



UNIVERSITY
OF MANITOBA

Department of Surgery

University of Manitoba

ANNUAL REPORT 2011

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Report from the Head



Dr. Jack McPherson

On behalf of the Department of Surgery, it is an honour for me to present to you, the 2011 Annual Report.

One of the largest departments in the University of Manitoba, Faculty of Medicine, the Department of Surgery is a growing, dynamic and innovative group of surgeons dedicated to clinical excellence, educational distinction and ground breaking research. The significant achievements of our members are highlighted throughout this report. Our members are engaged in all facets of the University's mission with leadership roles in research and administration.

2011 saw the continued growth in the complement of surgeons with the addition of Dr. Jason Beiko to the Section of Neurosurgery, Dr's Tom McGregor, Turki Al-Essawi and Brenda Hildebrand to the Section of Urology, and Dr's Krista Hardy, Brent Zabolotony, Ali Khan, and Brent Anderson to the Section of General Surgery.

I would like to take this opportunity to acknowledge and express our sincere gratitude to Dr. Richard Nason for his vision and leadership as Department Head for the past five years. Many of the noteworthy advances and accomplishments of the Department of Surgery and its members are attributed to Dr. Nason's commitment to the clinical, academic and research mission of the Department and the Faculty. We saw a renaissance on research with the introduction of an annual research grant competition. The annual research day was also rejuvenated and is now a well established venue where our researchers can showcase their work. The residents have also contributed hugely to the success of the day by submitting their work for presentation. Dr. Nason also worked tirelessly to secure the funding for the Thorlakson Chair in Surgical Research. The efforts that Dr. Nason put into practice plans and contracts for individual members reflects on the concern he had for the future well-being of the Department.

As we look forward, we recognize the shifting paradigm of academic medicine. Many of our specialties are now entirely hospital based with all members on the full-time academic staff. We now, as an academic Department, carry the entire burden of providing specialty care for the Province of Manitoba in many areas. Our base has broadened and all formerly "community based" hospitals are now fulfilling important niches in the Department's patient care mandate and educational matrices. The times are changing but our Department will continue to build and evolve on the excellent foundation of our past: provide exceptional care to our patients, excellence in teaching for our undergraduate and postgraduate students and lead in the exploration and development of surgery by actively engaging in research. These are the

cornerstones of our Faculty of Medicine mission and we must remain focused on our mission to secure a promising future for our patients and students.

Periods of transition are always challenging but I want to thank all the surgeons and support staff for their genuine support and encouragement during this time of change. We have many more challenges ahead but if we face them together and move forward as one by consensus, we can overcome them. This has been a very productive year from every perspective and I want to thank and congratulate everyone for their contribution.

Respectfully Submitted,
Jack McPherson

GFT Executive



Dr. George Assuras, Chair

Committee Members

| | |
|-----------------------|-----------------------------|
| Dr. Ed Buchel | HSC, Surgery Site Director |
| Dr. Michael Goytan | Past Chair |
| Dr. Randy Guzman | SBGH, Surgery Site Director |
| Dr. Greg Harding | Member at Large |
| Dr. Jeremy Lipschitz | Member at Large |
| Dr. Leif Sigurdson | Member at Large |
| Dr. Sadeesh Srinathan | Member at Large |
| Dr. Cliff Yaffe | Member at Large |
| Dr. Richard Nason | Department Head |

The reporting period for this report encompasses October 1, 2010 to September 30, 2011. I assumed the role of Chair of the GFT Executive as of July 1, 2011. Dr. Michael Goytan has served the Executive as Chair for the past four years. Dr. Goytan is now the past Chair and will continue on with the Executive in this role. Thank you Michael, for all your efforts as Chair of the GFT Executive and as a long standing member of the Executive Committee.

The clinical members of the GFT Executive are the Department Head, Dr. Richard Nason, five elected members, and the Heads of Surgery at St. Boniface Hospital, Dr. Randy Guzman, and Health Sciences Centre, Dr. Ed Buchel.

The five elected members are: Dr. Greg Harding, Dr. Jeremy Lipschitz, Dr. Leif Sigurdson, Dr. Sadeesh Srinathan, and Dr. Cliff Yaffe. Their two year term began on July 1, 2011. Dr. Harding is serving his second term on the Executive, having been re-elected in the last membership vote. He has been a member of the Department since 2007.

Dr. Lipschitz has been a member of the Department since 1992. He was previously the Chair of the Executive from 2001 to 2007. He is also a member of the UMG Executive; currently serving as the Secretary. He is also the Vice President of the Clinical Teachers Association of the University of Manitoba. Given this vast array of experience and exposure, he brings an overall Faculty experience to the Executive.

Dr. Leif Sigurdson joined our Department in 2008 and brings experience from the Halifax region and their effort to modernize and edit their group governance. He is also an MBA; providing the group with a well-needed medical business perspective.

Dr. Srinathan, appointed in the Department in 2009, is one of our newest members. He brings with him a background of exposure to multiple surgical departments in the USA, Canada, the United Kingdom, and New Zealand.

Dr. Cliff Yaffe has been a member of the GFT Surgery group since 1998. He is Head of General Surgery for the Region and is a committed clinician and teacher. He has also recently accepted the position of Postgraduate Associate Dean.

The Executive also includes the Chief Operating Officer, Jack Sorenson, who has been with the group since 2009. Tamara Cipriano is the Executive Assistant for the GFT; having been a member of the Department since 2010.

The Executive has a healthy mix of new members of the Department and members with previous experience as to the functions of the Executive.

The GFT Executive is committed to representing the membership. Members should have no hesitation in approaching any member of the current Executive with their questions or concerns.

Before assuming my role, the past Executive members discussed with me the highlights and areas they felt were important in the functioning of the Executive over the past two years, July 1, 2009 to June 30, 2011. The current business of the Executive is focusing on a review of expenses. The review is intended to allow all members of the Executive to have knowledge of the expenses in detail. Once this review is completed, the Executive aims to assess the option of providing a predictable academic contribution. This is not without difficulty given the variations in financial support provided from the University. We currently have an academic fund, with Terms of Reference agreed to at the GFT Council and defined by the previous GFT Executive. A subcommittee of the Executive has been formed to review the governance of the group. The principles brought forward to date are transparency, accountability, and efficiency. This governance is expected to be in keeping with overall governance principles expected with the formation of the Joint Operating Division.

Currently the Department membership stands at 97 members involved in clinical activities in sites throughout the Winnipeg region. The governance will require modernization given the changes that have occurred within the University and region. Our relationship with the WRHA, the University, and the newly formed JOD will need to be defined in a manner respective of the needs of the patients, the undergraduate and postgraduate trainees, and the surgical members.

As the members are aware, we moved to a new billing system on March 1, 2011. The new software is Accuro Billing and Scheduling from Optimed Software Corporation. The billing office was relocated to the 3rd floor, 825 Sherbrook Street (SMD building) on April 1, 2011. Candace Ste. Marie is the supervisor of the Surgical Billing Office. The group is grateful for the continued support from the billing office.

The Executive looks forward to the activity of their current tenure.

Respectfully submitted,
George Assuras

Undergraduate Education



Dr. Larry Tan, Director

Committee Members

| | |
|--|---|
| Dr. Larry Tan | Director & Thoracic Surgery |
| Dr. Kris Milbrandt | Incoming Director & Pediatric Surgery |
| Dr. Keith Warrian | Cardiac Surgery |
| Dr. Virginia Fraser | General Surgery |
| Dr. Lawrence Gillman | General Surgery |
| Dr. Ashley Vergis | General Surgery |
| Dr. Ethel McIntosh | Surgical Oncology |
| Dr. Neil Berrington | Neurosurgery |
| Dr. Jamie Dubberley | Orthopedic Surgery |
| Vacant (Dr. Stephanie Olivier until July 2011) | Plastic Surgery |
| Dr. Jeff Saranchuk | Urology |
| Dr. Greg Harding | Vascular Surgery |
| Karen Holmes | Coordinator, Undergraduate Surgery Programs |

Administrative Changes

The Surgery Undergraduate Education Committee welcomed Dr. Vergis and Dr. Gillman as representatives for General Surgery. The Committee also thanked Dr. Olivier for her contributions to undergraduate education. Staffing in the Surgery Education Office (SEO), has continued to change over this academic year. Mary Brychka worked directly with Dr. Nason as Surgery Education Advisor focusing on special projects related to Surgical Education. Wendi Charette, Program Assistant, assumed several additional administrative responsibilities in the SEO. Donna Shepard resigned as Program Coordinator for Orthopedics due to a move out of province and this position has now been filled by Michelle Elands. Linda Mydynski, Coordinator for Plastic Surgery announced her retirement. Lesli Sutherland, Cardiac Surgery, was seconded to other responsibilities in Cardiac Surgery, and the Program Coordinator position was vacated. Jackie MacLean has been hired as Program Coordinator for Cardiac Surgery, Urology and Vascular Surgery and will have her office at St. Boniface General Hospital. Karen Holmes assumed the position of Undergraduate Coordinator. Administrative restructuring in the Surgery Education Office with dedicated Program Coordinators continues to evolve.

