OPEN SKIES

Department of Surgery Newsletter

Vol.1 No.2
December 2013

U of S Health Sciences Building Lobby

WHAT'S INSIDE

University of Saskatchewan

Saskatoon Health Region

Regina Qu'Appelle Health Region

CHAIRMAN'S MESSAGE

It has been six months since my arrival to Saskatchewan and as usual when one is busy time seems to fly, it almost seems like yesterday that we were enjoying the wonderful Saskatoon summer. A lot has happened in the past six months, I have enjoyed meeting all the members of the Department and have listened to their concerns, aspirations and their vision for the future. These frank conversations have been extremely helpful in providing me with a more accurate sense of the opportunities and challenges we face today and tomorrow.

I have found particularly rewarding my many visits to Regina and the numerous individuals I have met during those visits have helped me understand the Regina environment. I am convinced that close collaboration and interaction between our two centers is vital for the growth of the Department, fostering a close relationship clinically and academically is not only complementary but synergistic.

In the present issue of OPEN SKIES we are featuring the state-of-the-art Dilawri Simulation Centre at the Regina General Hospital. This facility is a key infrastructure component for resident and undergraduate teaching, enhancing the academic experience of our residents and medical students in Regina.

I am pleased to announce the establishment of the Surgical Humanities Program under the direction of Dr. Francis Christian. This innovative program within our Department seeks to engage surgeons, residents and medical students in the humanities. Our first guest speaker of the Program is Yann Martel, the celebrated author of *Life of Pi* and *Mann Booker Prize* winner, who will be giving Grand Rounds in January 2014.

If these past 6 months are a sample of what is to come, the future is indeed bright for Surgery in Saskatchewan.

Sincerely,

IVAR MENDEZ, MD, PhD, FRCSC, FACS
Fred H. Wigmore Professor of Surgery

OPEN SKIES newsletter is a publication of the Department of Surgery at the College of Medicine, University of Saskatchewan.

It is distributed to all surgical faculty, residents and collaborators of the Department of Surgery, as well as surgical teaching centres in Canada and abroad.

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DILAWRI SIMULATION CENTRE

This is exactly what it would look like, sound like and be like with a real patient...

Dr. Kish Lyster, Medical Director, Dilawri Simulation Centre

The Dilawri Simulation Centre, at the Regina General Hospital, is Saskatchewan's first state-of-the-art, hands-on medical training centre accommodating an increasing number of medical and surgical students completing their training in Regina.

The simulation centre offers students a variety of methods and environments in which to learn –while working with actors to practice skills required to work with patients in a clinic setting or when transferring an immobile patient from a bed to a stretcher. To perfect key skills, students work with part task trainers (simulated body parts), lacroscopic surgical trainers, 3D virtual reality training systems or the human patient simulators used to teach bedside assessment skills.

The hightech, interactive mannequins can move, talk and replicate most conceivable medical situations that a health care professional might face in treating a real human patient, from an infection to a system failure. The fully programmable mannequins are designed to respond to the treatment that is initiated so that students can see how their actions will directly affect the patient. Instructors can also adjust the mannequins to introduce new challenges mid-scenario. "When you adjust the physiological parameters, the mannequins' response is what you'd see at the bedside," Dr. Lyster explained.

The centre's high-fidelity training rooms replicate actual hospital environments where staff and students can examine X-rays, order lab tests and even contact the virtual doctor on call. Above all, the centre offers a safe environment for staff and students to prepare for high-acuity events, such as treating a trauma patient. In these high-stakes situations, there is no room for error. By practicing and refreshing their knowledge, health care professionals can be confident in their ability to step up to the challenge of any medical emergency.

SURGICAL HUMANITIES PROGRAM & LAUNCH OF THE JOURNAL

In the Vienna of the latter half of the 19th century, the German immigrants to the once-mighty seat of the Austro-Prussian empire, recognized Vienna's eminence in the sciences, but also in the arts. It was this combination of the creative pursuits of mankind that acted like a magnet, drawing in perhaps the leading surgeon of the nineteenth century **Christian Theodor Billroth** (1829-1894) to take over the chair of surgery in Vienna in 1867.

Billroth quickly brought in new methods of investigation and practice to the Viennese school, some of which he had learned as a pupil of the famed German school of surgery under Bernard Von Langenbeck. Moving away from a simplistic understanding of disease based on cadaveric dissection, Billroth advocated to his devoted surgical disciples, an understanding of

> It is one of the superficialities of our time to see in science and in art, two opposites. Imagination is the mother of both...
>
> *C. Theodore Billroth*

surgical disease based on anatomy and surgical physiology and pathophysiology. It is well known of course, that he introduced bold, new operations on the larynx, the esophagus and the stomach (we still speak of *Billroth 1* and *Billroth 2* gastrectomies), but he also insisted that his students practice first doing the same operations safely, on animals. Very uniquely for his time, he introduced an audit of his own results - and famously stopped doing thyroidectomies when he realized the mortality rate in his cases was unacceptable (he started doing them again, several years later, after another of Langebeck's pupils Theodor Kocher had made thyroidectomies safer than ever before). We in North America have a direct link to Billroth as well, since William Halstead brought back to Baltimore the residency system of surgical training which he had learned from Billroth and from the German surgical school.

