

CANCER RESEARCH AND INNOVATION REPORT FOR 2010

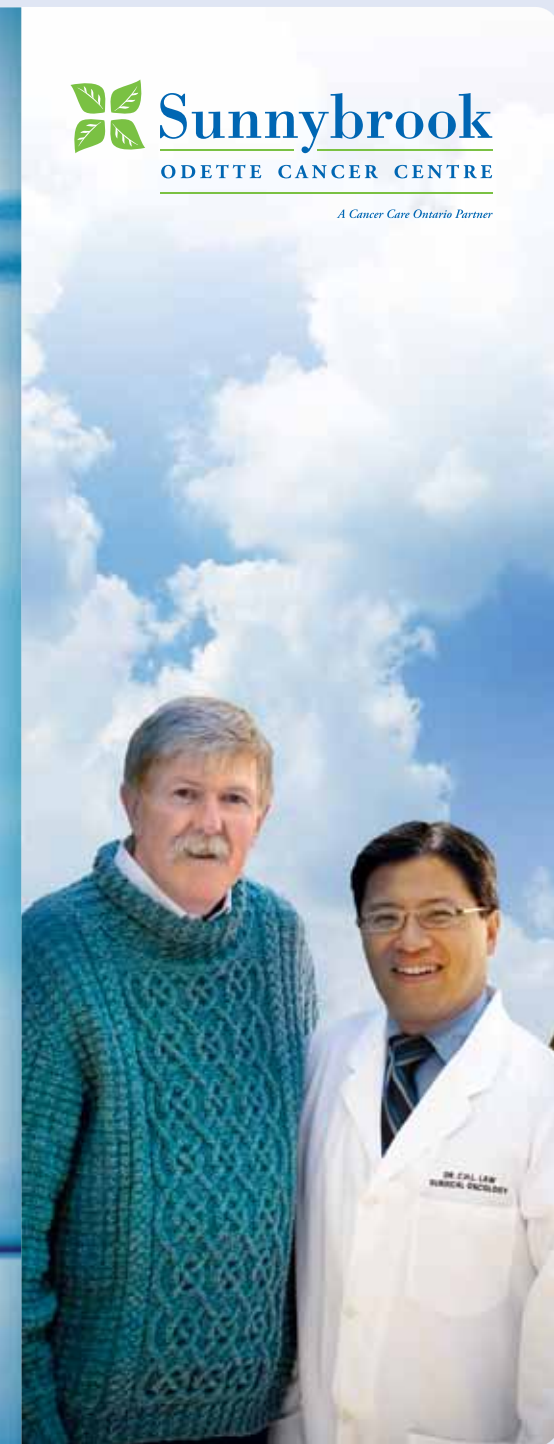
Giving Purpose, Gaining Hope



Sunnybrook

ODETTE CANCER CENTRE

A Cancer Care Ontario Partner



AT THE HEART OF OUR
CANCER RESEARCH AND
INNOVATION: OUR DONORS
AND OUR STAFF.

Giving Purpose, Gaining Hope

AT THE CENTRE OF
OUR CANCER RESEARCH
AND INNOVATION:
OUR PATIENTS.

Schematic Of Typical Cell, Showing Subcellular Components.

ORGANELLES:

- (1) nucleolus
- (2) nucleus
- (3) ribosome
- (4) vesicle
- (5) rough endoplasmic reticulum (ER)
- (6) Golgi apparatus
- (7) Cytoskeleton
- (8) smooth ER
- (9) mitochondria
- (10) vacuole
- (11) cytoplasm
- (12) lysosome
- (13) centrioles

(1) nucleolus

(2) nucleus

(3) ribosome

(4) vesicle

(5) rough endoplasmic reticulum (ER)

(6) Golgi apparatus



Patients are at the centre of why we research and discover. Patients are at the heart of how we translate discoveries to deliver even better models of care through new treatments.

W E L C O M I N G M E S S A G E S

Message from the Senior Leadership, Sunnybrook Health Sciences Centre



We are very proud of the teams of Sunnybrook's Odette Cancer Centre. Their significant contributions to advancing cancer research and the delivery of high quality patient care are helping individuals living with cancer to live longer and live better.

Our Odette Cancer Centre staff provide compassionate patient care and support for loved ones. Their work has helped build the Centre's role as North

America's sixth largest comprehensive cancer centre, ranked among a select group of world-class institutions who engage in intense research, community outreach and who provide the full spectrum of patient care.

In collaboration with the Sunnybrook Research Institute and others, they also conduct cancer research that is having a profound impact on cancer care in Canada and throughout the world.

For example, our researchers are pioneers in focused ultrasound in cancer treatment. Using high intensity MR (magnetic resonance)-guided focused ultrasound, they are destroying localized tumours in the breast, brain and prostate.

Our researchers have made advances in basic science, for example in the study of the glypican-3 gene that will inform the development of novel therapies for related breast, lung and ovarian cancers. Our researchers have developed a unique model to study gene regulation by miRNAs (micro ribonucleic acids) to better understand specific effects on tumour growth.

We lead research in 'Active Surveillance With Selective Delayed Intervention,' a treatment approach for favourable risk and intermediate risk prostate cancer, and lead in work to identify predictors of recurrent invasive disease to better tailor treatment for DCIS (ductal carcinoma in situ), a non-invasive early-stage breast cancer that can progress to invasive disease.

Amidst knowledge and discovery, our comprehensive Breast Centre, as part of

the M-Wing expansion, will launch in the coming years and will extend our leadership in breast cancer care and research. The much-needed expansions to the Chemotherapy Unit and Pharmacy in the Odette Cancer Centre building are also underway.

For their continued support in making successes possible, thank you to our community and government funding partners and to our healthcare partners including the University of Toronto and Cancer Care Ontario.

To the talented teams of Sunnybrook's Odette Cancer Centre, thank you for your compassionate patient care and your enduring work to improve quality of life.

David A. Leslie
Chair, Board of Directors

Barry A. McLellan
President and CEO

Message from the Vice-President, Research



At Sunnybrook, our vision is to invent the future of health care. Research is the pathway by which we will achieve our vision. Working in partnership, our scientists and clinician-scientists at the Odette Cancer Centre and Sunnybrook Research Institute are steadfastly making this journey. They are a formidable group, and they are making progress.

Study by study, result by result, these individuals and their teams are having impact. Take, for example, the work of Dr. Kullervo Hynynen, director of imaging at Sunnybrook Research Institute. Dr. Hynynen has invented a device that uses heat to destroy lesions in the body precisely and safely. This pioneering technology is in clinical testing, not just here at Sunnybrook, but at leading medical centres worldwide. Its promise is vast: it would do away with the need for surgery to remove tumours, for example. This

W E L C O M I N G M E S S A G E S

is but one example. There are many more, all with a translational focus. They run from fundamental discoveries made in the lab about how cancer grows—and thus how it might be stopped—to clinical trials testing new devices to detect and treat cancer.

Much of this research will be spurred further once our Centre for Image-Guided Therapeutics, now under construction, is complete. The Centre will be unique in Canada, and perhaps the world. It will bring together into close and productive synergy researchers working on molecules and cells with those working on imaging devices and databases. These teams will apply their skills to solving the most difficult questions of medical science, including those related to understanding, treating and preventing cancer.

Also central to our success are our community partnerships. It is thanks to all of you that we can point with pride to our progress, and promise you that we will continue to move forward. Our vision is to invent the future of cancer care, and we are achieving it!

Dr. Michael Julius, Vice-President, Research

Message from the Chief, Sunnybrook's Odette Cancer Centre, and the Program Research Director, Cancer, Sunnybrook Health Sciences Centre



What continues to inspire us is the enduring courage of individuals living through cancer. This inspiration fuels our unwavering sense of purpose at Sunnybrook's Odette Cancer Centre to improve quality of life. We conduct research with the goal of translating to the clinic, novel ways to better detect cancer and to tailor treatment for the individual. We develop innovations in care delivery to ensure that our

patients and their families receive optimal support.

Our annual report of research and innovation is a tribute to both the courageous individuals going through the cancer journey, and their families. The report is also in recognition of our dedicated teams in patient care and research whose significant contributions are helping to transform cancer care.

In collaboration with Sunnybrook Research Institute and other research partners, Sunnybrook's Odette Cancer Centre strives to lead in translational cancer research to connect breakthroughs to clinical care to benefit those at the centre of our work: our patients.

This year's report includes stories of purpose and hope related to our research in gastrointestinal cancer, our clinical trials to improve treatment of women with a newer breast cancer subtype known as triple negative, and our world-leading work in MR (magnetic resonance)-guided focused ultrasound with its potential for minimally invasive treatment for persons with brain tumours.

These advances, and more, in research and care delivery are made possible through the tremendous generosity of our funding partners at the federal and provincial levels and our donors in the community, supported by our foundational partnerships with the University of Toronto, Cancer Care Ontario and the Institute for Clinical Evaluative Sciences in Toronto.

We also acknowledge the Board of Directors and the Senior Leadership Team of Sunnybrook Health Sciences Centre whose invaluable support remains critical to our success.

Dr. Linda Rabeneck
Chief, Odette Cancer Centre

Vice President,
Regional Cancer Services

Regional Vice President,
Cancer Care Ontario

Dr. Richard Wells
Program Research Director, Cancer

Special acknowledgements to the staff of the Odette Cancer Centre Clinical Trials group. (Members Geetha Yogendran and Jeff Pham pictured below.)



Credits for Sunnybrook's Odette Cancer Centre Cancer Research & Innovation Report 2010

Special thanks to our patients who shared their stories for this report.

Project Coordinator: Natalie Chung-Sayers

Writers: Natalie Chung-Sayers, Megan Easton, Gillian Wansbrough

Photography: Doug Nicholson, MediaSource **Printing:** TI Group **Art Direction and Design:** Say-Design

Comments/feedback: cancer.research@sunnybrook.ca

Odette Cancer Centre would like to acknowledge the support of Communications and Stakeholder Relations, Sunnybrook.

©2010 Sunnybrook Health Sciences Centre

T A B L E O F C O N T E N T S

4	Welcoming Messages from Senior Leadership, Sunnybrook Health Sciences Centre Vice President, Research, Sunnybrook Chief, Sunnybrook's Odette Cancer Centre, And Program Research Director, Cancer, Sunnybrook	20	'Tumour Boards' Ensure Comprehensive Patient Care Plan
7	Research To Transform Cancer Care	22	Proportion of Total External Funding 2008-09
8	From Best Practice Research To The Best Possible Care for Every Patient: Gastrointestinal Cancer Care Team Leads The Way in Ontario	23	Initiatives
10	Targeting A Newer Breast Cancer Subtype	24	From A Smoke-Free Hospital to Smoke-Free Lives: Helping Patients Quit For Good
12	Towards A New Treatment Option For Less Accessible Cancers	25	Working To Improve Cancer Care and Care Delivery At The Provincial Level
14	Quick Access To Radiotherapy Helps Individuals With Advanced Illness	26	2009 Awards Highlights
16	Patients Benefit From Unexpected Anti-Cancer Effects Found In Non-Cancer Drugs	27	Philanthropy: Thank You
18	Major Sources of External Funding 2008-09	31	Success: Publication Highlights
19	Innovation In Models of Care Delivery	32	A Partial Summary Of Full Publications From July 2008 to June 2009
		38	Rankings of Comprehensive Cancer Centres In North America

RESEARCH TO TRANSFORM
CANCER CARE

RESEARCH



At The Centre of Our
Cancer Research
and Innovation:
Our Patients

From Best Practice Research to the Best Possible Care for Every Patient: Gastrointestinal Cancer Care Team Leads the Way in Ontario

The old-school approach to cancer treatment would have given Peter Duffy much less hope for the future. But at Sunnybrook's Odette Cancer Centre, he is a success story.

The Gastrointestinal Cancer Care team tackled Peter's advanced liver cancer with the newest research-based techniques available, and he has been well ever since his last surgery -- almost four years ago. "Every morning I get up and think it's a great day to be alive," says the 65-year-old retired technical trainer for Canadian Pacific Railway, who lives in Toronto with his wife Rita. "You sometimes hear about people falling through the cracks in the cancer system. Well, I definitely didn't."

After surgery for colorectal cancer in 2002, Peter developed liver cancer. "He presented with a case that many in the cancer community would have said, based on older data, had no possible treatment. They would not have seen where Peter is today, almost eight years later," says Dr. Calvin Law, an Odette Cancer Centre surgical oncologist.

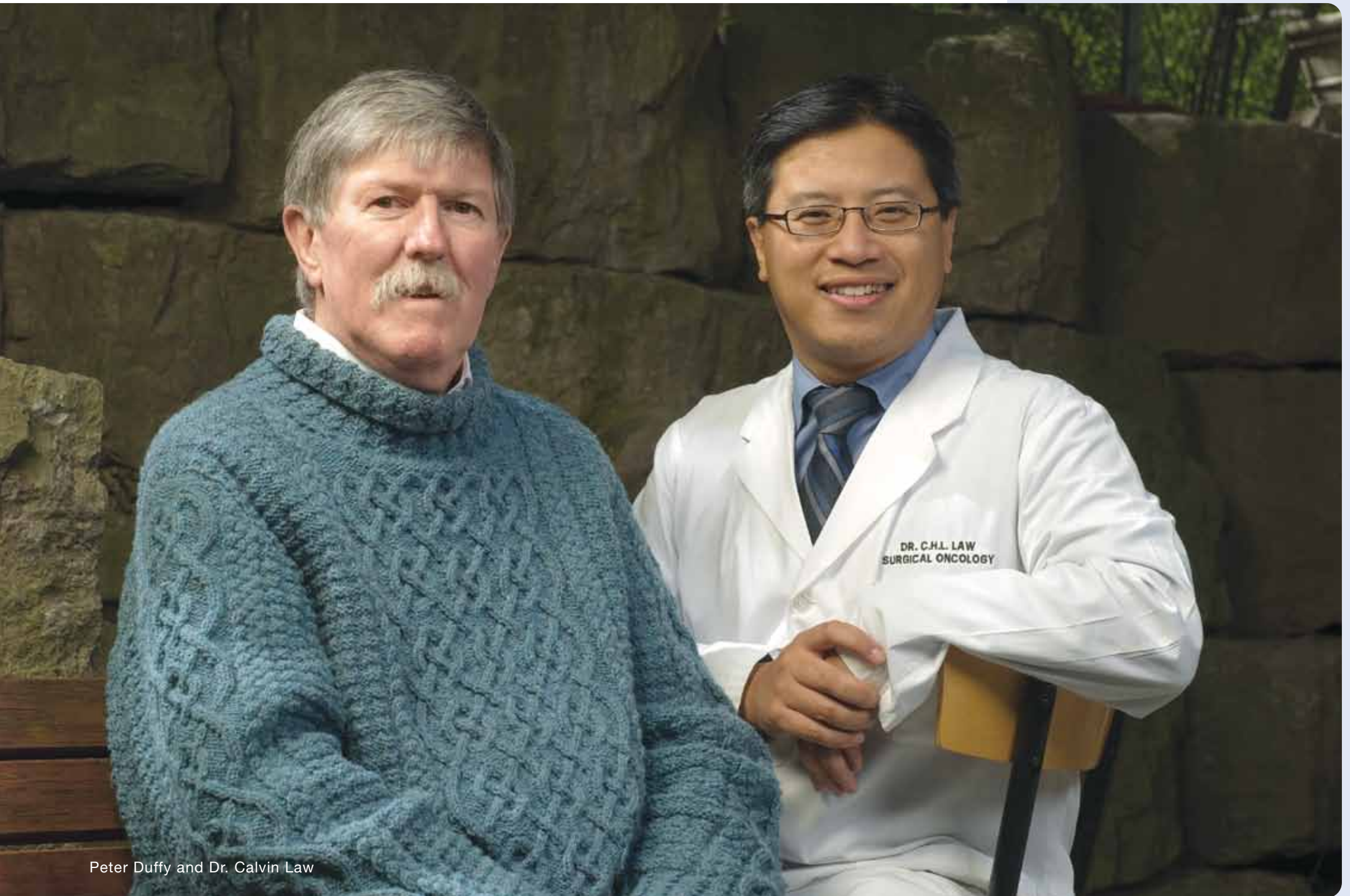
Dr. Law headed the team that determined Peter was a candidate for a state-of-the-art treatment combining chemotherapy and surgical liver resection. "Peter was one of the very early patients where these methods

were a combined strategy," says Dr. Law, a University of Toronto associate professor of surgery.

