Dr. Robert Kerbel:  
A Leader in Tumour Angiogenesis Research

Sunnybrook senior scientist collaborates with clinicians to further enhance and extend life for individuals diagnosed with cancer

BY NATALIE CHUNG-SAYERS

Reflecting the internationally-renowned reputation of Dr. Robert Kerbel and his lab in the field of tumour angiogenesis, the New England Journal of Medicine invited Dr. Kerbel to contribute a major review in the field, summarizing key recent discoveries, for its current "Molecular Origins of Cancer" series. Dr. Kerbel is a senior scientist, Sunnybrook Research Institute and Canada Research Chair in Tumor Biology, Angiogenesis, and Antiangiogenic Therapy. The discoveries summarized by Dr. Kerbel and their longer-term translation into clinical care continue to impact thinking regarding the practice of medical oncology (especially chemotherapy), and hold promise to further enhance and extend life for individuals diagnosed with cancer.

Tumour angiogenesis involves the growth of new blood vessels from pre-existing ones, a process critical to tumour growth, and antiangiogenic drug therapies work to inhibit this growth by blocking blood flow to the cancer.

Not since Dr. Judah Folkman's seminal article published in 1971 has such a comprehensive review of tumour angiogenesis been published in the New England Journal of Medicine. At that time, Folkman took what became a much-debated stance as he first hypothesized tumour growth was dependant on angiogenesis. With subsequent discoveries of angiogenesis inhibitors having modest patient benefit, and more recent gains in understanding of the molecular and cellular behaviours that control tumour angiogenesis, as well as response to antiangiogenic therapies, this type of therapy for cancer has begun to have a real impact in cancer treatment. But improvements are needed.

In particular, Dr. Kerbel co-leads the Toronto Angiogenesis Research Centre, Sunnybrook Research Institute, and his group has been pioneering work in what is called low-dose "metronomic" chemotherapy and newer protocols that have led to clinical trials worldwide. They are also developing, for the first time, unique preclinical models of advanced metastatic disease to improve study of anti-cancer therapies, including antiangiogenic drugs and metronomic chemotherapy, for the treatment of advanced metastatic disease, especially breast and ovarian cancers, in patients.

"We are committed to improving the efficacy of anti-cancer drugs and reducing their toxic side effects, and are also doing so by working closely with a number of medical oncologists at Sunnybrook's Odette Cancer Centre; we really want to have an impact on prolonging the survival and quality of life of cancer patients," says Dr. Kerbel.

A Leader in Tumour Angiogenesis Research

Dr. Robert Kerbel:  
A Broadening of Direction

Dr. Merrick Zwarenstein to lead new research discipline

BY JIM OLDFIELD

Sunnybrook Research Institute (SRI) has established a new research discipline - combined health sciences services (CHSS) - and appointed Dr. Merrick Zwarenstein its inaugural director. The CHSS discipline harmonizes with SRI's four existing disciplines, molecular and cellular biology, imaging, clinical integrative biology and clinical epidemiology. It will be dedicated to furthering SRI's vision of inventing the future of health care via an explicit health services sciences framework, by providing stable funding and administrative support and hiring new faculty and research staff.

"The CHSS discipline will round out Sunnybrook's offerings in science, complementing expertise in basic and clinical research while bringing the depth of knowledge of how these are integrated into health care delivery systems," says Zwarenstein. A senior scientist at SRI and the inaugural chair of Sunnybrook's year-old Centre for Health Services Sciences, Zwarenstein will focus his research and administrative activities - previously spread among four Toronto institutions - exclusively at Sunnybrook.

"We are thrilled to welcome Merrick into the fold as director of this new and vital research discipline," says Dr. Michael Julius, Sunnybrook's vice-president of research, who made the appointment in June. "As an investigator with a tremendous breadth of knowledge in health services sciences, Merrick's stewardship will extend Sunnybrook's role as a global leader in the delivery of safe, quality health care."

