New treatment for diabetic foot ulcers in development

There are 3 million Canadians living with diabetes, and about 15 per cent of diabetic patients will go on to develop foot ulcers, with some requiring partial foot or leg amputation due to the wound’s failure to heal. Some diabetic wounds also tend to reopen.

Sunnybrook and Sanofi-aventis announced that they have entered into a research agreement and licensing option for an investigational compound called vasculotide, which can help to treat chronic wounds, such as foot ulcers. Studies done on animals showed that when the vasculotide compound is provided intravenously, it helped accelerate wound healing, in addition to creating a better, deeper heal.

“Our new relationship with Sunnybrook Health Sciences Centre fits our strategy of fostering scientific exchange through external collaborations and will help us develop solutions for patients suffering from diabetic foot ulcers,” said Ray Jupp, vice president of Sanofi-aventis Therapeutic Strategy Unit, Fibrosis and Wound Repair.

“Sunnybrook is dedicated to making discoveries and delivering them to patients—it’s at the heart of all that we do,” said Dr. Michael Julius, vice president of research at Sunnybrook. “Vasculotide, invented by senior scientist Dr. Dan Dumont and Dr. Paul Van Slyke at Sunnybrook Research Institute, is one of our most exciting discoveries. We are grateful that our commercialization agent MaRS Innovation identified Sanofi-aventis as the ultimate partner, and we are committed to working with Sanofi-aventis to help us develop vasculotide further.”

---

How to B-Strong in the battle against brain tumours

In April 2005, after a series of severe, unexplained headaches that hospitalized her three times in five days, Lindsay Bolger’s vibrant days of university life and rugby changed forever. That month, just before her 22nd birthday, she was diagnosed with a brain tumour.

Before she passed away in November 2009, Lindsay had undergone four surgeries, three types of radiation, numerous chemotherapies and dozens of MRIs. She’d graduated university as class valedictorian, and inspired thousands of people to raise hundreds of thousands of dollars for brain tumour research. Far more than her “ mega-watt smile,” Lindsay had built a legacy of energy, bravery and generosity.

“Lindsay’s journey made us realize that people have so much energy, and if they could only focus a portion of it on helping others, it could really change things,” says John Bolger, her dad. “And eventually, when they get sick, it would help them too.”

That’s why John and Jo-Ann Bolger are determined to support brain tumour research. Since her death, and motivated by the loss of Lindsay’s silky blonde hair, they’ve continued their daughter’s legacy of fundraising through the B-Strong Bash – and through sales of B-Strong caps that Lindsay designed.

One of their beneficiaries, leading Sunnybrook brain tumour expert Dr. James Perry, played a key role in Lindsay’s care.

“He had a very down-to-earth approach,” says Jo-Ann. “He spoke with us on our level, and always helped Lindsay understand her options. Even when we knew he was busy, he never looked at his watch. We always felt that we were his only patient.”

“I don’t think enough people really appreciate how difficult it must be for these doctors to remain positive,” adds John.

The fifth-annual B-Strong Bash will be held in September 30, 2011. Well on their way to raising half a million dollars, Lindsay’s family and friends are determined to change progression after treatment) in 58 percent of patients had a partial response to Abraxane*, and a total clinical benefit of partial response, or stable disease (no change progression after treatment) in 58 percent of patients. The study involved 48 patients with platinum-refractory urothelial carcinoma, with disease progression on or after undergoing first-line chemotherapy. Abraxane* was given as a single agent at a dosage of 260 mg/m² IV three times weekly as second-line chemotherapy. The multi-institutional phase II study was conducted across Ontario at Sunnybrook’s Odette Cancer Centre and Princess Margaret Hospital in Toronto, Ottawa Hospital in Ottawa, Juravinski Cancer Centre in Hamilton and London Health Sciences Centre in London.

According to the Canadian Cancer Society, an estimated 5,300 Canadians will be diagnosed with bladder cancer, and an estimated 1,300 will have died of the disease in 2010.

Abraxane* is currently only used for advanced breast cancer, but Sunnybrook researchers led the innovative use of Abraxane for advanced bladder cancer, and found the drug to be effective when standard therapy no longer stops the disease from progressing or when the disease has become resistant to the first line of chemotherapy.

Study findings show about one third (32 percent) of patients had a partial response to Abraxane*, and a total clinical benefit of partial response, or stable disease (no change progression after treatment) in 58 percent of patients. The study involved 48 patients with platinum-refractory urothelial carcinoma, with disease progression on or after undergoing first-line chemotherapy. Abraxane* was given as a single agent at a dosage of 260 mg/m2 IV three times weekly as second-line chemotherapy. The multi-institutional phase II study was conducted across Ontario at Sunnybrook’s Odette Cancer Centre and Princess Margaret Hospital in Toronto, Ottawa Hospital in Ottawa, Juravinski Cancer Centre in Hamilton and London Health Sciences Centre in London.