The Odette Cancer Centre's patient-centred, multidisciplinary model of care -- which supported constant communication between Peter's medical oncologist and surgeon -- made the combined treatment approach possible. On the technical side, Dr. Law and his team used an innovative surgical procedure they were researching: a collagen-sealing device they found reduces blood loss in liver resection. When Peter required a second resection, they used the same method successfully. "We're always looking at the newest surgical techniques and how we can safely advance their use in our patients."

Dr. Law is also a leading health services researcher in gastrointestinal cancer, examining variations in treatment and outcomes across Ontario. The goal, he says, is to ensure every patient, like Peter, has access to the most appropriate and advanced care. "Our first step is always to create and apply best practices here so we can serve as a model, and then look at what is required to develop the model elsewhere."

Today, Peter's main reason to return to the Centre is for his annual delivery of gourmet gift baskets to the doctors, nurses and other staff members who helped him during his stay. Dr. Law reflects this gratitude right back to his patient. "As much as Peter needed us, we needed him," he says. "He's a living reminder that we need to keep working hard on our research because it can make an immediate difference in people's lives."



Peter Duffy and Dr. Calvin Law

Targeting A Newer Breast Cancer Subtype

Lori McCrindle was 29 when she first noticed an uncomfortable lump in her armpit. An ultrasound was inconclusive and, because she was nursing her young son, the thinking was that it was inflammation linked to breastfeeding.

She was shocked, then, when a biopsy a few months later provided a diagnosis of locally advanced triple-negative breast cancer.

A newer breast cancer subtype, triple-negative breast cancer is characterized by its lack of “receptors” or proteins that live in or on cells and bind to something in the body to cause the cells to react. This type of cancer is estrogen receptor-negative, progesterone receptor-negative, and human epidermal growth factor receptor 2 (HER2) negative.

Treatments that target these receptors are not effective with triple-negative breast cancer. Instead, chemotherapy has proven to be the most effective treatment. Because these tumours may grow quickly, early-stage, aggressive treatment is also key.

Lori, a Toronto occupational therapist, was referred to Dr. Rebecca Dent, medical oncologist, Breast Cancer Care Team, Odette Cancer Centre, who specializes in triple-negative. “It’s a more aggressive form of breast

cancer. Of all cancers, it has the highest rate of relapse, but paradoxically it derives the most benefit from early stage treatment,” says Dr. Dent, a University of Toronto assistant professor of medicine.

Dr. Dent is leading pivotal research to better understand the biology, behaviour, risk factors, and recurrence risk factors for triple-negative. At the Odette Cancer Centre she is involved in clinical trials specifically targeted to triple-negative. With colleagues she is exploring novel treatment approaches, such as chemotherapy and radiotherapy before surgery, as well as blood vessel-blocking drugs. “We’re trying to find the Achilles’ heel,” she says. “There are likely problems in repairing DNA, so a lot of new targets are looking at targeting DNA.”

Dr. Dent recommended Lori for aggressive treatment. She had months of chemotherapy, followed by surgery and radiation. As a participant in clinical trials, she received chemotherapy more frequently – every two weeks instead of every three – since data suggest greater frequency might be more effective. She also had more frequent biopsies and MRIs.

The treatment resulted in a complete clinical response. “You can’t really ask for anything more...it was the right doctor, the right clinical trial, the right therapy, and my body agreed to all that,” says Lori. “Sunnybrook has literally saved my life.”

Now past the first three years when relapse is most likely for triple-negative cases, the data suggest Lori is less likely to have a recurrence in the future. Happily, the treatment also did not preclude having a second child –her son was born in February 2010.



Dr. Rebecca Dent and Lori McCrindle

Towards A New Treatment Option For Less Accessible Cancers

If someone has a brain tumour, deep in the brain where traditional surgery is too risky and radiation options are limited, there might there be another treatment.

The need for a viable non-invasive therapy for less accessible brain tumors that have been already radiated is the driving force behind focused ultrasound research at Sunnybrook's Odette Cancer Centre and Sunnybrook Research Institute. Dr. Kullervo Hynynen is conducting world-leading research in MR (magnetic resonance)-guided focused ultrasound in collaboration with Odette Cancer Centre oncologist, Dr. Arjun Sahgal.

Dr. Kullervo Hynynen, a senior scientist at Sunnybrook Research Institute, honed ultrasound and MR imaging technologies to operate like a 'thermal scalpel'. The 'scalpel' produces focused energy (or heat) to destroy tumour tissue beneath bone, like the human skull, while leaving it intact. MR imaging guides the energy to the target and monitors temperature levels to spare the surrounding healthy tissue. The energy used is high intensity ultrasound, instead of low intensity ultrasound used in imaging.

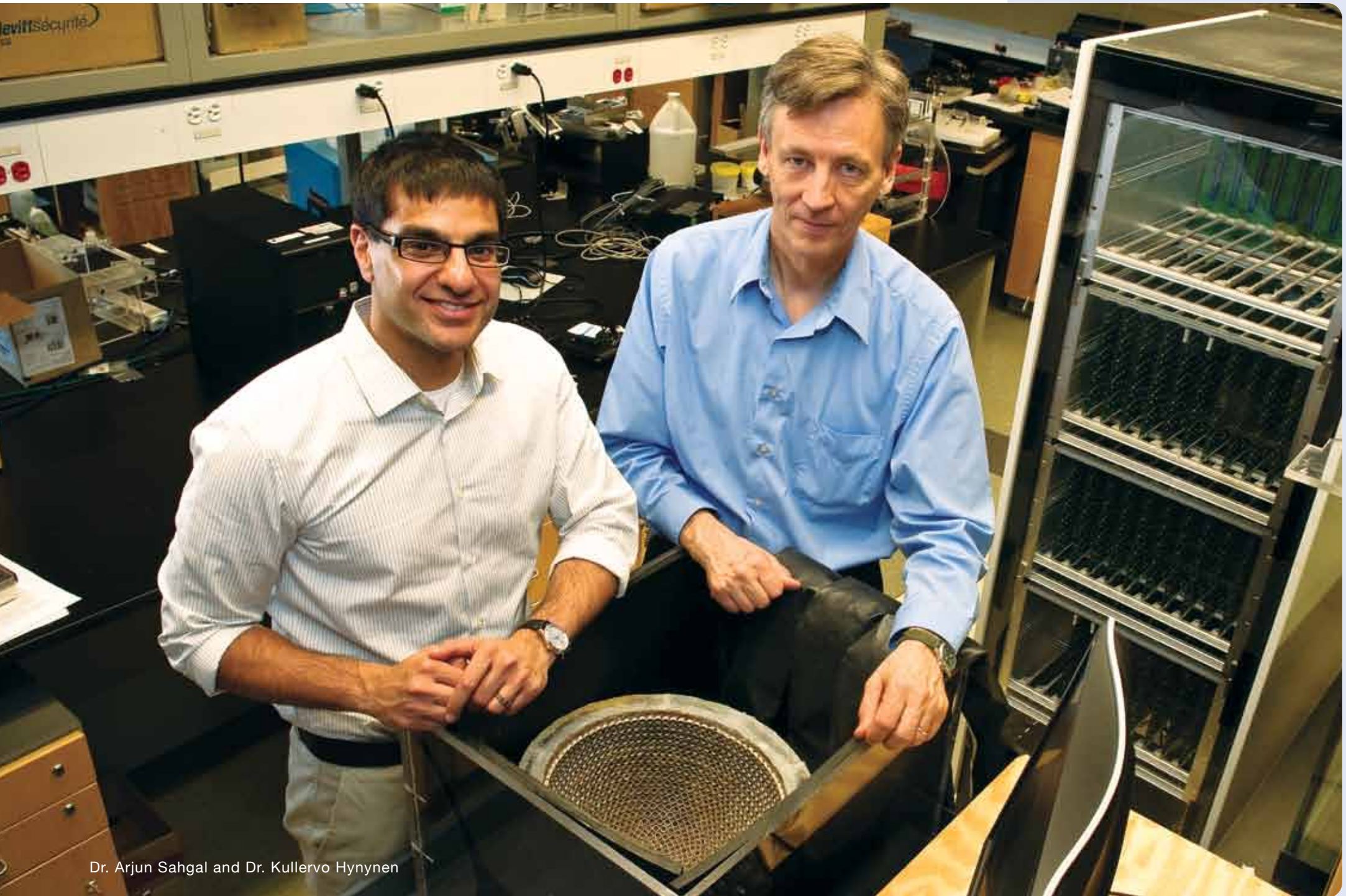
"Our goal is to offer a viable and minimally invasive alternative treatment option for individuals with recurrent primary brain tumors, or recurrent

brain metastases, where current treatment options place the patient at significant risks from either a second operation or further radiation," says Dr. Arjun Sahgal, a radiation oncologist in the Central Nervous System Care Team, Odette Cancer Centre and a Department of Radiation Oncology assistant professor at the University of Toronto, who is also working with Dr. Todd Mainprize, a neurosurgeon of the Sunnybrook's Brain Sciences Program.

For Dr. Hynynen and his lab, it was no small feat to harness ultrasound and MR technology into an image-guided tool with the potential to treat brain cancer. Dr. Hynynen is one of the first in the world to show pre-clinically that focused ultrasound could pass through an intact skull. He is also the first to show in the lab that MR imaging could effectively monitor tissue death during ultrasound thermal activity.

To deliver the combined technologies in cancer treatment, Dr. Hynynen co-developed a unique, helmet-shaped device to house an array of ultrasound transducers that spread across the skull. The array, says Dr. Hynynen, is mathematically adjusted for individual skull shape and thickness to produce a sharply focused beam. Add MR imaging, and the thermal destruction of the tumour is focused and monitored in real time.

"We are one of only a few centres in the world with the expertise to develop focused ultrasound for this use," says Dr. Hynynen, director of Imaging at Sunnybrook Research Institute whose work is facilitated by the new research MRI in the Odette Cancer Centre. The researchers estimate the first study with patients will begin later in 2010.



Dr. Arjun Sahgal and Dr. Kullervo Hynynen

Quick access to radiotherapy helps individuals with advanced illness

An innovative program that provides quick access to radiation therapy helps better manage pain and other symptoms, hence improving quality of life in patients with advanced cancer.

In the past, delays in accessing radiation therapy have been a challenge in Ontario and elsewhere in Canada, with wait times as long as seven weeks between referral to start of treatment.

The Rapid Response Radiotherapy Program (RRRP) was launched at Sunnybrook's Odette Cancer Centre in an effort to fast track treatment for patients with symptomatic metastases. Since the RRRP began in 1996, the average time for referral is now four days or less, and the majority of patients start treatment on the day of consultation.

In the past, having to travel significant distances by ambulance, waiting several hours at the hospital on a stretcher, and then needing to return on a separate visit for planning and treatment was onerous for patients. It could not only discourage them from seeking help but also aggravate symptoms. "Now patients are typically seen in the morning and treated in the afternoon", says Dr. Edward Chow, Professor of Radiation Oncology at the University of Toronto and Chair of the Rapid

Response Radiotherapy Program and Bone Metastases Care Team at the Odette Cancer Centre.

Michael Goldstein and wife Karyn's sister Ava was 49 years old when she was diagnosed with advanced disease. Michael, Karyn and her brother Barry feel that the dedicated care Ava received through the Rapid Response Radiotherapy Program contributed to her living beyond the initial prognosis by two years, and that treatments added to her quality of life in the final months. "Ava felt better and stronger having people not give up on her," says Karyn. "Dr. Chow stayed constant with her care and helped her be with us that much longer."

After Ava passed away Michael and Karyn have regularly donated funds to support Dr. Chow's palliative radiotherapy research. "I knew I was putting my funds in a place that was both important to me and others in helping to improve quality of life," says Michael.

The Rapid Response Radiotherapy Program, the first of its kind in Canada, has garnered international attention, and is one of only a few programs conducting palliative radiotherapy research. The group has also published a quarterly newsletter *Hot Spot* which has been very well received.

Dr. Chow also continues to mentor students. One of his students, Philiz Goh developed a booklet, *Bone Metastases: A Guide for Patients*, with Dr. Chow and Dr. Margaret Fitch, co-lead of the Odette Cancer Centre's Patient and Family Support Program.



Dr. Edward Chow, Michael and Karyn Goldstein

Patients benefit from unexpected anti-cancer effects found in non-cancer drugs

“It was an opportunity to try something different – perhaps something that would make a difference,” says Earl Orser. Four years ago, Earl participated in a clinical trial with a novel approach to drug therapy.

The novel approach involved re-purposing and re-combining existing drugs, one of which was not originally used in cancer treatment. Revealed through laboratory research, this non-cancer drug ketoconazole produces unexpected anti-cancer effects that can contribute to improved treatment response and more delayed progression of the disease. This trial gave Earl new hope.

He had undergone a radical prostatectomy for the treatment of prostate cancer. Over time his PSA (prostate specific antigen) levels began to rise again. To curb the cancer, oncologists recommended a castration procedure to reduce the level of male hormones, which are known to stimulate prostate cancer growth. “It was a difficult decision but if it meant prolonging my life, it was the right thing to do,” says the 77-year old who lives in homes in Toronto and Georgian Bay with Primrose, his wife of 50 years. Not long after the procedure, his PSA began to rise again and he was diagnosed with so-called castration resistant prostate cancer.

The clinical trial designed by one of his oncologists, Dr. Yooj Ko, a medical oncologist in the Genitourinary Care Team at Sunnybrook’s Odette Cancer Centre, combined hydrocortisone, dutasteride, and ketoconazole, an antifungal medication found to inhibit hormone synthesis. While dutasteride has been shown to be beneficial for the treatment of benign prostate hyperplasia (i.e., non-cancerous prostate gland growth commonly seen in elderly men), only the combination with ketoconazole appears to reveal the potential use of dutasteride for the treatment of prostate cancer.