Accreditation

The Faculty of Medicine underwent an undergraduate accreditation review by CACMs and LCME in April 2011. The accreditors have given the medical school continued accreditation.

Two areas of non-compliance that directly involve the Department of Surgery highlight that we must use outcome measures to ensure the comparability of clinical experiences and assessment methods of the various learning sites (ED-8), and provide mid-rotation feedback to the students in a timely manner (ED-31). There were late or absent mid-rotation evaluations (MITERs) for one-third to one-half of students.

An area of compliance that will continue to be monitored involving the Department of Surgery is the preparation of residents and fellows for their roles as teachers of medical students (ED-24).

A report to CACMS and LCME from the Faculty of Medicine is required by August 2012, with an internal UGME deadline of June 2012 for completion of this report. The MITER completion rate will need to be improved by June 2012.

End-rotation Evaluations

While many MITERs for end-rotation evaluations were submitted after the 5-day end of rotation deadline, Surgery was able to submit all evaluations for the Class of 2012 before the final deadline for the Medical Student Progress Report (Dean's Letter).

OPAL

Much of the work to transition the Department to an online curriculum (OPAL) has been completed. Karen Holmes and Wendi Charette from the Surgery Education Office deserve credit for this work.

Access Surgery

Access Surgery is an online educational platform developed by McGraw-Hill. Access Surgery contains a number of surgical textbooks, procedure manuals, anatomy atlases, practice exam questions, and videos that would be helpful in the education of medical students, junior and senior residents, and for CME for the attending surgeons. Access Surgery is also linked to Access Medicine, which also has a number of surgical resources. Renewal of the Access Surgery subscription depends on the usage of this resource. The link to Access Surgery can be found on the Department's Surgery Education web page and the medical library web page.

SharePoint

Work continues on the SharePoint site. This site is used mostly in the Surgery Education Office and by the Program Coordinators.

Surgery Clerkship Objectives

The Surgery Clerkship objectives were completely revised to integrate CanMeds competencies for all clinical rotations. These objectives were recently approved for change and are posted on the Department's Undergraduate Education page, along with orientation information for each rotation. Changes to orientation information can be made at any time by the Undergraduate Program Director or Undergraduate Coordinator for each Section.

Introduction To Clerkship

Feedback from the 2011 Introduction to Clerkship sessions was generally positive for Surgery.

Friday Teaching Day

The Friday Teaching Day sessions continue to be well-received by the students. There have been very few instances of teacher absenteeism. In some cases, senior residents were recruited to teach, and these sessions were well-received. Going forward, senior residents and fellows can be integrated into the teaching schedule, but this will require faculty monitoring and evaluation (ED-24).

Undergraduate Teaching Hours

We have collected assigned undergraduate teaching hours for Surgery, complete to last year. Please note that these hours are not necessarily the same as an individual surgeon's annual teaching, which should continue to be tracked by each member. At present, OPAL does not work as a tracking method, either for the Department or for individual teachers.

Faculty Feedback

There has not yet been a clear online method established for faculty feedback. There have been meetings with the OPAL developers and the Associate Dean for Undergraduate Medicine to determine if OPAL would serve as a comprehensive feedback method. The faculty feedback built into OPAL is extensive, but not adaptable for the Department's purposes.

Clerkship Electives

Dr. John Lee was recently appointed in the Faculty of Medicine as the Electives Director, Undergraduate Medical Education for Clerkship Electives.

MCCQE Part I Results 2011

The University of Manitoba moved from 13th to 8th place in the MCCQE rankings for the 2011 sitting of the LMCC.

Major Priorities for 2011-2012

The areas of focus for 2011-2012 priorities are to decide whether to adapt OPAL to meet the Department's goals for faculty feedback, or whether to establish a separate process and use a different online platform; improve MITER & FITER completion rates and improve oversight of the evaluative process; become more involved in the development and eventual delivery of the new undergraduate curriculum, especially for the pre-clerkship years.

My second three-year term as Director for Surgery Undergraduate Education finishes at the end of 2011. Dr. Kris Milbrandt is taking over this position as of January 1, 2012. I would like to thank the Department's members for their support of undergraduate education.

Respectfully submitted,
Larry Tan

Postgraduate Education



Dr. B.J. Hancock, Director

Committee Members

| | |
|----------------------|--------------------|
| Dr. Chris Andrew | General Surgery |
| Dr. Jack McPherson | Orthopedic Surgery |
| Dr. Leif Sigurdson | Plastic Surgery |
| Dr. Karen Psooy | Urology |
| Dr. Patrick McDonald | Neurosurgery |
| Dr. John Lee | Cardiac Surgery |
| Dr. Adnan Shah | Oral Surgery |
| Dr. Larry Tan | Thoracic Surgery |
| Dr. Josh Koulack | Vascular Surgery |

There are nine Surgery Education Programs that are supported by the Surgery Education Office in the Department of Surgery at the University of Manitoba:

| Program | Program Director & Program Coordinator | Number of Residents |
|--------------------|---|---------------------|
| General Surgery | Dr. Chris Andrew Melissa Cowan | 24 |
| Orthopedic Surgery | Dr. Jack McPherson Donna Shepard/Michelle Elands | 18 |
| Plastic Surgery | Dr. Leif Sigurdson Linda Mydynski | 10 |
| Urology | Dr. Karen Psooy Donna Coulis/Jackie MacLean | 9 |
| Neurosurgery | Dr. Patrick McDonald Karla Patterson | 6 |
| Cardiac Surgery | Dr. John Lee Lesli Sutherland/Jackie MacLean | 4 |
| Oral Surgery | Dr. Adnan Shah Heather Katrick | 4 |
| Thoracic Surgery | Dr. Larry Tan Diane Best | 0 |
| Vascular Surgery | Dr. Josh Koulack Liz Demasson/Jackie MacLean | 0 |

During 2011 the Surgery Postgraduate Education Committee met five times. There were no meetings during the summer months. Other members of the Committee included Dr. Helmut Unruh (Research) and Dr. Richard Nason (Department Head). Dr. Larry Tan was Director of Undergraduate Medical Education and Dr. Cliff Yaffe was Director of the Surgical Foundations Program. Resident representatives for the past year were Dr. Randy Mascarenhas (Orthopedic Surgery) and Dr. Kenny Kumar (Cardiac Surgery) for PARIM residents. Dr. Sheyma Al-Romaihi (General Surgery/Pediatric General Surgery) was succeeded by Dr. Phil Dawe (General Surgery) for the Visa-trainee residents. Dr. Ramin Kholdebarin (General Surgery) represented the Surgical Foundations Program. Dr. Les Garber, Otolaryngology Program Director, sat on the Committee as this program participates in the Surgical Foundations Program. Dr. Michael West stepped down as Associate Dean, Postgraduate Medical Education, November 14, 2011, and Dr. Cliff Yaffe accepted the position. Donna Coulis has been hired to work with Dr. Yaffe as his Administrative Assistant in the Faculty PGME office. Dr. Ira Ripstein was Associate Dean, Undergraduate Medical Education.

