and cancer control research.



Dr. Lee Ann Martin, acting vice president, Clinical Programs & Quality

Dr. Lee Ann Martin is acting vice president, Clinical Programs & Quality at BC Cancer Agency. She is responsible for the management of the Agency's clinical vision. Her role includes professional practice, clinical quality and performance, safety and regional medical operations.

Stephanie Aldridge, executive director, Cancer Strategy & Capital Redevelopment

Stephanie Aldridge is executive director, Cancer Strategy and Capital Redevelopment at BC Cancer Agency. She enables and facilitates the development, delivery and ongoing management of the organization's overall strategic, capital and business plans to provide timely, appropriate, equitable and cost-effective health care for people living with or affected by cancer throughout the province.

Brenda Canitz, acting vice president, Patient Experience & Interprofessional Practice

Brenda Canitz is acting vice president of Patient Experience and Interprofessional Practice at BC Cancer Agency. She leads interprofessional practice, patient engagement and education and survivorship programs, and is also responsible for professional practice leadership for nurses, psychological services, nutrition, rehabilitation and spiritual care.

Dr. Frances Wong, vice president, Medical Affairs & Medical Information

Dr. Frances Wong is vice president of Medical Affairs and Medical Information at BC Cancer Agency. She is involved in the professional practice of physicians and is responsible for technology projects, such as the Clinical & Systems Transformation (CST).

Dr. Shallen Letwin, vice president, Regional Operations

Dr. Shallen Letwin is vice president of Regional Operations at BC Cancer Agency. He is responsible for overseeing all regional operations of the Agency. He enables cancer care to be planned provincially and delivered regionally.

Results through caring, leading and learning together

Message from Carl Roy, President & CEO, PHSA

One of our responsibilities as health care providers is to ensure we are putting our patients' interests and experience at the centre of all we do. It's a challenging but important goal, and when we succeed, it's because of our dedicated staff, physicians, researchers and partners who work each day to improve the lives of the patients we serve.

Our team at BC Cancer is no exception. From leading-edge research, to advancements in specialized treatments such as personalized onco-genomics, the achievements detailed in this report are a testament to their efforts to ensure world-leading cancer care for our patients.

Thanks in part to the efforts of our team at BC Cancer, British Columbians continue to have among the best cancer outcomes in the world, including the highest in the G7 for childhood leukemia, and second highest survival rates across 67 countries for prostate and breast cancer.

Over the next year, one of our key strategic priorities at PHSA is to work with our regional health authority partners to complete a provincial cancer control policy and plan for B.C., to build on these successes and ensure continued improvement in the quality of our patients' care.

I want to thank our entire team at PHSA, particularly our broader staff, physician and research community, who help to enable BC Cancer's success. I want also want to thank our patients and their families, for entrusting their care to us and generously sharing their experiences, learnings and support. Together, and with your help, we will continue working toward the best patient-care possible.



Donors make a difference

Message from Sarah Roth, President & CEO, BC Cancer Foundation

Our donors make a remarkable difference in the patient experience. In 2016, they brought the cutting-edge VERO treatment technology to the clinic to expand options for patients with the hardest to treat cancers. Expert care providers in Patient and Family Counseling are leading new mindfulness programs thanks to donor support. The launch of PanGen, a world-leading precision medicine study, gave new hope to patients with pancreatic cancer. And we commenced a campaign to bring critical PET/CT diagnostic technology closer to home for patients in the Southern Interior and on Vancouver Island.

We invite you to join a remarkable group of 95,000 fellow British Columbians who are committed to making cancer care in BC extraordinary. To learn more visit bccancerfoundation.com



JANUARY

2016 in Review

NEW PROGRAM EXPANDS BREAST CANCER RESEARCH

Launched in 2016, the Provincial Breast Cancer Research Program offers newly diagnosed breast cancer patients located anywhere in BC the opportunity to participate in cancer research. The goal of the program is to acquire 10,000 cancerous breast tissue specimens, which will form a large resource for use in ongoing and future breast cancer research. All six BC Cancer Agency regional centres are participating in the program, along with regional Health Authorities and laboratories.





BC CANCER FOUNDATION

Supporting Miracles with Personalized Onco-Genomics

On January 12, 2016, the provincial government announced $3 million in funding to the BC Cancer Foundation to support the Personalized Onco-Genomics program and high-priority cancer projects. A priority funding area for the BC Cancer Foundation, the Personalized Onco-Genomics program is changing the way cancer is diagnosed and treated, proving that genomics can change the way we treat cancer. It's one of the most exciting cancer research initiatives ever undertaken in BC, and is setting a global precedent in terms of the diversity of cancers investigated and the number of patients participating. The program has taught us that we aren't limited to traditional anti-cancer drugs and is fundamentally shifting how cancer medicine is practiced.

The Personalized Onco-Genomics project aims to apply advanced genome sequencing techniques to patients in real-time. They decode the genome (the entire DNA inside the cell of each patient's cancer) to understand what is enabling it to grow and develop treatment strategies to block its growth.

By understanding the genetic makeup of a patient's tumour, researchers hope to pinpoint potential drug therapies that would be the most effective for that specific tumour. Patients and the health care system would then be spared from treatments that would have little or no clinical benefit.

Under the program, every patient is their own personalized clinical trial, allowing the research team to rapidly translate the results into care and targeted treatment.

The program is expanding from its current 350 patients to 2,000 patients over the next five years. The highly experimental research program supports BC Cancer Agency patients with metastatic disease. Patients should speak with their oncologist to discuss eligibility for the Personalized Onco-Genomics program.



LIBRARY connects people with resources across the province

The BC Cancer Agency library and Cancer Information Centres can be used in person, via email or by phone. Each of the six Regional Centres has a Cancer Information Centre, where people are served by professional library staff and specially trained volunteers. They provide access to resources on all cancer-related topics, such as specific cancers, clinical trials, treatment options, nutrition, or how to explain cancer to children.

In addition to providing print and AV resources, the library provides access to electronic books and websites. It also creates and maintains content on the BC Cancer Agency website to ensure the public can find reliable information. Rural and remote users can access library resources via the online catalogue and request material to be mailed (with a postage-free return mailing label).

In 2016 the library mailed material to communities from every corner of BC and the Yukon – from Whitehorse to Grand Forks, Gabriola Island to Fort St. John. Librarians also assisted over 5,700 users in person.

The BC Cancer Agency library team is proud to be a part of the support services available to enhance the patient's experience.

MORE ONLINE: http://www.bccancer.bc.ca/our-services/services/library

QUICK FACTS

- 5,700 USER REQUESTS
- 5,000 LIBRARY ITEMS BORROWED
- 200 E-BOOK SESSIONS
- SERVICE PROVIDED IN PERSON, VIA EMAIL OR BY PHONE

A Patient's Perspective

In 2016, our library assisted a patient who was receiving treatment at the BC Cancer Agency for breast cancer. Early in her treatment, one of the nurses recommended the library as a place to find resources for coping with her symptoms. Over six months, she became a familiar face in the Library, asking questions, borrowing materials and sharing with library staff her concerns and her successes during her breast cancer journey. On her last visit – where she reported feeling much better – she shared her thoughts about the value of the BC Cancer Agency's library.

"There are many sources of information, but this library 'connects the dots', in terms of info, amiable and directed assistance of staff, and the ambiance of learning and understanding cancer. It's a refuge for one like me … seeking to understand … yet not overwhelming. Thank you! Thank you so much!"



CENTRE SPOTLIGHT: Centre for the North

By Kathy Giene, Senior Director, Regional Clinical Operations, and Dr. Stacy Miller, Regional Medical Director



What is distinct about your Centre?

Centre for the North is the smallest of the six Regional Cancer Centres, covering the largest geographic area (over 600,000 km^2). Approximately two-thirds of our patients live outside of Prince George. Our vision is to bring cancer care closer to home for the people of the North, and we are proud to be meeting that goal since opening in 2012. Due to our large geographic area, some patients still travel several hours (sometimes over 8 hours) to reach our Centre. To meet the needs of these patients, we rely on the Community Oncology Network, which includes nine clinics throughout the North where patients can receive chemotherapy and assessment. Our Radiation Oncologists also travel to remote sites (e.g. Terrace) to offer in-person endoscopy clinics to save patients the need to travel as frequently. In addition, we have developed an extensive Telehealth network, connecting with 34 communities throughout the North, which has dramatically increased access to consultation and follow up services.

What are your points of pride?

- The team at Centre for the North is proud of our multidisciplinary approach to cancer care and the full range of services that we provide both in person and by videolink.
- We are home to POSI, the Prospective Outcomes and Support Initiative, under the guidance of Dr. Rob Olson, which is now being implemented provincially.
- Centre for the North has a close relationship with the UBC Northern Medical Program and provides extensive teaching to medical students at various levels of learning as well as residents.
- We have an extensive research program, primarily focusing on health services delivery but also including

> “ We have improved access to care through Telehealth and timely radiation treatment through development of a Rapid Access Clinic for Palliative Radiotherapy.”

clinical trials and participation in provincial studies such as BioCancer.

- Our Radiation Department has adopted a 3D Printer Bolus Program, which allows bolus (equipment imperative to radiation planning for targets close to the skin surface) to be constructed on CT images rather than directly on the patient's skin. This is much more comfortable for patients.
- Our Medical Physics and Radiation Therapy department is cutting edge and keen to implement safe, high quality and innovative techniques. We have the highest proportion of radiation courses treated with volumetric modulated arc therapy (VMAT) and have regular treatment with stereotactic ablative radiotherapy (SABR) for lung cancer and now metastases to lung and bone.

What is a significant challenge that your team met in 2016?

Since opening in 2012, staff recruitment and retention has been a significant issue, particularly for physicians. Although we have been able to maintain patient care, consistency of staffing has been a challenge at times and staff overwork has been a concern. In 2016, we were able to hire a full complement of Radiation Therapists including an additional Resource Therapist, which has greatly improved our ability to provide radiation treatment to our patients. We have also hired an additional physicist, which has improved workload pressures and will allow us to continue develop radiation techniques to be offering our patients the most updated treatment options available.

How did your team contribute to delivering excellent cancer treatment and care in 2016?

Centre for the North works to meet each of our BC Cancer Agency Mission Statements.

- *Reduce mortality from cancer* – The Centre for the North Clinical Trials department expanded in 2016. is has supported increased numbers of patients participating in clinical trials and research initiatives. Where possible, patients are treated with curative intent. We have a rigorous quality assurance program for radiation treatment with all curative radiation plans being reviewed in a peer setting. In addition, we have been able to implement new technologies including Lung SABR, SBRT for Oligometastatic disease on a clinical trial and early adoption of new chemo agents and protocols.
- *Reduce the incidence of cancer* – People of the North support the BC Cancer Agency Foundation to help meet our provincial goal to reduce the incidence of cancer.
- *Improve quality of life of patients living with cancer* – This is where Centre for the North really shines. Unfortunately, at this time, we have the highest proportion of patients who present with incurable disease. We have improved access to care through Telehealth and timely radiation treatment through development of a Rapid Access Clinic for Palliative Radiotherapy. Our multidisciplinary team is strongly focused on the provision of palliative care throughout the continuum including nursing, counselling, and pain and symptom management teams.

@ **MORE ONLINE:**
www.bccancer.bc.ca/our-services/centres-clinics



Smudging ceremonies begin with patients

Smudging is a ceremony for cleansing and purifying one's spirit from negativity and also providing strength and focus. Private smudging sessions are available to all patients, especially Indigenous patients, in the Centre for the North in Prince George and Vancouver Centre. With the support of Indigenous Cancer Care Provincial Director, Preston Guno, culturally relevant practices such are meeting the needs of patients who want to incorporate cultural and spiritual practices in a medical setting.

SPOTLIGHT ON...
Screening Programs

Screening programs successfully reduce cancer risks



Screening is the early detection of cancer or pre-cancerous conditions in individuals that do not have symptoms of the disease. The objective is to identify abnormal cells at an early stage for treatment, reducing incidence, morbidity and mortality due to cancer.

British Columbia offers population-based screening programs to eligible men and women. The BC Cancer Agency provides medical and operational leadership for the programs. It also works collaboratively with provincial and regional partners to create and maintain an environment that is conducive to, and supportive of, informed participation in screening.