“This novel approach achieves something different and innovative. If we can make better use of existing non-cancer and cancer drugs, the result may be an effective treatment not through a new molecular therapy but through a clever combination of what is readily available,” says Dr. Urban Emmenegger, a medical oncologist colleague of Dr. Ko, in the Genitourinary Care Team at Sunnybrook’s Odette Cancer Centre and a scientist in Molecular and Cellular Biology at Sunnybrook Research Institute looking at such phenomena.

Examples of other drugs with unexpected anti-cancer effects are metformin, a diabetes drug found to interfere with tumor cell metabolism, chloroquine, an anti-malaria drug being tested to enhance cancer cell death when combined with chemotherapy, and itraconazole, an antifungal medication found to block the cellular pathway called Hedgehog, which has a key role in regulating self-renewal of cancer stem cells.

“I feel great and I’m happy,” says Earl, an avid gardener who is planning his garden in Georgian Bay to include a woodland area with trilliums. Earl credits his good health to the excellent team effort and open communication and caring of staff at the Odette Cancer Centre.



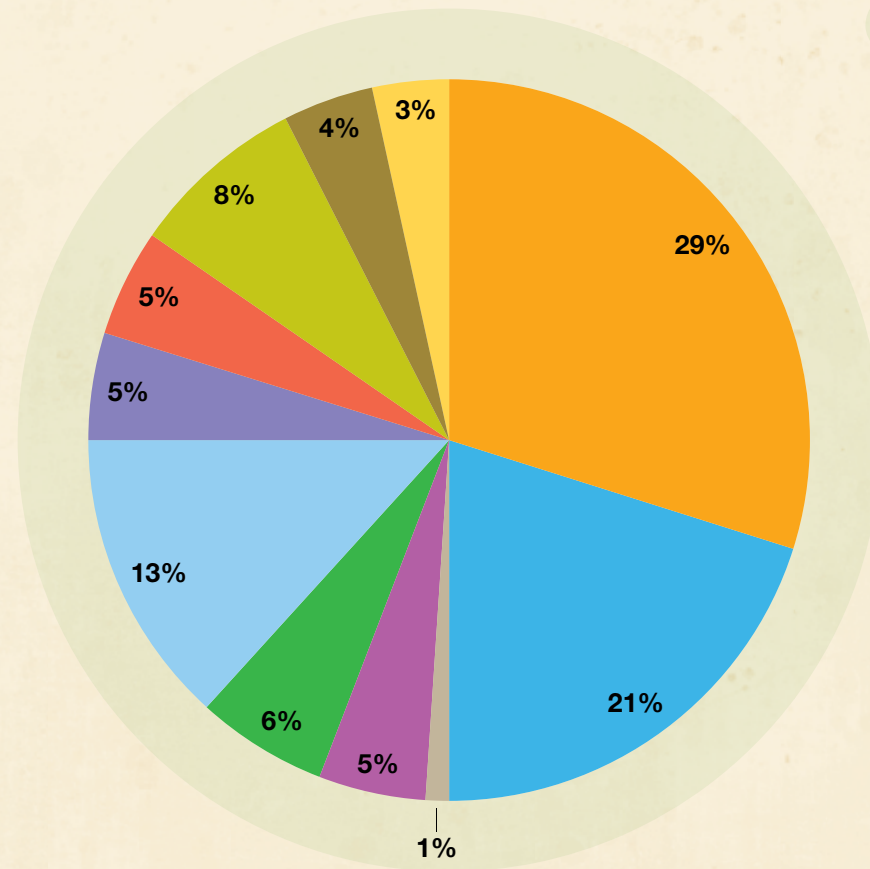
Dr. Urban Emmenegger, Earl Orser and Dr. Yooj Ko

Major Sources of External Funding 2008-2009: Cancer Program

\$34.5 Million

LEGEND

- Ministry of Research and Innovation
- Industry
- Donations & Trust Income
- Foundations
- U.S. Sources
- Canadian Institutes of Health Research
- Other Funding Sources
- Other Government Sources
- Canadian Cancer Society Research Institute
- Canada Foundation for Innovation
- Canadian Research Chairs Program



INNOVATION IN MODELS OF
CARE DELIVERY

INNOVATION



At The Centre of Our
Cancer Research
and Innovation:
Our Patients

‘Tumour Boards’ Ensure Comprehensive Patient Care Plan

When someone is faced with a cancer diagnosis, knowing that the treatment plan is coordinated and based on expert input is very reassuring.

This is the goal of multidisciplinary cancer conferences – regularly scheduled meetings where a cross-section of cancer care professionals come together to discuss their patients and make recommendations on best management.

Multidisciplinary cancer conferences, also referred to as “tumour boards,” involve different disciplines such as pathology, radiology, surgical oncology, radiation oncology, medical oncology, nursing, and pharmacy. The confidential forum facilitates sharing of expertise and fulsome input into patient care decision-making.

“Cancer care has become increasingly multi-disciplinary and complex over the last 20 to 30 years. There are new chemotherapy regimes, advances in surgery and radiation therapy which necessitates increased collaboration across disciplines”, says Dr. Frances Wright, surgical oncologist, Odette Cancer Centre, and associate scientist, Sunnybrook Research Institute.

“Multidisciplinary cancer conferences are an ideal tool to address needs and are particularly geared to more complex patient care issues, for instance, related to a patient who may need chemotherapy and radiation

prior to surgery. These meetings allow for all the health care providers involved in the patient’s care to discuss the complexities of the issues together -- to review the pathology and the imaging, and to pool expertise in a collaborative plan for that patient, so that they get the right care in the right order,” says Dr. Wright, associate professor, Department of Surgery, University of Toronto.

Cancer Care Ontario invited Dr. Wright to chair an expert panel to produce provincial standards about how multidisciplinary cancer conferences should be run. Driven by a medical literature review and consultations with health care professionals, the panel identified key representation across disciplines, criteria to define complexity of cases, and supportive resources institutions would need to provide.

Multidisciplinary cancer conferences not only facilitate communication and learning for health professionals, they also can influence a patient plan for the better. Studies on multidisciplinary cancer conferences have shown that they also positively affect patient outcomes. “It’s kind of a double check in the system,” says Dr. Wright, who has led numerous research studies into challenges and enablers for multidisciplinary cancer conferences.

Dr. Wright continues to work with Cancer Care Ontario to implement the standards for the structure and function of multidisciplinary cancer conferences. The current focus is on increasing access to tumour boards for all cancer patients in Ontario regardless of geographic locale, by enabling physicians from community hospitals and specialists from regional cancer centres to connect via videoconferencing.

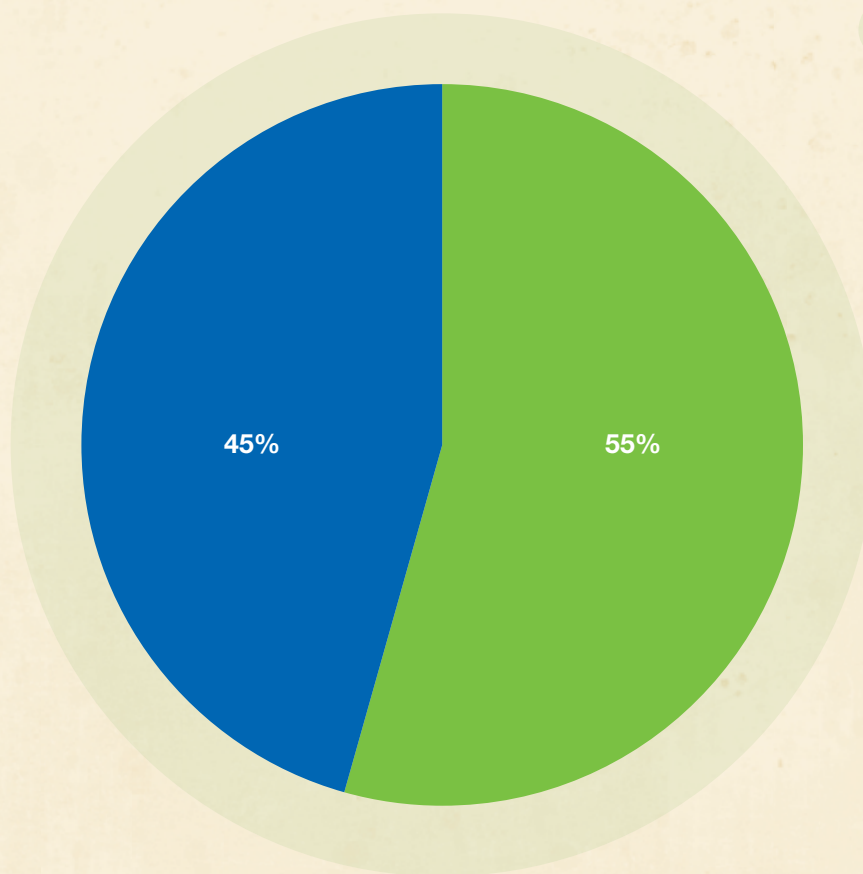


LEGEND

-  Cancer Research Program
-  Other Sunnybrook Research Programs

Proportion of Total External Funding
2008-2009: Cancer Program

\$34.5 Million
of **\$62.6 Million**

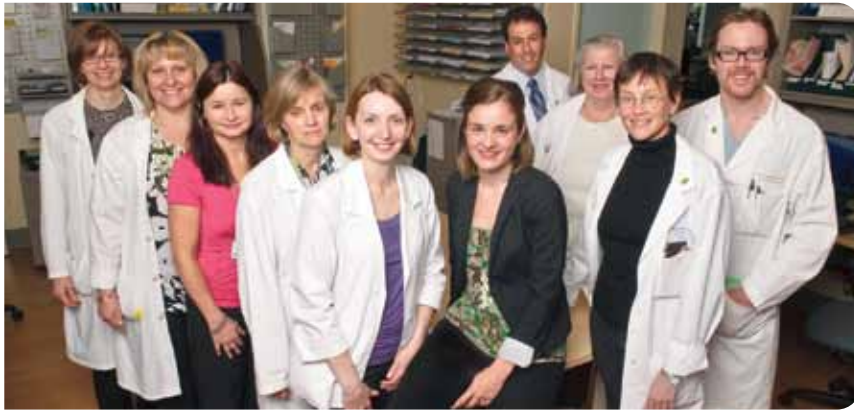


INITIATIVES



At The Centre of Our
Cancer Research
and Innovation:
Our Patients

From a Smoke-free Hospital to Smoke-free Lives: Helping Patients Quit for Good



The Odette Cancer Centre has launched an ambulatory care, outpatient-based Smoking Cessation Program to capitalize on the unique opportunity presented when individuals who smoke come in for treatment.

“When people experience a health crisis, they’re often looking to make changes in their lives,” says Shannon Furey, the program’s coordinator and counsellor. “It’s a teachable moment.”

“The Program is especially innovative in its interdisciplinary approach to smoking cessation,” says Shannon. “Its patient-centred empathetic approach helps ensure individuals find a way to quit smoking when and how it is right for them.”

The Program offers individualized cessation assistance to patients in a growing number of Odette Cancer Centre cancer care teams. Participants receive a combination of counselling, medication, information, community resources and follow-up support. While the program expands, patients across the Odette Cancer Centre can access the Canadian Cancer Society’s Smokers’ Helpline referral program, which allows health-care providers to refer patients for smoking cessation counselling.

A lot of individuals know tobacco addiction is among the top preventive health issues in combating cancer, says Furey. Smoking is responsible for an estimated 30 per cent of all cancer deaths and is related to 85 per cent of lung cancer cases in Canada. “Most would like to quit. I’m there to provide them with the evidence-based strategies they need to succeed.”

To ensure that members of the patient care team play a role in the smoking cessation program, Furey coordinates educational sessions for pharmacists, nurses, social workers and physicians. With her supervisor, Dr. Andrea Eisen, she is also involved in research to promote smoke-free policies in hospitals across the Toronto region. “One of the biggest determinants of a successful smoking cessation program is the smoke-free culture that exists within a hospital.”

The smoking cessation program at the Odette Cancer Centre was introduced in 2009 as a pilot project in partnership with the Schulich Heart Centre, and is modeled on an initiative from the University of Ottawa Heart Institute’s Ottawa Model for Smoking Cessation.

Working to improve cancer care and care delivery at the provincial level



Drs. Wells, Rabeneck, Julius with Dr. Thomas Hudson, OICR (second from left)

Sunnybrook's Odette Cancer Centre and Sunnybrook Research Institute are proud to be part of continued efforts to improve cancer care and care delivery...

...at the provincial level through organizations such as the Ontario Institute for Cancer Research. "The Ontario Institute for Cancer Research (OICR) was launched in December 2005 by the Government of Ontario and is dedicated to research in the prevention, early detection, diagnosis and treatment of cancer.

Dr. Craig Earle of Sunnybrook's Odette Cancer Centre and Dr. Martin Yaffe of the Sunnybrook Research Institute are members of a multi-disciplinary, multi-institutional collaborative of cancer researchers strategically brought together by the Ontario Institute for Cancer Research to help advance cancer research and the translation of findings into programs, technologies and therapies.

- Dr. Craig Earle is the Director of the Health Services Research Program of the Ontario Institute for Cancer Research, in partnership with Cancer Care Ontario. The Program is both evaluating the benefits, risks and costs of new diagnostic and therapeutic interventions, as well as studying current cancer services to improve how healthcare is delivered to cancer patients in Ontario.

Dr. Earle is a medical oncologist of the Gastrointestinal Cancer Care team at Sunnybrook's Odette Cancer Centre and is a Senior Scientist at the Institute for Clinical Evaluative Sciences (ICES).

- Dr. Martin Yaffe is the program leader for the One Millimetre Cancer Challenge Program of the Ontario Institute for Cancer Research. Researchers in the Program are developing advanced imaging and screening techniques that are targeted to the molecular "fingerprints" of tumours to provide earlier and more accurate detection of cancers. Earlier diagnosis promises to further improve outcomes while allowing less invasive therapies to be used. Dr. Yaffe is also co-director, with platform leader Dr. Aaron Fenster of the University of Western Ontario, of the Institute's Imaging Pipeline Platform which is dedicated to advancing the development and translation of powerful new imaging tools and techniques to facilitate cancer research as well as detection, diagnosis and treatment of cancer.

Dr. Yaffe is a senior scientist in Imaging at Sunnybrook Research Institute.