Highlights of 2011

1. GGH-8 Renovation for Surgery Resident On-Call, Resource and E-library Facilities
The Health Sciences Centre 8th floor Surgery Resource and On-Call Room renovation was completed with a Grand Opening on May 18, 2011. A Digital Signage TV (Four Winds Interactive) was installed in the fall.

2. Surgical Foundations Program

The Objectives of Surgical Foundations Training document, outlining the competencies that PGY1 and PGY2 level residents must acquire and demonstrate before entering their third year of training, is available on the Royal College website. Dr. Yaffe, Director of Surgical Foundations, together with Program Directors in each specialty, determine whether these competencies have been successfully achieved by each resident. Remediation is required for residents not successful in meeting the requirements of Surgical Foundations. The Advanced Cardiac Life Support Course (ACLS), the Advanced Trauma Life Support Course (ATLS®), the Ultrasound Course for Vascular Access (iccuelearning) and the Procedural Sedation Course have been designated as essential for completion of Surgical Foundations. As such, registration fees are reimbursed by the WRHA for all residents in surgical training programs who successfully complete these courses.

3. Undergraduate Medical Education Accreditation

The formal accreditation for the University of Manitoba, Faculty of Medicine, Undergraduate Medical Education, took place in April 2011 and full accreditation was achieved. A number of weaknesses were identified and are being addressed by the Dean. As part of succession planning in Surgical Undergraduate Medical Education, Dr. Kris Milbrandt will transition into the position of Director, Surgical UGME over 2011-2012 succeeding Dr. Larry Tan. Dr. John Lee has assumed the position of Director, Clerkship Electives.

4. Fellowship Programs

Dr. Alok Pathak, Fellowship Director, Department of Surgery, working with the Faculty of Medicine PGME and WRHA Joint Operating Division, has streamlined the Fellowship Registration applications and funding options within the Department of Surgery. There are currently nine approved Fellowship programs in the Department of Surgery, of which only Thoracic Surgery has approval through the Royal College of Physicians and Surgeons of Canada. A Trauma Fellowship has been proposed but not approved by PGME as yet. Fellowships in Minimally Invasive Surgery (MIS) and Colorectal Surgery are being assessed. Dean Postl has indicated support for funding Fellowships in different specialties, which is critical as Fellowships are not funded and rely on sponsorship funding or billing for support. Fellows

often receive a far lesser income than residents due to lack of funding. The specifics of this financial support are pending. In addition, offices and/or a Fellow's resource room are lacking and Fellows do not have access to Resident Resource rooms or call rooms.

5. Physician Assistants Program (PAEP)

The Physician Assistant Program is well established. Surgical Oncology and Neurosurgery have employed Physician Assistants. Surgeons are involved in the surgical core lecture series as well as clinical rotations in Surgery (Pediatric General Surgery). Several specialty areas within Surgery are anxious to acquire funded positions for Physician Assistants to ease patient care work loads.

6. SharePoint and "Surgical Education Matters" Newsletter

The Department of Surgery Education SharePoint site can be accessed at <http://programsharepoint.manitoba-ehealth.ca/surgery>. The site librarians are Wendi Charette and Karen Holmes who can be reached at 787-7581 and 787-3154, respectively, with questions or for members of the Department of Surgery to request access. The SharePoint site is a website providing central storage and collaboration space for documents, information and ideas. The Department of Surgery education newsletter "Surgical Education Matters" was proposed as a quarterly publication to update members of the Department of Surgery of issues important to Surgical Education. Regular publication has not been achieved to date but is anticipated.

7. Surgical Postgraduate Scholarship Fund

The Surgical Education Fund continues to provide \$15,000 for tuition support for residents doing Masters in Surgery or PhD programs. Dr. Ramzi Helewa, General Surgery, was awarded \$5,100 in recognition of his work in the Masters of Science (Surgery) Program. Dr. Helewa's thesis is entitled "Does Geography Influence the Treatment and Outcomes of Colorectal Cancer in the Province of Manitoba". His supervisor is Dr. Andrew McKay.

8. Surgical Education Fund

The Surgical Education Fund distribution remained at \$2,000 per resident with a minimum of \$6,000 per program. This year, programs were instructed to submit a budget proposal for the 2012-2013 academic year. To date, all budgets have been approved by Dr. Nason. A revision submitted by the Plastic Surgery program has not yet been processed.

9. Royal College Examination

There were 19 Surgery candidates who sat their 2011 Principles of Surgery (POS) Examination for Surgical Foundations. Twelve residents completed their surgical residency training programs and sat their Royal College Fellowship Examinations in 2011.

10. Surgical Skills Courses

The Surgery Education Programs Office scheduled 12 courses during the 2011 year. Surgical simulation continues to evolve. The Clinical Learning and Simulation Centre can accommodate simulated clinical skills such as colonoscopy and bronchoscopy. The Advanced Trauma Life Support (ATLS®) course also uses this facility for the Surgical Skill Station. The Dean proposed a renovation of Theatre D into a clinical skills lab offering 3000 square feet of space for medical education. Shaun Beach, Operations Director, and Dr. Rob Brown, Medical Director, for the CLSF requested input from Surgical Program Directors regarding their anticipated needs for this facility.

Renovations have not commenced as yet. Dr. Jason Park represents Surgery on the CLSF Operations Committee. High fidelity simulation courses (laparoscopic, thoracoscopic) are carried out at the R.O. Burrell Laboratory at St. Boniface Research Centre. Significant upgrades in equipment are needed to maintain satisfactory standards for Surgical Education.

11. Educational Courses for Residents

Further restructuring of core educational activities has occurred over 2011. Practice Solutions, a subsidiary of the Canadian Medical Association, provided a full day seminar on January 27, 2011 for senior specialty residents entitled "Practice Management Seminar" as part of the Faculty of Medicine PGME Core Curriculum Sessions. The session covered issues of practice management relevant to the start of clinical practice (practice opportunities, physician remuneration, insurance and taxation) and is considered mandatory for all senior specialty residents. The Resident Teaching Development Program (TDP), formerly TIPS, is mandatory for all residents. It is a 3-Part Program and residents are required to attend all 3 sessions to obtain a Certificate of Completion.

12. CaRMS Allocations for 2012

The Department of Surgery was allocated 14 CaRMS positions by the Faculty Postgraduate Medical Education Office for the 2011 CaRMS Resident Match. Successful residents for these positions commenced training in July 2011:

| | |
|--------------------|---|
| Cardiac Surgery | 1 |
| General Surgery | 4 |
| Neurosurgery | 2 |
| Orthopedic Surgery | 3 |
| Plastic Surgery | 2 |
| Urology | 2 |

13. OPAL for Postgraduate Medical Education Programs

The intention to bring OPAL to Postgraduate Medical Education continues but has not been realized to date.

14. Surgery Education Website

The Surgery Education site on the U of M Website continues to develop and is updated by Wendi Charette on a regular basis.

15. PARIM

The HSC PARIM office will be relocated to GF109 once renovations are complete.

16. Chief Resident Workshop

The second Chief Resident Workshop was held March 9, 2011. The next workshop is scheduled for January 10&11, 2012. Feedback from Senior Residents participating in the Workshop has been uniformly positive.

17. George W Leroux Memorial Award

The George W. Leroux Memorial Award was distributed to Programs in the Department of Surgery. Recipients of this award are residents who have shown promise in their specialty and demonstrate excellence in research. Recipients of this award in 2011 were:

| | |
|-------------------|--------------------|
| Chris White | Cardiac Surgery |
| David Horne | Cardiac Surgery |
| Kenny Kumar | Cardiac Surgery |
| Lu Zhang | Cardiac Surgery |
| Markus Ziesmann | General Surgery |
| Reagan Maniar | General Surgery |
| Ramzi Helewa | General Surgery |
| James Denis | General Surgery |
| Jonathan Marsh | Orthopedic Surgery |
| Randy Mascarenhas | Orthopedic Surgery |
| Chris Kim | Orthopedic Surgery |

Jason Archambault
Jay Nayak
Deepak Pruthi

Urology
Urology
Urology

Awards for residents in Plastic Surgery and Neurosurgery are pending.

