

OPEN SKIES

Department of Surgery Newsletter

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Remote Presence Surgery

WHAT'S INSIDE

- Remote Presence Surgical Mentoring
- Grand Rounds with Yann Martel
- Department of Surgery Research Day 2014
- Biomarker for ALS
- Transplantation Program
- New Health Sciences Research Wing



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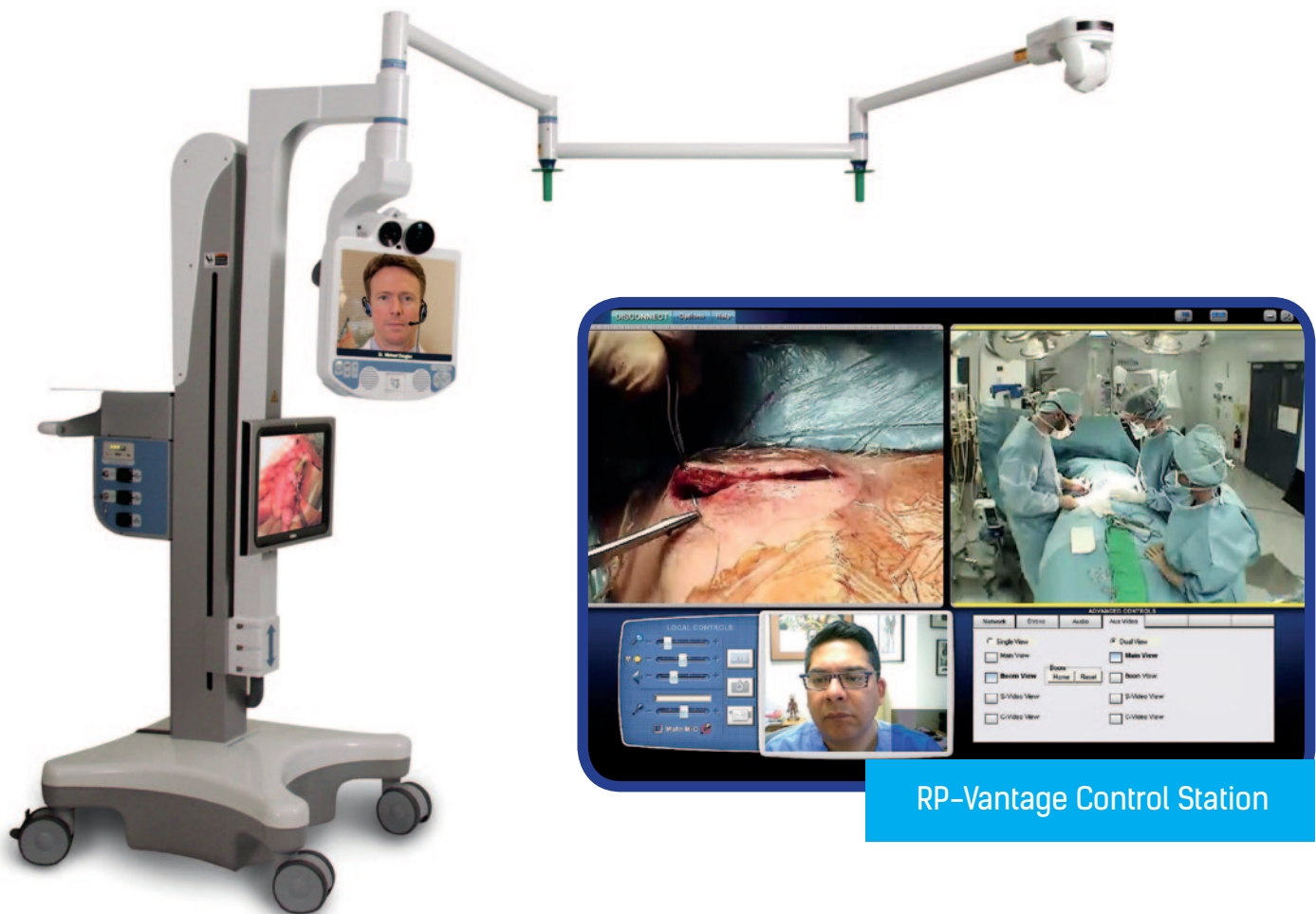
Regina Qu'Appelle
HEALTH REGION

REMOTE PRESENCE SURGICAL MENTORING

The cover of OPEN SKIES shows Dr. Justine Pearl, a senior neurosurgery resident and medical student Adam McInnes being remotely mentored by Dr. Ivar Mendez. An innovative remote presence system called RP-Vantage was recently deployed at the Royal University Hospital and is being used to provide our residents a greater degree of freedom in the operating room while being remotely mentored and supervised by the attending surgeon.