2009 Awards Highlights

American Society of Clinical Oncology, Young Investigator's Award: [Dr. Stanley Liu](#)

Canadian Cancer Society, Achievement in Community Service Award: [John McKinnon](#)

CANO/ACIO-Schering Plough Lectureship Award: [Sherrol Palmer-Wickham](#), [Kathy Beattie](#), [Angela Boudreau](#), [Marg Fitch](#)

Education at Work Ontario, Co-op Student of the Year: [Amanda Hird](#)

National Cancer Institute of Canada: Terry Fox Foundation, Young Investigator's Award: [Dr. Stanley Liu](#)

Sunnybrook Health Sciences Centre, Bertin Award for Excellence in Customer Service: [Tammy Lilien](#)

Sunnybrook Health Sciences Centre, Department of Medicine Young Teacher Award: [Dr. Sunil Verma](#)

Sunnybrook Health Sciences Centre, Schulich Award for Nursing & Clinical Excellence: [Tracey Das Gupta](#)

University of Toronto, Department of Surgery, Bruce Tovee Teaching Award for Post Graduate Education: [Dr. Calvin Law](#)

University of Toronto, Department of Surgery, George-Armstrong Peters Prize: [Dr. Robert Nam](#)

University of Toronto, Lawrence S. Bloomberg Faculty of Nursing Award of Distinction: [Mary Glavashevich](#)

University of Toronto, Medical Oncology Training Program, Outstanding Teaching Award: [Dr. Scott Berry](#)

University of Toronto, Department of Radiation Oncology, Postgraduate Advocacy and Mentorship Award: [Dr. Eileen Rakovitch](#)

University of Toronto, Department of Radiation Oncology Outstanding Research Potential Award: [Dr. Arjun Sahgal](#)

Dr. Gregory Czarnota



Dr. Gregory Czarnota is conducting research using ultrasound imaging to detect apoptosis (a form of programmed cancer cell death) that will help better monitor and tailor treatment for the individual. He is also developing anti-vascular ultrasound-enhanced radiation treatments that show promise in making tumours up to 40 times more sensitive to radiation therapy. Most recently, Dr. Czarnota was awarded a Canadian Institutes of Health Research/Terry Fox Program Project Grant. He has also been granted an Early Researcher Award from Ontario's Ministry of Research and Innovation, and a Cancer Care

Ontario Research Chair Award. Dr. Czarnota is a radiation oncologist clinician scientist at Sunnybrook's Odette Cancer Centre, a scientist in the discipline of Imaging at Sunnybrook Research Institute and an assistant professor in the departments of Radiation Oncology and Medical Biophysics at the University of Toronto.

T H A N K Y O U

PHILANTHROPY



In appreciation of
our donors' support
in building an even
better cancer
centre for the many
communities
we serve.



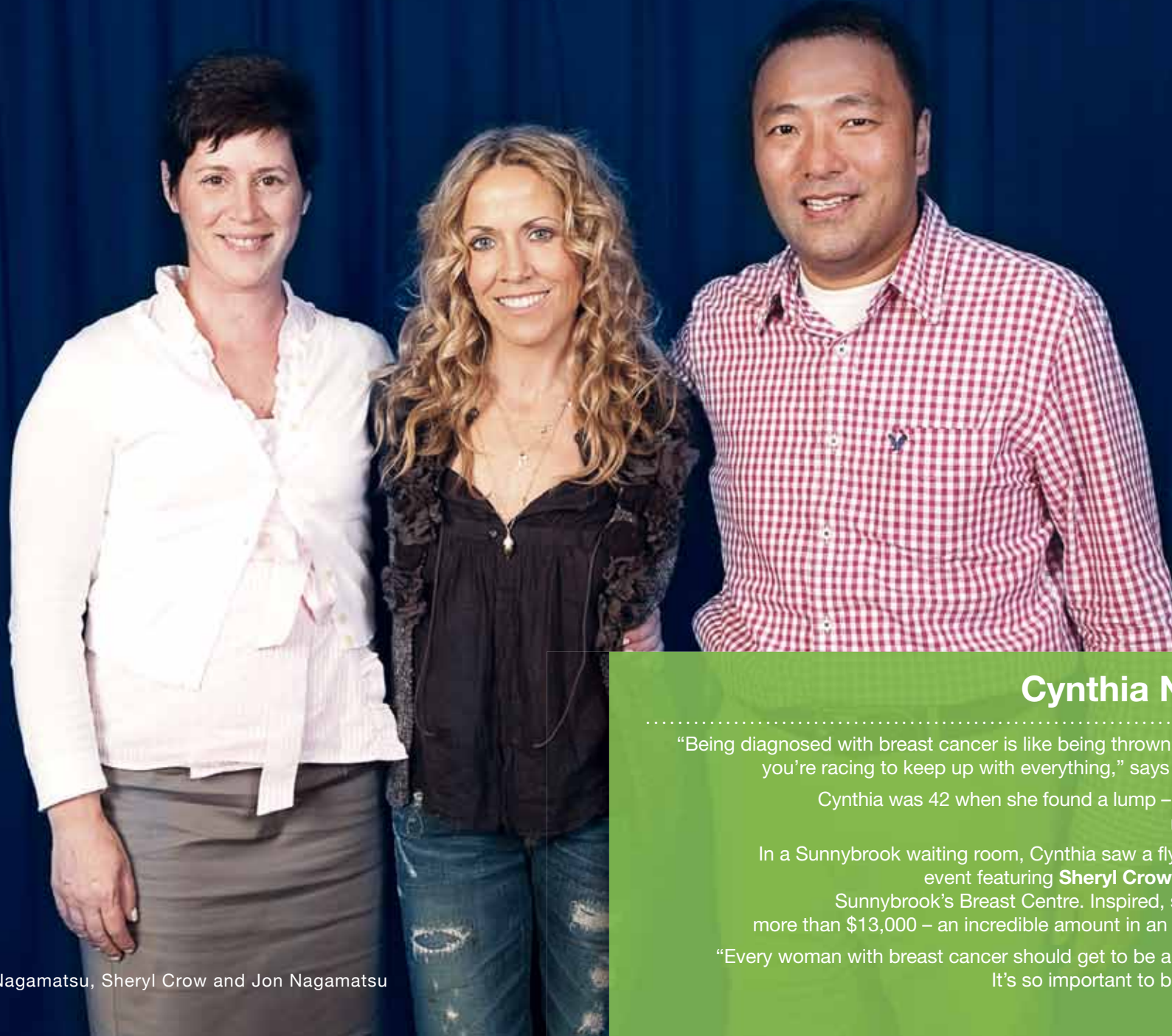
Amgen Canada Inc.

Amgen Canada Inc., a biotechnology and human therapeutics company, is supporting patient care programs and education at the Odette Cancer Centre.

“The dedicated staff at the Odette Cancer Centre never lose sight of the patient,” says Yves Zinggeler, Oncology Business Unit director at Amgen Canada.

Yves adds, “Together, through our common purpose, we can fight cancer and improve care for Sunnybrook patients.”

Odette Cancer Centre staff with members of Amgen Canada.



Cynthia Nagamatsu, Sheryl Crow and Jon Nagamatsu

Cynthia Nagamatsu

“Being diagnosed with breast cancer is like being thrown on a treadmill where you’re racing to keep up with everything,” says Cynthia Nagamatsu.

Cynthia was 42 when she found a lump – she had just finished nursing her daughter.

In a Sunnybrook waiting room, Cynthia saw a flyer for Live to Tell, an event featuring **Sheryl Crow** that raised funds for Sunnybrook’s Breast Centre. Inspired, she ended up raising more than \$13,000 – an incredible amount in an economic downturn.

“Every woman with breast cancer should get to be a Sunnybrook patient. It’s so important to be in the right hands.”



Rethink

"We love PYNK at the Odette Cancer Centre!" says **MJ De Coteau**, executive director of Rethink Breast Cancer. "It's innovative and supports young women who would otherwise feel isolated in hospital waiting rooms or support groups where everyone else is 60 or older."

MJ was 22 when breast cancer claimed her mother's life. Overwhelmed by the information printed on breast cancer pamphlets in her doctor's office, MJ knew there had to be a better way to alert other young women and men about breast cancer.

In 2001, she founded Rethink, which helps young people affected by breast cancer through innovative cancer education, research and support programs. Rethink is the lead donor for PYNK at the Odette Cancer Centre. The first of its kind in Canada, PYNK was created by Dr. Ellen Warner to support young women through their journey with breast cancer and generate new research to help treat this group of women, better.



Ellen Pun of Ellen's Food Group Inc.

"If everybody chips in a little, it adds up to a lot," says **Ellen Pun**, president and CEO of Ellen's Food Group Inc. "I hope to be an inspiration for others so that together we can help Sunnybrook create the innovations that will save people's lives."

A successful entrepreneur, Ellen Pun immigrated to Canada from Hong Kong in 1997. Since then she has devoted her time to meaningful causes and helping to create jobs in her community.

Ellen's generous contribution to the Odette Cancer Centre will support renovations for the Chemotherapy Suites and Pharmacy.

PUBLICATION HIGHLIGHTS

SUCCESS

11



At The Centre of Our
Cancer Research
and Innovation:
Our Patients

PUBLICATION HIGHLIGHTS

A PARTIAL SUMMARY OF FULL PUBLICATIONS FROM JULY 2008 TO JUNE 2009

Abel GA, Friese CR, Magazu LS, Richardson LC, Fernandez ME, De Zengotita JJ, Earle CC. Delays in referral and diagnosis for chronic hematologic malignancies: a literature review. *Leuk Lymphoma* 2008;49(7):1352-9.

Amemiya Y, Azmi P, Seth A. Autoubiquitination of BCA2 RING E3 ligase regulates its own stability and affects cell migration. *Mol Cancer Res* 2008;6(9):1385-96.

Amir E, Trinkaus M, Simmons CE, Dranitsaris G, Clemons MJ. Vascular endothelial growth factor activity after switching of bisphosphonate treatment for metastatic breast cancer. *J Clin Pathol* 2009;62(5):474-6.

Amir E, Ooi WS, Simmons C, Kahn H, Christakis M, Popovic S, Kalina M, Chesney A, Singh G, Clemons M. Discordance between receptor status in primary and metastatic breast cancer: an exploratory study of bone and bone marrow biopsies. *Clin Oncol (R Coll Radiol)* 2008;20(10):763-8.

Arsanious A, Bjarnason GA, Yousef GM. From bench to bedside: current and future applications of molecular profiling in renal cell carcinoma. *Mol Cancer* 2009;8:20.

Azzone V, Frank RG, Pakes JR, Earle CC, Hassett MJ. Behavioral health services for women who have breast cancer. *J Clin Oncol* 2009;27(5):706-12.

Baerlocher MO, Asch MR, Dixon P, Kortan P, Myers A, Law C; Canadian Interventional Radiology Association. Interdisciplinary Canadian Guidelines on use of metal stents in the gastrointestinal tract for oncological indications. *Can Assoc Radiol J* 2008;59(3):107-22.

Bambao C, Shier M. Extramammary Paget's disease of the vulva. *J Obstet Gynaecol Can* 2009;31(6):481-2.

Banihashemi B, Vlad R, Debeljevic B, Giles A, Kolios MC, Czarnota GJ. Ultrasound imaging of apoptosis in tumor response: novel preclinical monitoring of photodynamic therapy effects. *Cancer Res* 2008;68(20):8590-6.

Barbera L, Thomas G. Management of early and locally advanced cervical cancer. *Semin Oncol* 2009;36(2):155-69.

Barker EV, Enepekides DJ. The utility of microvascular anastomotic devices in head and neck reconstruction. *Curr Opin Otolaryngol Head Neck Surg* 2008;16(4):331-4.

Barrett K, Mistry N, Hayter C, Poldre P, Henry M, Gardner S. The effectiveness of the Ivan H. Smith Memorial Studentships program on encouraging medical students to pursue a career in radiation oncology. *J Cancer Educ* 2008;23(4):226-9.

Baxi S, Park E, Chong V, Chung HT. Temporal changes in IMRT contouring of organs at risk for nasopharyngeal carcinoma - the learning curve blues and a tool that could help. *Technol Cancer Res Treat* 2009;8(2):131-40.

Baxter NN, Goldwasser MA, Paszat LF, Saskin R, Urbach DR, Rabeneck L. Association of colonoscopy and death from colorectal cancer. *Ann Intern Med* 2009;150(1):1-8.

Baxter N, Rabeneck L. ICES Report: New findings about the risks and limitations of colonoscopy used in the early detection of colorectal cancer. *Healthc Q* 2009;12(2):24-25.

Bedi H, Mitera G, Sahgal A, Pirouzmand F, Bilbao J, Sinclair E, Fitch A, Chow E. Neurosurgical rescue of bradycardia induced by intracerebral hypertension: a case report and review of the literature. *J Palliat Med* 2009;12(6):563-5.

Behzadi A, Ung Y, Lowe V, Deschamps C. The role of positron emission tomography in the management of non-small cell lung cancer. *Can J Surg* 2009;52(3):235-42.

Beiner ME, Hauspy J, Rosen B, Murphy J, Laframboise S, Nofech-Mozes S, Ismiil N, Rasty G, Khalifa MA, Covens A. Radical vaginal trachelectomy vs. radical hysterectomy for small early stage cervical cancer: a matched case-control study. *Gynecol Oncol* 2008;110(2):168-71.

Bevan PD, Karshafian R, Burns PN. The influence of fragmentation on the acoustic response from shrinking bubbles. *Ultrasound Med Biol* 2008;34(7):1152-62.

Birch DW, Bonjer HJ, Crossley C, Burnett G, de Gara C, Gomes A, Hagen J, Maciver AG, Mercer CD, Panton ON, Schlachta CM, Smith AJ, Warnock GL; Consensus panel members. Canadian consensus conference on the development of training and practice standards in advanced minimally invasive surgery: Edmonton, Alta., Jun. 1, 2007. *Can J Surg* 2009;52(4):321-7.

Bjarnason GA, Mackenzie RG, Nabid A, Hodson ID, El-Sayed S, Grimard L, Brundage M, Wright J, Hay J, Ganguly P, Leong C, Wilson J, Jordan RC, Walker M, Tu D, Parulekar W; National Cancer Institute of Canada Clinical Trials Group (HN3). Comparison of toxicity associated with early morning versus late afternoon radiotherapy in patients with head-and-neck cancer: a prospective randomized trial of the National Cancer Institute of Canada Clinical Trials Group (HN3). *Int J Radiat Oncol Biol Phys* 2009;73(1):166-72.