Currently, there are three population-based screening programs in British Columbia:

- Screening Mammography Program
- Cervical Cancer Screening Program
- Colon Screening Program

Screening Mammography Program

BC Cancer Agency's Screening Mammography Program was launched in 1988 as the first organized breast cancer screening program in Canada. The program provides free screening mammograms for eligible BC women age 40-74. The program works to reduce breast cancer deaths by finding cancer at an early stage through routine screening mammography.

The Screening Mammography Program operates 36 fixed screening mammography clinics across the province. There are also three mobile screening units that serve communities in rural BC.

252,097 exams provided in 2016

Cancer detection rate: 5.5 per 1,000

Cervical Cancer Screening Program

BC's Cervical Cancer Screening Program, introduced in the early 1960s, was the first in the world. Since then, the province has successfully reduced cervical cancer rates by 70 per cent. The program aims to reduce cervical cancer incidence and mortality through early detection of cancer and pre-cancerous conditions. The program is available to BC women between the ages of 25-69.

496,388 Pap samples submitted to lab in 2016

Pre-cancer detection rate: 5.3 per 1,000

Cancer detection rate: 0.08 per 1,000

Colon Screening Program

The provincial Colon Screening Program aims at reducing colorectal cancer incidence and mortality in BC by finding and removing pre-cancerous polyps (adenomas) and by finding cancers early – before they have a chance to spread.

The program launched province-wide in November 2013 and is available to BC women and men age 50-74.

247,577 FIT results received in 2016

Pre-cancer detection rate: 57.8 per 1,000

Cancer detection rate: 2.7 per 1,000

MORE ONLINE:
screeningbc.ca



CULTIVATING A BETTER EXPERIENCE FOR MAMMOGRAPHY PATIENTS

In January 2016, the BC Cancer Agency's Screening Mammography Program conducted opinion research to better understand the experience women have during a screening mammogram. Two hundred, sixty-six women between the ages of 50-74 representing all regional health authorities were interviewed within one week of their mammogram.

Findings clearly showed that the patient's experience with the technologist had the greatest impact on the overall experience of a mammogram.

These findings were supported by a Client Satisfaction Survey, which is mailed to 1,000 women every month, following their mammogram. Analysis of over two years' survey data indicated that three survey questions are linked to overall satisfaction, intention to return and likelihood of recommending a screening mammogram. These questions are (in order of importance):

- The technologist explained the procedure to my satisfaction
- The pressure used during the procedure was tolerable
- The receptionist was friendly and helpful

Findings from both of these initiatives are important as they clearly indicate that the patient experience with the technologist is strongly correlated with the intention to return at the appropriate interval.

To address findings, the program has assembled a Mammography Experience Working Group consisting of technologists and patients. This group is helping to develop a technologist engagement strategy to address study findings, increase patient satisfaction and ultimately, increase retention.

REFRESHING RESULTS LETTERS

The Colon Screening Program sends colorectal cancer screening results to program participants after they complete the fecal immunochemical test. Test results are sent through direct mail and shared with the individual's primary care provider.

Result letters for any test can cause anxiety and confusion for patients, particularly when the letter indicates that follow-up testing is needed.

As part of its continuous quality improvement initiatives, the Colon Screening Program engaged a University of British Columbia (UBC) grad student to focus test 27 individuals who had received abnormal results to gain their perspective on the result notification process.

This feedback was closely analyzed and reviewed, then used to update the letters. These updated letters were tested via an online survey that assessed readers' overall reactions. Based on this testing, the letters were further refined and put into production in fall 2016. The program will continue to closely monitor patient and provider feedback on all program correspondence and will initiate further work on result letters as needed.

FEBRUARY

2016 in Review

New digital mammography vehicles serve women in rural and remote areas

Two new BC Cancer Agency digital mammography vehicles were launched and blessed during a ceremony at the Musqueam First Nation in Vancouver in February.

These large, comfortable coaches feature the latest technology and provide access to breast cancer screening for BC women in remote and rural communities.

Currently the BC Cancer Agency's Mobile Mammography program visits 120 remote and rural communities annually, including more than 40 Indigenous communities. The ceremonial blessing, performed by a Musqueam Elder, honours these communities to increase acceptance of the coaches and remove barriers to breast cancer screening.

The blessing was witnessed by leaders from the BC Association of Aboriginal Friendship Centres, the Métis Nation BC, Chief Wayne Sparrow of the Musqueam First Nation, Dr. Moira Stilwell, MLA Vancouver-Langara and Dr. Malcolm Moore, BC Cancer Agency President.

The BC Cancer Agency mobile mammography service is the first of its kind in Canada to use wireless cellular data to send the images through a secure VPN tunnel from the mobile unit to the reading centre, ensuring greater efficiency of the service.

The purchase of the two new mobile mammography vehicles was made possible by Ministry of Health capital funding and sponsorship funding support by the Canadian Breast Cancer Foundation and Shoppers Drug Mart at a total cost of $1,808,000





BC CANCER FOUNDATION

CLINICAL INVESTIGATOR AWARDS fund breakthrough cancer research

In February 2016, the BC Cancer Foundation and BC Cancer Agency announced new BC Cancer Foundation Clinical Investigator Awards worth $1.5 million. The five-year funding provides two BC Cancer Agency clinician-researchers the opportunity to dramatically alter cancer care for patients in B.C.

Dr. Jessica McAlpine is a surgeon specializing in gynecological cancers and a researcher with the world-renowned OVCARE team at the BC Cancer Agency. Her work will focus on endometrial cancers, which are the most common gynecological cancers and currently have the fastest growing mortality rate. There is currently no reliable way to identify if a woman's endometrial cancer is low-risk and relatively curable or high-risk and life-threatening.

Dr. McAlpine is developing molecular tools that can discern the risk the cancer has spread or the likelihood of recurrence in that individual. This type of diagnostic tool would be a world-first. It would spare patients with low-risk cancer from unnecessary treatments while ensuring women with high-risk cancer are treated aggressively.

Dr. Aly Karsan has been awarded the John Auston BC Cancer Foundation Clinical Investigator Award. The award is named in honour of past BC Cancer Foundation board director John Auston who lost his life to cancer.

Dr. Karsan, medical director for the Cancer Genetics Laboratory, BC Cancer Agency and head of the Centre for Clinical Genomics, will gain an in-depth understanding of myelodysplastic syndromes, which are cancers of the blood-forming cells in the bone marrow. Patients with this cancer have a very poor chance of survival as the it often progresses to an aggressive leukemia.

SPOTLIGHT ON...
Patient Experience

Support for Chinese-speaking patients removes barriers

One of the patient stories we shared in 2016 highlighted a volunteer in the new Chinese Peer Navigator program. Rose, aged 72, is a survivor of breast and ovarian cancer. In 2009, she became the first volunteer Chinese Peer Navigator at the Vancouver Cancer Centre. She is also an active volunteer with the Agency's Chinese Cancer Support Group. Her sincere and caring attitude, her words and her selfless sharing of her cancer experience have brightened the lives of many cancer patients and inspired them to be hopeful. Rose has positively influenced many cancer survivors to become active in the transition to life after cancer.

Although she never chose to have cancer, Rose says she has grown personally from having the disease. During her own cancer treatment, she gained important support and skills through her participation in various Chinese psychosocial programs at the Cancer Agency. These programs enhanced her healing and recovery. She now encourages other Chinese speaking cancer patients faced with language barriers to access this kind of support during their own cancer journeys.

Psychosocial Oncology delivers supportive programs to cancer patients and families to improve patients' quality of life and reduce the overall burden of the disease on patients and their families and caregivers. These programs include: counselling, support groups and specialized programs that address specific psychological or social issues such as returning to work after having cancer.

In the early 1990s in response to a high number of Chinese speaking cancer patients at the BC Cancer Agency, Patient and Family Counseling services at the Vancouver Cancer Centre hired a multi-lingual social worker. To further strengthen culturally appropriate supportive programs, Chinese-speaking patients were consulted about their needs through an ethnographic research study, and ongoing program feedback. This research highlighted the strong value of family, self-reliance and barriers in language and service accessibility.

In response to this feedback, a series of initiatives have been implemented over the years. The psychosocial screening tool, resource guides and Coping with Emotions Fact Sheets have all been translated to help patients self-manage and access community support. Support groups and psychosocial education programs have been offered in Cantonese and Mandarin. The group leader, in collaboration with many disciplines (including nursing, oncology, nutrition, radiation and infection control) provides education to patients to manage their cancer, break down their sense of isolation and connect with each other.



On June 9, 2016, the Chinese Support Group, Canada's first professionally-led, language-specific Cancer Support Group for Chinese-speaking patients celebrated the tenth anniversary with cancer patients, family members, health care providers and volunteers. Members, like Rose, shared how the group has helped them cope with the challenges in their cancer journeys.

I learn and grow from my two cancers.
~ ROSE LEE

SPOTLIGHT ON...
Patient Experience

WALKING TOGETHER:
BC Cancer Agency partners with indigenous groups to create a better journey



All three of BC's digital mammography coaches proudly feature a hummingbird symbol on the outside of the vehicles. This symbol was designed by Indigenous artist Tyrone Paul and incorporates Inuit, Métis and First Nation design elements. The hummingbird represents the importance of health and wellness. A traveler of great distances, the hummingbird brings with it a message of peace and rejuvenation.

The BC Cancer Agency, in partnership with the First Nations Health Authority, Métis Nation BC and the BC Association of Aboriginal Friendship Centres, met with First Nations and Métis communities in June 2016 to learn about the Indigenous Cancer Journey in BC and what further medical and cultural support is needed.

While the statistics are improving, Indigenous peoples in BC face significant disparities in accessing health services. For Indigenous people with cancer, these disparities mean that screening rates are lower than the general population and diagnoses are made when cancer is more advanced.

The aim of The Indigenous Cancer Journey in BC was to hear stories from Indigenous cancer patients and their family members who have experienced cancer, and to identify ways to enhance their cultural safety and continuity of cancer care. Community Engagement was made possible through funding from the Canadian Partnership Against Cancer.

Many patients and family members said that they wanted more information on the emotional, social, educational and cultural resources and supports available in cancer centres or communities. This is also true for financial and logistical supports relating to transportation and accommodations for patients receiving care far from home.

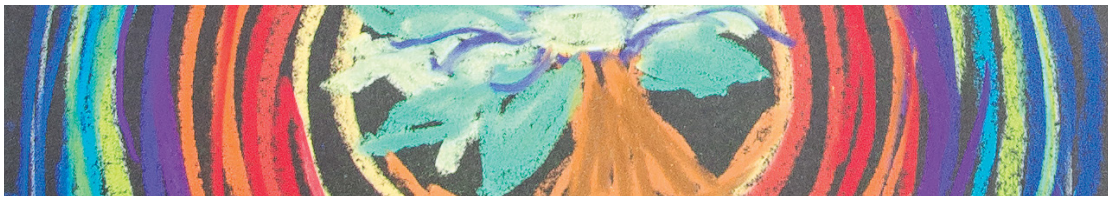
Many patients and family members said they were involved in decision making about conventional cancer care treatment. This stood out as a positive aspect of the Indigenous cancer care journey however, some patients stated they did not feel comfortable discussing traditional approaches to wellness with their health care provider.

The Indigenous Cancer Care Team is working on a strategy to support health care professionals to better communicate with Indigenous cancer patients about cultural and familial supports and Indigenous perspectives on wellness.

"Stay positive, stay strong, and walk together."

"Remember your teachings and embrace them."

"Gain strength from your cultural practices."



SISTER SURVIVORS

One of the patient stories we shared in 2016 features these inspiring sisters. Jan, a high school art teacher and prolific artist, was a 28-year-old student at Emily Carr Institute of Art and Design when she was diagnosed with Hodgkin's lymphoma in 1986. Overnight, she went from planning her future to facing her mortality. Her sister Lee, a registered clinical counsellor and art therapist, became her caregiver and supported Jan through chemotherapy treatments every three weeks for a year.

Understanding that creative expression would help Jan cope, Lee drew on art therapy skills from her own studies. She urged Jan to draw what she felt. Jan went on to create 13 drawings during her treatment, using stitching, collage, coloured pencil and graphite. Today Jan's original drawings are displayed in the chemotherapy treatment area of the BC Cancer Agency's Vancouver Centre where, according to staff, patients continue to relate to them as they face their own treatments. Jan also wrote a book featuring the drawings entitled Art and Healing – An Artist's Journey through Cancer. Five of the drawings were included in a first-of-its-kind show in California of works by artists who survived cancer.