According to the Canadian Cancer Society, an estimated 5,300 Canadians will be diagnosed with bladder cancer, and an estimated 1,300 will have died of the disease in 2010.

“**Abraxane is a registered trademark.**

Natalie Chung-Sayers
Sunnybrook leads study to improve patient care for the critically ill

“Evidence-based practices improve intensive care unit (ICU) outcomes, but eligible patients may not receive them,” says Dr. Damon Scales, lead investigator on the study and Intensivist at Sunnybrook. “Nonacademic hospitals face larger barriers to implementing evidence-based care because of heavier individual clinician workloads and fewer personnel devoted to collaborative continuing educational activities.”

However, according to a recent study by the Journal of the American Medical Association (JAMA), a Sunnybrook-led intervention helped improve the usage of evidence-based patient care practices in intensive care units (ICUs) at community hospitals. By using a collaborative network designed to educate and solicit feedback, participating community ICUs saw an improvement in ICU practices such as preventing catheter-related bloodstream infections and ventilator-associated pneumonia.

Dr. Scales and colleagues conducted a randomized trial to determine whether a quality improvement intervention could increase the adoption of six evidence-based ICU care practices. The study included 15 community hospital ICUs in Ontario, Canada, with a total of 9,269 admissions occurring during the trial (November 2005 to October 2006).

The intervention consisted of a videoconference-based forum including audit and feedback, expert-led educational sessions, and reminders (such as posters and checklists). ICUs were randomized into two groups. Each group received the intervention, targeting a new practice every four months, while acting as a control for the other group, in which a different practice was targeted in the same period.

The six practices that were included in the study were:
• prevention of ventilator-associated pneumonia (VAP);
• prevention of deep vein thrombosis (DVT);
• sterile precautions for central venous catheter insertion to prevent catheter-related bloodstream infections;
• daily spontaneous breathing trials to decrease duration of mechanical ventilation;
• early enteral nutrition (feeding tube); and
• daily assessment of risk for developing decubitus (pressure) ulcers.

The researchers found that, including all hospitals and targeted-care practices, patients in ICUs receiving active intervention were more likely to receive the targeted-care practice than those in control ICUs. Improved delivery in intervention ICUs was greatest for semi-recumbent positioning to prevent ventilator-associated pneumonia (90 per cent of patient-days in last month vs. 50 per cent in first month) and precautions to prevent catheter-related bloodstream infection (70 per cent of patients receiving central lines vs. 10.6 per cent).

“Previous studies have shown that blood pressure measurements taken manually in an office are often higher than with automated devices, like the ones you can use at home or for a few hours,” says Dr. Myers, also a Professor of Medicine at the University of Toronto. “This is due to something we call the ‘white coat effect’ where the very presence of a health-care worker in the room where the reading is being taken seems to elevate a patient’s blood pressure.”

“With our study found was that, even in the doctor’s office, the use of a fully automated blood pressure test significantly improved the quality and accuracy of blood pressure readings,” he says.

Automated blood pressure tests more accurate than manual readings

Automated blood pressure tests more accurate than manual readings

“Automated blood pressure tests more accurate than manual readings,” says Dr. Laura Bristow, a Professor of Medicine at the University of Toronto. “This is due to something we call the ‘white coat effect,’ where the very presence of a health-care worker in the room where the reading is being taken seems to elevate a patient’s blood pressure.”

“Previous studies have shown that blood pressure measurements taken manually in an office are often higher than with automated devices, like the ones you can use at home or for a few hours,” says Dr. Myers, also a Professor of Medicine at the University of Toronto. “This is due to something we call the ‘white coat effect’ where the very presence of a health-care worker in the room where the reading is being taken seems to elevate a patient’s blood pressure.”

“In conclusion, we found that a network of ICUs linked by a telecommunication infrastructure improved the adoption of care practices. However, improved performance among all practices was not the same. Future large-scale quality improvement initiatives should choose practices based on measured rather than reported care gaps, consider site-specific (vs. aggregated) needs assessments to determine target care practices, and conduct baseline audits to focus on poorly performing ICUs, which have the greatest potential for improvement.”