- Bohlius J, Schmidlin K, Brilliant C, Schwarzer G, Trelle S, Seidenfeld J, Zwahlen M, Clarke M, Weingart O, Kluge S, Piper M, Rades D, Steensma DP, Djulbegovic B, Fey MF, Ray-Coquard I, Machtay M, Moebus V, Thomas G, Untch M, Schumacher M, Egger M, Engert A. Recombinant human erythropoiesis-stimulating agents and mortality in patients with cancer: a meta-analysis of randomised trials. *Lancet* 2009;373(9674):1532-42.
- Bondy SJ, Zhang B, Kreiger N, Selby P, Benowitz N, Travis H, Florescu A, Greenspan NR, Ferrence R. Impact of an indoor smoking ban on bar workers' exposure to secondhand smoke. *J Occup Environ Med* 2009;51(5):612-9.
- Boyd N, Martin L, Chavez S, Gunasekara A, Salleh A, Melnichouk O, Yaffe M, Friedenreich C, Minkin S, Bronskill M. Breast-tissue composition and other risk factors for breast cancer in young women: a cross-sectional study. *Lancet Oncol* 2009;10(6):569-80.
- Bradbury PA, Zhai R, Hopkins J, Kulke MH, Heist RS, Singh S, Zhou W, Ma C, Xu W, Asomaning K, Ter-Minassian M, Wang Z, Su L, Christiani DC, Liu G. Matrix metalloproteinase 1, 3 and 12 polymorphisms and esophageal adenocarcinoma risk and prognosis. *Carcinogenesis* 2009;30(5):793-8.
- Brand S, Solanki B, Foster DB, Czarnota GJ, Kolios MC. Monitoring of cell death in epithelial cells using high frequency ultrasound spectroscopy. *Ultrasound Med Biol* 2009;35(3):482-93.
- Bria E, Cuppone F, Milella M, Verma S, Carlini P, Nistico C, Vaccaro, Rossi A, Tonini G, Cognetti F, Terzoli E. Trastuzumab cardiotoxicity: biological hypotheses and clinical open issues. *Expert Opin Biol Ther* 2008;8(12):1963-71.
- Broom RJ, Tang PA, Simmons C, Bordeleau L, Mulligan AM, O'Malley FP, Miller N, Andrulis IL, Brenner DM, Clemons MJ. Changes in estrogen receptor, progesterone receptor and Her-2/neu status with time: discordance rates between primary and metastatic breast cancer. *Anticancer Res* 2009;29(5):1557-62.
- Burtnyk M, Chopra R, Bronskill MJ. Quantitative analysis of 3-D conformal MRI-guided transurethral ultrasound therapy of the prostate: theoretical simulations. *Int J Hyperthermia* 2009;25:116-131.
- Byrski T, Huzarski T, Dent R, Gronwald J, Zuziak D, Cybulski C, Kladny J, Gorski B, Lubinski J, Narod SA. Response to neoadjuvant therapy with cisplatin in BRCA1-positive breast cancer patients. *Breast Cancer Res Treat* 2009;115(2):359-63.
- Campos S, Davey P, Hird A, Pressnail B, Bilbao J, Aviv RI, Symons S, Pirouzmand F, Sinclair E, Culleton S, Desa E, Goh P, Chow E. Brain metastasis from an unknown primary, or primary brain tumour? A diagnostic dilemma. *Curr Oncol* 2009;16(1):62-6.
- Campos S, Zhang L, Sinclair E, Tsao M, Barnes EA, Danjoux C, Sahgal A, Goh P, Culleton S, Mitera G, Chow E. The palliative performance scale: examining its inter-rater reliability in an outpatient palliative radiation oncology clinic. *Support Care Cancer* 2009;17(6):685-90.
- Causier PA, Piron CA, Jong RA, Plewes DB. Preliminary in vivo validation of a dedicated breast MRI and sonographic coregistration imaging system. *AJR Am J Roentgenol* 2008;191(4):1203-7.
- Chan RW, Ramsay EA, Cunningham CH, Plewes DB. Temporal stability of adaptive 3D radial MRI using multidimensional golden means. *Magn Reson Med* 2009;61(2):354-63.
- Chen AB, D'Amico AV, Neville BA, Steyerberg EW, Earle CC. Provider case volume and outcomes following prostate brachytherapy. *J Urol* 2009;181(1):113-8.
- Cheung MC, Bailey D, Pennell N, Imrie KR, Berinstein NL, Amato D, Ghorab Z. In situ localization of follicular lymphoma: evidence for subclinical systemic disease with detection of an identical BCL-2/IGH fusion gene in blood and lymph node. *Leukemia* 2009;23(6):1176-9.
- Cheung MC, Imrie KR, Friedlich J, Buckstein R, Lathia N, Mittmann N. The impact of follicular (FL) and other indolent non-Hodgkin's lymphomas (NHL) on work productivity-a preliminary analysis. *Psychooncology* 2009;18(5):554-9.
- Cheung WY, Fralick RA, Cheng S. The confused cancer patient: a case of 5-fluorouracil-induced encephalopathy. *Curr Oncol* 2008;15(5):234-6.
- Cheung WY, Neville BA, Cameron DB, Cook EF, Earle CC. Comparisons of patient and physician expectations for cancer survivorship care. *J Clin Oncol* 2009;27(15):2489-95.
- Cheung WY, Neville BA, Earle CC. Etiology of delays in the initiation of adjuvant chemotherapy and their impact on outcomes for Stage II and III rectal cancer. *Dis Colon Rectum* 2009;52(6):1054-63.
- Chi KN, Chin JL, Winquist E, Klotz L, Saad F, Gleave ME. Multicenter phase II study of combined neoadjuvant docetaxel and hormone therapy before radical prostatectomy for patients with high risk localized prostate cancer. *J Urol* 2008;180(2):565-70.
- Chin SN, Trinkaus M, Simmons C, Flynn C, Dranitsaris G, Bolivar R, Clemons M. Prevalence and severity of urogenital symptoms in postmenopausal women receiving endocrine therapy for breast cancer. *Clin Breast Cancer* 2009;9(2):108-17.
- Choo R, Pearse M, Danjoux C, Gardner S, Morton G, Szumacher E, Loblaw DA, Cheung P. Analysis of gastrointestinal and genitourinary morbidity of postoperative radiotherapy for pathologic T3 disease or positive surgical margins after radical prostatectomy using national cancer institute expanded common toxicity criteria. *Int J Radiat Oncol Biol Phys* 2008;72(4):989-95.
- Chopra R, Tang K, Burtnyk M, Boyes A, Sugar L, Appu S, Klotz L, Bronskill M. Analysis of the spatial and temporal accuracy of heating in the prostate gland using transurethral ultrasound therapy and active MR temperature feedback. *Phys Med Biol* 2009;54(9):2615-33.

PUBLICATION HIGHLIGHTS A PARTIAL SUMMARY OF FULL PUBLICATIONS FROM JULY 2008 TO JUNE 2009

Chopra R, Curiel L, Staruch R, Morrison L, Hynynen K. An MRI-compatible system for focused ultrasound experiments in small animal models. *Med Phys* 2009;36(5):1867-74.

Chow E, Abdolell M, Panzarella T, Harris K, Bezjak A, Warde P, Tannock I. Predictive model for survival in patients with advanced cancer. *J Clin Oncol* 2008;26(36):5863-9.

Chow E, Abdolell M, Panzarella T, Harris K, Bezjak A, Warde P, Tannock I. Recursive partitioning analysis of prognostic factors for survival in patients with advanced cancer. *Int J Radiat Oncol Biol Phys* 2009;73(4):1169-76.

Chow E, Abdolell M, Panzarella T, Harris K, Bezjak A, Warde P, Tannock I. Validation of a predictive model for survival in metastatic cancer patients attending an outpatient palliative radiotherapy clinic. *Int J Radiat Oncol Biol Phys* 2009;73(1):280-7.

Chow E, Hird A, Velikova G, Johnson C, Dewolf L, Bezjak A, Wu J, Shafiq J, Sezer O, Kardamakis D, Linden Y, Ma B, Castro M, Arnalot PF, Ahmedzai S, Clemons M, Hoskin P, Yee A, Brundage M, Bottomley A; EORTC Quality of Life Group; Collaboration for Cancer Outcomes Research and Evaluation. The European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire for patients with bone metastases: the EORTC QLQ-BM22. *Eur J Cancer* 2009;45(7):1146-52.

Chow E, Hird A, Zhang L, Sinclair E, Danjoux C, Barnes E, Tsao M, Barbera L, Wong S, Vieth R. Change in urinary markers of osteoclast activity following palliative radiotherapy for bone metastases. *Clin Oncol (R Coll Radiol)* 2009;21(4):329-35.

Chung HT, Lee B, Park E, Lu JJ, Xia P. Can all centers plan intensity-modulated radiotherapy (IMRT) effectively? An external audit of dosimetric comparisons between three-dimensional conformal radiotherapy and IMRT for adjuvant chemoradiation for gastric cancer. *Int J Radiat Oncol Biol Phys* 2008;71(4):1167-74.

Chung HT, Xia P, Chan LW, Park-Somers E, Roach M 3rd. Does image-guided radiotherapy improve toxicity profile in whole pelvic-treated high-risk prostate cancer? Comparison between IG-IMRT and IMRT. *Int J Radiat Oncol Biol Phys* 2009;73(1):53-60.

Cil T, Hauspy J, Kahn H, Melnick W, Flynn C, Holloway CM. Factors affecting lymph node retrieval and assessment in breast cancer patients. *Ann Surg Oncol* 2008;15(12):3361-8.

Coburn NG. Lymph nodes and gastric cancer. *J Surg Oncol* 2009;99(4):199-206.

Coburn NG, Cleary SP, Tan JC, Law CH. Surgery for gallbladder cancer: a population-based analysis. *J Am Coll Surg* 2008;207(3):371-82

Coburn NG, Guller U, Baxter NN, Kiss A, Ringash J, Swallow CJ, Law CH. Adjuvant therapy for resected gastric cancer--rapid, yet incomplete adoption following results of intergroup 0116 trial. *Int J Radiat Oncol Biol Phys* 2008;70(4):1073-80.

Coburn N, Przybysz R, Barbera L, Hodgson D, Sharir S, Laupacis A, Law C. CT, MRI and ultrasound scanning rates: evaluation of cancer diagnosis, staging and surveillance in Ontario. *J Surg Oncol* 2008;98(7):490-9.

Costa L, Badia X, Chow E, Lipton A, Wardley A. Impact of skeletal complications on patients' quality of life, mobility, and functional independence. *Support Care Cancer* 2008;16(8):879-89.

Culleton S, de Sa E, Christakis M, Ford M, Zbieranowski I, Sinclair E, Cheung P, Campos S, Goh P, Chow E. Rare bone metastases of the olecranon. *J Palliat Med* 2008;11(8):1088-91.

Curiel L, Chopra R, Hynynen K. In vivo monitoring of focused ultrasound surgery using local harmonic motion. *Ultrasound Med Biol* 2009;35(1):65-78.

Curiel L, Huang Y, Vykhodtseva N, Hynynen K. Focused ultrasound treatment of VX2 tumors controlled by local harmonic motion. *Phys Med Biol* 2009;54(11):3405-19.

Dahele M, Hwang D, Peressotti C, Sun L, Kusano M, Okhai S, Darling G, Yaffe M, Caldwell C, Mah K, Hornby J, Ehrlich L, Raphael S, Tsao M, Behzadi A, Weigensberg C, Ung YC. Developing a methodology for three-dimensional correlation of PET-CT images and whole-mount histopathology in non-small-cell lung cancer. *Curr Oncol* 2008;15(5):62-9.

Dahele M, Ung YC, Ehrlich L, Silverberg J, Balogh J, Wong CS. 18F-fluorodeoxyglucose positron emission tomography-computed tomography for suspected recurrent papillary thyroid cancer: early experience at Sunnybrook Health Sciences Centre. *J Otolaryngol Head Neck Surg* 2008;37(5):712-7.

Davey P, Hoegler D, Ennis M, Smith J. A phase III study of accelerated versus conventional hypofractionated whole brain irradiation in patients of good performance status with brain metastases not suitable for surgical excision. *Radiother Oncol* 2008;88(2):173-6.

Davidson MT, Jordan KJ. Dosimetric evaluation of sucrose and granulated cane sugar in the therapeutic dose range. *Med Phys* 2009;36(4):1340-50.

Dayes IS, Levine MN, Julian JA, Pritchard KI, D'Souza DP, Kligman L, Reise D, Wiernikowski JA, Bonilla L, Whelan TJ. Lymphedema in women with breast cancer: characteristics of patients screened for a randomized trial. *Breast Cancer Res Treat* 2008;110(2):337-42.

Deng T, Liu JC, Pritchard KI, Eisen A, Zacksenhaus E. Preferential killing of breast tumor initiating cells by N,N-diethyl-2-[4-(phenylmethyl)phenoxy]ethanamine/tesmifene. *Clin Cancer Res* 2009;15(1):119-30.

Djordjevic B, Gien LT, Covens A, Malpica A, Khalifa MA. Polypoid or non-polypoid? A novel dichotomous approach to uterine carcinosarcomas. *Gynecol Oncol* 2009;115(1):32-6.

Djordjevic B, Hanna WM. Expression of c-kit in fibroepithelial lesions of the breast is a mast cell phenomenon. *Modern Pathol* 2008;21(10):1238-45.

Dobrow MJ, Sullivan T, Sawka C. Shifting clinical accountability and the pursuit of quality: aligning clinical and administrative approaches. *Health Manage Forum* 2008; 21(3):6-19.

Dobrow MJ, Orchard MC, Golden B, Holowaty E, Paszat L, Brown AD, Sullivan T. Response audit of an internet survey of health care providers and administrators: implications for determination of response rates. *J Med Internet Res* 2008;10(4): e30.

Earle CC, Landrum MB, Souza JM, Neville BA, Weeks JC, Ayanian JZ. Aggressiveness of cancer care near the end of life: is it a quality-of-care issue? *J Clin Oncol* 2008;26(23):3860-6.

Ebos JM, Lee CR, Cruz-Munoz W, Bjarnason GA, Christensen JG, Kerbel RS. Accelerated metastasis after short-term treatment with a potent inhibitor of tumor angiogenesis. *Cancer Cell* 2009;15(3):232-9.

Eisen A, Lubinski J, Gronwald J, Moller P, Lynch HT, Klijn J, Kim-Sing C, Neuhausen SL, Gilbert L, Ghadirian P, Manoukian S, Rennert G, Friedman E, Isaacs C, Rosen E, Rosen B, Daly M, Sun P, Narod SA; Hereditary Breast Cancer Clinical Study Group. Hormone therapy and the risk of breast cancer in BRCA1 mutation carriers. *J Natl Cancer Inst* 2008;100(19):1361-7.

Elit LM, Bondy SJ, Paszat LP, Holowaty EJ, Thomas GM, Stukel TA, Levine MN. Surgical outcomes in women with ovarian cancer. *Can J Surg* 2008; 51(5):346-354.

Enzinger PC, Ryan DP, Clark JW, Muzikansky A, Earle CC, Kulke MH, Meyerhardt JA, Blazskowsky LS, Zhu AX, Fidas P, Vincitore MM, Mayer RJ, Fuchs CS. Weekly docetaxel, cisplatin, and irinotecan (TPC): results of a multicenter phase II trial in patients with metastatic esophagogastric cancer. *Ann Oncol* 2009;20(3):475-80.

Fairchild A, Harris K, Barnes E, Wong R, Lutz S, Bezak A, Cheung P, Chow E. Palliative thoracic radiotherapy for lung cancer: a systematic review. *J Clin Oncol* 2008;26(24):4001-11.

Falou O, Baddour RE, Nathanael G, Czarnota GJ, Kumaradas JC, Kolios MC. A study of high frequency ultrasound scattering from non-nucleated biological specimens. *J Acoust Soc Am* 2008;124(5): EL278-283.

Filmus J, Capurro M. The role of glypican-3 in the regulation of body size and cancer. *Cell Cycle* 2008;7(18):2787-90.

Filmus J, Capurro M, Rast J. Glypicans. *Genome Biol* 2008;9(5):224

Fitch MI, Maxwell C. Bisphosphonate therapy for metastatic bone disease: The pivotal role of nurses in patient education. *Oncol Nurs Forum* 2008;35(4):709-13.

Flynn CJ, Danjoux C, Wong J, Christakis M, Rubenstein J, Yee A, Yip D, Chow E. Two cases of acrometastasis to the hands and review of the literature. *Curr Oncol* 2008;15(5):51-58.

Fradet Y, Klotz L, Trachtenberg J, Zlotta A: The burden of prostate cancer in Canada. *Can Urol Assoc J* 2009;3 (3 Suppl 2):S92-S100.

Francia G, Emmenegger U, Kerbel RS. Tumor-associated fibroblasts as "Trojan Horse" mediators of resistance to anti-VEGF therapy. *Cancer Cell* 2009;15(1):3-5.