18. The Future of Surgical PGME- 2012

Several changes in Program Directors are anticipated in 2012. The Program Directors will be: Dr. Tod Clark for Orthopedics, Dr. Avinash Islur for Plastic Surgery, Dr. Turki Al-Essawi for Urology, and Dr. Donna Sutherland for Otolaryngology.

Significant restructuring of Surgical PGME is anticipated in 2012. Dr. Jack McPherson will transition into the position of Director, Surgical PGME and Dr. Denis Hosking will be contracted as a Senior Academic Advisor for Surgical Postgraduate Medical Education.

Respectfully submitted,
B.J. Hancock

Research



Dr. Helmut Unruh, Chair

Committee Members

Dr. Ahmed Abdoh
Dr. Rakesh Arora
Dr. April Boyd
Dr. Darrel Drachenberg
Dr. Anthony Kaufmann
Dr. Richard Keijzer
Dr. Sarvesh Logsetty
Dr. Patrick McDonald
Dr. Andrew McKay
Dr. Jason Park
Dr. Sadeesh Srinathan
Dr. Mark Torchia
Dr. Thomas Turgeon
Dr. Debrah Wirtzfeld

The Research Advisory Committee (RAC) met several times and adopted an open membership on the advice of Dr. Nason. The activities of the Director and the RAC fall into two entities:

- Surgical Research
- Masters of Science in Surgery Program

This year the Committee continued to flourish with the renewal previously reported, and we were again charged with two major tasks. The first was to establish a mechanism and oversee the distribution of Research Grants to members from the clinical earnings of the Geographical Full-Time surgeons. A small sub-committee met early to establish a mechanism of grant review that would ensure a standard process was applied to this important task that was in keeping with existing processes of other granting agencies. A larger sub-committee then reviewed the applications and met to rank the applications and make recommendations. The final allocation rested with the Department Head. The second task was to arrange the Department-wide research day. Most sections have resident research days, and some have very active regional and national research forums that our residents participate in. These will also be highlighted in this report. The Director continues monitoring the activities of the residents in the M.Sc. Surgery Program by ensuring initial compliance with the Faculty of Graduate Studies requirements and requesting progress reports at the halfway point and upon completion.

Research Grant Awards: This year's call for applications again called for the submission of a two-page application detailing the proposed project and a one-page budgetary outline. All 18

applications were received by the deadline. The list of successful applications, the title of the research project, and the amount awarded is as follows:

Dr. K. Hardy

Title: The impact of a dedicated Acute Care Surgical Service on the delivery of care for patients with general surgical emergencies

Award: \$15,000

Dr. R. Keijzer

Title: Exploring Prenatal Therapeutic Interventions Using Nanotechnology

Award: \$15,000

Dr. S. Srinathan

Title: Noninferiority RCT Trial of Paravertebral Analgesia Compared to Epidural Analgesia For The Control of Post-thoracotomy Pain: A Proposal for a Pilot Study

Award: \$15,000

Dr. D. Freed

Title: Optimal Resuscitation of Hearts From Donors After Circulatory Death For Transplantation

Award: \$15,000

Dr. T. Turgeon

Title: The relationship between changes in joint load and relief of OA knee pain in the morbidly obese patient

Award: \$15,000

Dr. J. Krcek

Title: Cytotoxic effects of noble metal-laden Right Handed Coiled Coil (RHCC) nanotubes in human glioblastoma (GB) stem-like cell populations

Award: \$15,000

Dr. L. Gillman

Title: Standardized Assessment of Ultrasound Image Acquisition

Award: \$15,000

Dr. P. MacDonald

Title: The Effects of Wait Times on Rotator Cuff Size: a Prospective Randomized Controlled Trial

Award: \$15,000

Dr. S. Logsetty

Title: The Role of Laser Therapy in the Management of Burn Scars

Award: \$15,000

Dr. R. Arora

Title: Determining clinically relevant biomarkers for the early detection of cardiac surgery associated acute kidney injury

Award: \$15,000

Dr. K. A. Pathak

Title: Micro RNA profile in Follicular Neoplasm

Award: \$15,000

Dr. E. Bohm

Title: Analysis of Synovial Fluid of Patients Undergoing Primary and Revision Total Joint Arthroplasty

Award: \$15,000

Congratulations to all the researchers who were successful in obtaining funding. We look forward to hearing of your progress at future meetings.

On Wednesday January 18, 2012, the Department held its annual Research Forum. This was an open forum in which residents and attending surgeons presented. Drs. Rakesh Arora and Jason Park served as Co-Chairs for the Program Committee. The Committee chose 28 abstracts from the 36 submissions; 19 were full presentations and 9 were brief presentations (short snappers). The keynote speaker was Visiting Professor Dr. Harry Henteleff from Dalhousie University. He spoke on "How to become an Academic Surgeon in 2012".

The awards for the best research presentations were as follows:

- First Place: Dr. Ramzi Helewa-- PGY4-General Surgery
Title: Does Geography Influence the Treatment and Outcomes of Colorectal Cancer in the Province of Manitoba?
- Second Place: Dr. Ramin Kholdebarin--PGY3-General Surgery
Title: Role Of MicroRNA 200b in Pulmonary Hypoplasia Associated with Congenital Diaphragmatic Hernia
- Third Place: Dr. Jasmir Nayak--PGY3-Urology
Title: PSA Bounce following Prostate Brachytherapy for Clinically Localized Prostate Adenocarcinoma – A Single Institution Study with over 3 years follow-up
- Brief Presentation: Dr. Sheyma Al-Romaihi—Fellow- Pediatric General Surgery
Title: Evidence in Pediatric General Surgery: A 3-year review of the literature

Congratulations to the winners and all presenters for a very successful day.

Sectional Resident Research Days: Kudos to Program Directors and sectional Research Coordinators for holding very successful forums in which residents present their research. The following meetings took place in Winnipeg:

| | | |
|--------------------|-----------------|---|
| Cardiac Surgery | May 18/11 | 12 presentations 13 poster presentations |
| Orthopedic Surgery | September 21/11 | 15 presentations |
| General Surgery | April 27/11 | 15 presentations |
| Urology | November 3/10 | 8 presentations |
| Plastic Surgery | May 4/11 | 9 presentations |

The specific details and program contents are available from the individual section offices. Congratulations to all of our residents and scientists in the Department.

Masters of Science in Surgery: The Masters in Science (Surgery) Program remains a viable part of the Department's educational component. Students are able to make use of a fund set up by

the Department to refund the cost of their tuition, so that the acquisition of further knowledge is not hampered by financial constraints.

The Masters in Science (Surgery) Program is seeing an increase in registration by residents in the Department of Surgery. This year there are three residents who have been successfully admitted to the Program. Residents currently enrolled in the Program are as follows:

Dr. Hajjaj Al-Hajjaj: Head & Neck Surgical Oncology Fellowship Program

He has completed his required course work and is completing his research in preparation for his thesis defense in 2011. Dr. Richard Nason is his advisor. Anticipated date of graduation is October 2011.

Dr. Abdulsalam Al-Jabab: Head & Neck Surgical Oncology Fellowship Program

He began the program in January 2011 and is currently completing his course work. Dr. Alok Pathak is his advisor. Anticipated date of graduation is May 2012.

Dr. Ramzi Helewa: General Surgery Residency Program

He began the program in July 2010 and is currently completing his course work and research project. Dr. Andrew McKay is his advisor. Anticipated date of graduation has not been determined at this time.

Dr. Kanwal Kumar: Cardiac Surgery Residency Program

He has completed his required course work and is preparing his research for his thesis defense in 2011. Dr. Rakesh Arora is his advisor. Anticipated date of graduation is October 2011.

The Program experienced quite a few difficulties this year; specifically concerning the new on-line admissions system. This has caused confusion with the dual registration process needed for our residents and fellows (Faculty of Graduate Studies and Faculty of Medicine), along with applications for admissions from ineligible international candidates.

The Program has a new Faculty of Graduate Studies Program Assistant as the various specialties have been re-assigned within their Faculty. The Surgery Education Office is working with the new Assistant to problem-solve some issues that surfaced with course registration.