Then in 1994, suffering from severe neck pain, Lee insisted the doctor X-ray her chest as well as her neck without knowing why. Doctors quickly discovered non-Hodgkin's lymphoma in her lungs, a condition that required Lee to undergo chemotherapy from spring to fall that year. The sisters had switched roles. When Lee's cancer recurred a year later, she underwent daily radiation, medication and chemotherapy for three weeks before receiving a successful bone marrow transplant.

Both sisters are deeply grateful for the medical community that saved them, but also recognize that their journeys involved much more than physical treatments. Today the field of psychosocial oncology validates the ongoing stress and emotional, spiritual, psychological and social issues that patients and survivors endure, in addition to the physical and medical ones. Lee still uses art-making and mindfulness-based art therapy to cope with her survivorship experiences. Now a registered art therapist, she developed a counselling method for cancer survivors that's part of her current practice.

For three years, the sisters have led Leukemia and Lymphoma Society art and healing groups for patients, survivors and caregivers. Lee also taught a Group Art Therapy for Cancer Survivors course as part of the masters in counselling program at Adler University.

"Art and healing groups are about developing mind-body skills to help people cope and discover resources," says Lee. "It's like a form of creative meditation. When you're calm, you see more choices for coping." The art and healing groups create community and weave together support, skills and hope. Jan and Lee know from experience that such support will help survivors thrive.



CENTRE SPOTLIGHT: Abbotsford Centre

By Tammy Currie, Senior Director, Regional Clinical Operations, and Dr. Muhammad Zulfiqar, Regional Medical Director



What is distinct about your Centre?

The BC Cancer Agency Abbotsford Centre was the first cancer centre built as part of a regional hospital and the first cancer centre to be part of a private public partnership. The partnership involves Provincial Health Services Authority, Fraser Health Authority and a private partner who provides services such as housekeeping, security, patient portering and equipment/building maintenance. The private partner is accountable for providing a specified high level of service, which means the building will be maintained in top condition and patient-related services will be timely and efficient.

What are your points of pride?

Abbotsford Centre has a comprehensive brachytherapy program – a form of radiation therapy where radiation sources are placed inside, or next to, the area requiring treatment. And we are the only centre in Western Canada to provide endoscopic guided esophageal treatment, which provides a higher radiation dose in fewer treatments, sparing other organs.

We have a growing clinical trials unit that provides a subset of patients the opportunity to participate within the Abbotsford Centre.

Our collegial relationship with Fraser Health Authority and the community has also facilitated care close to home for our patients. For example, Radium 223 is an effective treatment for patients with advanced prostate cancer that has spread to the bone and is causing symptoms such as pain. In collaboration with the hospital's Nuclear Medicine Department, we developed a safe and efficient process to offer this treatment to our patients here. Previously, they had to travel to Vancouver General Hospital to receive it.

We also have a collaborative relationship with the BC Cancer Foundation. There have been numerous community events that have raised funds for the centre to support the enhancement of the patient experience and care.

“ Through our collaborative relationship with Fraser Health Authority, we have been able to ensure timely access to needed patient services such as medical daycare procedures.”

What is a significant challenge that your team met in 2016?

We continue to have challenges related with the recruitment of specialized training for nurses working in brachytherapy. Nurses require Peri Anesthetic Recovery certification to care for patients after brachytherapy procedures requiring general anesthetic.

Due to increased demand for services, Abbotsford Centre has limitations to physical space that affect systemic program capacity. In response, we have replaced some beds with chemotherapy chairs and made process changes to increase our capacity from 42 to 45 patients receiving intravenous chemotherapy treatments per day.

Although our clinical trials are a point of pride, we are continuing to work towards supporting even more trials in Abbotsford to provide this opportunity for an even wider spectrum of cancer patients.

How did your team contribute to delivering excellent cancer treatment and care in 2016?

Through our collaborative relationship with Fraser Health Authority, we have been able to ensure timely access to needed patient services such as medical daycare procedures.

Over the last year, the nursing model has been re-designed to improve access to telephone care and pain and symptom management services for our patients.

We are committed to improving by engaging our patients and receiving their feedback. We implemented new processes around the collection and review of patient feedback, which has allowed us to make improve the service we provide.

MORE ONLINE:
www.bccancer.bc.ca/our-services/centres-clinics



Gerald Gelowitz, Manager of Clinical Services explains the brachytherapy equipment to the Sultan of Johor, Malaysia

Moving forward with improved sharing of patient information

BC Cancer Agency staff now have access to Fraser Health Authority’s electronic health record system. This enables proper transition of care and communication between BC Cancer Agency and Fraser Health. Healthcare providers caring for the same patient now have access to the same records. The result: less chance of errors and better care for patients.

This helps set the stage for the introduction of a new electronic health record system that will allow sharing among all health authorities.

Helping patients to make their voice heard

Patient satisfaction is important to the BC Cancer Agency. It allows us to see what we’re doing well and where we need to improve.

Abbotsford Centre implemented new processes around the collection of patient feedback in 2016. Comment cards were re-designed and comment boxes were installed in visible locations at the elevators. A dedicated email address was created to make providing feedback easier for the patient. All patient feedback is reviewed and shared as appropriate. And, whenever possible, improvements to care are made.

The new process immediately attracted more patient feedback. They are on pace to increase seven-fold from 22 comments a year to more than 160.

Showcasing Abbotsford Centre

Abbotsford Centre has been showcased as a centre of excellence with visits from the Provincial Health Services Authority Board of Directors and the Sultan of Johor, Malaysia. The Sultan was a guest of the BC Minister of Finance, Michael DeJong, and was in BC as part of a trade delegation from Johor. Having recently lost his son to cancer, the Sultan requested a visit to a Canadian cancer centre and Abbotsford Centre was selected. A plaque to commemorate the visit is installed at the Abbotsford Centre entrance.

MARCH 2016 in Review

March is Nutrition Month. Here are a few of the BC Cancer Agency initiatives in 2016 that addressed the need for accessible, reliable nutrition information related to cancer care.

Meeting an appetite for information

The launch of an oncology nutrition website is extending the reach of the BC Cancer Agency's patient education materials. The website, which can be found under the "Our Services" tab from the BC Cancer Agency website home page, provides easy access to a range of nutrition resources related to cancer care. Nutrition is an area of interest to many patients and family members. This new online resource is helping British Columbians access quality, evidence-based information.

@ **MORE ONLINE:** Bccancer.bc.ca->Our Services->Nutrition

TRANSLATION expands reach of nutrition education

The Oncology Nutrition team has translated patient education materials into Cantonese, Tagalog, Punjabi and now Korean with culturally appropriate food choices. This is helping more patients with a poor appetite discover ideas for high energy, high protein foods. This initiative improves patient care and demonstrates the BC Cancer Agency's philosophy of inclusiveness and patient centred care. The materials are freely available online.

@ **MORE ONLINE:** bccancer.bc.ca/health-professionals/professional-resources/nutrition/nutrition-handouts



DAPPER study supports prostate cancer patients

Reliable and timely diet information from a nutrition expert is known to be important to all cancer patients. Requests by men living with prostate cancer for information on diet have continued to increase in oncology nutrition at Vancouver Island Centre. Many of these men say that instead of generalized information passively provided (such as brochures or books), they require more specialized diet and information delivered in a way that promotes interactive learning.

In 2016, the team of dietitians at Vancouver Island Centre collaborated with the local Island Prostate Centre to establish a weekly interactive diet and prostate group education program. The program was funded as a research study known as DAPPER (Diet and Prostate Program: Evaluation and Recommendations) through a grant generously provided by the Ride to Live organization. Some of the topics that generated lively discussion and questions included general diet information for health, management of co-morbidities, primary and secondary prevention and dietary management of symptoms during treatment.

A common theme in the feedback at the conclusion of the study was that the diet and prostate group education sessions should become a routine, mandatory part of treatment for all men diagnosed with prostate cancer. Overwhelmingly, they felt it was helpful and supportive for making the necessary dietary changes to improve overall health.

The men who participated in the study have made a tremendous contribution and their voices have been heard! In late 2016, the Vancouver Island Centre team was awarded additional funding by the Island Prostate Centre to continue offering the diet and prostate cancer group education sessions for 2017.

LEARNING
to use stress reduction techniques in oncology practice

The Provincial Psychosocial Oncology team has created a new course, "Stress Reduction Techniques in Oncology Practice". Available through the Provincial Health Services Authority Learning Hub, this course teaches short- and long-term strategies to help patients who are experiencing anxiety related to their cancer diagnosis and treatment.

Developed with input from veteran counsellors in Patient and Family Counselling Services, it is designed for health care professionals who have some training in stress management techniques but want to deepen their knowledge and skills to respond to specific issues that occur in an oncology setting.

The course covers scenarios such as how to respond to patients who are phobic of needles, experiencing claustrophobia, anxiously waiting for test results, or in the worst-case scenario, who are facing unexpected or bad news.





PARTNERSHIP with UBC supports family physicians

The Family Practice Oncology Network provides resources and connections to strengthen family physicians' abilities to care for cancer patients. Since 2009, the Network has partnered with Continuing Professional Development at UBC to provide continuing medical education for primary care. This includes presenting community-based workshops on core cancer topics attended by over 1,000 family physicians and monthly webcasts attended by approximately 100 physicians across the province.

This partnership is enhancing cancer care at the community level based on the most current knowledge/research. It is also building connections between community physicians and the BC Cancer Agency.

The result: better support for health professionals and better cancer care for British Columbians.

APRIL

2016 in Review

New cancer care guidelines support cancer care

The Family Practice Oncology Network published its first independent Cancer Care Guidelines for Primary Care in April 2016. The guidelines focus on upper gastrointestinal (GI) cancers, including esophagus and stomach, pancreatic cancer, neuroendocrine tumours of the pancreas and duodenum, and cancer of the extra hepatic biliary tract. The new guidelines are developed specifically for primary care, offering brief, practical information including flow charts and patient information sheets.

BC family physicians identified cancer care guidelines specific to primary care as one of the most important resources the Family Practice Oncology Network could provide to improve cancer are at the community level. The new Upper GI Guidelines have been accepted and adopted by the Canadian Medical Association's Clinical Practice Guideline Infobase.



Workout to Conquer Cancer

BC CANCER FOUNDATION

Hundreds of British Columbians hit the gym floor for *Workout to Conquer Cancer* in April, sweating and raising funds to support cancer patients. In 2017, participants will work out every day for the month of May to help enhance cancer care. Learn more at workouttoconquercancer.ca



VOLUNTEERS ENHANCE THE PATIENT EXPERIENCE

National Volunteer Week takes place in April. But volunteers play an important role at the BC Cancer Agency every day. From knitting hats to bringing their dog for visits to playing the piano, volunteers are active at all six BC Cancer Agency Centres. In 2016, more than 550 people volunteered their time to help others in their cancer journey.

Volunteer roles complement and support staff roles. Patients and their families might encounter volunteers who offer a cup of coffee or tea, help them access information or visit with them during chemotherapy treatment. Volunteers are often cancer survivors or family members, students and retirees.