The RP-Vantage system has a mobile flat screen monitor that displays the image of the operator and a picture-in-picture window that shows the surgical field in exquisite detail. The RP-Vantage is fitted with two sophisticated high definition digital cameras, one of them mounted in a boom to facilitate access to the surgical field. Real time two-way audiovisual communication allows the mentor to communicate with all the members of the surgical team.

Connectivity between the control station and the RP-Vantage is provided by a secured hospital Wi-Fi internet link. The control station allows the mentoring surgeon to control the cameras and visualize the operating room environment as well as the surgical field simultaneously. The mentor is able to telestrate using a cursor that is displayed on the robot's head monitor. Telestration is important as the mentoring surgeon can relay instructions by pointing at structures in the surgical field in real time.



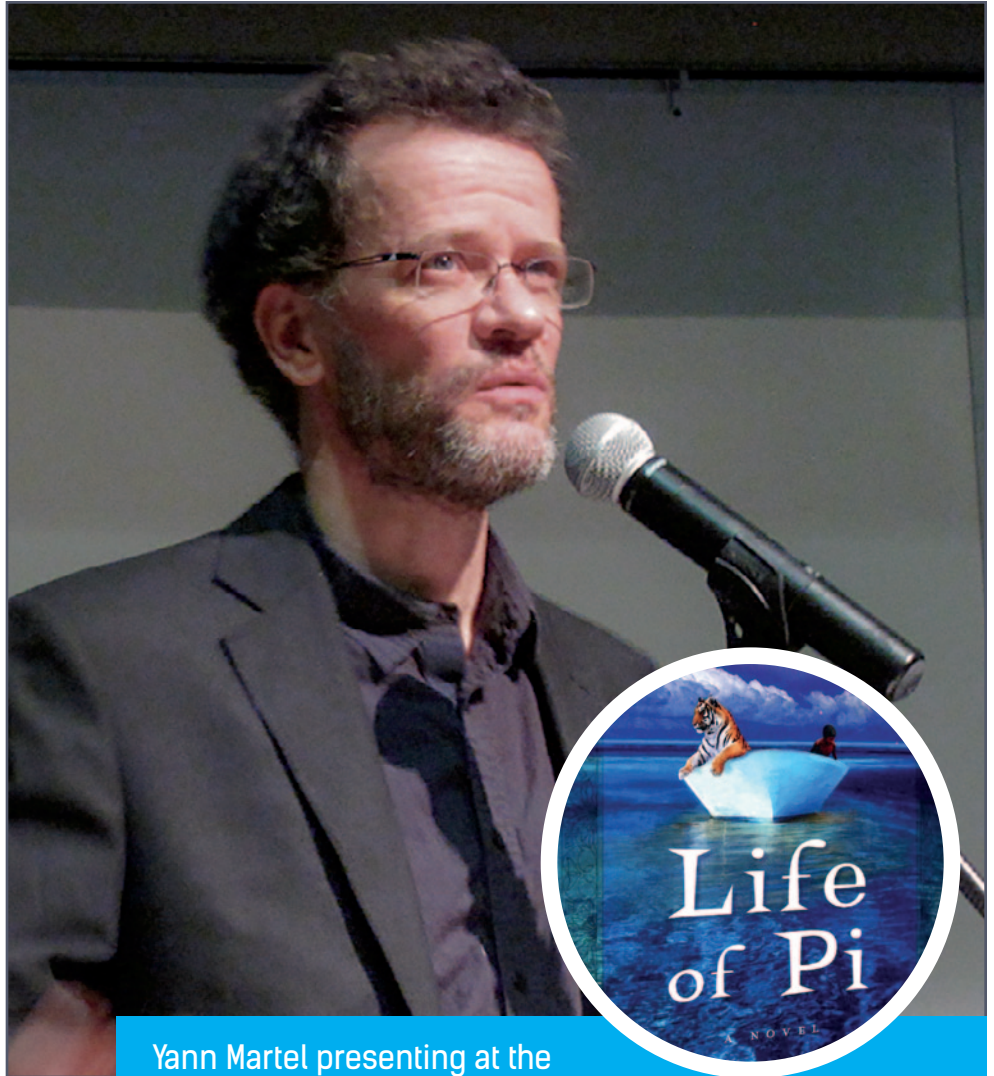
RP-Vantage Control Station

GRAND ROUNDS WITH YANN MARTEL

In February the Surgical Humanities Program and Department of Surgery Grand Rounds hosted world-renowned author of the *Life of Pi* and Man Booker Prize winner, Yann Martel. The event was attended by many from the College of Medicine, as well as many from the Arts community as the event was widely publicized across the campus.