Two residents have been approved for the 2011-2012 academic year - Dr. Justin Rivard: General Surgery Residency Program and Dr. Ramin Kholdebarin: General Surgery Residency Program.

Future Initiatives and Directions: The Paul Thorlakson Foundation and members of the Thorlakson family have pledged a large amount of monies for a Thorlakson Chair in Surgical Research. The funds have been matched by the Department through clinical earnings from the Geographical Full-Time surgeons. The next year will see the search for an appropriate individual for this very prestigious Professorship. To complement this recruitment, the Department also would like to establish a Section of Surgical Research. We also hope that the Research Awards competition and Surgical Forum will become a regular feature for the future.

Respectfully submitted,
Helmut Unruh

SECTION REPORTS

Cardiac Surgery



Regional Lead/Section Head

Dr. Alan Menkis

Professor

Faculty

Dr. Rakesh Arora

Assistant Professor

Dr. Darren Freed

Assistant Professor

Dr. John Lee

Assistant Professor

Dr. Rizwan Manji

Assistant Professor

Dr. Michael Moon

Assistant Professor

Dr. Edward Pascoe

Associate Professor

Dr. Michael Raabe

Assistant Professor

Dr. Rohit Singal

Assistant Professor

Dr. Keith Warrian

Associate Professor

Part-Time/Nil Appointment Faculty

Dr. Jaroslaw Barwinsky

Professor Emeritus

The WRHA Cardiac Sciences program delivers comprehensive, integrated cardiac patient care for Winnipeg, the province of Manitoba and surrounding regions, including northwestern Ontario and Nunavut. The Program serves a large and diverse population of individuals, many of whom have highly acute and complex patient care requirements. It is the province's sole provider of the most advanced interventions in cardiology, cardiac surgery, cardiac anesthesia, cardiac intensive care, cardiac diagnostics and cardiac rehabilitation.

Through the diagnosis and treatment of heart disease (or heart-related health issues) cardiac patients benefit from improved quality of life and in many instances, life-saving medical and/or surgical interventions which reduce mortality rates. Cardiac research endeavors help patients by advancing knowledge and clinical applications in the prevention and treatment of heart disease.

Over the last seven years, the Program has made tremendous clinical and academic strides. The objective has been to improve heart health across the continuum of care, ranging from disease prevention, early detection, primary care, acute care and palliation. Cardiac clinical and academic mandates are interdependent, with the patient being at the centre of all pursuits. The Program is working to distinguish itself as an internationally recognized heart institute and is forging important partnerships locally, nationally and internationally.

Cardiac Surgery Highlights

In April 2011, the I.H. Asper Institute at St. Boniface Hospital was opened to enhance the delivery of cardiac surgery services, pre and post operatively for both inpatients and outpatients.

Construction began in Spring 2009 with \$40.3 million invested by Manitoba Health and other partners/donors. It includes a new Intensive Care Cardiac Sciences Unit (5th floor), Cardiac Surgery Inpatient Unit (4th floor), outpatient clinic space (1st floor) and program offices (1st floor). In addition, an operating room corridor was specifically built to link the main hospital and the Asper Institute. Total new square footage (with OR link) is 46, 910.

With the new space in place, all cardiac surgery outpatient clinics have been consolidated on the main floor of the I.H. Asper Institute. This included moving existing cardiac surgery clinics from 400 Taché Avenue.

In the fall 2010, the Section of Cardiac Surgery initiated a week long (seven day) cardiac surgical service in the Cardiac Surgical Inpatient Unit (CSIU). With this new model, a dedicated cardiac surgeon is now consistently available (in-house) during daytime hours to coordinate CSIU requirements. This was intended to help address issues with cardiac surgery patient flow and bed management; improve waitlist issues, patient safety and consistency/quality of patient care; deliver an integrated, multi-disciplinary approach in which communications are enhanced and protocols are implemented; and ensure cost-saving and efficiency are maximized.

The Intensive Care Cardiac Sciences (ICCS) Unit has distinguished itself with its 24/7 in-house attending physician model of care. Since the ICCS was established in 2007, there have been considerable improvements in patient outcomes. Three cardiac surgeon/intensivists – Dr. Rakesh Arora (ICCS Co-Medical Director), Dr. Rizwan Manji and Dr. Rohit Singal, have been instrumental in the success to date.

Cardiac Sciences Research Symposium was held on May 18, 2011 and was a huge success. Dr. John Cairns, Professor of Medicine and Past Dean, Faculty of Medicine, University of British Columbia served as a Guest Judge and Lecturer.

The Section of Cardiac Surgery was awarded the “2010 Outstanding Contribution To Research” award from the University of Manitoba Department of Surgery.

Respectfully submitted,
Alan Menkis

Journal Articles

Ayyaz A, Xiang B, White P, Tsui S, Ashley E, Lee T, Large S, Arora RC, Tian G, Freed DH. Hearts from DCD donors display acceptable biventricular function after heart transplantation in pigs. *Am J Transplant*. August 2011;11(8):1621-32. Epub July 2011.

Elhami E, Goertzen A, Xiang B, Deng J, Stillwell C, Mzengeza S, Arora RC, Freed DH, Tian G. Viability and proliferation potential of adipose derived stem cells following labeling with positron emitting radiotracer. *Eur J Nucl Med Mol Imaging*. July 2011;38(7):1323-34. Epub March 2011.

Freed DH, Chilton L, Li Y, Dangerfield A, Raizman J, Rattan S, Visen N, Hryshko L, Dixon I. Role of myosin light chain kinase in cardiostrophin-1 induced cardiac myofibroblast cell migration. *Am J Phys Heart Circ Physiol*. May 2011.

Kotrec M, Jassal D, Zieroth S, Freed DH, Tam JW. Ventricular septal rupture as a result of direct trauma from a mechanical mitral valve prosthesis. *Canadian Journal of Cardiology*. March-April 2011;27(2):263.e21-23.

Kumar K, Guirgis M, Zieroth S, Lo E, Menkis AH, Arora RC, Freed DH. Seasonal H1N1 influenza A resulting in concomitant myocarditis and multi-limb myositis: Report, serum cytokine analysis, and review of the literature. *Can J Cardiol*. July-August 2011;27(4):514-22. Epub June 2011.

Lin H-Y, Freed DH, Lee T, Arora RC, Ali A, Almoustadi W, Xiang B, Wang F, Large S, King S, Boguslaw Tomanek B, Tian G. Quantitative assessment of cardiac output and left ventricular function by noninvasive phase-contrast and cine MRI: Validation study with invasive pressure-volume loop analysis in a swine model. *J Magn Reson Imaging*. July 2011;34(1):203-10. Epub May 2011.

Maitland A, Hirsch G, Pascoe E. Hemodynamic performance of the St. Jude medical epic supra aortic stented valve. *The Journal of Heart Valve Disease*. 2011;20(3):327-31.

Manji RA, Menkis AH, Cooper D. Cardiac xenotransplantation technology provides materials for improved bioprosthetic heart valves. *J Thorac Cardiovasc Surg*. July 2011;142(1):238-9.

Moon MC, Greenberg R, Morales J, Martin Z, Lu Q, Dowdall J, Hernandez A. [Computed tomography-based anatomic characterization of proximal aortic dissection with consideration for endovascular candidacy](#). *J Vasc Surg*. April 2011;53(4):942-9. Epub February 2011.

Svensson L, Batizy L, Blackstone E, Gillinov A, Moon MC, D'Agostino R, Nadolny E, Stewart W, Griffin B, Hammer D, Grimm R, Lytle B. [Results of matching valve and root repair to aortic valve and root pathology](#). *J Thorac Cardiovasc Surg*. December 2011;142(6):1491-98(e7). Epub June 2011.

Walker J, Lee J, Strzelczyk J, Jassal D, Soni A. Congenital aorta to right atrial fistula. *Cardiol J*. 2010;17(5):523-4.

Conference Presentations / Abstracts Published

Alharbi F, Sohal, Sharma S, Arora RC, Freed DH, Lee J, Raabe M, Menkis AH, Sharma S. Increased mortality and morbidity after coronary artery bypass grafting in chronic obstructive pulmonary disease. *AJRCCM*. 2010;181:A2383.