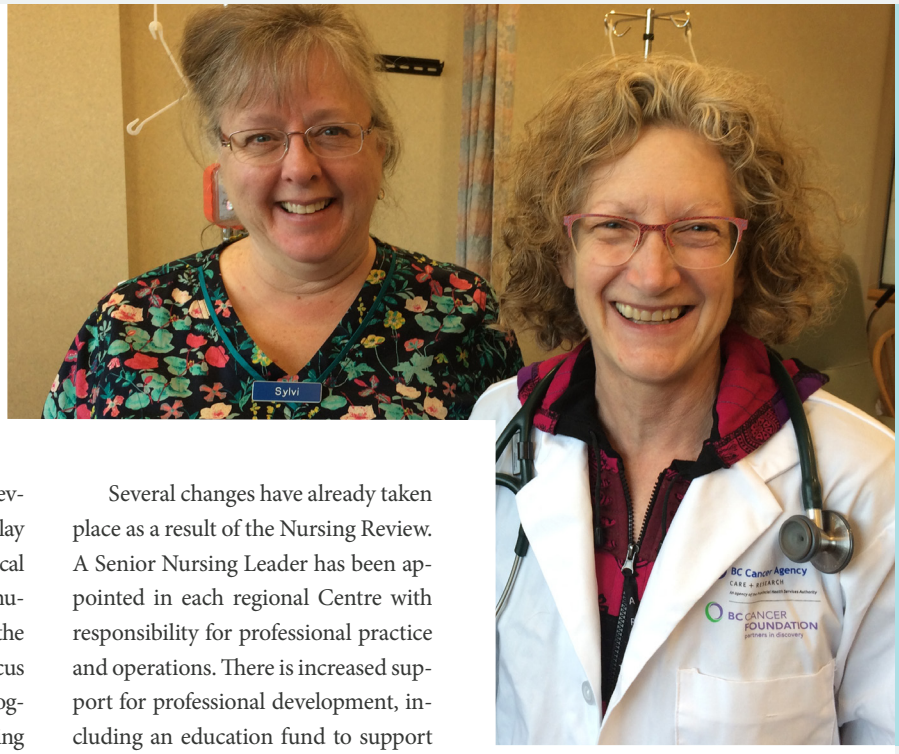
All volunteers are carefully vetted and trained. The way they are deployed reflects the BC Cancer Agency's support of "Provincially planned, regionally delivered". Volunteers play different roles to meet the needs of each regional centre.

If you're looking for a volunteer experience that allows you to meet people, and use your skills and talents in a hugely satisfying way, contact your local BC Cancer Agency Centre.

Education program focuses on preventing errors

BC Cancer Agency Pharmacy Educators who support regional hospital pharmacies in the Communities Oncology Network developed an education program to help practitioners provide safer patient care by preventing medication errors. The presentation focused on common errors of oncology medication errors, and strategies and resources for pharmacy staff to prevent them. It was presented to staff and Communities Oncology Network Pharmacy staff. The poster was also shown at the Canadian Association of Pharmacy in Oncology 2016 conference. This successful initiative was a collaboration of BC Cancer Agency Pharmacy CON Educators from several BC Centres.

SPOTLIGHT ON...
Nursing



Dr. Denise Tarlier (right) is one of 18 Nurse Practitioners working at Cancer Centres across the province. She works closely with Sylvi LeBlanc, a longtime oncology RN, at the BC Cancer Agency's Outpatient Clinic in Kelowna

Strengthening specialized oncology nursing

Nurses are involved with patients at every stage of the cancer journey. They play a special role that combines technical expertise, in-depth knowledge, communication skills and compassion. As the BC Cancer Agency strengthens its focus on patient-centred care, there is a recognition that increased support of nursing is also required.

In 2016, the Agency undertook a comprehensive Nursing Review. Conducted by an independent panel of three oncology nursing experts, the review included province-wide discussions, input from staff and a system-wide evaluation.

The Nursing Review uncovered five key themes and recommendations:

1. Focus on person-centred care
2. Enhance governance: clear lines of accountability and reporting are required
3. Commit to a model of care with a strong focus on nursing
4. Encourage nursing research and innovation
5. Address issues in the nursing workforce

Several changes have already taken place as a result of the Nursing Review. A Senior Nursing Leader has been appointed in each regional Centre with responsibility for professional practice and operations. There is increased support for professional development, including an education fund to support nurses to present at conferences and to write national certification exams in Oncology at the Canadian Nurses Association. The Agency is also liaising with all nurses in the system to support the participation of nurses in research.

"We are working to provide BC Cancer Agency nurses with the support and resources they need," says Brenda Canitz, acting vice president, Patient Experience and Interprofessional Practice. "Our nurses are the backbone of the Agency. They are totally committed to their patients; we need to show the same level of support to our nurses."

Oncology Nursing Day takes place in April

"Our nurses are the backbone of the Agency. They are totally committed to their patients; we need to show the same level of support to our nurses."



Michelle Brown is one of many nurses who started their career with the BC Cancer Agency in 2016. She works with the team at Vancouver Island Centre.

MAY

2016 in Review

Leukemia/Bone Marrow Transplant program receives full accreditation

The surgical suite at Vancouver Centre was inspected by the Foundation for the Accreditation of Cellular Therapy as part of the Leukemia/Bone Marrow Transplant Accreditation. The contribution of the Vancouver Centre surgical suite was critical in the success of the Leukemia/Bone Marrow Transplant program receiving full accreditation. This confirms compliance with the stringent demands of the transplant program and that all patients will receive the absolute best care.

Vancouver Centre is the only facility in the province for adult bone marrow harvesting. The centre plays a major role in the success of the Leukemia/Bone Marrow Transplant program and the treatment of hematologic cancers in BC.

Simple blood test pre-detects prostate cancer treatment resistance

Dr. Kim Chi, medical oncologist and senior scientist at the BC Cancer Agency, and his colleagues at the Vancouver Prostate Centre, have demonstrated the clinical value of performing genomic profiling through non-invasive blood tests to benefit patients undergoing treatment for metastatic prostate cancer.

The findings, published in JAMA Oncology, prove that a blood test can provide critical genomic detail to help inform treatment decisions through the profiling of the cell free DNA (cfDNA) found within the blood sample.

"We believe that a blood test holds the critical cfDNA detail required to inform highly targeted clinical decisions for our patients. Our studies are now building on these findings to advance the remarkable promise cfDNA as we implement a blood biopsy and genomic profiling approach into precision medicine research programs for our patients," said Dr. Chi.

Profiling the cfDNA of patients undergoing treatment for metastatic, castrate resistant, prostate cancer provided Dr. Chi and colleagues concrete indicators of an individuals' resistance to treatment and revealed potential targets for treatment.

These findings are critical for these patients as resistance to treatment is inevitable. For this reason, there is an urgent need to establish a practical method of collecting and profiling the genomic attributes of a patient's cancer to help guide treatment selection.



SCIENTISTS MAP THE SPREAD OF DEADLIEST OVARIAN CANCER

In a landmark study published in Nature Genetics, BC Cancer Agency researchers are providing critical insight into the invasive spread of the most malignant form of ovarian cancer. This is a first in mapping two distinct patterns of ovarian cancer cell migration in high grade serous ovarian cancer.

The discovery, led by Dr. Sohrab Shah, senior scientist at the BC Cancer Agency, Associate Professor at the University of British Columbia and Canada Research Chair in Computational Cancer Genomics, was made possible through genomic sequencing techniques and software developed by his bioinformatics team at the BC Cancer Agency. The study was simultaneously published in May 2016 in "Nature Methods". The scientists have answered key unknowns about how deadly ovarian cancers spread, and the composition of the cancer cell groups that have taken up residence within the patient's abdomen.

The study reveals that many cancer cell types make up a patient's tumour. This could explain why some cells are susceptible to treatment when others are resistant, leading to relapse. Also, cell type migration patterns from ovary to other abdominal sites identified that specific ovary sites contained many more cell types relative to others. These regions could pinpoint "gateways" of cell migration to other abdominal sites.

More than 300 women are diagnosed with ovarian cancer each year in BC, and 80 per cent of women diagnosed with a high grade serous ovarian cancer relapse, despite an initial response to treatment. Unlike most cancers that spread through the blood stream or lymph system, this study shows that high grade serous ovarian cancer cells have a unique opportunity to spread prolifically throughout the abdomen. In mapping the cell migration, Dr. Shah's team shows how cells can settle and thrive in specific regions of the body causing widespread, life-threatening disease.

Next steps are to use the innovative techniques developed for this study to define cell migration maps from additional patients with a specific focus on determining which cells are resistant to treatment. This will allow researchers to build predictive tools to better inform future care.

These results indicate that some cancer cells may have had pre-existing properties of resistance prior to the patient taking any treatment. This could indicate that a patient requires a much more aggressive, multi-treatment approach from the start to prevent relapse.

5 BC Health Care Awards for BC Cancer Agency

The BC Cancer Agency was recognized with five awards at the 2016 BC Health Care Awards. Congratulations to the many individuals who contributed to the success of these initiatives:

"Get Your Province Together! BC Cancer Agency Emotional Support Transformation": Gold Apple Winner, Top Innovation – Health Authority : This province-wide initiative sought patient input about service gaps and strategies for improving the emotional support that patients and their families receive. It included developing an advertising campaign with the slogan, "Every experience with cancer is unique. Whatever you're feeling, we are here to support you." After two years, patient satisfaction with emotional support rose from 47 per cent to 90 per cent.

This Emotional Support Transformation initiative was also awarded the prestigious 3M Health Care Quality Team Award for a quality improvement initiative within an organization.

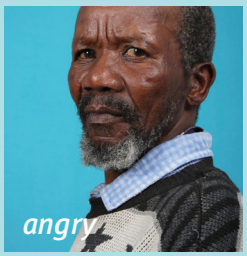
Sindi Ahluwalia Hawkins Centre for the Southern Interior, Project Collision Detection Team, Award of Merit, Top Innovation – Health Authority: The project team developed software that reduces the risk of collisions between machines and patients during external beam radiation therapy.

Permanent Breast Seed Implants Brachytherapy: Award of Merit, Collaborative Solutions: The Brachytherapy Team at the Centre for the Southern Interior was the second site in the world to implement Permanent Breast Seed Implants for the treatment of early stage breast cancer. By implanting small, radioactive seeds in and around the lumpectomy cavity, treatment is completed in a single 1-2 hour outpatient procedure. This is in contrast to standard breast conservation therapy, which consists of a lumpectomy followed by weeks of radiation therapy to the whole breast; a challenging course of therapy requiring the patient to attend treatment five days per week.

Personalized Once-Genomics Program: Award of Merit, Collaborative Solutions: This clinical research initiative embeds genomic sequencing into real-time treatment planning for patients with incurable cancers. Working with partners at the Genome Sciences Centre, BC Cancer Agency clinicians can decode the genome of each patient's care and create personalized treatments.

Vancouver Centre, The Five C's of Culture: Award of Merit, Workplace Health Innovations: The leadership team at Vancouver Centre developed an innovative approach to enhance the centre's culture and increase employee engagement. The Five C's of Culture aims to create a cohesive community that values trust, respect, safety and team work, with the ultimate goal of supporting patient satisfaction and outcomes.

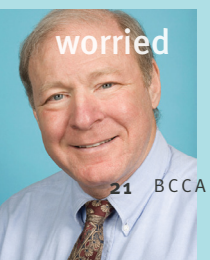














Every experience with cancer is unique.

Whatever you're feeling we're here to support you.

For more information visit www.bccancer.bc.ca/emotional-support

JUNE

2016 in Review

BC adopts new cervical cancer screening policy

In June 2016, BC updated its cervical cancer screening policy, recommending women between the ages of 25 to 69 get tested every three years.

Cervical cancer is one of the most preventable cancers because it has a pre-cancerous phase, and the transition from the earliest stage to cancer takes many years. This new evidence-based policy ensures that women continue to benefit from screening while avoiding unnecessary tests and follow-up treatment. By screening every three years, there is ample opportunity to identify and treat any abnormalities before they turn into cancer.

In its earliest stages, cervical cancer often has no symptoms, which is why screening is so important. Symptoms of cervical cancer may include abnormal vaginal bleeding, abnormal or persistent vaginal discharge, or pelvic pain.

These changes are the result of recommendations from two BC-based expert reviews. The new policy is consistent with the Canadian Task Force on Preventive Health Care recommendations released in January 2013, and the cervical screening guidelines introduced by Alberta Health in May 2016.

QUICK FACTS:

- Cervical cancer screening is a test that can find abnormal cells in the cervix before they become cancer. If these abnormal cells are found and treated early, cervical cancer can be prevented.
- Screening can also identify cancer at an early stage – before it causes symptoms. If cervical cancer is caught at its earliest stage, the chance of survival is more than 85 per cent.
- Since the program's inception, cervical cancer rates in BC have been reduced by 70 per cent.



NEW DIGITAL MAMMOGRAPHY VEHICLE CONDUCTS SUMMER TOUR FOR WOMEN IN NORTHERN BC

The BC Cancer Agency's new digital mammography vehicle visited more than 37 Northern communities including Kitimat, Mackenzie and Tumbler Ridge, booking more than 1,500 appointments throughout the summer of 2016.

The vehicles are equipped with a wheelchair lift, a spacious waiting area and an examination room, to provide women with a comfortable and consistent mammography experience. A wide selection of daytime and weekend appointments were offered to make scheduling convenient.