Mr. Martel was a perfect fit with the newly developed Surgical Humanities Program as he is not only an award winning author, in addition he speaks multiple languages, "French being the language of his heart", and also is a distinguished composer of music. His many accomplishments and broad expanse across the arts speaks of the efforts of the Surgical Humanities Program within the Department of Surgery, which "seeks to educate and engage surgeons, residents and medical students in the humanities". (Dr. Francis Christian) February Grand Rounds seemed to embrace this very idea, as Mr. Martel engaged not only the Department of Surgery but also students and faculty from across campus.

This was not Mr. Martel's first visit to Saskatoon. He was a writer-in-residence for the Saskatoon public library in 2003-2004 and in November 2005 was named a scholar-in-residence at the University of Saskatchewan in the Department of English.



Yann Martel presenting at the Department of Surgery Grand Rounds

Yann Martel's visit definitely brought to life the vision of the Surgical Humanities Program, "science can be both analytical and creative, to think of new solutions and to have an open mind for solutions", this is where the creativity of the humanities can really tie in. (Scott Adams, Medical Student, University of Saskatchewan) The Surgical Humanities Program hopes to be a platform for this experience and

Yann Martel definitely allowed us to see the expanse of this creative platform.

For more information on the Grand Rounds with Yann Martel or the Surgical Humanities Program, please go to our website at

www.medicine.usask.ca/surgery/index.php

DEPARTMENT OF SURGERY RESEARCH DAY 2014

Department of Surgery Research Day was held on January 17th at the Saskatoon City Hospital Rependa Centre. This year the Department of Surgery combined the faculty and resident half day events into one full day event dedicated to recognizing the importance of research efforts in the Department of Surgery. Dr. Ilene Busch-Vishniac, President of the University of Saskatchewan and Dr. Ivar Mendez, Fred H. Wigmore Professor and Unified Head of the Department of Surgery, opened the day welcoming both faculty and students and expressing the excitement of the overwhelming success of the day already based on the unprecedented number and quality of the abstracts that had been submitted this year.

The success of the day was seen in the 16 oral presentations and 18 poster presentations from faculty, residents and students with topics spanning across Orthopaedic Surgery, Neurosurgery, General Surgery, Plastic Surgery, Pharmacology, Medical Imaging and many more. The knowledge base and expanse of interesting research at the University of Saskatchewan was very promising and exciting.

Our guest speaker this year was Dr. Carman Giacomantonio, Chief Medical Director from Cancer Care Nova Scotia. He also served as one of our distinguished judges for the day along with Dr. Lisa Kalynchuk,



Dr. Carman Giacomantonio, Chief Medical Director
Cancer Care Nova Scotia

Professor and Canada Research Chair, Department of Medicine at the University of Saskatchewan, and Dr. Mike Kelly, Professor and Canada Research Chair, Department of Surgery at the University of Saskatchewan.

The event was brought to a finish with a Banquet held at the Willows Golf and Country Club, where awards and scholarships were handed out to multiple residents based on their oral and poster presentations. The success of the

event was seen by many and holds promise for the exciting year ahead in the Department of Surgery at the University of Saskatchewan.

For further information about presentations and research in the Department of Surgery at the University of Saskatchewan, please go to our website at

www.medicine.usask.ca/surgery/research/research-day/index.php

RESEARCH AWARD WINNERS

PLATFORM PRESENTATIONS



Dr. Amanda Hall
First Prize – Kloppenburg Award

The Effect of
Aluminum-Contaminated
Parenteral Nutrition on
Bile Acid Transporter Proteins

1



Dr. Zane Tymchak
Second Prize

Pipeline Embolization Device:
The Saskatchewan Experience

2



Dr. Tanner Gurney-Dunlop
Third Prize

Knee Chondrolysis Associated
with Bupivacaine Infusion Through
Intra-articular Pain Pump Catheter
Post-Arthroscopic Anterior Cruciate
Ligament Reconstruction