Ali A, White P, Xiang B, Arora RC, Lee T, Ashley E, Large S, Tian G, Freed DH. Hearts from DCD donors display excellent biventricular function following transplantation. *Journal of Heart and Lung Transplantation*. April 2011;30(4S):S120.

Ali A, Xiang B, Colah S, Mundt P, Arora RC, Large S, Tian G, Freed DH. Evaluation of load-independent biventricular contractility during machine perfusion of the donor heart. *Journal of Heart and Lung Transplantation*. April 2011;30(4S):S198.

Avery L, Tam J, Menkis AH, Shaikh N, Manji RA. What do non-rehab cardiac sciences health professionals perceive of and know about cardiac rehab? *Journal of Cardiopulmonary Rehabilitation & Prevention*. September/October 2010.

Horne D, Lee J, Soni R, Hancock BJ, et al. Pediatric rescue extracorporeal membrane oxygenation, without a local pediatric cardiac surgery program: Single institutional review. 6th Pediatric Critical Care Conference. Sydney Australia, March 2011.

Horne D, Lee J, Soni R, Hancock BJ, et al. Pediatric rescue extracorporeal membrane oxygenation, without a local pediatric cardiac surgery program: Single institutional review. Canadian Association of Pediatric Health Centres 11th Annual Conference. Winnipeg Manitoba, October 2010. (Winner: CAPHC Award for Best Poster on Innovation in Clinical Practice)

Horne D, Lee J, Soni R, Hancock BJ, et al. Pediatric rescue extracorporeal membrane oxygenation, without a local pediatric cardiac surgery program: Single institutional review. Canadian Cardiovascular Congress. Montreal Quebec, October 2010.

Kumar K, Azordegan N, Durston M, Li Y, Fischer G, Moghadasian M, Manji RA, Freed DH, Jassal D, Arora RC. Statins compared to steroids on bioprosthetic heart valve inflammation – An in-vivo rodent model study. Institute of Cardiovascular Sciences Research Day. Winnipeg Manitoba, November 2010.

Kumar K Hiebert B, Zarychanski R, Grocott H, Singal RK, Manji RA, Menkis AH, Arora RC. Twenty-four hour consultant hybrid ICU: Addressing the needs of patients post-cardiac surgery. *Can J Cardiol*. 2010;26(Suppl SD):Abstract #612.

Lamarche Y, Sirounis D, Arora RC. Utilization of standardized management protocols after coronary surgery in Canadian intensive care units. *Can Jour Cardiol*. 2010;26(Suppl D):48D.

Li Y, Ngo M, Arora RC, Kirshenbaum L, Freed DH. Mevalonate depletion impairs survival of primary human mesenchymal stem cells through depletion of NF- κ B. Presented at the Canadian Society of Transplantation. Mont-Tremblant Quebec, March 2011.

Lin H-Y, Freed DH, Lee T, Arora RC, Ali A, Almoustadi W, Xiang B, Wang F, Gervai P, King S, Tomanek B, Tian G. Novel MRI technique for non-invasive diagnosis of atherosclerosis. *Can Jour Cardiol*. 2010;26(Suppl D).

Lin H-Y, Freed DH, Lee T, Arora RC, Ali A, Almoustadi W, Xiang B, Wang F, King S, Tomanek B, Tian G. Evaluation of cardiac function using non-invasive phase-contrast MRI, cine MRI and invasive pressure-volume techniques on pigs at rest and under pharmacologic stress test. *Magnetic Resonance Imaging in Medicine*. May 2011.

Manji RA, Bell D, Freed DH. Elevated carboxyhemoglobin levels during extra-corporeal membrane oxygenation for acute lung injury – a case report. Canadian Critical Care Forum. Toronto Ontario, November 2010.

Manji RA, Bell D, Loong-Saw C, Nickerson P, Moltzan C, Menkis AH, Jacobsohn E. Treating cardiac surgery patients for heparin-induced thrombocytopenia based on easily available ELISA results. *Anesthesia and Analgesia*. 2010;110(3):Abstract#71.

Manji RA, Grocott H, Leake J, Khan S, Black K, Manji J, Menkis AH, Strumpher J, Jacobsohn E. Intermediate term outcomes in ICU patients with seizures following cardiac surgery. *Crit Care Med*. 2010;38(12):Abstract #611.

Manji RA, Grocott H, Leake J, Manji J, Menkis AH, Ariano R, Strumpher J, Jacobsohn E. Seizures following cardiac surgery: the impact of tranexamic acid and other risk factors. November 2010;122(21)(Suppl):Abstract#18007.

Manji RA, Grocott H, Leake J, Manji J, Menkis AH, Jacobsohn E. Risk factors for seizures in cardiac surgery ICU patients. American Society of Critical Care Anesthesiologists Meeting. San Diego California, October 2010.

Manji RA, Grocott H, Menkis AH, Jacobsohn E. Which cardiac surgery ICU patients with a positive heparin induced thrombocytopenia ELISA assay are at increased risk for thrombosis? – Canadian Critical Care Forum. Toronto Ontario, November 2010.

Manji RA, Grocott H, Saw C, Nickerson P, Menkis AH, Jacobsohn E. Correlation of the 4T test, enzyme linked immunosorbent assay and the serotonin release assay in post cardiac surgical ICU patients suspected of heparin induced thrombocytopenia. American Society of Critical Care Anesthesiologists Meeting. San Diego California, October 2010.

Manji RA, Grocott H, Saw C, Nickerson P, Menkis AH, Jacobsohn E. Thrombosis risk in cardiac surgery ICU patients suspected of having heparin induced thrombocytopenia. American Society of Critical Care Anesthesiologists Meeting. San Diego California, October 2010.

Manji RA, Grocott H, Saw C, Nickerson P, Menkis AH, Jacobsohn E. What is the usefulness of 4T test and enzyme linked immunosorbent assay in decision making in post cardiac surgical ICU patients suspected of heparin induced thrombocytopenia? *Crit Care Med*. 2010;38(12):Abstract#79.

Manji RA, Witt J, Menkis AH. A short course of low dose prophylactic steroids is cost-effective in cardiac surgery ICU patients at medium to high risk for postoperative atrial fibrillation. Canadian Critical Care Forum. Toronto Ontario, November 2010.

Ngo M, Li Y, Arora RC, Freed DH. Blebbistatin attenuates collagen gel contractility in human bone marrow derived mesenchymal stem Cell. Presented at the Canadian Society of Transplantation. Mont Tremblant Quebec, March 2011.

Santiago J, Nickel B, Srisakuldee W, Kardami E, Arora RC(Co-senior author). The effect of diabetes on myocardial fibroblast growth factor-2, neuregulin-1 and connexin 43 in a rodent model. *Can Jour Cardiol*. 2010;26(Suppl D):85D.

Sulaiman I, Zivot J, Menkis AH, Freed DH, Lee J, Moon MC, Pascoe E, Arora RC, Sharma S. Persistent pulmonary hypertension in patients with mitral and aortic valve disease undergoing valvular surgery. *AJRCCM* . 2010;181:A5266.

White C, Chelvanathan A, Zieroth S, Freed DH. Can long-term ventricular assist devices be safely implanted in low-volume non-heart transplant centers? Canadian Society of Transplantation. March 2011.

White C, Hiebert B, Kumar K, Arora RC(Senior Author). The use of continuous insulin infusion is associated with decreased vasopressor requirements in diabetic patients undergoing cardiac surgery. *Can Jour Cardiol.* 2010;26(Suppl D):62D.

Zhang L, Hiebert B, Arora RC(Senior Author). Performance of risk models in coronary bypass surgery is not related to complexity. *Can Jour Cardiol.* 2010;26(Suppl D):49D.

Zhang L, Hiebert B, Arora RC(Senior Author). Preoperative anemia does not increase the risks of early surgical revascularization following myocardial infarction. *Interact Cardiovasc Thorac Surg.* 2011;13(Suppl 2):S106.

Invited Addresses

Arora RC. Cardiac Surgery Grand Rounds. Dalhousie University. May 2011.