Laura Bristow

Breast intensity modulated radiation therapy is a safer treatment option

Sunnybrook researchers led the first high-precision study of five current radiation therapies for breast cancer and found that for whole breast treatment, Breast IMRT (intensity modulated radiation therapy) and virtual wedge are significantly safer than an older technique using a metallic, physical wedge. For partial breast radiotherapy, the researchers found low energy source brachytherapy (seed implant and 3D-CRT conformal radiotherapy) to be safer than temporary High-Dose Rate (HDR) brachytherapy using 125I (Iridium).

“More patients are living longer, and with any therapy used, the goal is for us to reduce risk of complications from treatment itself to better ensure continued quality of life,” says Dr. Jean-Philippe Pignol, lead investigator and radiation oncologist with the Breast Cancer Care team at Sunnybrook’s Odette Cancer Centre. Recent data published by the SEER Program (Surveillance, Epidemiology and End Results) shows 60 per cent of breast cancers are diagnosed at an early stage, with patients having a 98 per cent chance of being alive at five years after diagnosis.

Traditional radiotherapy for whole breast treatment uses triangular-shaped blocks or wedges made from metallic material. The wedge serves to even out the radiation dose inside the breast during treatment but also scatter the radiation, which is often absorbed in other parts of the body. Since 2000, in Ontario, the physical wedge technique has been replaced by the virtual wedge technique and eventually breast IMRT and virtual wedge techniques use computer-simulated fields and a motion of the radiation beam jaws, to better target therapy to the affected breast.

For partial breast treatment, since 2003, in the United States and Canada, select patients have been offered the treatment of temporary High-Dose Rate brachytherapy, where the researchers found to be less safe than a low energy source brachytherapy pioneered at Sunnybrook Health Sciences Centre.

Temporary High-Dose Rate brachytherapy involves the placement for a few minutes, twice a day for five consecutive days, of a very intense and miniature source of 192Ir inside a tube or balloon catheter implanted inside the surgical cavity. Low energy source brachytherapy involves the permanent insertion of low energy radioactive seeds under light sedation in a one-hour procedure.

“There are so many breast radiation techniques available and it is our hope that the data from this study will drive important dialogue about the risks of using techniques such as wedge or temporary high dose rate brachytherapy with 192Ir, when considering breast radiotherapy techniques for patients,” says Dr. Pignol, Professor in the department of Radiation Oncology at the University of Toronto.

The researchers evaluated the amount of unwanted radiation deposited elsewhere in the body, by using a very complicated simulator called A.C.T. Carlo. A CT (computed tomography) scan of a random patient was used to recreate a virtual patient to test the various breast radiotherapy techniques. The amount of radiation delivered to several internal organs at risk of developing secondary cancer or radiation complication was calculated. Organs included the breasts, lungs, the heart, chest walls, spleen and other body volumes.
March is nutrition month!

Celebrate food...from field to table!

March is nutrition month all across Canada and we at Sunnybrook are celebrating locally grown foods. The abundance of foods grown, raised, and produced in Canada gives Canadians a lot to truly celebrate!

What exactly is local food? While there is no set definition, in the simplest terms “local” can be thought of as the food grown close to home as possible. Depending on the food and season, this could mean food grown in your backyard, city, province or country. In Ontario, we often think of locally grown food as anything grown in the province.

Favouring local foods is becoming a tasty trend as more Canadians are realizing the associated benefits. Here are five reasons why:

1. Local foods are usually fresher
2. The variety of locally marketed fruits and vegetables are grown for taste, not shelf-life
3. Buying and eating Canadian foods supports local farms and farming families
4. Money spent at local markets helps our local economy
5. Canada produces some of the world’s safest, highest quality food

Eating local is just as much about pride as pleasure! Enjoy the many fruits and vegetables that are in season for March, including: apples, rhubarb, squash, peppers, tomatoes and potatoes. Remember fruits and vegetables are full of important vitamins, minerals, and antioxidants that should be enjoyed seven-to-eight times throughout the day.

It is amazing how delicious and healthy meals make their way from field to table. Below are some fascinating Canadian facts:

For more information on Nutrition Month 2011, please visit www.dietitians.ca

Welcome to our Twitterverse

“Sitting @SunnybrookHSC waiting for my [treatment]. The teams here are awesome… I love this place.”

This is one of the latest tweets on our hospital’s feed. The tweeter is a Sunnybrook cancer patient whom we’ve befriended on Twitter.

The patient gives his followers, including @SunnybrookHSC (that’s us!), updates on his treatments. We give back words of encouragement and helpful links to web resources. Sometimes we just try to make him laugh.