Having studied health services sciences in Johannesburg, South Africa; then London, England; and Stockholm, Sweden, Zwarenstein came to Canada five years ago with a well-developed sensitivity to what he calls the "social complexity" of health services research. "The field has wide ambitions that require working with communities and facilities delivering health care outside research labs or computer terminals," says Zwarenstein. But it's wrong, he cautions, to think of that complexity as a barrier. "It comes with the terrain - it is the terrain," he says. "It's the thing that intrigues people who go into this discipline."

First understanding, then acting on, the complexities of social interaction and the vagaries of human nature in the context of patient safety and care is a daunting challenge indeed. But it was the success of the Centre for Health Services Sciences in this very endeavour over the last year that prompted SRI's creation of the CHSS discipline. The centre helped pull together the hospital's existing capacities through four platforms: hospital epidemiology, knowledge translation, the clinical studies resource centre and patient safety improvement research. In so doing, says Zwarenstein, it connected hospital managers and leaders with frontline clinicians from all professions and researchers across the hospital, all focusing on quality improvement and safety.

While the connections between stakeholders built by the centre are crucial for Sunnybrook's implementation of existing health service delivery knowledge, the CHSS discipline is where new science and researchers will be nurtured. The discipline, Zwarenstein says, will become a network of research colleagues and a source of information, both practical (e.g., how to get research done at Sunnybrook, where to find support and resources) and scientific. "Without a growing body of world-class scientific research on health service delivery, the Centre for Health Services Sciences will be merely recycling the knowledge grown by others elsewhere. We need to contribute to the garden, not merely eat from it," says Zwarenstein. "I'm delighted to be here," he adds, "because I think Sunnybrook is taking a uniquely forward-looking approach to health research, and sees that health services sciences is a positive part of that."
Some recent M-Wing accomplishments include:
Completion of all major concrete work for the new structure, installation of windows on the North, South and East sides (East of the galleria) and receipt and placement of all new air handlers on the penthouse level.

M-Wing Expansion
*M-Wing continues to make progress towards summer 2010 completion!*

BY LAURIE LEGERE

This summer, Dr. Isaac Moss returns to his orthopaedic residency with the University of Toronto’s Division of Orthopaedic Surgery after a two-year hiatus. During those two years he earned a Masters of Applied Science degree. He also conducted research at Sunnybrook that may hold the key to a future free of back pain for countless sufferers.

Dr. Moss was able to postpone his residency by participating in the University of Toronto’s (U of T) unique Surgeon Scientist Program (SSP) a program that provides surgical residents wishing to pursue a career in academic surgery with time away from their clinical responsibilities and salary support while they participate in high quality research projects and earn a Masters Degree or PhD.

“The program allows scientists with incredibly varied interests to choose areas of research which are both appropriate to their field and suited to individual interests and skills,” says Dr. Moss.

During his time in Sunnybrook’s Orthopaedic Biomechanics Lab and the Advanced Regenerative Tissue Engineering Centre, Dr. Moss conducted research focused on tissue engineering of discs in the spine. This important work has the potential to help sufferers of degenerative disc disease – the condition responsible for the vast majority of chronic back pain.

At Sunnybrook, Dr. Moss’ team of supervisors consisted of Kim Woodhouse, a chemical engineer with expertise in biomaterials; Albert Yee, a spine surgeon with an interest in translational research; and Cari Whyne, a biomedical engineer with expertise in biomechanics and Director of the Musculoskeletal Research Programme.

“One major benefit of conducting this research at Sunnybrook has been the collaboration between supervising scientists of varied backgrounds,” says Dr. Moss. “This different skill set and perspective offered by each supervisor truly enhances the training experience and the quality of research.”

Currently, surgical treatment for degenerative disc disease involves removing the offending disc and implanting an artificial replacement or bony fusion – a strategy focused on end-stage treatment. Under their supervision of Sunnybrook’s Holland Musculoskeletal Program research team, Dr. Moss examined repair strategies to slow or reverse the degeneration process before it progresses.