Francia G, Emmenegger U, Lee CR, Shaked Y, Folkins C, Mossoba M, Medin JA, Man S, Zhu Z, Witte L, Kerbel RS. Long-term progression and therapeutic response of visceral metastatic disease non-invasively monitored in mouse urine using beta-human chorionic gonadotropin secreting tumor cell lines. *Mol Cancer Ther*, 2008;7(10):3452-9.

Friese CR, Abel GA, Magazu LS, Neville BA, Richardson LC, Earle CC. Diagnostic delay and complications for older adults with multiple myeloma. *Leuk Lymphoma*, 2009;50(3):392-400.

Friese CR, Neville BA, Edge SB, Hassett MJ, Earle CC. Breast biopsy patterns and outcomes in Surveillance, Epidemiology, and End Results-Medicare data. *Cancer* 2009;115(4):716-24.

Furstoss C, Reniers B, Bertrand MJ, Poon E, Carrier JF, Keller BM, Pignol JP, Beaulieu L, Verhaegen F. Monte Carlo study of LDR seed dosimetry with an application in a clinical brachytherapy breast implant. *Med Phys* 2009;36(5):1848-58.

Gien L, Covens A. Lymph node assessment in cervical cancer: prognostic and therapeutic implications. *J Surg Oncol* 2009;99(4):242-7.

Ginsburg O, Ghadirian P, Lubinski J, Cybulski C, Lynch H, Neuhausen S, Kim-Sing C, Robson M, Domchek S, Isaacs C, Klijn J, Armel S, Foulkes WD, Tung N, Moller P, Sun P, Narod SA; Hereditary Breast Cancer Clinical Study Group. Smoking and the risk of breast cancer in BRCA1 and BRCA2 carriers: an update. *Breast Cancer Res Treat* 2009;114(1):127-35.

Gleave M, Klotz L, Taneja SS. The continued debate: Intermittent vs. continuous hormonal ablation for metastatic prostate cancer. *Urol Oncol* 2009;27(1):81-6.

Goodwin PJ, Ennis M, Bahl M, Fantus IG, Pritchard KI, Trudeau ME, Koo J, Hood N. High insulin levels in newly diagnosed breast cancer patients reflect underlying insulin resistance and are associated with components of the insulin resistance syndrome. *Breast Cancer Res Treat* 2009;114(3):517-25.

Goodwin PJ, Pritchard KI, Ennis M, Clemons M, Graham M, Fantus IG. Insulin-lowering effects of metformin in women with early breast cancer. *Clin Breast Cancer* 2008; 8(6):501-5.

Gorey KM, Luginaah IN, Schwartz KL, Fung KY, Balagurusamy M, Bartfay E, Wright FC, Anucha U, Parsons RR. Increased racial group breast cancer care and survival differentials in America: Historical evidence consistent with a health care hypothesis, 1975-2001. *Breast Cancer Res Treat* 2009;113(3):595-600.

PUBLICATION HIGHLIGHTS A PARTIAL SUMMARY OF FULL PUBLICATIONS FROM JULY 2008 TO JUNE 2009

Govindarajan A, Fraser N, Wirzfeld D, Gallinger S, Law S, Smith AJ, Gagliardi A. Predictors of multivisceral resection in patients with locally advanced colorectal cancer. *Ann Surg Oncol* 2008;15(7):1923-3.

Haas JS, Earle CC, Orav JE, Brawarsky P, Keohane M, Neville BA, Williams DR. Racial segregation and disparities in breast cancer care and mortality. *Cancer* 2008;113(8):2166-72.

Hadi S, Zhang L, Hird A, de Sa E, Chow E. Validation of symptom clusters in patients with metastatic bone pain. *Curr Oncol* 2008;15(5): 211-8.

Hammond CM, Shi Y, White D, Cervi D, Tomic J, Spaner DE. The B-cell calcium sensor predicts progression of chronic lymphocytic leukemia. *Leukemia* 2009; 23(2):426-9.

Harris K, Chow E, Zhang L, Velikova G, Bezzak A, Wu J, Barton M, Sezer O, Eek R, Shafiq J, Yee A, Clemons M, Brundage M, Hoskin P, van der Linden Y, Johnson CD, Bottomley A; EORTC Quality of Life Group. Patients' and health care professionals' evaluation of health-related quality of life issues in bone metastases. *Eur J Cancer* 2009;45(14):2510-8.

Heikkilä J, Hynynen K. Simulations of lesion detection using a combined phased array LHMI-technique. *Ultrasonics* 2008;48(6-7):568-73.

Hicks LK, Haynes AE, Reece DE, Walker IR, Herst JA, Meyer RM, Imrie K; Hematology Disease Site Group of the Cancer Care Ontario Program in Evidence-based Care. A meta-analysis and systematic review of thalidomide for patients with previously untreated multiple myeloma. *Cancer Treat Rev* 2008;34(5): 442-52.

Hicks LK, Woods A, Buckstein R, Mangel J, Pennell N, Zhang L, Imrie K, Spaner D, Cheung MC, Boudreau A, Reis M, Crump M, Berinstein NL. Rituximab purging and maintenance combined with auto-SCT: long-term molecular remissions and prolonged hypogammaglobulinemia in relapsed follicular lymphoma. *Bone Marrow Transplant* 2009;43(9):701-8.

Higgins KM, Wang JR. State of head and neck surgical oncology research—a review and critical appraisal of landmark studies. *Head Neck* 2008;30(12):1636-42.

Hird AE, Chow E, Ehrlich L, Probyn L, Sinclair E, Yip D, Ko YJ. Rapid improvement in pain and functional level in a patient with metastatic renal cell carcinoma: a case report and review of the literature. *J Palliat Med* 2008;11(8):1156-61.

Hird A, Chow E, Yip D, Ross M, Hadi S, Flynn C, Sinclair E, Ko YJ. After radiotherapy, do bone metastases from gastrointestinal cancers show response rates similar to those of bone metastases from other primary cancers? *Curr Oncol* 2008; 15(5):219-25.

Hird A, Zhang L, Holt T, Fairchild A, DeAngelis C, Loblaw A, Wong R, Barnes E, Tsao M, Danjoux C, Chow E. Dexamethasone for the prophylaxis of radiation-induced pain flare after palliative radiotherapy for symptomatic bone metastases: a phase II study. *Clin Oncol (R Coll Radiol)* 2009;21(4):329-35.

Holloway CM, Gagliardi A. Percutaneous needle biopsy for breast diagnosis: How do surgeons decide? *Ann Surg Oncol* 2009;16(6):1629-36.

Holloway CM, Saskin R, Paszat L. Geographic variation and physician specialization in the use of percutaneous biopsy for breast cancer diagnosis. *Can J Surg* 2008;51(6):453-463.

Holly R, Myrehaug S, Kamran A, Sankrecha R, Morton G. High-dose-rate prostate brachytherapy in a patient with bilateral hip prostheses planned using megavoltage computed tomography images acquired with a helical tomotherapy unit. *Brachytherapy* 2009;8(1):70-3.

Hu JC, Hevelone ND, Ferreira MD, Lipsitz SR, Choueiri TK, Sanda MG, Earle CC. Patterns of care for radical prostatectomy in the United States from 2003 to 2005. *J Urol* 2008;180(5):1969-74.

Huang Y, Curiel L, Kukic A, Plewes DB, Chopra R, Hynynen K. MR acoustic radiation force imaging: in vivo comparison to ultrasound motion tracking. *Med Phys* 2009;36(6):2016-20.

Huskamp HA, Keating NL, Malin JL, Zaslavsky AM, Weeks JC, Earle CC, Teno JM, Virnig BA, Kahn KL, He Y, Ayanian JZ. Discussions with physicians about hospice among patients with metastatic lung cancer. *Arch Intern Med* 2009; 169(10):954-62.

Hynynen K. Ultrasound for drug and gene delivery to the brain. *Adv Drug Deliv Rev* 2008;60(10):1209-17.

Hynynen K, Yin J. Lateral mode coupling to reduce the electrical impedance of small elements required for high power ultrasound therapy phased arrays. *IEEE Trans Ultrason Ferroelectr Freq Control* 2009 ;56(3):557-64.

Ingber S, Buckstein R. Paraneoplastic lumbosacral axonal polyradiculopathy preceding the diagnosis of nodular lymphocyte predominant Hodgkin lymphoma: a case report. *Leuk Lymphoma* 2008;49(10):2009-11.

Innominato PF, Focan C, Gorlia T, Moreau T, Garufi C, Waterhouse J, Giacchetti S, Coudert B, Iacobelli S, Genet D, Tampellini M, Chollet P, Lentz MA, Mormont MC, Lévi F, Bjarnason GA; Chronotherapy Group of the European Organization for Research and Treatment of Cancer. Circadian rhythm in rest and activity: a biological correlate of quality of life and a predictor of survival in patients with metastatic colorectal cancer. *Cancer Res* 2009;69(11):4700-7.

Ismiil N, Ghorab Z, Covens A, Nofech-Mozes S, Saad R, Dubé V, Khalifa MA. Intraoperative margin assessment of the radical trachelectomy specimen. *Gynecol Oncol* 2009;113(1):42-6.

Ismiil N, Ghorab Z, Nofech-Mozes S, Plotkin A, Covens A, Osborne R, Kupets R, Khalifa MA. Intraoperative consultation in gynecologic pathology; a 6-year audit at a tertiary care medical center. *Int J Gynecol Cancer* 2009;19(1):152-7.

Itzkowitz S, Brand R, Jandorf L, Durkee K, Millholland J, Rabeneck L, Schroy PC, 3rd, Sontag S, Johnson D, Markowitz S, Paszat L, Berger BM. A simplified, noninvasive stool DNA test for colorectal cancer detection. *Am J Gastroenterol* 2008;103(11):2862-70.

Jang RW, Doherty M, Hopkins JJ, Warner E. A case of prolonged disease-free survival in a patient with choroidal metastasis from breast cancer. *Nat Clin Pract Oncol* 2009;6(2):118-21.

Karshafian R, Bevan PD, Williams R, Samac S, Burns PN. Sonoporation by ultrasound-activated microbubble contrast agents: effect of acoustic exposure parameters on cell membrane permeability and cell viability. *Ultrasound Med Biol* 2009;35(5):847-60.

Kassam F, Enright K, Dent R, Dranitsaris G, Myers J, Flynn C, Fralick M, Kumar R, Clemons M. Survival outcomes for patients with metastatic triple-negative breast cancer: implications for clinical practice and trial design. *Clin Breast Cancer* 2009;9(1):29-33

Kaufman HL, Lenz HJ, Marshall J, Singh D, Garrett C, Cripps C, Moore M, von Mehren M, Dalfen R, Heim WJ, Conry RM, Urba WJ, Benson AB 3rd, Yu M, Caterini J, Kim-Schulze S, Debenedette M, Salha D, Vogel T, Elias I, Berinstein NL. Combination chemotherapy and ALVAC-CEA/B7.1 vaccine in patients with metastatic colorectal cancer. *Clin Cancer Res* 2008;14(15):4843-9.

Kaufman B, Trudeau M, Awada A, Blackwell K, Bachelot T, Salazar V, DeSilvio M, Westlund R, Zaks T, Spector N, Johnston S. Lapatinib monotherapy in patients with HER2-overexpressing relapsed or refractory inflammatory breast cancer: final results and survival of the expanded HER2+ cohort in EGF103009, a phase II study. *Lancet Oncol* 2009;10(6):581-8.

Keller BM, Peressotti C, Pignol JP. Optical imaging analysis of microscopic radiation dose gradients in Gafchromic EBT film using a digital microscope. *Med Phys* 2008;35(8):3740-7.

Keller BM, Pignol JP, Presutti J, Beachey DJ. Intermediate energy photons (1 MV) to improve dose gradient, conformality, and homogeneity: Potential benefits for small field intracranial radiosurgery. *Med Phys* 2009;36(1):33-9.

Khalifa MA, Smith AJ. Lymph node assessment: issues in pathology. *J Surg Oncol* 2009; - Special Edition - Seminars in Surgical Oncology 2009;99(4):260-4.

Khalifa MA, Maksymov V, Rowsell C. Retroperitoneal margin of the pancreaticoduodenectomy specimen: anatomic mapping for the surgical pathologist. *Virchows Arch* 2009;454(2):125-31.

Kirou-Mauro A, Hird A, Wong J, Sinclair E, Barnes EA, Tsao M, Danjoux C, Chow E. Is response to radiotherapy in patients related to the severity of pretreatment pain? *Int J Radiat Oncol Biol Phys* 2008;71(4):1208-12.

Kirou-Mauro AM, Hird A, Wong J, Sinclair E, Barnes EA, Tsao M, Danjoux C, Chow E. Has pain management in cancer patients with bone metastases improved? A seven-year review at an outpatient palliative radiotherapy clinic. *J Pain Symptom Manage* 2009;37(1):77-84.

Klotz L. Active surveillance for prostate cancer: trials and tribulations. *World J Urol*. 2008;26(5):437-42.

Klotz L. What is the best approach for screen-detected low volume cancers?--The case for observation. *Urol Oncol* 2008;26(5):495-9.

Klotz L, Boccon-Gibod L, Shore ND, Andreou C, Persson BE, Cantor P, Jensen JK, Olesen TK, Schröder FH. The efficacy and safety of degarelix: a 12-month, comparative, randomized, open-label, parallel-group phase III study in patients with prostate cancer. *BJU Int* 2008;102(11):1531-8.

Kotsopoulos J, Librach CL, Lubinski J, Gronwald J, Kim-Sing C, Ghadirian P, Lynch HT, Moller P, Foulkes WD, Randall S, Manoukian S, Pasini B, Tung N, Ainsworth PJ, Cummings S, Sun P, Narod SA; Hereditary Breast Cancer Clinical Study Group. Infertility, treatment of infertility, and the risk of breast cancer among women with BRCA1 and BRCA2 mutations: a case-control study. *Cancer Causes Control* 2008;19(10):1111-9.

Kotsopoulos J, Zhang WW, Zhang S, McCready D, Trudeau M, Zhang P, Sun P, Narod SA. Polymorphisms in folate metabolizing enzymes and transport proteins and the risk of breast cancer. *Breast Cancer Res Treat* 2008;112(3):585-93.

Krzyzanowska MK, Regan MM, Powell M, Earle CC, Weeks JC. Impact of patient age and comorbidity on surgeon versus oncologist preferences for adjuvant chemotherapy for stage III colon cancer. *J Am Coll Surg* 2009;208(2):202-9.

Lakoff J, Paszat LF, Saskin R, Rabeneck L. Risk of developing proximal versus distal colorectal cancer after a negative colonoscopy: a population-based study. *Clin Gastroenterol Hepatol* 2008;6(10):1117-21.

Lam P, Yang W, Amemiya Y, Kahn H, Yee A, Holloway C, Seth A. A human bone NOD/SCID mouse model to distinguish metastatic potential in primary breast cancers. *Cancer Biol Ther* 2009;8(11):1010-7.

PUBLICATION HIGHLIGHTS A PARTIAL SUMMARY OF FULL PUBLICATIONS FROM JULY 2008 TO JUNE 2009

Lang K, Marciniak MD, Faries D, Stokes M, Buesching D, Earle C, Treat J, Morissette N, Thompson D. Trends and predictors of first-line chemotherapy use among elderly patients with advanced non-small cell lung cancer in the United States. *Lung Cancer* 2009;63(2):264-270.