Screening mammograms are available for women 40 years of age and older. Women are encouraged to discuss the benefits and limitations of mammography with their doctor. If they choose to have a mammogram, it will be available every two years and a doctor's referral is not needed.

Eligible women can use the clinic locator to find a fixed location or see if there is mobile mammography service in their area. For remote communities that the mobile coaches are unable to access, assisted travel support is provided to the nearest fixed centre or mobile stop.

QUICK FACTS:

- Breast cancer is the most common type of cancer diagnosed in Canadian women.
- Mammograms help find cancer in its earliest stages when there are more treatment options and a better chance for successful rate. B.C. has some of the best survival outcomes for those women who do get breast cancer.
- Research has shown a 25 per cent reduction in deaths from breast cancer among women who are screened through the Screening Mammography Program.
- The provincial program has 36 fixed screening mammography centres throughout the province, and three mobile screening units that serve more than 120 rural and remote communities in British Columbia.

Chinese support group celebrates 10th anniversary

Since 2006, Sandy Kwong, MSW, Social Worker with the Patient and Family Counselling Services at the BC Cancer Agency Vancouver Centre has offered, in collaboration with her colleagues, Canada's first professionally-led, language-specific Cancer Support Group for Chinese-speaking patients and their families. More than 2,500 people have taken part in the program.

During more than 100 sessions of this monthly psycho-education drop-in group, guest speakers have attended from many disciplines including nursing, oncology, nutrition, radiation therapy, pharmacy and infection control. They provide cancer-related education to patients and family members, have answer questions either directly in Cantonese and Mandarin or via an interpreter.

On June 9, 2016, the group marked its tenth anniversary. Over 40 cancer patients, survivors and family members gathered with BC Cancer Agency's health care providers and volunteers to celebrate. Group members shared how it has helped them cope with the challenges in their cancer journeys.

"The group provides patients with an additional layer of support to help them understand more about their disease and gain strength to cope with it," said Dr. Frances Wong, BC Cancer Agency's vice president Medical Affairs & Medical Information.

"I have learned a lot from the group – what is mysterious to patients, the concerns, the thought process, and what the best way is to communicate, said Jenny Soo, Radiation Therapy Clinical Educator. "I have taken these experiences and incorporated them into my practice to ensure patients are heard."

"The success of this group speaks to the human need we all have for support, care and information as we journey with and beyond cancer," Heather Rennie, Clinical Coordinator of the Provincial Psychosocial Oncology Program commented. She also acknowledged Sandy Kwong for her leadership, passion and heart for this work.

Partnering with Peru

In June 2016, the BC Cancer Agency signed a Memorandum of Understanding with Instituto Nacional de Enfermedades Neoplásicas in Peru supporting oncogenomics research. The two institutions will exchange scientific knowledge about cancer control through personalized oncology. The partnership will help Peru move ahead with initiatives such as their Plan Esperanza (Plan Hope) program, which is focused on preventing breast and cervical cancer.



BC CANCER FOUNDATION

Conconi Family Immunotherapy Lab in Victoria

A homegrown immunotherapy treatment solution moved one giant leap closer to the clinic with the completion of the Conconi Family Immunotherapy Lab at the Vancouver Island Centre. The Lab is complete thanks to the committed support of BC Cancer Foundation donors on the Island and Robert Conconi and family.

AGENCIES COME TOGETHER IN SWEATLODGE CEREMONY

The Indigenous People of BC consist of 203 First Nations, 35 chartered Metis Societies and 25 Aboriginal Friendship Centres. Although there is great diversity within the Indigenous communities, there are a few traditional Indigenous ceremonies that are common among such diversity.

One such ceremony is the Purification Ceremony, also known as a sweatlodge ceremony. This ceremony is done throughout Turtle Island (North America) and has different variations across many continents.

As part of providing experimental learning opportunities about Indigenous People in BC, the provincial director for Indigenous Cancer, Preston Guno, met with some Elders and arranged for a Purifcation Ceremony for executives from both BC Cancer Agency and First Nations Health Authority. On June 30, Dr. Malcolm Moore, Dr. John Spinelli and Preston Guno participated in a sweatlodge ceremony with First Nations Health Authority's Chief Executive Officer, Joe Gallagher and Chief Medical Officer, Dr. Evan Adams.

This ceremony aimed to forge healthy and effective relations between the agencies as they embark on developing a Provincial Indigenous Cancer Strategy with the Metis Nation BC and BC Association of Aboriginal Friendship Centres.

CENTRE SPOTLIGHT:
Vancouver Island Centre

By Kelly Nystedt, Senior Director, Regional Clinical Operations, and Dr. Sam Kader, Regional Medical Director

What is distinct about your Centre?

As the home for the Deeley Research Centre, Vancouver Island Centre distinctly reflects the mandate of the BC Cancer Agency: "Care and Research". This Centre provides a strong platform for clinicians and scientists to work side by side, integrating clinical and translational research with clinical care, and bringing innovative research from bench to bedside. It is enriched with internationally recognized expertise in Immunotherapy, Bio-banking (Tumour Tissue Repository) and Population Outcomes research.

What are your points of pride?

- ***Leader in Telehealth:*** Vancouver Island Centre pioneered telehealth on the Island and continues to be the leader. They have partnered with Island Health and First Nations Health Authority to expand access throughout the Vancouver Island region and to bring cancer care closer to home. The Centre is currently the highest user of telehealth provincially within BC Cancer Agency and the highest user of telehealth of all health care services within Vancouver Island region.
- ***Enhanced Supportive Care Program:*** The Centre has a purpose designed and built space with warm, welcoming ambiance to better meet the emotional and supportive care needs of patients, families and loved ones. This includes a Patient and Family Library and Information Centre, Wellness Room, Patient Education Room, Children's Area and Family Room as well as comprehensive supportive care services. There is a focus on clinical research activity in Supportive Care.



What is a significant challenge that your team met in 2016?

Vancouver Island Centre Pharmacy required substantial renovation to meet current standards. The Pharmacy operated extended hours in a temporary space with reduced access to only one biological safety cabinet (down from two) from February through November 2016. The Centre maintained the volume and quality of clinical service levels for chemotherapy delivery throughout construction.

How did your team contribute to delivering excellent cancer treatment and care in 2016?

We will let our patient speak for us here – please see excerpts from a patient letter recently received:

In my 86 years of experience in various hospitals and clinics round the

> “The abiding theme that emerged was ‘We’re in good hands – the best.’ And that’s a very comforting thought, believe me.”

world, never before have I enjoyed such hospitality combined with the best of care. From the original DVD describing the Centre, through the helpful greeting from the lady at the reception desk, to the assistance and treatment I was afforded by the lovely ladies at the Birch section, everything demonstrated a warming degree of empathy and efficiency. Yet, at no time did I feel that I was being hurried through a procedure to make way for another waiting patient.

In waiting rooms, people talk to each other. The abiding theme that emerged was: “We’re in good hands – the best.” And that’s a very comforting thought, believe me…

…I cannot end without paying tribute to your team of volunteers, without whom I might still be trying to find my way out of the building.

Congratulations to you all.
You make a fine team.
Sincerely.
FH

MORE ONLINE:
www.bccancer.bc.ca/our-services/centres-clinics



Expanded support for prostate cancer survivors

One in seven men in Canada will be diagnosed with prostate cancer, according to current estimates. Prostate cancer patients now survive on average three times longer than patients did just 20 years ago. Survivors face a long period where they must learn to live with the negative effects of prostate cancer treatment, as well as the psychological burden carried by both patients and their loved ones.

A comprehensive survivorship program for prostate cancer patients, their partners and family, originally launched at Vancouver General Hospital in 2013, was rolled out on Vancouver Island in 2016. The first of six modules was offered in Victoria, providing education from a urologist and a radiation oncologist. Vancouver Island Centre is partnering with the Island Prostate Centre to expand the program to include nurse counselling, exercise, androgen deprivation therapy counselling and nutrition.

In addition to expanding support for survivors and their families, this program represents an important collaboration between the BC Cancer Agency and local community resources.

Focus on “Focus Charting” on Vancouver Island

> Quality patient care depends upon complete and accurate information among care givers.

Quality patient care depends upon complete and accurate information among care givers. It is also essential for institutional accreditation. Through documentation, nurses communicate their observations, decisions, actions and the outcomes of those actions for patients. In contrast, inaccurate or incomplete documentation can result in poor patient outcomes.

Of 318 documentation reports filed in the BC Cancer Agency Patient Safety and Learning System in 2014/15, 31 per cent were found to be the result of unclear, illegible, incomplete and inaccurate documentation. After an audit of nursing documentation was completed at all six BC Cancer Agency Centres in 2014, there has been an increased focus on applying a method for organizing health information called Focus Charting. Introduced at the BC Cancer Agency in 2007, Focus Charting is a systematic approach to documentation, using nursing terminology to describe individual’s health status and nursing care.

A province-wide initiative is focused on improving nursing documentation through the application of Focus Charting. It began at Vancouver Island Centre in 2016 and will expand to the other regional centres.

JULY

2016 in Review

Expanding LONG-TERM SUPPORT for cancer survivors

The BC Cancer Agency opened its first long-term follow-up clinic for cancer survivors in 2016. The new **Late Effects, Assessment and Follow-up Clinic** is part of the broader Adult Childhood Cancer Survivors Program. Located in Vancouver, it serves the entire province of BC.

The Clinic is the result of substantial effort and commitment of many survivors and their families, as well as the medical teams who cared for them. It provides both medical and psychosocial support to adults who survived childhood cancers, as well as screening and monitoring for late effects of childhood cancers.

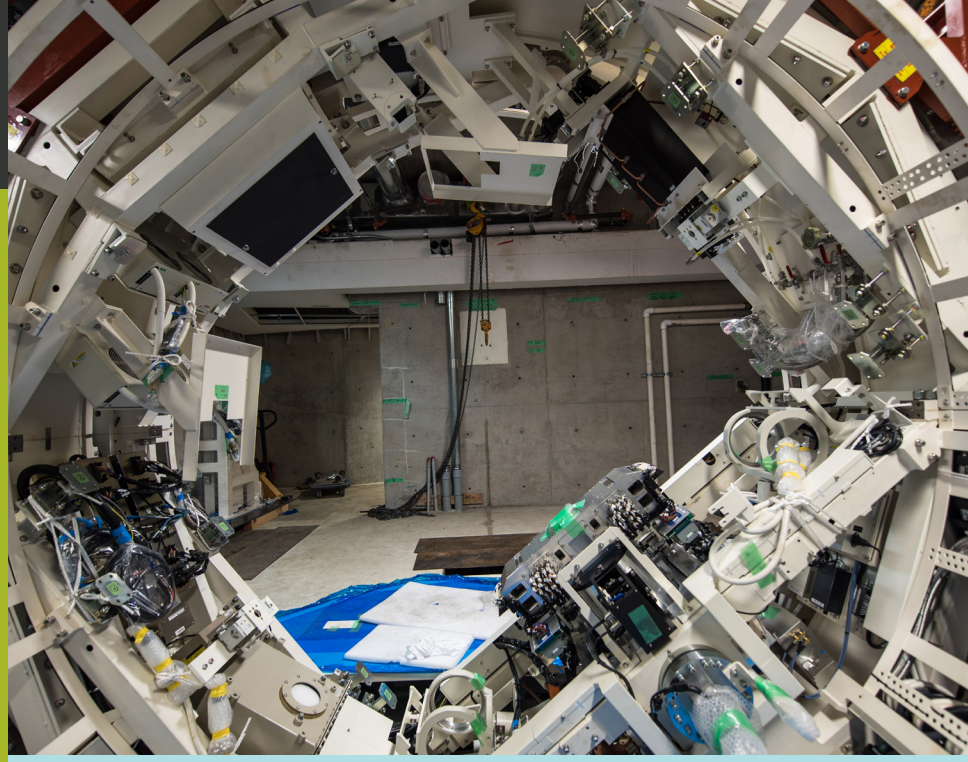
The Adult Childhood Cancer Survivors Program is recalling people diagnosed with cancer age 17 and younger between 1970 and 2010, inviting them to attend the new clinic.