From live-tweets describing our early-morning Women & Babies site move – to helping outpatients get on the right bus route – we’ve cultivated lasting friendships. These relationships enable us to remain on the pulse of healthcare’s social conversation. Still not convinced? The numbers paint a picture, too:

- Our YouTube videos have been viewed nearly 80,000 times
- Facebook alone sends us nearly 1,000 unique hits a month
- We reach nearly 3,500 tweeters per day across the Twitterverse
- From live-tweets describing our early-morning Women & Babies site move – to helping outpatients get on the right bus route – we’ve cultivated lasting friendships. We give back words of encouragement and helpful links to web resources. Sometimes we just try to make him laugh.

Welcome to our Twitterverse

“Sitting @SunnybrookHSC waiting for my [treatment]. The teams here are awesome... I love this place.”

This is one of the latest tweets on our hospital’s feed. The tweeter is a Sunnybrook cancer patient whom we’ve befriended on Twitter.

The patient gives his followers, including @SunnybrookHSC (that’s us!), updates on his treatments. We give back words of encouragement and helpful links to web resources. Sometimes we just try to make him laugh.

From live-tweets describing our early-morning Women & Babies site move – to helping outpatients get on the right bus route – we’ve cultivated lasting friendships. These relationships enable us to remain on the pulse of healthcare’s social conversation. Still not convinced? The numbers paint a picture, too:

- Our YouTube videos have been viewed nearly 80,000 times
- Facebook alone sends us nearly 1,000 unique hits a month
- We reach nearly 3,500 tweeters per day across the Twitterverse
- The numbers paint a picture, too:

February 22nd Speaker Series.

Sunnybrook’s February 22 Speaker Series attracted hundreds of people to learn about the latest techniques to repairing the heart and preventing disease. Entitled Innovations in Cardiology: The Newest Lifesaving Techniques, the event’s first speaker was cardiovascular surgeon Dr. Gideon Cohen. He explained how newer, minimally invasive techniques are making repair of the heart’s mitral valve much easier for patients. Surgeon Dr. Gideon Cohen. He explained how newer, minimally invasive techniques are making repair of the heart’s mitral valve much easier for patients. Surgeon Dr. Gideon Cohen. He explained how newer, minimally invasive techniques are making repair of the heart’s mitral valve much easier for patients. Surgeon Dr. Gideon Cohen. He explained how newer, minimally invasive techniques are making repair of the heart’s mitral valve much easier for patients.

Heart healthy recipe

This healthy salmon recipe is low in calories, high in protein and features omega-3 fatty acids.

Salmon with Dill Sauce

Give this healthy salmon recipe a try, approved by one of our dietitians.

Ingredients:

- 1 lb salmon fillet
- ½ tsp dill weed, divided
- 1 ½ tsp reduced-fat plain yogurt
- ½ tsp sugar
- ½ tsp salt-free seasoning blend

Directions:

1. Place salmon in a 13-in. x 9-in. x 2-in. baking dish coated with non-stick cooking spray; sprinkle with 1/2 teaspoon dill. Cover and bake at 375 degrees F for 20-25 minutes or until fish flakes easily with a fork.

2. In a small saucepan, combine the yogurt, sugar, seasoning blend and remaining dill. Cook and stir over low heat until warmed. Serve with the salmon.

Diabetic continued

Vasculotide was invented by senior scientist Dr. Dan Dumont (left) and Dr. Paul Van Slyke at Sunnybrook Research Institute

Vasculotide is a synthetic peptide-based growth factor that targets Tie-2, a receptor on specialized cells of the hematopoietic and vascular systems. Close to two decades ago, Dr. Dumont and his colleagues were the first to discover and detail the importance of Tie-2 and its role in the formation of blood vessels. Dumont and Van Slyke are now investigating the use of vasculotide for restoring vascular health and accelerating healing during wound repair. Vasculotide may provide a shortcut to the series of molecular activities involved in blood vessel growth that ultimately lead to wound closure, which may improve healing in patients.

Released jointly by Santi-aventis, MaRS Innovation and Sunnybrook Research Institute.
Think of Sunnybrook for your wedding

In lieu of wedding favours, Sunnybrook Foundation offers couples the chance to give a gift that really matters.

Sunnybrook Foundation’s wedding recognition program allows you to make a donation in honour of your guests.

For more information, visit us online at sunnybrook.ca/weddings or call us at 416-480-4483.

Top 10 unique ways you can help Sunnybrook

We’ve come up with some unique ways you can help save lives at Sunnybrook.

1. Host a heart healthy dinner party and ask your guests to make a donation to Sunnybrook’s Schalich Heart Centre.

2. Looking to clean out your basement or attic? Consider hosting a garage sale with proceeds going to Sunnybrook.

3. Consider hosting a pink ribbon cocktail party to raise funds for Sunnybrook’s Odette Cancer Centre.

4. Celebrating a special occasion like an anniversary or birthday? Ask your guests to make a donation to your online fundraising page instead of gifts.