“Dr. Moss’s research has advanced knowledge in how human spinal disc cells interact with new bioactive materials to encourage tissue to regenerate itself,” explains Dr. Yee. “In spinal surgery, the ultimate application of his research will be through therapies that utilize cutting edge minimally invasive surgical strategies.”

The research has garnered Dr. Moss a great deal of attention from his peers. Last year, he was presented with the J.A. Nutter Award for best paper at the Canadian Orthopaedic Resident Association Annual Meeting and the Advanced Regenerative Tissue Engineering Centre Research Scholarship.

This year, his research has earned him a Gallie Bateman Award for resident research in the Department of Surgery at U of T and a Canadian Institute of Health Research Canada Graduate Scholarship, Masters Award. Although Dr. Moss is returning to the rigorous schedule of clinical orthopaedic training, he hopes to maintain some involvement in this exciting area of research that will be carried on by Sunnybrook’s Holland Musculoskeletal Program research team.

Sunnybrook Labs Provide Enhanced Research Experience for Residents

Sunnybrook Assessment Tests PharmaTrust System

BY THOMAS PATON

Sunnybrook’s Department of Pharmacy is pleased to take part in a three-month trial to test a new medication dispensing system called PharmaTrust, developed by PCA Services Inc.

PharmaTrust system has been installed on our Bayview campus in M1 across from the Ambulatory Patient Pharmacy. We are beginning a three-month assessment of this new technology in a controlled environment. A pharmacist will still process the prescriptions and speak to patients about their medications as well as help patients use the machine. The pharmacists can also answer any questions about the machine.

Please note that use of the machine is strictly voluntary and patients will be able to continue to have their prescriptions filled in the M1 Pharmacy as they have in the past. Since a pharmacist must be present in order to use the machine it will only be available for use Monday to Friday during operating hours of the M1 Pharmacy.

The results of this trial period and feedback received from patients will inform both Sunnybrook and PCA Services Inc. about patient’s opinions on the use of this technology. As with all research and technology reviews at Sunnybrook, our goal is to learn through evaluation to aid decision-making in our practices.

Thomas Paton is Director of Pharmacy at Sunnybrook.
Emergency Medicine Capacity-Building in Romania

BY LAURA BRISTOW

In May 2008, Dr. Krym, a Sunnybrook emergency physician, conducted a capacity-building project at the Cluj County Hospital, a tertiary teaching hospital in Cluj-Napoca, Romania. This is the fourth year that she has returned to Romania to assist with development of emergency care in the former communist country. Members of Dr. Krym’s team included three Emergency Medicine residents; Dr. Anna Muresan, Dr. Davidj, Dr. Maja Stachura, one Family Medicine resident; Dr. Cristina Stanculescu, and two Sunnybrook emergency nurses: Floresa Sollano RN and Matthew Timmons RN.

The goals of the emergency medicine project were: 1) Physician and nursing education program 2) Four research projects to assess the CTAS triage system that was implemented in October 2006 3) Train six nurses in emergency department at Sunnybrook. These included three computers with monitors and three LifePak 10 defibrillators. There were cheers when the Romanian staff saw the defibrillators, as their emergency department is in desperate need of transport defibrillators. The Canadians also received gifts from their Romanian hosts and enjoyed a traditional Romanian feast.

“The hospitality has been unlike any other country I have worked in. It was hard to say good-bye to colleagues who have become close friends. The success of this international emergency medicine project is due to enormous respect and collaboration on both sides”, says Dr. Krym.

Significant advancement in emergency care in Cluj has occurred as a result of multidisciplinary emergency medicine projects such as this one, under Dr. Krym’s leadership.

When the Canadian team returned to Canada on May 29th, Dr. Muresan, the Emergency Department Chief, and Dr. Horia Hapca, the Chief Resident came together with residents from the University of Medicine and University de medicina i farmacie in Cluj-Napoca. The Romanian residents spoke good English and were able to assist with data collection, translation and collation.