All new patients see a nurse practitioner or oncologist to review their past cancer diagnosis and treatment; discuss current health issues; receive appropriate tests to screen for late effects of childhood cancers; receive referrals to Specialists as needed and discuss risks of late effects. They can also see a counsellor to discuss psychosocial issues. The clinic acts as a resource for health care providers caring for adult childhood cancer survivors, providing advice and expertise on the management of late effects.

The Adult Childhood Cancer Survivors Program is developing a database to collect patient reported and clinical outcomes for quality improvement, program evaluation and research.

Dr. Karen Goddard (left) and Avril Ullett are part of the team at the Late Effects, Assessment and Follow-up Clinic in Vancouver





BC CANCER FOUNDATION

Cutting-edge radiotherapy technology comes to BC

New cutting-edge radiotherapy technology was installed at Vancouver Centre in July 2016. The first machine of its kind in Canada, VERO™, will treat those diagnosed with rare and hard-to-treat cancers.

An all-in-one radiation, imaging and patient positioning system known as stereotactic body radiation therapy machinery, VERO™ focuses radiation on a central target (e.g. a tumour) while sparing surrounding healthy tissues and organs.

Tumours can move when patients breathe or the heart pumps, so focusing a beam of radiation only on a tumour is tricky. VERO™ technology, with its dynamic, six-dimensional patient positioning and tumour tracking system, has less risk of healthy tissue receiving radiation. To do this, VERO™ acquires breathing signals from patients and correlates them with the position of the tumour using infrared signals.

About 13,000 cancer patients receive radiation treatment in BC each year. About 50 per cent of all cancer patients are eligible for radiation. VERO™ is ideal for hard-to-treat cancers such as lung, liver, pancreas, kidney and brain.

The generosity of 4,000 BC Cancer Foundation donors provided $6.5 million to purchase VERO™, perform the necessary renovations at the Vancouver Centre, train staff and help bring the most advanced radiation therapy system to the BC Cancer Agency. A five-year clinical research program using VERO will begin in 2017.

AUGUST 2016 in Review

Paddling to positive health

"I defined myself as a survivor the day I was diagnosed," says Sherry Dunn, now looking back to the day that she received confirmation of what she already suspected: stage 3 invasive-aggressive breast cancer. It's an interesting term – survivor – and one that evokes a myriad of emotions among those diagnosed with cancer. For Sherry, the resolute belief that she would survive cancer, no matter what, was part of the positive attitude she knew she'd need to walk this path.

Her first response to the diagnosis was to begin learning everything she could about her illness, as well as the risk factors that could have led to this diagnosis when she was still relatively young. She focused first on her diet. She decided that her body knew instinctively what was good for it. In addition to giving up red meat, she gave up alcohol and processed meat, and began a low-glycemic-index eating plan that she still follows. But it was just before she started chemotherapy that Sherry experienced the thing that would change her life more than anything else. A pink ceramic ribbon led to a chance conversation with Jo Houghton, who invited her to come out and watch a dragon boat regatta, and the team Jo had recently joined, Spirit Abreast. From that moment on, Sherry was hooked.

Chemotherapy went as well as it could for Sherry, and through it all she worked and paddled as a new team member with Spirit Abreast. She was also able to see through two public art projects she had started with students, volunteers and community members. Sherry continued to teach through chemotherapy, radiation and Herceptin treatments, followed eight months later by a full mastectomy.

For Sherry, her deep connection to the dragon boat movement and, in particular her Spirit Abreast team, has resulted in the meaningful intersection of better health through exercise, a powerful new sisterhood and a community in which to give back through her art. Her experience is perhaps best embodied in a project she took on for the team this past year – a new racing shirt design that, much like a totem pole, tells the story of the Spirit Abreast team. Sherry worked tirelessly to pay tribute to now-passed team members whose hearts and souls are still present with every stroke.

"My miracle cure was being part of an active community, believing I am the author of my own destiny, eating well and having a positive mental attitude. Our team motto is 'keep smiling,' and that's something I sure do more of now."





Thousands of British Columbians cycled from Vancouver to Seattle in the 8th annual Ride to Conquer Cancer in August, raising $7.1 million to advance cancer research and care for the people of BC. The Ride to Conquer Cancer takes place August 26-27, 2017. To learn more visit conquercancer.ca

NATIONAL STUDY AIMS TO IMPROVE SUPPORTIVE CARE TRANSITION

A sample of cancer patients and survivors who completed their treatment in the past three years were invited to share their experiences of the support and care they received after they completed treatment. A survey was undertaken in Fall 2016.

Ten provinces participated in this study in collaboration with the Canadian Partnership Against Cancer. Study partners include the BC Cancer Agency, CancerControl Alberta, Saskatchewan Cancer Agency, CancerCare Manitoba, Cancer Care Ontario, Ministère de la Santé et des Services sociaux du Québec, Institute de la statistique du Québec, New Brunswick Cancer Network, Cancer Care Nova Scotia, Health PEI and Eastern Health Cancer Care Program. The survey was conducted by Ipsos, a global research firm with extensive experience in the health sector.

When cancer treatment ends, patients and survivors transition from specialty oncology care back to their family doctor. This transition is often met with questions about what happens next, what changes and where to go to seek help. The BC Cancer Agency is working with the Canadian Partnership Against Cancer and provincial cancer agencies across the country to improve the experiences of people transitioning out of the cancer care system after treatment.

The responses will help inform recommendations to improve the way care is provided between cancer care and other sectors of the health care system providing follow-up and supportive care.

CENTRE SPOTLIGHT: Sindi Ahluwalia Hawkins Centre for the Southern Interior

By John Larmet, Senior Director, Regional Clinical Operations, and Dr. Ross Halperin, Regional Medical Director



What is distinct about your Centre?

The Sindi Ahluwalia Hawkins Centre for the Southern Interior serves a geographically disparate population. Only 250,000 of 750,000 patients in our catchment are within a one-hour drive of our Centre. This inspires unique solutions to serve our community.

The Centre works in a collaborative partnership for chemotherapy delivery within the Interior Health Authority's 10 Community Oncology Network sites, with some sites having local, onsite BC Cancer Agency medical staff. We have also actively sought strategies that align best care with convenient service for the region we serve. With systemic therapy treatment options closer to home, our radiation treatment patients participate in rural and remote radiation oncology follow-up clinics, where we bring the provider to the patient.

Since 2003, our centre has worked to develop world leading brachytherapy services on site. Funded 100 per cent initially by generous donors through the BC Cancer Foundation, these services often replace prolonged courses of external beam irradiation with single-day cancer treatment. Some of these brachytherapy treatments have proven more effective and more convenient for patients.

The Centre embodies BC Cancer Agency's mandate of "Care and Research". We are second in the province for clinical trial accruals, with clinical trial research units in systemic and radiation therapy, participants in early detection research, PREDICT, biology of breast and lymphoma. We have unique and collaborative research partnerships with UBC-Okanagan and Interior Health. At any point in time, the Centre for the Southern Interior can have upwards of 20 undergraduate, graduate students, interns and fellows working with clinical researchers.

@ MORE ONLINE:
www.bccancer.bc.ca/our-services/centres-clinics

"We draw pride from delivering world class care and are committed to improving care for tomorrow's cancer patients."

What are your points of pride?

The team at the Centre is a proud member of the BC Cancer Agency family. We draw pride from delivering world class care and are committed to improving care for tomorrow's cancer patients. Evidence of this is found in the high proportion of patients enrolled in clinical trials; the number of innovative programs such as using 3D printing to improve the treatment of gynaecological cancers; and our work exploring the possibility of microscopic CT to assess the histology of lung lesions without invasive biopsies. Many of our programs and innovative research programs are funded through the generosity of local donors to the BC Cancer Foundation. In particular, staff are proud that the Centre has created and followed a grass-roots-designed academic strategic plan.

What is a significant challenge that your team met in 2016?

2016 was a challenging year for our centre. We faced an unexpected referral surge timed with long term on-site vacancies (one medical oncologist and one radiation oncologist) for much of the year. The centre was already demonstrably struggling to meet the capacity needs of the region before the referral spike.

In addition, the Centre completed a complex pharmacy renovation project, with an "in house" solution and partnership with the Kelowna General Hospital Pharmacy department, to bring on-site pharmaceutical capabilities in line with standards. This caused the temporary loss of on-site teaching/meeting capability. With the completion of that project, there is renewed enthusiasm to continue the learning at the Centre.

The Centre experienced a 24 per cent year-over-year increase in Telehealth appointments in 2016. The leadership team made the decision to increase its Telehealth capabilities by adding an additional Telehealth clinical suite and enhancing individual physician offices with video linking capabilities.

How did your team contribute to delivering excellent cancer treatment and care in 2016?

In 2016, we recognized the need to enhance our capability to incorporate patient input into care delivery and redesign. We embarked on a patient- and family-centered approach to care and treatment. This led us to recruit a strategic patient advisor to the Centre strategic leadership team.

In partnership with our provincial peers, the Centre grew its quality assurance work in 2016 and is continuing that trend. Our vision is that every patient deserves our very best, and our very best mandates a peer reviewed care plan for all. We are focusing our efforts on curative intent radiotherapy and expect future projects to expand to systemic and surgical oncological care.

"The BC Ministry of Health Strategic Plan is committed to providing patient- and family-centred care throughout the province's health care system. Seeing cancer treatment first-hand as a caregiver, and most recently as a patient, provided me with an appreciation for the passion, knowledge and care from the staff and volunteers at the Centre for the Southern Interior. My background also provoked my curiosity to ask how the team can confront systemic challenges and help advocate for patient-centred care. "

JEREMY KING, STRATEGIC PATIENT ADVISOR



Jeremy King

SABR provides advanced palliative care

The Stereotactic Ablative Radiotherapy program at the Centre for the Southern Interior is helping to improve quality of life in the Interior region by providing advanced palliative care. It has reduced the need for patients to travel to other Centres for state-of-the-art treatments. Radiation therapy treatments are delivered over fewer days rather than conventional radiation therapy, another important benefit in a large geographic region where patients often need to travel considerable distances.

The team treated its 100th lung patient in 2016, introduced new protocols and treated the first Oligomet patient under the provincial phase 2 clinical trial. The team is collaborating on Provincial Protocols. This standardization across the province will allow for a wealth of data to be collected, enabling assessment of techniques and ongoing improvements to care.

SEPTEMBER

2016 in Review

Cross-border cancer research partnership enhances research

The BC Cancer Agency, Fred Hutchinson Cancer Research Center and the Seattle Cancer Care Alliance formed a new partnership in September 2016 to enhance cancer research.

The announcement was made in Vancouver with the formal signing of a memorandum of understanding at the Emerging Cascadia Innovation Corridor Conference, with BC Premier Christy Clark, Washington State Governor Jay Inslee, Microsoft Founder Bill Gates and Microsoft CEO Satya Nadella in attendance.

The new partnership will expand patient access to care and clinical trials, advance immunotherapy, enable research collaboration and provide better training opportunities for young scientists and researchers.



Dr. Gary Gilliland, President and director of Fred Hutchison Cancer Research Center, and Dr. Malcolm Moore, President of BC Cancer Agency

New genetic tests become standard of cancer care in BC

Two new multi-gene analysis panels, OncoPanel and Myeloid Panel, are now available to oncologists and haematologists across British Columbia as provincial diagnostic tools, meaning a more personalized approach to treatment for thousands of eligible cancer patients.

These clinical tests can detect multiple mutations in several genes simultaneously associated with solid or blood-based cancers. These are the first gene panels to be available province-wide and as part of standard cancer care in Canada for acquired cancers. Tests of this kind are only available at the top few cancer care institutions in the world.

Newly diagnosed patients with advanced lung cancer, colorectal cancer, melanoma, gastrointestinal stromal tumours or low grade gliomas are eligible for OncoPanel testing; while patients with acute myeloid leukemia, myeloproliferative neoplasms and myelodysplastic syndromes are eligible for the Myeloid Panel.

In the case of a solid tumour, a biopsy is performed and technologists process it and prepare its DNA for the OncoPanel. During analysis, multiple single gene sequencing tests are integrated onto a single Next-Generation sequencing panel, significantly reducing the time for diagnosis compared to previous approaches. In just two to three weeks, the patient's oncologist receives a report that helps them select the best treatment plan for the patient.

With significant support from the BC Cancer Foundation and Genome BC, the panels were developed by clinicians and scientists at the BC Cancer Agency and Lower Mainland Labs — a Lower Mainland consolidated service under the Provincial Health Services Authority.