Arora RC. Cuba-Canada International Heart Symposium. Holguin Cuba, January 2011.

Arora RC. University of Ottawa Heart Institute. Ottawa Ontario, April 2011.

Freed DH. The success of hub and spoke for heart failure care on the prairies. 25th Anniversary of Cardiopulmonary Transplantation. Edmonton Alberta, April 2011.

Manji RA. Heparin induced thrombocytopenia. Department of Anesthesia Grand Rounds. Winnipeg Manitoba, September 2011.

Session Chairs/Discussion Groups

Arora RC. Event Co-Chair, Department of Surgery Research Day.

Arora RC. Reviewer, Molecular and Cellular Biochemistry.

Arora RC. Session Chair, Poster Competition. Faculty of Medicine Resident Research Day.

Freed DH. Abstract Reviewer, Canadian Cardiovascular Congress. 2010-2011.

Freed DH. Manuscript Reviewer, *Journal of Medical Case Reports.* 2010.

Freed DH. Manuscript Reviewer, Molecular and Cellular Biochemistry. 2011.

Freed DH. Manuscript Reviewer, *Saudi Medical Journal.* 2010-2011.

Freed DH. Mentor, IMPACT CIHR/HSF Strategic Training Program in Health Research. Integrated and Mentored Pulmonary and Cardiovascular Training. 2009-2015.

Freed DH. Presentation Judge, University of Manitoba, Department of Surgery Research Day. 2011.

Freed DH. Reviewer, Heart and Stroke Foundation of Canada, Research Fellowship Applicants. 2010-2011.

Freed DH. Session Co-Chair, Blood, Clots and Antibodies International Society of Heart and Lung Transplantation. Chicago Illinois, 2010.

Manji RA. Abstract Reviewer, Canadian Cardiovascular Congress. 2011.

Manji RA. Abstract Reviewer, Society of Critical Care Medicine. 2011.

Manji RA. External Reviewer, Circulation.

Manji RA. Grant Reviewer, Canadian Critical Care Trials Group. 2011.

Manji RA.. Judge, CIHR Student Science Fair. St. Boniface Research Centre. Winnipeg Manitoba, April 2011.

Manji RA. Poster Moderation, Society of Critical Care Medicine Annual Meeting. San Diego California, January 2011.

Pascoe E. Session Judge, Ninth Annual Cardiac Sciences Symposium. University of Manitoba. May 2011.

Pascoe E. Thoracic Aortic Aneurysms. Cardiology Day for Family Physicians, Department of Continuing Medical Education, Faculty of Medicine. St. Boniface Hospital, Winnipeg Manitoba. September 2011.

Workshops Organized

Arora RC. Topics in Perioperative Critical Care, Canadian Cardiovascular Congress. Montreal Quebec, October 2010.

Lee J. Chief Resident Workshop, University of Manitoba. Winnipeg Manitoba, March 2011.

Grants

Arora RC. F.W. Du Val Clinical Research Professorship (\$50,000.00). July 2011-July 2014.

Arora RC. Understanding mechanisms of altered intercellular communication in the diabetic heart. Department of Surgery, University of Manitoba (\$20,000.00). February 2011.

Arora RC. Rudy Falk Clinician Scientist (\$75,000.00/annum). 2008-2011.

Arora RC. Understanding mechanisms of altered intercellular communication in the diabetic heart. MHRC/MMS – F. W. DuVal Clinical Research Professorship (\$50,000.00/3 years). July 2011.

Arora RC, Freed DH. Regenerative medicine and nanomedicine initiative. CIHR/Institute of Genetics(IG)/Institute of Circulatory and Respiratory Health (ICRH) Emerging Teams Grant (\$25,806.00/annum). 2008-2013.

Freed DH. Effect of spinal anesthesia on cardiovascular function in pig model of brain dead heart organ donors. MMSF (\$25,000.00). March 2011.

Freed DH. The effect of hyDr.oxymethylgluterate-CoA reductase Inhibition on mesenchymal stem cell phenotype and function. University of Manitoba, Department of Surgery (\$20,000.00). March 2011.

General Surgery



Regional Lead/Section Head

Dr. Cliff Yaffe

Associate Professor

Faculty

Dr. Brent Anderson

Assistant Professor

Dr. Chris Andrew

Assistant Professor

Dr. George Assuras

Assistant Professor

Dr. John Bracken

Assistant Professor

Dr. Lawrence Gillman

Assistant Professor

Dr. Perry Gray

Associate Professor

Dr. Krista Hardy

Assistant Professor

Dr. Diamond Kassum

Associate Professor

Dr. Ali Khan

Assistant Professor

Dr. Jeremy Lipschitz

Associate Professor

Dr. Brendan McCarthy

Assistant Professor

Dr. M. Andrew McKay

Assistant Professor

Dr. Luis Oppenheimer

Professor

Dr. Roger Saadia

Professor

Dr. Richard Silverman

Assistant Professor

Dr. Ashley Vergis

Assistant Professor

Dr. Ben Yip

Assistant Professor

Dr. Brent Zabalotny

Assistant Professor

Pediatric General Surgery

Dr. Betty Jean Hancock

Section Head, Associate Professor

Dr. Richard Keijzer

Assistant Professor

Dr. Suyin Lum Min

Assistant Professor

Dr. Kris Milbrandt

Assistant Professor

Dr. Nathan Wiseman

Associate Professor

Part-Time/Nil Appointment Faculty

Dr. Ahmed Abdoh

Associate Professor

Dr. Lloyd Bartlett

Assistant Professor

Dr. Sonny Dhalla

Lecturer

Dr. Virginia Fraser

Assistant Professor

Dr. Susan Ghazali

Assistant Professor

Dr. Marvin Goosen

Lecturer

Dr. David Hochman

Assistant Professor

Dr. Duncan Inglis

Lecturer

| | |
|-----------------------|---------------------|
| Dr. Tasadduq Khan | Associate Professor |
| Dr. Thomas Klonish | Professor |
| Dr. Allan Lysack | Assistant Professor |
| Dr. Paul Manuel | Lecturer |
| Dr. William Myers | Lecturer |
| Dr. Ray Postuma | Professor |
| Dr. David Reimer | Lecturer |
| Dr. James Ross | Assistant Professor |
| Dr. Hugh Taylor | Assistant Professor |
| Dr. Mark Torchia | Associate Professor |
| Dr. Francisco Violago | Assistant Professor |
| Dr. Soubhik Maiti | Academic Staff |

Despite the fact that 2011 has been a tumultuous year for our Section, General Surgery continues to play a vital role as the "solid foundation" for the Surgery Department with respect to clinical activity, innovation, education, research, and administration.

Achievements:

Bariatric Program

The Bariatric Program, under the direction of Dr. Chris Andrew, has begun performing sleeve gastric resections at the Victoria General Hospital. The early results are very encouraging. It is anticipated that the Bariatric Program will receive "official" approval from Manitoba Health shortly. In the meantime, the team will be increasing the surgical volumes in view of the overwhelming demand for a "home grown" Bariatric Program. Congratulations to our MIS/Bariatric surgical team members: Chris Andrew, Ashley Vergis, Krista Hardy and John Bracken.

Acute Care Surgery/Trauma Services

The Acute Care Surgery/Trauma Services continue to provide comprehensive emergency surgical management for the Winnipeg region and Manitoba and some locations outside of the Province. The overwhelming demand has created a bed resource problem, especially during peak times. The appointment of ACSS Hospitalists has been important in providing medical support for the ACSS teams, especially at the Grace General Hospital. There are plans to recruit Physician Assistants as well.

Seven Oaks Surgery Unit

The Section of General Surgery has established a clinical unit at the Seven Oaks General Hospital (SOGH). Drs. Brent Anderson, Ali Khan, and Lawrence Gillman have been appointed to the SOGH site and will be involved in clinical and educational activities in a newly-renovated facility. It is anticipated that SOGH will become a very popular and successful Community Surgery rotation site for residents and medical students.