At the conclusion of the project, the Canadian team gave a final report and shared recommendations with emergency department staff, hospital administration and university leadership. The Canadians presented donated medical equipment prepared by Keith Laycock, Manager of the Biomedical Engineering Department at Sunnybrook.

In Creative Art Therapy classes, veterans supported colleagues who have become close friends. The success of this international emergency medicine project is due to enormous respect and collaboration on both sides”, says Dr. Krym.

Significant advancement in emergency care in Cluj has occurred as a result of multidisciplinary emergency medicine projects such as this one, under Dr. Krym’s leadership.

When the Canadian team returned to Canada on May 29th, Dr. Muresan, the Emergency Department Chief, and Dr. Horia Hapca, the Chief Resident came with them. The two Romanian doctors were with Sunnybrook for a one-month observership in June. Many months of fundraising by Dr. Krym and the volunteer Romania Emergency Medicine Committee that she chairs, made this possible. The Romanian physicians also attended the Canadian Association of Emergency Physicians Conference in Ottawa, took an Advanced Cardiac Life Support Course at Sunnybrook, and spent time with Toronto EMS and ORNGE, Ontario’s air ambulance program.
Paediatric Doctors’ $125,000 Gift Boosts Campaign for Sunnybrook

BY KATY MACKINNON

In June, physicians from the Department of Newborn & Developmental Paediatrics teamed up to dedicate $50,000 toward the capital expansion of the Neonatal Intensive Care Unit in the M-Wing expansion, an essential part of the Hospital-wide capital campaign. This most recent gift follows an earlier donation of $75,000, bringing their total to $125,000 - over $15,000 per full-time physician.

This substantial investment is one example of the significant staff support of the Campaign for Sunnybrook, which includes a $40 million capital goal to create a new facility for women and babies. Construction is still underway, and the new facility is expected to open in spring 2010.

“Now even as the completion of the construction and our move into this wonderful facility,” says Dr. Michelle S. Dunn, Chief of the Department of Newborn & Developmental Paediatrics. “This move will enable us to offer the best care possible to women and their babies while accommodating our planned expansion of the Perinatal and Gynecology Program.”

“On behalf of the Sunnybrook Foundation, I would like to thank these physicians for this inspiring example of teamwork and leadership,” says Kevin Goldthorp, CEO of Sunnybrook Foundation. “On top of their daily life-saving work, they have been instrumental in supporting our capital expansion, providing innovative care when it matters most to our most fragile patients.”

Late Career Nurse Initiative is Back at Sunnybrook

BY NADIA NORCIA RADOVINI

The Nursing Secretariat is pleased to announce the Call for Applications to the 2008/09 Late Career Nurse Initiative (LCNI). This initiative supports the Ministry’s HealthForceOntario strategy to ensure that Ontarians have access to the right number and mix of qualified healthcare providers, now and in the future.

The Late Career Nurse Initiative has been in place for four years providing nurses 55 years or older the opportunity to spend a portion of their work time in alternate roles. This initiative helps restore the foundation of the nursing profession by recognizing late career nurses as an asset and acknowledging that the knowledge they bring to their work is invaluable and is an integral component to quality care for Ontarians.

Late career nurses possess excellent analytical problem-solving skills, provide extraordinary patient-centred care and have developed intuitive skills as a result of experience and education. This important group of nurses is a valuable asset to the healthcare team, not only in providing patient care but also in mentoring and orienting new nurses.

Sunnybrook Health Sciences Centre has participated with this initiative in the last four years. In 2006/07, forty-five nurses worked on 28 different alternate roles. Examples of these alternate roles were Infection Control Hand Hygiene Auditors, Surgical Liaison Nurses, Cardiology Patient Educators and Nursing Workload Interactors to mention a few. Feedback has been very positive. If you qualify and are interested in participating in this initiative, please contact your Patient Care Manager no later than July 22, 2008.

For further information please feel free to call Shoppers Home Health Care at 416.480.5966.