QUICK FACTS

- Over 2,000 BC cancer patients will be eligible for the OncoPanel annually.
- Over 600 BC cancer patients will be eligible for the Myeloid Panel annually.
- More than 600 patients and 79 oncologists and haematologists were involved in validating the panels in two clinical trials.
- The new panels are expected to substantially increase the number of patients diagnosed with both common and very uncommon genetic mutations in their cancer.



BC CANCER FOUNDATION

Hope Couture raises $900,000 for Personalized Lymphoma Cancer Research and Care

The BC Cancer Foundation's 2016 Hope Couture, presented by CDN Jade Mine Resources, raised $900,000 to support important research into personalized lymphoma care at the BC Cancer Agency's Centre for Lymphoid Cancer.

Thanks to all donors and a generous gift of $500,000 from Samuel and Frances Belzberg by way of the Bel-Fran Charitable Foundation, funds raised will support a new Single Cell Genomics Suite at the Centre. The new suite will bring hope to more than 1,200 British Columbians that will be diagnosed with a form of lymphoma this year.

The funds will support researchers to study single cell populations to better pinpoint treatment resistance and identify potential therapies, enhancing the lymphoma standard of care in BC. Held at the Fairmont Pacific Rim Hotel in Vancouver, the sold-out fashion show and luncheon was attended by more than 380 people.

NEW TOOLKIT SUPPORTS NURSING CARE

A new online toolkit introduced in September 2016 is helping Registered Nurses provide care to patients receiving immunotherapy, namely checkpoint inhibitors that carry the potential of immune related adverse events.

The toolkit provides education for nurses about the drugs' immune related mechanism of action and the process for comprehensive patient care: education, reporting and support. By knowing the key differences in the cause of toxicities (immune related adverse events), nurses can provide patients with prompt and correct treatment.

Patient safety is a key goal for outpatient treatment. Through nursing education and established care pathways, patient education and pre-determined telephone follow up, patients are less likely to escalate to higher toxicity grade, more readily self-report symptoms and know what care is needed if an immune related adverse event occurs.

Patients involved in the process have commented that they "feel supported throughout their treatment" and they "got the care they needed when they needed it".



CENTRE SPOTLIGHT: Fraser Valley Centre

By Cherie Taylor, Senior Director, Regional Clinical Operations, and Dr. Gary Pansegrau, Regional Medical Director

What is distinct about your Centre?

Leadership initiatives:

- Process Innovations
- Focus on leadership development/ Dyad Partnership
- Continuous improvement

Strong collaboration between programs in treatment areas and office spaces has helped provide multidisciplinary care to patients and families. For staff, the Social Committee is very active and organizes social events within and out of the workplace to maintain a strong sense of community and camaraderie. Most staff know each other by name, and new staff are quickly welcomed into the Centre and culture.

We service a diverse population – culturally, linguistically and socio-economically – and are seeing a 45- 50 per cent increase in new cancer cases per annum. The culturally diverse patient population is well served by our culturally diverse staffing.

What are your points of pride?

Patient responses via the monthly Patient Satisfaction Surveys and Comment Cards repeatedly highlight the high standard of care at Fraser Valley Centre. From their responses, it is clear that patients are grateful for the respect and care they receive.



What is a significant challenge that your team met in 2016?

The Fraser Valley Centre team met four major challenges:

- Space shortages for clinic and professional activities. A major part of 2016 was devoted to completing the Schematic Design and Planning for our Ambulatory Care Unit & Pharmacy Expansion Project. The new space is set to open in May 2018.
- Continuous growth in patient numbers (and treatments). Trying to see patients in a timely manner, along with providing information and education at the point of care rather than bringing the patient back.
- Developing an interdisciplinary model of care.
- Achieving and sustaining Patient Satisfaction in booking chemotherapy treatments when there are Statutory holidays and a finite amount of time in each day to treat.

How did your team contribute to delivering excellent cancer treatment and care in 2016?

We introduced a Peer Review process in Radiation Oncology which increases patient safety.

2016 saw the introduction of the use of Cone Beam CT for all prostate-only treatments. Utilizing this CT allows for the position of the prostate to be more accurately defined at treatment, meaning fewer healthy tissues may be irradiated, which ultimately may reduce the incidence of treatment related side effects.

Our compassion and pride lies in continuous safe patient care, "stopping the line" when necessary and even, in times of staffing challenges, never cancelling or compromising our care delivery. We aim to have the shortest clinic wait times as possible for patients, treatment or consultation (10 minutes or less).

The LEAN and imPROVE methods served the Centre well by bringing about major improvements in care and treatment in Radiation Therapy treatment delivery, chemo therapy, telephone care and communications between disciplines. The metrics continue to assist in sustaining positive changes.

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www.bccancer.bc.ca/
our-services/centres-clinics



The Fraser Valley Centre team celebrate 21 years of service.

HAPPY STAFF = HAPPY CLIENTS

Following a site-wide competition to choose a slogan, Fraser Valley Centre staff and volunteers were given T-shirts as a gift to celebrate the Centre's 21st anniversary. The shirts sported the winning slogan, **#liveyourbestlife.**

The strong staff morale translates into a superlative quality of care. It is evident in comments from patients:

"Since the beginning of our journey we have received outstanding care and compassion. *Words cannot describe our gratitude for what everyone has done for my wife and our family! From the staff in the oncology ward, technicians in the radiation therapy department, both of our counsellors in patient family services and all remaining who have helped us along the way! Thank you from the bottom of our hearts!"*

"Everyone in the Fraser Valley Centre is kind and considerate. Coming here can be stressful so meeting with such caring people is wonderful. Thank you to all of you, you are much appreciated."

"It is hard to put into words how grateful I am for the care I received at the Fraser Valley Centre. *I cannot thank adequately all those who took care of me. I was treated with kindness, respect and great professionalism at all times. Thank you".*

"In all my 35 years in senior human resource management and consulting, I have never experienced such a wonderful, welcoming and competent group of professionals as the team of Nurses at Fraser Valley Centre. *What I noticed immediately was the very positive working climate at the Centre and just how well the staff interact with each other. One of the positive aspects of my next two years of follow-up treatment is that I will get to see them again. I am sure you are very proud to be working with such a great team of professionals. Thank you for providing such wonderful and professional care to cancer patients".*

#21yearsofawesome

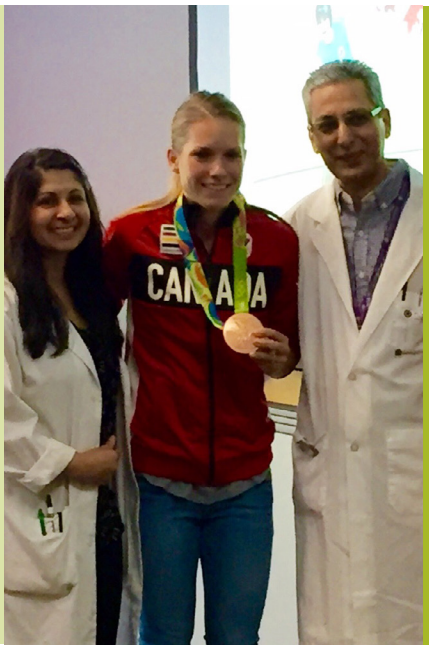
"For the entire patient's journey in cancer care, we try to make a difference," said Dr. Frances Wong, vice president Medical Affairs & Medical Information, as she addressed a group of staff and volunteers who assembled to celebrate Fraser Valley Centre's 21st anniversary. Frances has been with the Centre since before its official opening in April 1995. It was the third regional cancer centre built in BC.

"Fraser Valley Centre strives to provide a special family feeling," says Dr. Wong, explaining why she continues to practice one day a week amidst her full schedule as vice president which sees her mostly in the Agency's office in Vancouver. Many of the staff have worked at Fraser Valley Centre for most of their careers. Linda Douglas, program secretary and a 35-year veteran sums it up best, "It is the patients and their families who inspire us every day."

Thank you from an Olympic medalist

With a medal around her neck and a smile on her face, Olympic cyclist Jasmin Glaesser said a heartfelt thank you to Fraser Valley Centre staff during a visit in August. While Jasmin was winning a bronze medal at the 2016 Rio Olympics, her mother, Andrea, was undergoing breast cancer treatments.

The room was overflowing with staff, most of whom had never met an Olympian before. Staff were excited at the opportunity to try on her medal and ask questions. In her speech, Jasmin talked about the importance of teamwork, telling staff that the work they do every day is even more important than winning an Olympic medal!



OCTOBER

2016 in Review

New website helps cancer patients and survivors with work-related challenges

Cancer often affects people in the prime of their careers. While coping with the emotional impact of a cancer diagnosis and navigating treatment is challenging on its own, returning to work with cancer presents a host of other difficulties.

While 60 per cent of those diagnosed with cancer will return one to two years following treatment, 25 to 53 per cent will either quit or lose their jobs. These staggering numbers are a clear indication that there is a need for comprehensive information to support a return to work for many cancer survivors.

A new website — CancerAndWork.ca — was designed to meet this need, providing support for anyone who plans to stay at work during treatment and for those that plan to leave. It also strives to help cancer survivors develop strategies to remain working long after treatment, including advice for changing or continuing careers.

CancerAndWork.ca is the most extensive website on this topic in the world, providing links to resources around the globe that are useful to cancer survivor everywhere, including information and tools for employees, employers and healthcare providers. It also fills the need for a deeper understanding about the roadblocks that survivors face, and how healthcare providers and employers can facilitate a successful return to work strategy.

Launched in October 2016, the site was developed by McGill University and the BC Cancer Agency, in partnership with de Souza Institute and made possible with financial support from Health Canada through the Canadian Partnership Against Cancer. CancerAndWork.ca makes it easy to find the content and resources cancer survivors need.





BC CANCER FOUNDATION

CELEBRATING INSPIRATION

The BC Cancer Foundation's Inspiration Gala raised more than $3 million to develop a life-saving treatment program called NETRACER for patients with neuroendocrine cancers. The 2017 Inspiration Gala is raising funds for the Hereditary Cancer Program on November 4, 2017.

@ MORE ONLINE @ bccancerfoundation.com

BC scientists play major role in international effort to map the human epigenome

On November 17, 2016, a collection of 41 coordinated papers were published by scientists from around the world, moving global research in the field of epigenomics a major step forward. Scientists from the BC Cancer Agency, UBC and SFU published three of the papers.

Unlike the genome, the epigenome changes as cells develop and in response to changes in the environment. Defects in the factors that read, write and erase the epigenetic blueprint are involved in many diseases. The comprehensive analysis of the epigenomes of healthy and abnormal cells will facilitate new ways to diagnose and treat various diseases, ultimately leading to improved outcomes.

A set of 24 manuscripts has been released as a package in Cell and Cell Press-associated journals, and an additional 17 papers have been published in other high-impact journals. These papers represent the most recent work of International Human Epigenome Consortium (IHEC) member projects from Canada, the European Union, Germany, Japan, Singapore and the United States. The papers showcase the achievements and scientific progress made in core areas.

The Canadian contribution to the project was coordinated through the Canadian Epigenetics, Environment and Health Research Consortium (CEEHRC).

Dr. Martin Hirst, chair of the IHEC international scientific steering committee and the CEEHRC network lead, and his colleague Connie Eaves, distinguished scientist at the BC Cancer Agency and a professor in UBC's Department of Medical Genetics, published the first epigenetic profiles of normal cell types in human breast tissue. This information will help scientists understand how normal mammary glands develop and serve as a comparator for diseased tissues. Hirst's group also published another study that reveals novel methodology for analyzing the epigenomes of stem cells.

A team led by Dr. Marco Marra, distinguished scientist at the BC Cancer Agency and director of Canada's Michael Smith Genome Sciences Centre, used similar methods to identify epigenetic changes that are thought to contribute to the development of a rare childhood cancer called malignant rhabdoid tumour. This study was published in Cancer Cell earlier in 2016 and is highlighted in the IHEC release as one of the 41 ground-breaking epigenomics papers.

Dr. Martin Hirst, Dr. Marco Marra and Dr. Connie Eaves



CENTRE SPOTLIGHT: Vancouver Centre

By Heather Findlay, Senior Director, Regional Clinical Operations, and Dr. Kim Chi, Regional Medical Director

What is distinct about your centre?