At the age of 19, the talented pianist Theodor Billroth had been persuaded by his parents to pursue medicine as a career instead. As it turned out, Billroth devoted an equal energy to both his life-long pursuits and credited music with providing him the inspiration and wherewithal for his remarkable scientific achievements. Throughout his furiously busy career as a surgeon, he made considerable time for his musical pursuits.

By the time he was in Zurich (1860 - 1867) he had taught himself the violin and viola and had become proficient in both. He was sufficiently well recognized as a musician to be offered to guest conduct the symphony orchestra in Zurich. This was also where he was introduced to the great Austro-German composer **Johannes Brahms** (1833-1897) When Billroth moved to Vienna at the age of 38, he immediately sought out

> I am certain of nothing but ... the truth of the imagination.
>
> *John Keats*

Brahms.
Within a few months, Billroth had converted a large room in his home into an ornately decorated musical studio. Several decades earlier, the

After a certain high level of technical skill is achieved, science and art tend to coalesce in esthetics, plasticity, and form. The greatest scientists are artists as well...

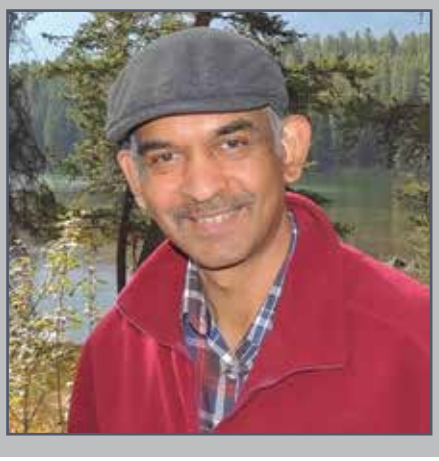
Albert Einstein

same house was visited by Beethoven and Billroth wrote in a letter to Brahms, "It is interesting to me that Johann Peter Frank and Beethoven met in my house and that a similar relation - let us not be arrogant! - exists between you and me one hundred years later. Beethoven wandered in this direction: must not Haydn, too, have had rehearsals . . . in this house? . . . What a noble triad: Haydn, Beethoven, Brahms!" For the next three decades, Billroth's home was the regular meeting place of Brahms himself, together with Billroth and a few other musicians, who played together in a musical quartet.

Brahms would send his compositions first to Billroth for his comments, before considering it for performance - so great was his regard for his musician-surgeon friend. They would also allow aspiring, talented artists to perform Brahms' compositions in the home studio - and it was said that if the performance was outstanding, champagne would be passed round (if less than overwhelming, beer was the standard drink!).

Toward the latter few years of his life, Billroth worked on a new investigation into the *Physiology of Music*. The book was published posthumously by Billroth's musician friends.

Billroth of course, is only one of several examples of scientists and surgeons who have found inspiration for their scientific work, in the arts and humanities.



Article contributed by:

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Surgical Humanities Program

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SURGICAL HUMANITIES JOURNAL

One of the initiatives of the Surgical Humanities Program is the launch of the new journal - *Surgical Humanities*. The journal will have both an online and a print presence and will be published four times a year.

Submissions to the journal will be in two categories:

- **Written Work**: poetry, essays and historical vignettes.
- **Visual Work**: submissions in digital reproductions, of paintings, photographs and sculpture.

The journal is open to submissions now. More information and submission guidelines are available online at the Surgical Humanities web-page: *www.medicine.usask.ca/surgery/surgical-humanities/*

SASKATCHEWAN VASCULAR SURGEONS COLLABORATE TO IMPROVE PATIENT CARE

Saskatchewan Vascular Surgery Patient Care Improvement Group

L – R (back row): Tanya Verrall, HQC; Dr. David Kopriva, Vascular Surgeon, RQHR; Dr. Peter Barrett, Physician Leader, Saskatchewan Surgical Initiative; Dr.Don McCarville, Vascular Surgeon, RQHR; Steven Lewis, Consultant, Saskatchewan Surgical Initiative; Dr. Shanti Lala, Interventional Radiologist, RQHR; Dr. Gary Groot, General Surgeon, SHR; Dr.Bruce Berscheid, Interventional Radiologist, SHR.
L – R (front row): Dr.Brian Ulmer, Vascular Surgeon, SHR; Gary Teare, HQC; Laura Schwartz, HQC; Jessica Hamilton, HQC.

A well-known fact in medicine is that variation exists in care and treatment provided to patients. Care varies from place to place and doctor to doctor.

Quality improvement experts indicate that unexplained variation could be a marker of low quality of care.

