

Sunnybrooknews

 Sunnybrook
HEALTH SCIENCES CENTRE

Volume 4 No 14 Sept 10, 2008

Sunnybrook Receives \$74.6 Million Research Award

BY NATALIE CHUNG-SAYERS

Sunnybrook Health Sciences Centre congratulates the federal government and Canada Foundation for Innovation for their continued support of excellence and innovation in health sciences research and is pleased to receive today a \$74.6 million award, the largest grant in the hospital's history, from the Canada Foundation for Innovation's (CFI) Research Hospital Fund.

This funding will establish the first-of-its-kind in Canada, Centre for Research in Image-Guided Therapeutics which will develop and test state-of-the-art medical imaging technologies and therapeutics including new vaccines, drugs, biological agents and imaging devices and translate them into clinical practice primarily in the areas of cancer, cardiac, musculoskeletal, and neurosciences.

"I would like to thank the federal government and CFI for this prestigious award. I am personally proud of our researchers, through whose work Sunnybrook Research Institute has tripled in size over the last five years to become one of the largest research institutes in Canada," says Dr. Barry McLellan, president and chief executive officer, Sunnybrook Health Sciences Centre. "This grant will allow our research teams to take giant strides in improving the health of our patients, and achieving our vision of inventing the future of health care."



Photo by: Doug Nicholson

From left to right: Stephanie Roberts, director, communications, Sunnybrook Research Institute (SRI), RHF proposal development co-lead, SRI; Dr. Peter Burns, senior imaging scientist and RHF investigator, SRI; Mr. David Leslie, chair, Board of Directors, Sunnybrook Health Sciences Centre; Dr. Alan Moody, associate scientist and RHF investigator, SRI; Dr. Colin Carrie, parliamentary secretary to the Minister of Industry and Oshawa MP; Dr. Barry McLellan, president and CEO, Sunnybrook Health Sciences Centre; Dr. Eliot Philipson, president and CEO, Canada Foundation for Innovation; Dr. Sandra Black, director, neurosciences research program and RHF investigator, SRI; Dr. Anne Martel, imaging scientist and RHF investigator, SRI; Kevin Hamilton, director, strategic research programs, RHF proposal development co-lead, SRI; Dr. Arun Seth, molecular and cellular biology senior scientist and RHF investigator, SRI.

"This is surely one of our most gratifying moments," said Dr. Michael Julius, vice-president, research, Sunnybrook. "We are thrilled with the CFI's recognition of the transformative potential of this research. Their investment is a tribute to our scientists and their teams, and the quality of the work we do here."

The Centre for Image-Guided Therapeutics will add more than 100,000 square feet of research space at Sunnybrook including two new floors on the main M-Wing, and will bring together 55 scientists and clinician-scientists from across the hospital along with more than 180 highly skilled research trainees. Unique facilities within the Centre will include:

Canada's first biomedical device development lab where for the first time in one facility researchers will be able to conceive, engineer and produce complex medical devices such as imaging detectors and therapy delivery devices for clinical trials.

The MRI-guided focused ultrasound surgery facility will be a world-first and will propel Sunnybrook Research Institute's position as a leader to develop, assess and clinically translate MRI-guided focused ultrasound surgery devices. Clinical and basic researchers will work with industrial partners to develop and test focused ultrasound devices to treat uterine fibroids and cancer.

The minimally invasive electrophysiology and vascular procedures facility will build on the expertise of Sunnybrook's Imaging Research Centre for Cardiac Intervention and will further research in areas including regenerative cell therapies to repair the heart after a heart attack, and the use of MRI-guided electrophysiology to treat arrhythmias.

The neurointervention facility will use image-guided technology to develop and improve treatments for stroke and dementia and to enhance recovery after stroke, and will facilitate the building of the world's first focused ultrasound device to incorporate both low-intensity and high-intensity frequencies to further explore focused ultrasound's usefulness in the delivery of drugs to the brain.

"With this award, we can build a centre that will be the only one of its kind in the country and perhaps the world," says Dr. Kullervo Hynynen, director, discipline of imaging, Sunnybrook Research Institute and Centre project lead. "The Centre will help us continue innovative research in medical imaging with an emphasis on developing new therapeutics for which Sunnybrook is known globally and will also attract collaborators, industry partners and young trainees."

"This is surely one of our most gratifying moments."

- Dr. Michael Julius, vice-president, research, Sunnybrook

'Missed Opportunities' for Stroke Prevention

Most high risk stroke patients not taking blood thinner before stroke

BY NADIA NORCIA RADOVINI

Despite numerous evidence-based guidelines for its use, the anti-clotting drug warfarin remains underused in high-risk patients with atrial fibrillation who could benefit from such blood-thinning therapy, say researchers in a new study.

The report, published in the August 28th issue of *Stroke, the Journal of the American Heart Association*, found that only 40 percent of ischemic stroke patients with atrial fibrillation, a heart disorder putting them at high risk of clots, had received warfarin before their stroke. Furthermore, three-fourths of those taking warfarin weren't taking an adequate dose of the drug at the time of their stroke. The rest were taking other, less effective, medications or no medication at all for preventing blood clots and stroke. Overall, only 10 percent of ischemic stroke patients with atrial fibrillation who were at high risk of stroke were taking sufficient anti-clotting therapy at the time of their stroke.