3

BEST POSTER PRESENTATION: Dr. Peter Dust

Extended Virtual Reality for the Post-Operative Care of Tissue Transfer Patients

BEST POSTER DISPLAY: Dr. Marla Mickleborough

Pre-Surgical Functional Magnetic Resonance Imaging (fMRI)

MEDICAL STUDENT PRESENTATION: Chelsea Wilgenbusch

Health Care Delivery for Patients with Traumatic Hand Injuries Before and After Implementation of the Acute Care Plastic Surgery Service (ACS) in the SHR

MACRAE SCHOLARSHIP FUND RECIPIENTS: Dr. Amanda Hall and Dr. Andrea Vasquez

RESEARCH COLLABORATION DEVELOPING A BIOMARKER FOR ALS

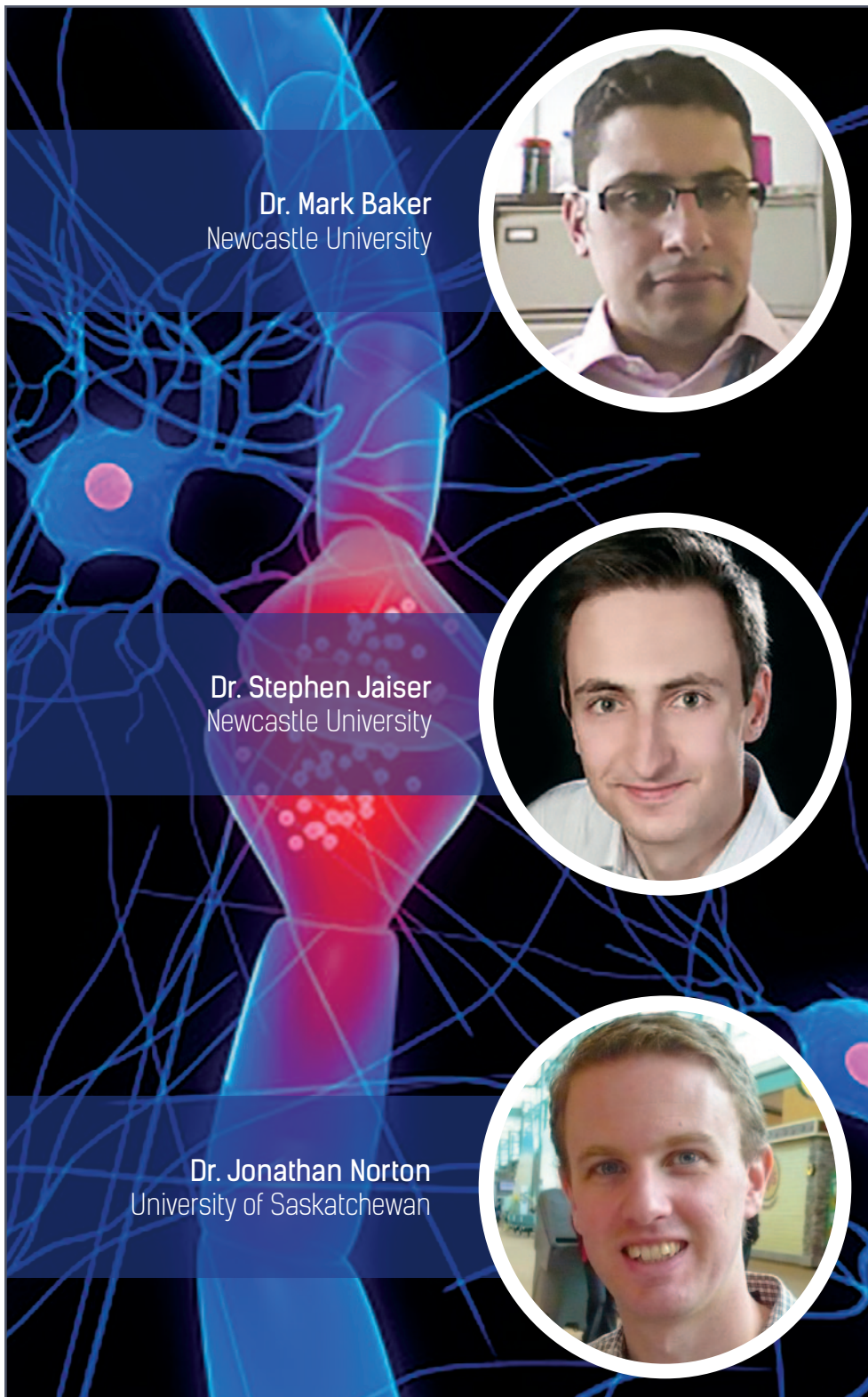
The week of January 20th saw the visit of neurologists and researchers Dr. Mark Baker and Dr. Stephen Jaiser to the Department of Surgery, and the research laboratory of Dr. Jonathan Norton.