Going on Vacation?

Show how Sunnybrook News Travels!

The pages of Sunnybrook News reflect the outstanding local, national and international work of Sunnybrook staff. Now, we’d like to invite our staff to bring the newsletter to the world, so to speak.

For the second year in a row, we encourage you to bring a copy of Sunnybrook News with you on your vacation. Whether you head to a local Toronto spot, somewhere out of province, or somewhere out of the country, we’d like to see you in a picture reading the newsletter.

These images will show how Sunnybrook news and staff truly span the city, country and global.

Send along an image or two, with your name, where you work in the hospital, a short explanation of your vacation and where you are pictured reading the newsletter to News.Articles@sunnybrook.ca. A handful of our favorite selections will be featured in upcoming issues of the newsletter, but there is no guarantee of publication. Deadline for submission is September 17. We look forward to seeing your vacation pictures!

Events

Healthy Leg Day - Shoppers Home Health Care

Date: July 24, 2008
Time: 10:00 a.m. to 2:00 p.m.
Location: SCIC (UG01)

Refreshment will be served.

Do you have tired aching legs? Varicose veins? Swollen feet? It is estimated that 20 per cent of men and 30 per cent of women suffer from some form of venous disorder. Graduated compression garments apply a measured amount of compression to your legs as a basis for management of a variety of venous conditions. The day’s events will focus on the benefits of compression therapy products. Emphasis will be placed on helping and educating staff and others who spend a lot of time on their feet. A representative from BIN medical will be present to discuss how JOBST compression garments address venous conditions and promote good leg health.

For further information please feel free to call Shoppers Home Health Care at 416.480.5966.

Mindfulness Based Stress Reduction Program

Do you feel your increasing workload will lead you to burnout? Do you spend more time caring for others than yourself?

The Center enrolling Dr. Jackie Gardner-Nix’s upcoming Mindfulness Mediation course based on the acclaimed Stress Reduction Clinic, founded by Jon Kabat-Zinn, at the University of Massachusetts Medical Centre. Dr. Gardner-Nix is a chronic pain consultant, St. Michael’s Hospital and Sunnybrook Health Sciences Centre. Mindfulness meditation will help you lead a more stress resilient and productive life. This will benefit both you as an individual and your patients too as you learn:

• The importance of living in the moment and the power of now.
• The principles of mindfulness meditation.
• How to remain calm among the chaos of daily living.

Dates: Every Tuesday from September 9 to December 9, 2008
Duration: 13 weeks, 2.5 hours per week
Times: 4:00 to 6:45 PM
Locations: St. Michael’s Hospital, CCW, RM 16-101, Sunnybrook Health Sciences Centre, M Wing, RM M1-600, Bloordview Kids Rehab, RM IWW-25
Cost: Course is covered by OHIP. There is, however, a $25 enrollment fee.
To Register: Please call Rita Maher at 416.461.6989. Doctor referrals should be faxed to 416.864.5854 to the attention of Mindfulness for Healthcare Professionals. The deadline for registration is at 4pm on August 7, 2008. Space is limited.

Ninth Annual Sunnybrook Staff Golf Tournament

When: Friday September 12, 2008
Where: Cardinal Golf Club, Kettleby
Time: 1:00 p.m. Shotgun Start
Cost: $100 per person (includes golf, cart and dinner)
To Register: Call Tom Corse at ext. 5991 or Karen Fritz at ext. 5327.

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Editor: Christine Henry
Visit us online at: www.sunnybrook.ca

Sunnybrook Health Sciences Centre is transforming healthcare through the dedication of its 10,000 staff members, physicians and volunteers. An internationally recognized leader in research and education and full affiliation with the University of Toronto, distinguishes Sunnybrook as one of Canada’s premier health sciences centres. Sunnybrook specializes in caring for critically-ill newborns, adults and the elderly, treating and preventing cancer, cardiovascular disease, orthopaedic and arthritis conditions and traumatic injuries.