"These are missed opportunities for stroke prevention," said Dr. David Gladstone, lead investigator of the study and director of the Regional Stroke Prevention Clinic at Sunnybrook Health Sciences Centre. "Sadly, we frequently see patients admitted to hospital with a devastating stroke who are known to have atrial fibrillation, yet were either not taking warfarin or were taking a dose that is not therapeutic. We consider these to be potentially preventable strokes."

Calling the findings a "tragedy", Gladstone, also Assistant Professor in the Department of Medicine at the University of Toronto, said: "On one hand, we have an extremely effective and inexpensive medication for stroke prevention (warfarin), yet on the other hand it remains under-used in people who would benefit most from it." Treatment guidelines for warfarin use are based on evidence from 29 major trials demonstrating its benefit in lowering stroke risk. Warfarin has been convincingly proven for many years to be the most effective stroke prevention medication by a large margin for high-risk atrial fibril-

lation patients, reducing the risk of stroke by about 70 percent and death by about 25 percent. In addition to protecting against stroke, warfarin has also been shown in other studies to reduce stroke severity.

The investigators analyzed data on 2,135 stroke patients from the Registry of the Canadian Stroke Network, the largest audit of stroke care in Canada and one of the largest prospective stroke registries worldwide. In the study, the strokes were disabling in 60 percent and fatal in 20 percent -- a reminder of the high morbidity and mortality associated with stroke in individuals with atrial fibrillation.

Gladstone said the study's results are "particularly troublesome" given that all subjects selected for inclusion in this study were considered to be at high risk for stroke based on published criteria, were living independently and considered 'ideal' candidates for anticoagulation. Patients with atrial fibrillation who were considered to be at lower risk for stroke, for whom milder blood thinners like aspirin are usually sufficient, were not included in the study. The investigators also deliberately excluded patients for whom warfarin might not be suitable because of contraindications (e.g. previous bleeding), and also excluded patients for whom warfarin may be considered undesirable (e.g. dementia, nursing home residents).

Reasons for the underuse of warfarin may involve patient factors, physician or patient preferences, and regional practice variations. Drawbacks of warfarin include the perceived inconveniences of needing regular blood tests to monitor the medication and potential bleeding risks. "Unfortunately, the fear of bleeding side effects results in many patients not taking effective therapy that could prevent disabling and fatal strokes," says Dr. Gladstone. "We must always weigh the pros and cons of medications for individual patients, but for most high risk patients with atrial fibrillation, the benefits of taking warfarin for stroke prevention greatly outweigh the potential side effects including serious bleeding complications."

continued back page

How To Reach Us:

Room D100
Sunnybrook Campus
2075 Bayview Avenue
Toronto, ON M4N 3M5
P: 416.480.4040
F: 416.480.5556
E-mail: News.Articles@sunnybrook.ca

Sunnybrook News is published twice a month by the Communications & Stakeholder Relations Department (Public Affairs) at Sunnybrook Health Sciences Centre. Submissions to Sunnybrook News are welcome, however, they are subject to space availability and editorial discretion.

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

About Sunnybrook:

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 arthritic conditions and traumatic injuries.



Stroke Prevention

Continued from front page

The authors said their findings have immediate implications for improving patient care. They hope their study will encourage greater efforts to prescribe and monitor anticoagulant therapy for high-risk individuals, especially for those with a warning stroke or TIA, and hope that the study will stimulate more quality improvement interventions to address the practice gap. Providing patient education tools, reminders for physicians, and system-wide changes such as more widespread establishment of specialized anticoagulation management clinics (like Sunnybrook's renowned Anticoagulant Clinic) may be some ways to help improve the situation.

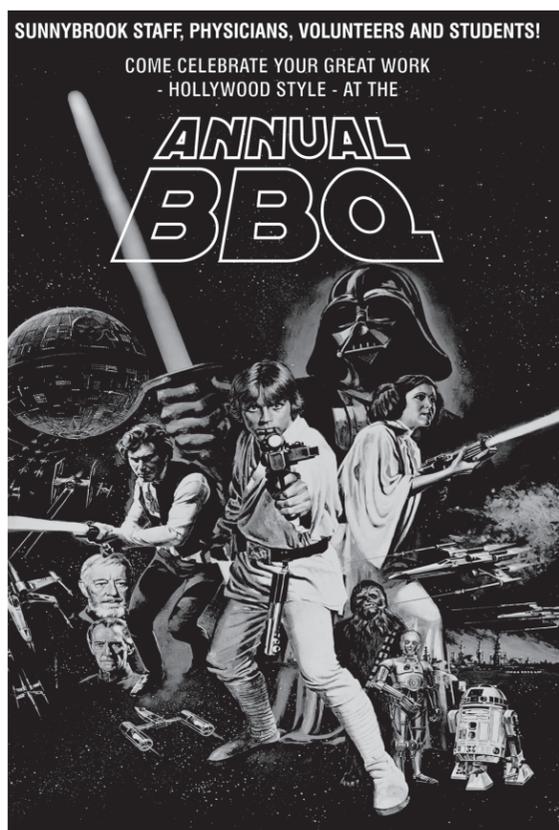
"This is a public health priority because atrial fibrillation is one of the most common causes of stroke," says Dr. Gladstone. "Many more strokes could be prevented if anticoagulation therapy were optimized in the population at risk."