For the past year, seven vascular surgeons in Saskatchewan, under the leadership of Dr. David Kopriva and Dr. Brian Ulmer, have collaborated to find a way to minimize variation and standardize care in vascular surgery procedures. One of the key challenges in tackling this work in Saskatchewan is the absence of high quality clinical data, which is necessary in order to come to consensus about standardizing care.

The vascular group has agreed on a set of parameters that they want to measure. They've designed a vascular database and are starting slowly by collecting data on single surgical procedure- infrainguinal bypasses. Data collection started in Regina and Saskatoon in November, 2013. Key information incorporated into the database includes patient-reported outcome measures (PROMs) which provides information through the eyes of the patient- has the patient's quality of life improved?

Once data has been collected and analyzed, discussions will begin to standardize care- another step in making it possible for patients to receive the best care possible. The plan is to expand the database to other procedures, including endovascular procedures performed by the surgeons and interventional radiologists.

Development of the vascular database has been supported by a project team from the Saskatchewan Health Quality Council and the Saskatchewan Surgical Initiative.

For further information about the project, contact Dr. Peter Barrett at dr.p.barrett@sasktel.net.

ANXIETY, RISK, AND SURGICAL INTERVENTION WITH LARGE COMPLEX THYROID NODULES

Dr. Peter Spafford, Professor and Head of the Divsion of Otolaryngology, has supervised the Dean's Project every year for more than a decade.

The Dean's Project grants provide summer stipends annually for Saskatchewan medical students to get involved in medical research. Successful candidates are selected by faculty review. The expectation of students is a 12-week full-time immersion in a new or existing project in their area of interest. For the students involved, the project is a great way to take ownership of a challenging research question, to work with a great team, and to learn in-depth about a real challenge in clinical medicine. It's also a great way to practice grant-writing skills and prepare for doing research in residency.

This Dean's Project initiated a 5-year cohort study to assess the relationship between patient anxiety, clinical risk factors, and surgical intervention for the removal of large thyroid nodules showing a benign workup and mixed solid/cystic components. Once discovered, complex thyroid nodules involve a cumbersome follow-up process to account for a small ongoing risk of malignancy. We hypothesized that a number of patients with nodules eventually opt for diagnostic and/or therapeutic hemithyroidectomy in response. The eventual results could help clarify the medical management algorithm of large nodules with low clinical suspicion of malignancy, and may help to define if uncertainty in medical management itself leads to surgical intervention.

After the first 90 days, we reported the preliminary findings of the 30 patients who enrolled. Our poster won a "Best Dean's Project" award. The data collection will continue for 4 more years and is expected to involve more summer research students.

2013 Dean's Project Team

L – R: Kwadwo Mponponsuo, Medical Student; Pavlo Isak, Medical Student; Dr. Peter Spafford, Principal Investigator and Alex Dyck, Medical Student.

Missing from Photo: Dr. Erwin Karreman (Academic Research Support) and Dr. Brent Wilde (Anatomical Pathology).

SURGERY RESIDENTS WIN CanMEDS AWARD...

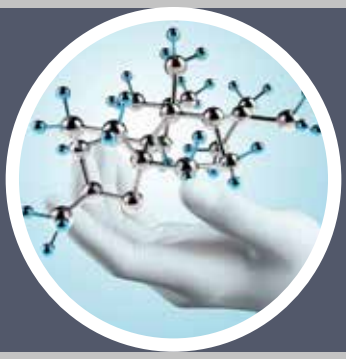
L – R: Deng Mapiour, Dr. Karen Shaw (Registrar, College of Physicians and Surgeons of Saskatchewan) and Peter Graham

At the 2nd Annual Resident Appreciation Night on November 23rd, 2013, organized by the College of Medicine, University of Saskatchewan Alumni Association and *saskdocs*, three Department of Surgery residents won CanMEDS awards.

Kudos to General Surgery PGY5 residents, **Deng Mapiour** and **Peter Graham**, for winning the Award for Excellence in the CanMEDS Professional Role. This award recognizes demonstrated role model behaviors in the ethical practice of medicine in domains such as integrity, responsibility, respect for others, compassion, self-awareness and improvement, and altruism.

Karl Langer, General Surgery PGY5 resident, won the Award for Excellence in the CanMEDS Manager Role. This award recognizes exemplary leadership and efficient management in administrative role in different settings. It is presented to a resident whose leadership work has led to improvements in workplace culture, better relationships and improved resident morale.

UPCOMING EVENTS



January 17th, 2014 from 10:00 AM to 6:00 PM
Saskatoon City Hospital – Rependa Centre

DEPARTMENT OF SURGERY RESEARCH DAY
At this annual event, our faculty and residents will present their research findings during a day that is dedicated to advances and opportunities in medical research.

January 23rd, 2014 at 5:30 PM
Saskatoon City Hospital – Rependa Centre

DEPARTMENT OF SURGERY GRAND ROUNDS in association with the **Surgical Humanities Program** present YANN MARTEL, a world-renowned author of Life of Pi and Man Booker Prize winner, whose works explore truth and imagination, human evil and human nature.