5. Organize a charity sporting event with your friends. Each player or team can make a donation to Sunnybrook.

6. Host a mom-to-mom sale, inviting friends to clean out their closets and raise funds for Sunnybrook.

7. Challenge your neighbors to a BBQ grill off. Each contestant makes a donation to be a part of the competition.

8. Host your own clothing swap party. Get together with friends and bring clothing and fashion accessories that you no longer wear. This is a great way to clean out your closet and raise funds for Sunnybrook.

9. Organize a ‘Dog Walk’ where you invite friends and dog owners to bring their pets and raise funds for Sunnybrook.

10. Fundraise at work, and get your employer to support ‘Jeans Week’. You and your colleagues can challenge each other to wear jeans every day and be there for them when it matters most.

Carmen Verena

Nine year old Romy raised over $2000 for the Odette Cancer Centre at Sunnybrook, where her grandmother was being treated.

Even before celebrating her ninth birthday last May, Romy was old enough to understand that her beloved Yaya (Grandma) was sick with cancer and would be starting her treatment that same month.

Romy wanted to do something for her Yaya. So in a sweet gesture, she set up a personal fundraising page through sunnybrook.ca/myevent and asked her guests at her birthday party to make a donation instead of purchasing birthday gifts. While initially setting a modest fundraising goal for herself, Romy surpassed her goal and ended up raising over $2,000 by the time she turned nine.

With the help of her family and friends, nine-year old Romy made a donation to the Odette Cancer Centre as Sunnybrook in her way of supporting the very place where her Yaya was being treated.

From bake sales to gala dinners, community fundraising events can bring people together and support the innovative research and world class care that takes place at Sunnybrook every day.

And like Romy, you can make a real difference in the lives of the people who are treated at Sunnybrook every day.

Your Health Matters

Sunnybrook Health Sciences Centre is inventing the future of health care for the one million patients the hospital cares for each year through the dedication of its more than 10,000 staff and volunteers. Internationally recognized leadership in research and education and a full affiliation with the University of Toronto distinguish Sunnybrook as one of Canada’s premier academic health sciences centres. Sunnybrook specializes in caring for Canada’s war veterans, high-risk pregnancies, critically ill newborns, adults and the elderly, and treating and preventing cancer, cardiovascular disease, neurological and psychiatric disorders, orthopaedic and arthritic conditions and traumatic injuries.

Sunnybrook Foundation is saving lives at Sunnybrook.

Your Health Matters is published monthly by the Communications & Stakeholder Relations Department and Sunnybrook Foundation. Submissions to Your Health Matters are welcome, however, they are subject to space availability and editorial discretion.

Sunnybrook Health Sciences Centre is 2075 Bayview Avenue, Suite D1 00 Toronto, ON M4N 3M5 P: 416.480.4040 E: news.articles@sunnybrook.ca

2075 Bayview Avenue, Suite D1 00
Sunnybrook Health Sciences Centre
Your Health Matters

How to reach us:
Phone: 416.480.4117, E-mail: speaker.series@sunnybrook.ca

Please RSVP your attendance by March 28, 2011
E Wing Ground Floor, 2075 Bayview Avenue
McLaughlin Auditorium, Bayview Campus

Preventing Blood Clots in Women:
Preventing Blood Clots in Women:
Tuesday, March 29, 2011, 6:30 – 8:30 P.M.

Free Event: March is Sunnybrook Creative Time: 6:30 P.M.

• A presentation by Sunnybrook Art Therapists featuring examples of clients’ artwork

• A screening of Scott Rendall’s documentary: Gift of Music: Stories of Music Therapy (An exciting film depicting the multi-faceted aspects of the music therapy profession across Canada).

• An informal Q & A session with Art, Music, and Horticultural Therapists from Sunnybrook!

• Those who register ahead of time and attend the event are eligible to enter a draw for an original piece of artwork.

Location: McLaughlin Lecture Theatre (E-Wing, Ground Floor, Rm. 61)
To find out more or to register please phone 416 480-5841 or e-mail: laurie.ryan@sunnybrook.ca

Tuesday, March 29, 2011, 6:30 – 8:30 P.M.
Preventing Blood Clots in Women: From Pre-pregnancy to Postmenopause
McLaughlin Auditorium, Bayview Campus
E Wing Ground Floor, 2075 Bayview Avenue

Please RSVP your attendance by March 28, 2011
Phone: 416.480.4117, E-mail: speaker.series@sunnybrook.ca