What sets us apart is innovation in our clinical research activities. Novel therapies and personalized, precision medicine approaches carve the path forward to new research and better outcomes for patients in the areas of cancer care and research.

Another distinction surrounds the level of staff involvement in enhancing positive culture in the Centre. As we focus on moving from "me to we", our teams have embedded the 5C's of Culture: *Committed to Quality, Conversations Matter, Celebrating Who We Are, Continued Development* and *Community Through Collaboration.*

What are your points of pride?

The people that work here are passionate and dedicated to the work, which we take great pride in. We have many world renowned clinical researchers, and caring and dedicated staff. With a large and dynamic volunteer program, we strive to be patient-facing in all we do. We work hard to embed patient advisors and their feedback into our planning and operations to better reflect the needs of our community and beyond.

In 2016, we began a new initiative to freshen the Centre to ensure the excellence in the delivery of care and research mirrors the perception of the Centre in physical appearance.

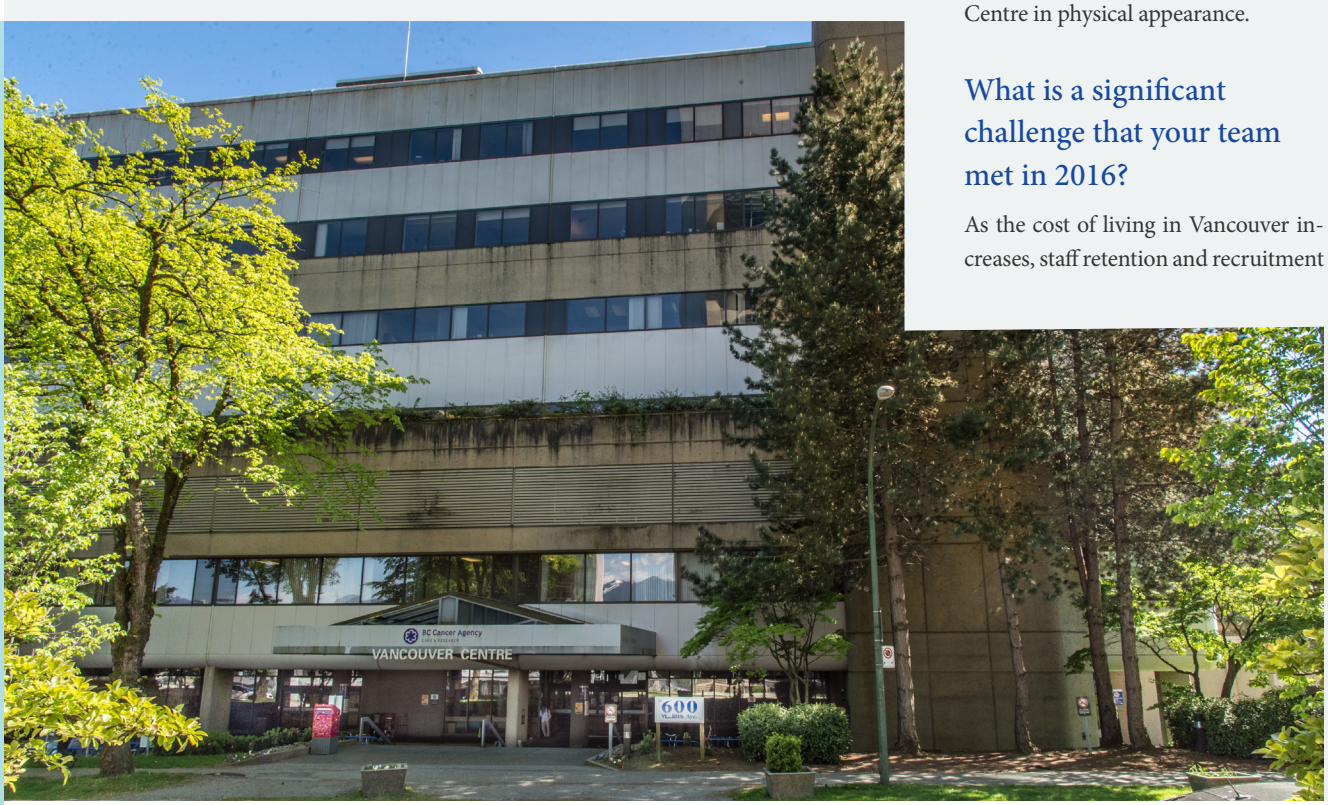
What is a significant challenge that your team met in 2016?

As the cost of living in Vancouver increases, staff retention and recruitment becomes a significant challenge for us in healthcare and at Vancouver Centre. As well as growth, prevalence and complexity in cancer care and patient presentation also add to these challenges. Space is at a premium as programs expand and develop to meet growing needs.

How did your team contribute to delivering excellent cancer treatment and care in 2016?

In 2016, there were many changes and enhancements to service created at Vancouver Centre. We were fortunate to create a Speech Language Pathology Program and hired a new Speech Language Pathologist. This role focusses on evaluating, diagnosing, and treating a wide range of speech, language, communication and swallowing disorders that are can be associated with cancer and the treatment plan.

We installed two new linear accelerators to better service the Radiation Therapy population, and we implemented a patient paging system for the pharmacy to better utilize patients' time and enhance communication.



MORE ONLINE:
www.bccancer.bc.ca/our-services/centres-clinics



BC Cancer Agency staff perform at an event promoting Community in the 5 C's of Culture.

Celebrating the 5 C's of Culture

Research shows that environments that foster team building, recognition and partnerships are also the ones that have the highest safety. With this in mind, the Vancouver Centre Admin Leadership team designed a program that builds networks and relationships by focusing on the contributors to culture.

The 5 C's of culture was developed by the Admin Leadership Team and launched in January 2016. The 5 C's are:

- Continued development
- Committed to quality
- Conversations matter
- Celebrating who we are
- Community through collaboration

The 5 C's are being promoted by initiatives that promote healthy living, quality improvement, professional development, recognition, building community and conversations between staff and leaders.

The overall goal; create a cohesive community that values trust, respect, safety and teamwork.

The fifth C (Community) is emphasized by Vancouver Centre's reach: everyone in the Vancouver Campus is invited to all 5 C's initiatives, the speaker series is video linked to other Centre and BCCA partners are invited to take part in some of the programs.

Partnering with patients

Incorporating patient feedback is an important part of improving the patient experience at Vancouver Centre. Between January 2015 and April 2016, 155 public comments were received, either via the website, in suggestion boxes, by phone or in person. Comments are categorized, and follow-up actions are identified. The most common patient comments were notes of appreciation followed by suggestions for the centre's environment (usually seating) and feedback on staff behaviour. For 91% of comments, there was follow-up with the individual within two weeks; some comments are anonymous and some reporters are explicit that they don't want a follow up.

Vancouver Centre is partnering with patients in several ways to ensure continuous improvement of services offered:

- Two staff representatives are on the PHSA Provincial Patient Council
- Several staff members are on the Provincial Patient Advisory Council.
- Two patient representatives are on the Post-Treatment Patient Education Print Materials Working Group
- The Art Committee and Ethics Committee are exploring inviting patients or family members to join as committee members
- We are exploring opportunities to partner with patients as part of the 5 C's of Culture.

Patient pager system helps with pharmacy wait times

Waiting for a prescription to be filled in a busy pharmacy can be an uncomfortable experience. Vancouver Centre pharmacy has implemented a system that offers patients a pager, enabling them to move to other areas of the building – maybe to enjoy a cup of coffee – while their prescription is being filled. The pharmacy sends a signal to the pager to flash and vibrate when the prescription is ready.

In addition to improving patient comfort, the system reduces the number of interruptions for pharmacy staff, which improves their efficiency and reduces the risk of medication errors.



DECEMBER

2016 in Review



BC Cancer Agency scientists among World's Most Influential Scientific Minds

BC Cancer Agency scientists have again been listed by Thomson Reuters as among the World's Most Influential Scientific Minds.

In 2016, four BC Cancer Agency scientists were recognized as having peer reviewed papers that rank in the top one per cent by citations from publications in their field. They include Drs. Marco Marra, Steven Jones, Joseph Connors and, recently retired, Randy Gascoyne.

Dr. Marco Marra and Dr. Steven Jones, distinguished scientists at the BC Cancer Agency and Co-Directors of the Michael Smith Genome Sciences Centre, discuss this significant achievement.

What does it mean to you to be listed among the World's Most Influential Scientific Minds?

Marco Marra: Science isn't something that's done in which some lonely soul dresses in a lab coat and hovers under a naked lightbulb until the wee hours and that's where it begins and ends. Science is an intensely social activity actually, that in order to be effective has to be appreciated and absorbed by many folks around the world. So, I guess what this means to me is that some of the stuff that we are producing, our scientific product if you like, is of interest around the world. So, I think we're achieving our mission as scientists.

Steven Jones: What they mean by influential is that people are actually taking notice of the work that we're doing and applying it to their own scientific research as well. It's fantastically important that the work that we're doing has impact around the world and that people are taking notice of what everyone has done here.

MORE ONLINE: www.bccancer.bc.ca->About->News Stories



BC Cancer Foundation's 10th annual *Jingle Mingle* holiday party in Victoria in December kicked off fundraising to bring a critical PET/CT scanner to patients on Vancouver Island.



ASSESSING THE USE OF NATURAL HEALTH PRODUCTS IN ONCOLOGY

Up to 80 per cent of BC Cancer Agency patients take natural health products at some point in their cancer journey. In December, clinicians were educated on how to approach the use of natural health products in patients with cancer. This session, which took place during Medical Oncology Noon Rounds, will help clinicians know whether it's appropriate for patients to continue their natural health products and when it's not. By using an evidence-based approach, clinicians can prevent significant drug-herb interactions in patients.

RECOGNIZING LONG SERVING TEAM MEMBERS

Long service is much more than the years that an employee has worked for an organization, it is a symbol of the dedication, knowledge, expertise, experience and passion that employees bring to their roles every day.

The BC Cancer Agency salutes the 96 individuals who reached milestones of 20 years or more in 2016. Thank you for your ongoing contribution to care, treatment and research.











35 years

Joseph Connors
Linda Douglas
Mayo Fung
Kaniza Ishmail
Patricia Love
Elaine Peterson
Kenneth Wilson
Esther Wong
Patrick Wong
Kenneth Wright

30 years

Lynne Charlesworth
Marie Eaton
Ming Fong
Lorri Iliffe
Vivian Lam
Laura MacDonald
Tracy Mitchell
Valerie Niemi
Heather Scarlett
Satnam Sekhon
Kerry Symes
Rob Watt
Michael Webber
Lynn Zacharuk

25 years

Lenora Ardita
Marcel Bally
Theresa Beamish
Joy Bunsko
Kikine Capier
Ester Chan
Kamaljit Dosanjh
Catherine Fellows
Mark Goldie
Charmaine Kim-Sing
Heather Koniuk
Brenda La Prairie
Bassam Masri
Michael McKenzie
Cindy Mills
James Morris
Thomas Nevill
Joan Pakulak
Jamie Parry
Lucie Pellerin
Nancy Runzer
Marianita Salvo
Letricia Sand
Peter Steiner
Miranda Tsai
Cher Turner
Lorna Weir
Colleen Wong
Mackenzie Yu

20 years

Stephanie Aldridge
Sheri Aubin
Jana Maureen Avigdor
Paul Blood
Vernette Brown
Wilhelmina Calica
Susan Chai
Taruna Chhanabhai
Narvdia Clarke
Deanne Delicato
Tetyana Denyssevych
Sandra Hall
Blanche (Wen Jia) Hou
Xiaoyan Jiang
Howard Joe
Mira Keyes
Lisa Kondo
Winkle Kwan
Vince La Pointe
Ursula Lee
Kurt Luchka
Nicol Macpherson
Joanne Martens
Bassam Masri
Thomas Nevill
Kelly O'Hagan
Charmaine Pasutti
Shannon Rooke
Lori Rowe
Maureen Ryan
Zanka Sacilotto
Jana Schultz
Barbara Searle
Cameron Shorey
Wendy Sim
Anthony Slowey
Frances C.V. Topp
Andrew Truman
Navin Wallani
Renxue Wang
Adrienne Wright
Carleen Yu
Theressa Zapach
Diane Zetterstrom
Crystal Zulynik



BC Cancer Agency

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