Every 10 minutes in Canada someone dies or is disabled by a stroke, according to the Canadian Stroke Network who funded the study, and it is estimated that one in six ischemic strokes is caused by atrial fibrillation. Atrial fibrillation is a risk factor for stroke because when the heart beats irregularly, blood clots can form in the heart, and these clots can travel to the brain and block an artery, causing ischemic stroke.

"Prevention is much better than a cure -- especially when it comes to stroke", says Gladstone, who is also a researcher with the Heart and Stroke Foundation of Ontario. "We must do better in the fight against stroke. If we can prevent more strokes, then we will reduce stroke-related death, disability and dementia."

This study was conducted at the Institute for Clinical Evaluative Sciences (ICES). Dr. Gladstone's research is supported by the Heart and Stroke Foundation of Ontario, the Heart and Stroke Foundation Centre for Stroke Recovery, and the Department of Medicine at Sunnybrook and University of Toronto.

Sunnybrook BBQ - We'll See You There!



Please see our events section for details!

Sunnybrook Life Support Program Continues to Support International Teaching Program

BY LAURA BRISTOW



Above: Student participants in the Sunnybrook Life Support Program

It is not often that medical students from Canada, Israel, Jordan and Palestine get to come together to learn, but the International Pediatric Emergency Medicine Elective makes it possible once a year. This marks the second year that the Sunnybrook Life Support Program participated as a learning site for the program, which is designed to use health as a means to improve cross border cooperation among regions in the Middle East.

Eight medical students from Canada, Israel, Jordan, and Palestine gathered in Toronto for four weeks (July 22 to August 11.) During that time they participated in various learning activities in different Toronto hospitals and came to Sunnybrook for a practical workshop in modified life support. During the session at Sunnybrook, the students were able to practice their resuscitation skills together. The opportunity to work and learn from each other is a rarity considering their different backgrounds, but it showed the common ground that exists across the board.

The elective is sponsored by the Canadian Scientific Exchange Program (CISEPO), the Peter A. Silverman Centre for International Health, Mount Sinai Hospital, and the Hospital for Sick Children.

More information on the elective can be obtained by contacting Dr. Paul Hawkins, Director of the Sunnybrook Life Support Program, (paul.hawkins@sunnybrook.ca) or Dr. Rahim Valani, a Director of the Electives Program (rahim.valani@sunnybrook.ca). Further information can also be found on the Global TV website, where Susan Hay's report for "Making a Difference" is posted.

Sunnybrook News Travels!

Hugo Gin from Clinical Neurophysiology and his family recently visited Williamsville, NY and went shopping in Buffalo, NY.



Above: Hugo and his family are pictured taking time out to read Sunnybrook News outside the Kabab & Curry Restaurant in Williamsville, NY.

Sunnybrook Speaker Series

Mental Health Department/Neurosciences Program

Peace of Mind: Understanding Anxiety & Depression

When: Wednesday, September 24, 2008

Time: 6:30 - 8:30 P.M.

Where: McLaughlin Auditorium, E Wing, Ground Floor

Sunnybrook experts will discuss:

- Generalized Anxiety Disorder: Modern Treatments - Dr. Neil Rector, Psychologist
- What is Obsessive Compulsive Disorder? How is it Treated? - Dr. Peggy Richter, Psychiatrist
- The Role of Medications for the Treatment of People with both Anxiety & Depression - Dr. Ayal Schaffer, Head, Mood Disorders Program

Moderator: Dr. Anthony Levitt, Head, Department of Psychiatry

Please RSVP your attendance by September 22, 2008

Phone: 416.480.4117

e-mail: speaker.series@sunnybrook.ca

Free Admission Free Parking, Garage One

Sunnybrook's Odette Cancer Centre presents
The 18th Annual Cancer Information Series

Dimensions of Cancer

Sponsored by Florence Winberg

Thursday September 11, 2008

Preventing Cancer Through Diet - Dr. Richard Béliveau, Canadian cancer researcher lectures on beneficial foods and foods to avoid, to protect against cancer.

Thursday September 25, 2008

Money Concerns for People with Cancer- Pamela Bowes helps individuals living with cancer navigate income replacement options.

Drug Reimbursement Options and Cancer Treatment - Alison Chambers, Odette Cancer Centre's Drug Reimbursement Specialist discusses drug coverage options from private to public, and the role of pharmaceutical companies.

Time: 7:30 p.m. start

Free admission. Limited Seating. No Reservations Required.

Where: Toronto Botanical Gardens at Edwards Gardens, 777 Lawrence Avenue East (at Leslie Street)

Info: Phone: 416-480-5000, ext. 7988

Presentations are subject to speaker availability

Submission deadline for next issue: September 18, 2008
Issue date: September 23, 2008