Lang K, Marciniak MD, Faries D, Stokes M, Buesching D, Earle C, Treat J, Babineaux S, Morissette N, Thompson D. Costs of first-line doublet chemotherapy and lifetime medical care in advanced non-small-cell lung cancer in the United States. *Value Health* 2009;12(4):481-8.

Lathan CS, Neville BA, Earle CC. Racial composition of hospitals: effects on surgery for early-stage non-small-cell lung cancer. *J Clin Oncol* 2008;26(26):4347-52.

Lemieux J, Goodwin PJ, Pritchard KI, Gelmon KA, Bordeleau LJ, Duchesne T, Camden S, Speers CH. Identification of cancer care and protocol characteristics associated with recruitment in breast cancer clinical trials. *J Clin Oncol* 2008;26(27):4458-65.

Leong CN, Chung HT, Lee KM, Shakespeare TP, Mukherjee RK, Wong LC, Lu JJ, Tey J, Lim R, So JB, Back MF. Outcomes of adjuvant chemoradiotherapy after a radical gastrectomy and a D2 node dissection for gastric adenocarcinoma. *Cancer J* 2008;14(4): 269-275.

Lim TS, Cheung PC, Loblaw DA, Morton G, Sixel KE, Pang G, Basran P, Zhang L, Tirona R, Szumacher E, Danjoux C, Choo R, Thomas G. Hypofractionated accelerated radiotherapy using concomitant intensity-modulated radiotherapy boost technique for localized high-risk prostate cancer: acute toxicity results. *Int J Radiat Oncol Biol Phys* 2008;72(1):85-92.

MacDougall RD, Koprinarov I, Rowlands JA. The x-ray light valve: A low-cost, digital radiographic imaging system - spatial resolution. *Med Phys* 2008;35(9):4216-27.

Mackey J, McLeod D, Ragaz J, Gelmon K, Verma S, Pritchard K, Laing K, Provencher L, Charbonneau LF. Adjuvant targeted therapy in early breast cancer. *Cancer* 2009;115(6):1154-68.

Madarnas Y, Trudeau M, Franek JA, McCready D, Pritchard KI, Messersmith H. Adjuvant/neoadjuvant trastuzumab therapy in women with HER-2/neu-overexpressing breast cancer: a systematic review. *Cancer Treat Rev* 2008; 34(6):539-57.

Marcus R, Imrie K, Solal-Celigny P, Catalano JV, Dmoszynska A, Raposo JC, Offner FC, Gomez-Codina J, Belch A, Cunningham D, Wassner-Fritsch E, Stein G. Phase III study of R-CVP compared with cyclophosphamide, vincristine, and prednisone alone in patients with previously untreated advanced follicular lymphoma. *J Clin Oncol* 2008;26(28):4579-86.

Matsuura N, Rowlands JA. Towards new functional nanostructures for medical imaging. *Med Phys* 2008;35(10):4474-87.

Mawdsley GE, Tyson AH, Peressotti CL, Jong RA, Yaffe MJ. Accurate estimation of compressed breast thickness in mammography. *Med Phys* 2009;36(2):577-86.

McGee J, Covens A. State of the art of sentinel lymph node biopsy in vulvar carcinoma. *Womens Health* 2009;5(5):555-63.

Mitchell DG, Snyder B, Coakley F, Reinhold C, Thomas G, Amendola MA, Schwartz LH, Woodward P, Pannu H, Atri M, Hricak H. Early invasive cervical cancer: MRI and CT predictors of lymphatic metastases in the ACRIN 6651/GOG 183 intergroup study. *Gynecol Oncol* 2009;112(1):95-103.

Motzer RJ, Hutson TE, Tomczak P, Michaelson MD, Bukowski RM, Oudard S, Negrier S, Szczylik C, Pili R, Bjarnason GA, Garcia-del-Muro X, Sosman JA, Solska E, Wilding G, Thompson JA, Kim ST, Chen I, Huang X, Figlin RA. Overall survival and updated results for sunitinib compared with interferon alfa in patients with metastatic renal cell carcinoma. *J Clin Oncol* 2009;27(22):3584-90.

Mutsaers AJ, Francia G, Man S, Lee CR, Ebos JM, Wu Y, Witte L, Berry S, Moore M, Kerbel RS. Dose-dependent increases in circulating TGF-alpha and other EGFR ligands act as pharmacodynamic markers for optimal biological dosing of cetuximab and are tumor independent. *Clin Cancer Res* 2009;15(7):2397-405.

Myrehaug S, Pintilie M, Tsang R, Mackenzie R, Crump M, Chen Z, Sun A, Hodgson DC. Cardiac morbidity following modern treatment for Hodgkin lymphoma: supra-additive cardiotoxicity of doxorubicin and radiation therapy. *Leuk Lymphoma* 2008;49(8):1486-93.

Nam RK, Zhang WW, Loblaw DA, Klotz LH, Trachtenberg J, Jewett MA, Stanimirovic A, Davies TO, Toi A, Venkateswaran V, Sugar L, Siminovitch KA, Narod SA. A genome-wide association screen identifies regions on chromosomes 1q25 and 7p21 as risk loci for sporadic prostate cancer. *Prostate Cancer Prostatic Dis* 2008;11(3):241-6.

Nam RK, Zhang WW, Trachtenberg J, Seth A, Klotz LH, Stanimirovic A, Punnen S, Venkateswaran V, Toi A, Loblaw DA, Sugar L, Siminovitch KA, Narod SA. Utility of incorporating genetic variants for the early detection of prostate cancer. *Clin Cancer Res* 2009;15(5):1787-93.

Napolskikh J, Selby D, Bennett M, Chow E, Harris K, Sinclair E, Myers J. Demographic profile and utilization statistics of a Canadian inpatient palliative care unit within a tertiary care setting. *Curr Oncol* 2009;16(1):49-54.

Narod SA, Neuhausen S, Vichodez G, Armel S, Lynch HT, Ghadirian P, Cummings S, Olopade O, Stoppa-Lyonnet D, Couch F, Wagner T, Warner E, Foulkes WD, Saal H, Weitzel J, Tulman A, Poll A, Nam R, Sun P; Hereditary Breast Cancer Study Group, Danquah J, Domchek S, Tung N, Ainsworth P, Horsman D, Kim-Sing C, Maugard C, Eisen A, Daly M, McKinnon W, Wood M, Isaacs C, Gilchrist D, Karlan B, Nedelcu R, Meschino W, Garber J, Pasini B, Manoukian S, Bellati C. Rapid progression of prostate cancer in men with a BRCA2 mutation. *Br J Cancer* 2008;99(2):371-4.

Narod SA, Seth A, Nam R. Fusion in the ETS gene family and prostate cancer. *Br J Cancer* 2008;99(6):847-51.

Nofech-Mozes S, Khalifa MA, Ismiil N, Saad RS, Hanna WM, Covens A, Ghorab Z. Immunophenotyping of serous carcinoma of the female genital tract. *Mod Pathol* 2008;21(9):1147-55.

O'Malley FP, Chia S, Tu D, Shepherd LE, Levine MN, Bramwell VH, Andrusis IL, Pritchard KI. Topoisomerase II alpha and responsiveness of breast cancer to adjuvant chemotherapy. *J Natl Cancer Inst* 2009;101(9):644-50.

Ordon M, Nam RK. Lymph node assessment and lymphadenectomy in prostate cancer. *J Surg Oncol* 2009;99(4):215-24.

Parulekar WR, McKenzie M, Chi KN, Klotz L, Catton C, Brundage M, Ding K, Hiltz A, Meyer R, Saad F. Defining the optimal treatment strategy for localized prostate cancer patients: a survey of ongoing studies at the National Cancer Institute of Canada Clinical Trials Group. *Current Oncol* 2008;15(4):179-84.

Paszat L, Sutradhar R, Grunfeld E, Gainford C, Benk V, Bondy S, Coyle D, Holloway C, Sawka C, Shumak R, Vallis K, van Walraven C. Outcomes of surveillance mammography after treatment of primary breast cancer: a population-based case series. *Breast Cancer Res Treat* 2009;114(1):169-78.

Pawlicki T, Yoo S, Court LE, McMillan SK, Rice RK, Russell JD, Pacyniak JM, Woo MK, Basran PS, Shoales J, Boyer AL. Moving from IMRT QA measurements toward independent computer calculations using control charts. *Radiother Oncol* 2008;89(3):330-337.

Pawlicki T, Yoo S, Court LE, McMillan SK, Rice RK, Russell JD, Pacyniak JM, Woo MK, Basran PS, Boyer AL, Bonilla C. Process control analysis of IMRT QA: implications for clinical trials. *Phys Med Biol* 2008;53(18):5193-205.

Pearse M, Choo R, Danjoux C, Gardner S, Morton G, Szumacher E, Loblaw A, Cheung P. Prospective assessment of gastrointestinal and genitourinary toxicity of salvage radiotherapy for patients with prostate-specific antigen relapse or local recurrence after radical prostatectomy. *Int J Radiat Oncol Biol Phys* 2008;72(3):792-8.

Pennell NM, Bhanji T, Zhang L, Seth A, Sawka CA, Berinstein NL. Lack of prognostic value of FCGR3A-V158F polymorphism in non-Hodgkin's lymphoma. *Haematologica* 2008;93(8):1265-7.

Perry JR, Rizek P, Cashman R, Morrison M, Morrison T. Temozolomide rechallenge in recurrent malignant glioma by using a continuous temozolomide schedule: the "rescue" approach. *Cancer* 2008;113(8):2152-7.

Pignol JP, Rakovitch E, Keller B, Sankrecha R, Chartier C. Tolerance and acceptance results of a palladium-103 permanent breast seed implant phase I/II study. *Int J Radiat Oncol Biol Phys* 2009;73(5):1482-8.

Pritchard KI. Endocrine symptoms to predict risk of recurrence? *Lancet Oncol* 2008;9(12):1117-9.

Punnen S, Nam RK. Indications and timing for prostate biopsy, diagnosis of early stage prostate cancer and its definitive treatment: a clinical conundrum in the PSA. *Surg Oncol* 2009;18(3):192-9.

Qureshi AP, Ottensmeyer CA, Mahar, Alyson L, Chetty R, Pollett A, Wright FC, Coburn NG. Quality indicators for gastric cancer surgery - a survey of practicing pathologists in Ontario. *Ann Surg Oncol* 2009;16(7):1883-9.

Rabeneck L, Lewis JD, Paszat LF, Saskin R, Stukel TA. Risk of proximal and distal colorectal cancer following flexible sigmoidoscopy: a population-based cohort study. *Am J Gastroenterol* 2008;103(8):2075-82.

Rabeneck L, Paszat LF, Hilsden RJ, Saskin R, Leddin D, Grunfeld E, Wai E, Goldwasser M, Sutradhar R, Stukel TA. Bleeding and perforation after outpatient colonoscopy and their risk factors in usual clinical practice. *Gastroenterology* 2008;135(6):1899-1906.

Rabeneck L, Zwaal C, Goodman JH, Mai V, Zamkane M. Cancer Care Ontario guaiac fecal occult blood test (FOBT) laboratory standards: Evidentiary base and recommendations. *Clin Biochem* 2008;41(16-17):1289-1305.

Ramjeesingh R, Quan ML, Gardner S, Holloway CM. Prediction of involvement of sentinel and nonsentinel lymph nodes in a Canadian population with breast cancer. *Can J Surg* 2009;52(1):23-30.

Ritvo P, Myers R, Del Giudice ML, Paszat L, Campbell PT, Howlett RI, Mai V, Sullivan T, Tiro J, Rabeneck L. Factorial validity and invariance of a survey measuring psychosocial correlates of colorectal cancer screening in Ontario, Canada - a replication study. *Cancer Epidemiol Biomarkers Prev* 2008;17(11):3279-83.

Ritvo P, Myers R, Del Giudice ME, Paszat L, Cotterchio M, Howlett R, Mai V, Brown P, Sullivan T, Rabeneck L. Fecal occult blood testing: People in Ontario are unaware of it and not ready for it. *Can Fam Physician* 2009;55(2):176-7.

Rizek R, Paszat LF, Stukel TA, Saskin R, Li C, Rabeneck L. Rates of complete colonic evaluation after incomplete colonoscopy and their associated factors: A population-based study. *Med Care* 2009;47:48-52.

Romieu-Mourez R, François M, Boivin MN, Bouchentouf M, Spaner DE, Galipeau J. Cytokine modulation of TLR expression and activation in mesenchymal stromal cells leads to a proinflammatory phenotype. *J Immunol* 2009;182(12):7963-73.

PUBLICATION HIGHLIGHTS A PARTIAL SUMMARY OF FULL PUBLICATIONS FROM JULY 2008 TO JUNE 2009

Rosewall T, Kong V, Vesprini D, Catton C, Chung P, Ménard C, Bayley A. Prostate delineation using CT and MRI for radiotherapy patients with bilateral hip prostheses. *Radiother Oncol* 2009;90(3):325-30.

Saad F, Adachi JD, Brown JP, Canning LA, Gelmon KA, Josse RG, Pritchard KI. Cancer treatment-induced bone loss in breast and prostate cancer. *J Clin Oncol* 2008;26(33):5465-76.

Saad RS, Silverman JF, Khalifa MA, Rowsell C. CDX2, cytokeratins 7 and 20 immunoreactivity in rectal adenocarcinoma. *Appl Immunohistochem Mol Morphol* 2009;17(3):196-201.

Sahgal A, Chuang C, Larson D, Huang K, Petti P, Weinstein P, Ma L. Split-volume treatment planning of multiple consecutive vertebral body metastases for cyberknife image-guided robotic radiosurgery. *Med Dosim* 2008;33(3):175-9.

Sahgal A, Jabbari S, Chen J, Pickett B, Roach M, 3rd, Weinberg V, Hsu IC, Pouliot J. Comparison of dosimetric and biologic effective dose parameters for prostate and urethra using 131 Cs and 125 I for prostate permanent implant brachytherapy. *Int J Radiat Oncol Biol Phys* 2008;72(1):247-54.

Sahgal A, Larson DA, Chang EL. Stereotactic body radiosurgery for spinal metastases: a critical review. *Int J Radiat Oncol Biol Phys* 2008;71(3):652-65.

Salvo N, Christakis M, Rubenstein J, de Sa E, Napolskikh J, Sinclair E, Ford M, Goh P, Chow E. The role of plain radiographs in management of bone metastases. *J Palliat Med* 2009;12(2):195-8.

Salvo N, Hadi S, Napolskikh J, Goh P, Sinclair E, Chow E. Quality of life measurement in cancer patients receiving palliative radiotherapy for symptomatic lung cancer: a literature review. *Curr Oncol* 2009;16(2):16-28.

Setoguchi S, Earle CC, Glynn R, Stedman M, Polinski JM, Corcoran CP, Haas JS. Comparison of prospective and retrospective indicators of the quality of end-of-life cancer care. *J Clin Oncol* 2008;26(35):5671-8.

Shehata N, Walker I, Meyer R, Haynes AE, Imrie K; Cancer Care Ontario Hematology Disease Site Group. The use of erythropoiesis-stimulating agents in patients with non-myeloid hematological malignancies: a systematic review. *Ann Hematol* 2008;87(12):961-73.