Both, Dr. Baker and Dr. Jaiser are research scientists and members of the motor control research group at the Newcastle University, Newcastle upon Tyne, United Kingdom (<http://www.ncl.ac.uk/ion/>). For some time, along with their colleagues, Drs Baker and Jaiser have been working informally with Dr. Jonathan Norton, specifically studying the role of oscillations in the control of human movement and their potential for diagnosing neural disease.

As a result of holding a United Kingdom-Canada Collaboration Development Award from the Foreign and Commonwealth Office, Drs Baker and Jaiser were able to visit Saskatoon this winter (and experience most of our winter weather in a single week!).

The highly productive visit included a Neuroscience Rounds presentation, as well as the exchange of data and analytical techniques in preparation for a multi-national grant proposal developing a biomarker for ALS.

A reciprocal visit, along with a special symposium are in the works already.



50 YEARS OF KIDNEY TRANSPLANT

Kidney transplants have been performed in Saskatchewan since December 1963. 2013 marks the 50th anniversary of the second Canadian kidney transplant performed in Saskatoon by Saskatchewan native Dr. Marc Baltzan and his team. Dr. Baltzan was born and educated in Saskatoon and later obtained his doctorate of Medicine at McGill University. He returned to Saskatoon to practice Medicine and is known as a pioneer in the field of renal transplant programs in Canada.

There are currently over four-hundred-sixty adult patients with a kidney transplant followed as outpatients in the program. Yearly kidney transplant rates have varied considerably. In the last decade the lowest yearly rates occurred in 2011 and 2012 with sixteen Saskatchewan residents receiving a kidney transplant each year. The highest number of transplants occurred in 2008 with thirty-seven kidney transplants performed. Already in the first two months of 2014 eight kidney transplants have taken place in Saskatoon.

In 2009 an external review provided recommendations to stabilize the provincial kidney transplant program. With support from the Ministry of Health and the Saskatoon Regional Health Authority additional resources were provided for the recruitment of three transplant surgeons to join the transplant team of 3 transplant nephrologists, nurses, social worker, pharmacists and administrative staff in an effort to stabilize and improve on accessibility to renal transplantation and increase the number of transplants performed; great news for the 87 patients waiting for a kidney transplant.

Development of strategies for organ and tissue donation is focused to improve awareness and donation rates. The transplant program is participating in national organ donor registries to improve opportunity for transplantation for waiting recipients. Regionally a policy to support Organ and Tissue Donor Referral has been implemented so all patients who meet donor criteria have the right to choose organ and tissue donation as an end of life care option. A program for Donation After Cardiac death (DCD) has proven to improve donation rates from 10 – 30% in Canada. Saskatchewan is



Dr. Marc Baltzan

working on a protocol for a DCD program. All patients who access acute care services will receive an information pamphlet on organ and tissue donation and an organ donor card at patient registration and in future identified as an organ donor on admission. It is with these initiatives and others that we hope to improve the care experience of all 87 kidney patients waiting for a kidney transplant through living and deceased organ donation. All kidney transplants for the province of Saskatchewan are performed in Saskatoon at St. Paul's Hospital. Corneas are also transplanted in Saskatoon and Regina.

NEW HEALTH SCIENCES RESEARCH WING



The new D Wing is a 18,680-square-metre, L-shaped structure with four storeys on the east side and six storeys on the north. The two sides are linked to the existing building by a six-storey atrium which provides natural light in the interior spaces of the building. Spaces within the D Wing include: Single level Vivarium for animal research, four floors of level 2 biocontainment research labs, centralized support services as well as principal investigator and graduate student office space.

D Wing is sometimes referred to as the Biomedical Wing. The occupants are primarily biomedical researchers housed in large open research laboratories designed to foster interaction and support a multi-disciplinary workplace.

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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