Shaked Y, Henke E, Roodhart JM, Mancuso P, Langenberg MH, Colleoni M, Daenen LG, Man S, Xu P, Emmenegger U, Tang T, Zhu Z, Witte L, Strieter RM, Bertolini F, Voest EE, Benezra R, Kerbel RS. Rapid chemotherapy-induced acute endothelial progenitor cell mobilization: implications for antiangiogenic drugs as chemosensitizing agents. *Cancer Cell* 2008;14(3):263-73.

Sheikov N, McDannold N, Sharma S, Hynynen K. Effect of focused ultrasound applied with an ultrasound contrast agent on the tight junctional integrity of the brain microvascular endothelium. *Ultrasound Med Biol* 2008;34(7):1093-104.

Shi W, Filmus J. A patient with the Simpson-Golabi-Behmel Syndrome displays a loss-of-function point mutation in GPC3 that inhibits the attachment of this proteoglycan to the cell surface. *Am J Med Genet A* 2009;149A(3):552-4.

Shier M. Fibroepithelial stromal polyp of the vulva. *J Obstet Gynaecol Can* 2009; 31(11):1009-10.

Sia M, Pickles T, Morton G, Souhami L, Lukka H, Warde P. Salvage radiotherapy following biochemical relapse after radical prostatectomy: proceedings of the Genito-Urinary Radiation Oncologists of Canada consensus meeting. *Can Urol Assoc J* 2008;2(5):500-7.

Simmons C, Miller N, Geddie W, Gianfelice D, Oldfield M, Dranitsaris G, Clemons MJ. Does confirmatory tumor biopsy alter the management of breast cancer patients with distant metastases? *Ann Oncol* 2009;20(9):1499-504.

Simunovic M, Smith AJ, Heald RJ. Rectal cancer surgery and regional lymph nodes. *J Surg Oncol* 2009;99(4):256-9.

Skliarenko J, Vesprini D, Warde P. Stage I seminoma: what should a practicing uro-oncologist do in 2009? *Int J Urol* 2009;16(6):544-51.

Smith AK, Earle CC, McCarthy EP. Racial and ethnic differences in end-of-life care in fee-for-service Medicare beneficiaries with advanced cancer. *J Am Geriatr Soc* 2009;57(1):153-8.

Smith BK, Robinson LE, Nam R, Ma DW. Trans-fatty acids and cancer: a mini-review. *Br J Nutr* 2009;102(9):1254-66.

Snyder CF, Frick KD, Kantsiper ME, Peairs KS, Herbert RJ, Blackford AL, Wolff AC, Earle CC. Prevention, screening, and surveillance care for breast cancer survivors compared with controls: changes from 1998 to 2002. *J Clin Oncol* 2009;27(7): 1054-61.

Snyder CF, Frick KD, Peairs KS, Kantsiper ME, Herbert RJ, Blackford AL, Wolff AC, Earle CC. Comparing care for breast cancer survivors to non-cancer controls: a five-year longitudinal study. *J Gen Intern Med* 2009;24(4):469-74.

Somani S, Sahgal A, Krema H, Heydarian M, McGowan H, Payne D, Xu W, Michaels H, Laperriere N, Simpson ER. Stereotactic radiotherapy in the treatment of juxtapapillary choroidal melanoma: 2-year follow-up. *Can J Ophthalmol* 2009;44(1):61-5.

Stambolic V, Woodgett JR, Fantus IG, Pritchard KI, Goodwin PJ. Utility of metformin in breast cancer treatment, is neoangiogenesis a risk factor? *Breast Cancer Res Treat* 2009;114(2):387-9.

Steele R, Fitch MI. Supportive care needs of women with gynecologic cancer. *Cancer Nurs* 2008;31(4):284-91.

Sukhai MA, Thomas M, Xuan Y, Chan LS, Hamadanizadeh SA, Zhang T, Bharadwaj RR, Schuh AC, Wells RA, Kamel-Reid S. Evidence of functional interaction between NuMA-RARalpha and RXRalpha in an in vivo model of acute promyelocytic leukemia. *Oncogene* 2008;27(34):4666-77.

Sultana A, Reznik A, Karim KS, Rowlands JA. Design and feasibility of active matrix flat panel detector using avalanche amorphous selenium for protein crystallography. *Med Phys* 2008;35(10):4324-32.

Tang CI, Loblaw DA, Cheung P, Holden L, Morton G, Basran PS, Tirona R, Cardoso M, Pang G, Gardner S, Cesta A. Phase I / II study of a five-fraction hypofractionated accelerated radiotherapy treatment for low-risk localized prostate cancer: Early results of pHART3. *Clin Oncol (R Coll Radiol)* 2008;20(10):729-37.

Toma J, Paszat LF, Gunraj N, Rabeneck L. Rates of new or missed colorectal cancer after barium enema and their risk factors: a population-based study. *Am J Gastroenterol* 2008;103(12):3142-48.

Tyson AH, Mawdsley GE, Yaffe MJ. Measurement of compressed breast thickness by optical stereoscopic photogrammetry. *Med Phys* 2009;36(2):569-76.

Vandenberg T, Coakley N, Nayler J, Degrasse C, Green E, Mackay JA, McLennan C, Smith A, Wilcock L, Trudeau ME. A framework for the organization and delivery of systemic treatment. *Curr Oncol* 2009;16(1):4-15.

Venkateswaran V, Klotz LH, Ramani M, Sugar LM, Jacob LE, Nam RK, Fleshner NE. A combination of micronutrients is beneficial in reducing the incidence of prostate cancer and increasing survival in the Lady transgenic model. *Cancer Prev Res (Phila Pa)* 2009;2(5):473-83.

Vesprini D, Ung Y, Dinniwell R, Breen S, Cheung F, Grabarz D, Kamra J, Mah K, Mansouri A, Pond G, Brock K, Darling G, Knox J, Haider M, Wong RK. Improving observer variability in target delineation for gastro-oesophageal cancer—the role of (18F)fluoro-2-deoxy-D-glucose positron emission tomography/computed tomography. *Clin Oncol (R Coll Radiol)* 2008;20(8):631-8.

Vlad RM, Alajez NM, Giles A, Kolios MC, Czarnota GJ. Quantitative ultrasound characterization of cancer radiotherapy effects in vitro. *Int J Radiat Oncol Biol Phys* 2008;72(4):1236-43.

Vlad, R.M., S. Brand, A. Giles, M.C. Kolios, and G.J. Czarnota, Quantitative ultrasound characterization of responses to radiotherapy in cancer mouse models. *Clin Cancer Res* 2009;15(6):2067-75.

Vykhodtseva N, McDannold N, Hynynen K. Progress and problems in the application of focused ultrasound for blood-brain barrier disruption. *Ultrasonics* 2008;48(4):279-296.

Warwick J, Vardaki E, Fattizzi N, McNeish I, Jeyarajah A, Oram D, Hassan L, Covens A, Duffy S, Reynolds K. Defining the surgical management of suspected early stage ovarian cancer by estimating patient numbers through alternative management strategies. *BJOG* 2009;116(9):1225-41.

Wells RA, Leber B, Buckstein R, Lipton JH, Hasegawa W, Grewal K, Yee K, Olney HJ, Larratt L, Vickers L, Tinmouth A. Iron overload in myelodysplastic syndromes: a Canadian consensus guideline. *Leuk Res* 2008;32(9):1338-53.

Wong J, Breen D, Balogh J, Czarnota GJ, Kamra J, Barnes EA. Treating recurrent cases of squamous cell carcinoma with radiotherapy. *Curr Oncol* 2008;15(5):229-233.

Wong J, Chow E, de Sa E, Rowsell C, Probyn L, Christakis M, Sinclair E, Law C, Finkelstein J. Immediate pain relief and improved structural stability after percutaneous vertebroplasty for a severely destructive vertebral compression fracture. *J Palliat Med* 2009;12(1):97-100.

Wong J, Hird A, Kirou-Mauro A, Napolskikh J, Chow E. Quality of life in brain metastases radiation trials: a literature review. *Curr Oncol* 2008;15(5):25-45.

Wright FC, Gagliardi AR, Law CH, Last LD, Klevan AE, Hongjinda S, Stitt LW, Klar N, Ryan DP, Smith AJ. A randomized controlled trial to improve lymph node assessment in stage II colon cancer. *Arch Surg*;143(11):1050-5.

Wright FC, Law CH, Berry S, Smith AJ. Clinically important aspects of lymph node assessment in colon cancer. *J Surg Oncol* 2009;99(4):248-55.

Wright FC, Lookhong N, Urbach D, Davis D, McLeod RS, Gagliardi AR. Multidisciplinary cancer conferences - identifying opportunities to promote implementation. *Ann Surg Oncol* 2009;16(10):2731-7.

Wronski MM, Rowlands JA. Direct-conversion flat-panel imager with avalanche gain: feasibility investigation for HARP-AMFPI. *Med Phys* 2008;35(12):5207-18.

Yaffe MJ, Mainprize JG, Jong RA. Technical developments in mammography. *Health Phys* 2008;95(5):599-611.

Yoon FH, Gardner SL, Danjoux C, Morton G, Cheung P, Choo R. Testosterone recovery after prolonged androgen suppression in patients with prostate cancer. *J Urol* 2008;180(4):1438-43.

Yuen HW, Symons S, Pirouzmand F, Chen JM. Vascularized mastoid cranioplasty following translabyrinthine excision of vestibular schwannomas. *Skull Base Surgery* 2009;19(3):193-201

Yousefi A, Goertz DE, Hynynen K. Transcranial shear-mode ultrasound: assessment of imaging performance and excitation techniques. *IEEE Trans Med Imaging* 2009;28(5):763-74.

Zhang B, Wright AA, Huskamp HA, Nilsson ME, Maciejewski ML, Earle CC, Block SD, Maciejewski PK, Prigerson HG. Health care costs in the last week of life: associations with end-of-life conversations. *Arch Intern Med* 2009;169(5):480-8.

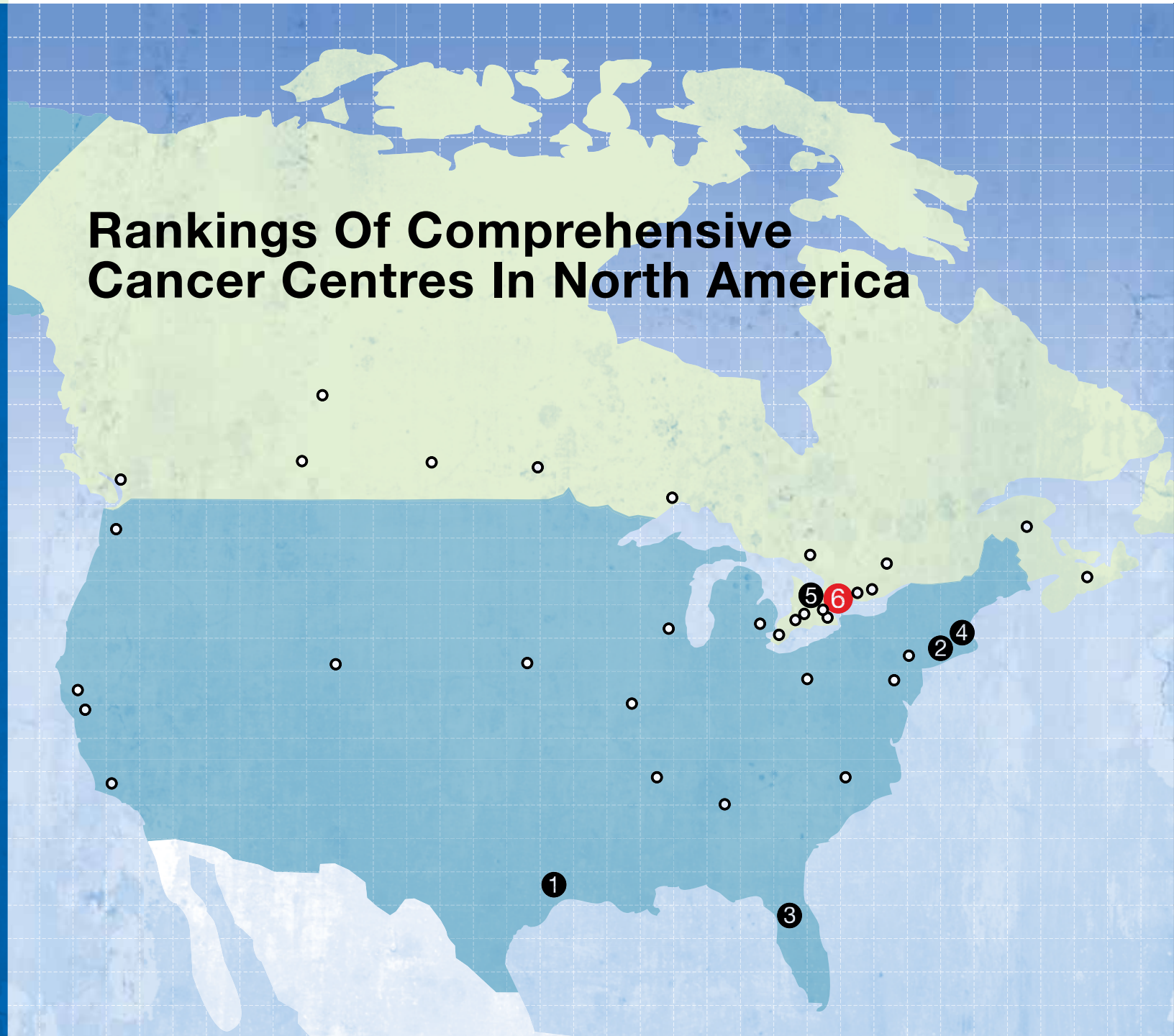
Zhao X, Higgins KM, Enepekides D, Farwell G. Medicinal leech therapy for venous congested flaps: case series and review of the literature. *J Otolaryngol Head Neck Surg* 2009;38(2):E61-4.

Rankings Of Comprehensive Cancer Centres In North America

LEGEND

- ① MD Anderson (Houston)
- ② Memorial Sloan-Kettering (New York)
- ③ H. Lee Moffitt (Tampa)
- ④ Dana-Farber (Boston)
- ⑤ Princess Margaret Hospital (Toronto)
- ⑥ **Odette Cancer Centre, Sunnybrook (Toronto)**
- Others

Ranking according to number of new patients seen in 2006/07.



give · invest · support

THIS IS THE



BREAST.



THIS IS THE TUMOUR.

THIS IS THE SEED

IMPLANTED IN THE BREAST TO

KILL THE TUMOUR AND HELP

GIVE THE PATIENT



A BETTER LIFE.



THIS IS THE PATIENT.

THESE ARE

HER CHILDREN.



THAT'S WHY IT MATTERS.

 Sunnybrook

INNOVATION WHEN IT MATTERS MOST.

sunnybrook.ca



ODETTE CANCER CENTRE
2075 Bayview Avenue
Toronto, ON, Canada, M4N 3M5
Telephone: 416.480.6100
www.sunnybrook.ca/programs/occ

 **Sunnybrook**
ODETTE CANCER CENTRE

A Cancer Care Ontario Partner