Colorectal Cancer Management

A multi-disciplinary rectal cancer consensus conference was held on April 2, 2011. Consensus was reached on a number of issues, including diagnostic and treatment algorithms. There was agreement that a total mesorectal excision (TME) course should be organized for general surgeons in Manitoba who are interested in continuing to manage patients with rectal cancer. A comprehensive didactic and "hands-on" TME course is being planned for April 21, 2012.

CancerCare Manitoba announced the intention of establishing a "Colorectal Cancer Centre of Excellence" at the Health Sciences Centre. The specific details about the facility are pending, but the principle of the importance of timely and expert colorectal cancer management cannot be underestimated. Dr. David Hochman has established the transanal endoscopic microsurgery

(TEM) unit at the Victoria General Hospital (VGH) for the NOTES surgical management of rectal lesions. He is helping to create a national TEM network for clinical and research purposes.

GI Endoscopy

The much-anticipated "new" GI Emergency Endoscopy Service will officially begin at the Grace General Hospital (GGH) in October, 2011. A number of general surgeons will be participating on the endoscopy team. There is anticipation of a major expansion of non-emergency GI endoscopy resources at GGH as well. This should help alleviate some of the backlog of endoscopy cases. Many thanks to Dr. Ross Stimpson for his tireless efforts on the WRHA Endoscopy Committee.

SOGH Appointment

Dr. Brent Anderson, one of our General Surgeons, has been appointed as Surgery Program Site Manager at the SOGH effective July, 2011. Congratulations to Dr. Anderson, who has a reputation for being caring and fair-minded and very clinically-skilled.

Surgical Education

The General Surgery Training Program remains on "provisional approval" status by the RCPSC. The main concern has been in the realm of resident working hours. This issue is a national concern and will require several initiatives in order to maintain patient safety on surgical units where resident involvement may be limited by the working hours legislation by the RCPSC. These include the appointment of Physician Assistants and Hospitalists.

All three General Surgery Candidates (100%) were successful in passing the RCPSC final examinations in 2011. Congratulations to Mohammed Bawazeer (future career in Critical Care and Trauma), Kyle Grant (future career in Thoracic Surgery) and Justin Rivard (future career in Surgical Oncology).

Many thanks to all of the surgeons in the Section of General Surgery who have donated their time and efforts for the education of our residents and medical students. Our surgeons are truly the "unsung heroes" of surgical education. Congratulations to Dr. W. Meyers from Brandon, who was named "Educator of the Year" by the General Surgery Residents.

The Section of General Surgery and our surgeons continue to play a major role in virtually every aspect of the Surgical Foundations Program including: clinical teaching, providing didactic sessions, and organizing and participating in technical skills sessions. Ms. Wendi Charette, Surgical Foundations Coordinator, has been superb in her administrative, organizational, and facilitator role. Dr. Yaffe continues to be the Surgical Foundations Director and he sits on the RCPSC Surgical Foundations Advisory Committee.

Dr. Jason Park, Director of Surgical Skills, continues to play a major role in maintaining the Section and the Surgery Department on the leading edge of surgical skills development, assessment, and research. Dr. Park's contributions to this field are very much recognized and appreciated.

Research

Research efforts in General Surgery have resulted in steady gains with respect to the number of faculty and residents involved in research projects, as well as in the increased research grant awards received by our surgeons. It is anticipated that the research activity in our section will continue to blossom.

New Directions/Programs

Surgical Fellowships

Plans are underway or have been finalized for the establishment of the following Surgical Fellowship Programs at the University of Manitoba:

- a) Breast Surgery Fellowship (Dr. E MacIntosh)
- b) MIS/Bariatric Fellowship (Dr. A Vergis)
- c) Colorectal Fellowship (Drs. B Yip and D Hochman)

There has been some discussion about the possibility of establishing an Acute Care Surgery Fellowship at the University of Manitoba, in addition to the above fellowships.

SOGH Surgical Teaching Unit

Drs. Brent Anderson, Ali Khan and Lawrence Gillman comprise the team of surgeons who will help to establish a site of clinical and educational excellence for patients and surgical trainees. This is a very exciting program which will link with the other General Surgery units within the Winnipeg region.

GGH General Surgery Unit

Dr. Brent Zabolotny has relocated his busy oncology practice to the GGH where he is the Director of the GGH ACSS. It is anticipated that this move will help to establish a vital link to other General Surgery sites within the Winnipeg region and will likely foster undergraduate and postgraduate surgical education at the GGH.

Respectfully submitted,
Cliff Yaffe

Journal Articles

Adibe O, Amin S, Hansen E, Chong A, Perger L, Keijzer R, Muensterer O, Georgeson K, Harmon C. An evidence-based clinical protocol for diagnosis of acute appendicitis decreased the use of computed tomography in children. *J. Ped. Surg.* 2011;46(1):192-6.

Bathe O, Shaykhutdinov R, Kopciuk K, Weljie A, McKay A, Sutherland F, Dixon E, Dunse N, Sotiropoulos D, Vogel H. Feasibility of identifying pancreatic cancer based on serum metabolomics. *Cancer Epidemiol Biomarkers Prev.* 2011;20(1):140-7.

Chung S, Mikrogianakis A, Wales P, Dirks S, Shroff M, Singhal A, Grant V, Hancock BJ, et al. Trauma association of Canada pediatric subcommittee national pediatric cervical spine evaluation pathway: consensus guidelines. *J. Trauma* 2011-5;70(4):873-84.

Kaminsky M, Hochman DJ. Superior mesenteric venous thrombosis. *CMAJ.* 2011; 183(6):693.

Keijzer R, Wilschut E, Houmes R, Van de Ven C, Van den Hout L, Sluijter I, Rycus P, Bax N, Tobboel D. Congenital diaphragmatic hernia: to repair on or off ECMO? *J. Ped. Surg.* 2011 Accepted for publication.

Kholdebarin R, Helewa R, Hochman DJ. Evaluation of a regional acute care surgery service by residents in general surgery. *J Surg Educ.* Jul-Aug 2100;68(4):290-3.

Kholdebarin R, Iwasiew B, Keijzer. Pulmonary development consideration in the surgical management of congenital diaphragmatic hernia. *Early Hum. Dev.* 2011. Accepted for publication.

McKay A, Abulfaraj M, Lipschitz J. Short and long-term outcomes following percutaneous cholecystostomy for acute cholecystitis in high risk patients. *Surg Endosc.* Nov 2011. Epub ahead of print.

Muensterer O, Keijzer R. A simple vacuum dressing reduces the wound infection rate of single-incision pediatric endosurgical appendectomy. *J.S.L.S.* 2011;15(2):147-50.

Muensterer O, Keijzer R. Single-incision pediatric endosurgery (SIPES) – assisted ileocectomy for resection of a NEC stricture. *Ped. Surg. Int.* 2011. Accepted for publication.

Qureshi A, Vergis A, Jimenez C, Green J, Pryor A, Schlachta C, Okrainec A. Laparoscopic skill acquisition in the surgical laboratory- a national survey of general surgery residents. *Surgical Endoscopy.* 2011;25(9):3057-3065.

Rivard J, Hochman DJ. Equivalency of lymph node harvest in laparoscopic versus open colorectal cancer procedures: an early surgeon's perspective. *Surg Laparo Endo Percutan Tech.* 2011;21(1):14-16.

Senger C, Keijzer R, Smith G, Muensterer O. Pediatric fire arm injuries: a 10-year single-centre experience of 194 patients. *J. Ped. Surg.* 2011;46(5):927-32. Accepted for publication.

Torchia M. Issued Patent – US Patent Office - US 7,691,100

Woodmass J, Lipschitz J, McKay A. Physician attitudes and treatment patterns for pancreatic cancer. *World J Surg Oncol.* 2011;9(1):21.

Book Chapters/Review Articles/Monographs

Keijzer R, Muensterer O, Georgeson K. Minimal invasive neonatal surgery. *Newborn Surgery*. Prempuri. November 2011.

Conference Presentations/Abstracts Published

Abdoh A, Hancock BJ, Saadia R, Nason R. A web-based trauma registry system: assessing the reliability of severity scoring. *Can. J. Surg.* 2011;54(3):S18.

Andrew CG, Abulfaraj M, Kaminsky M, Dawe P. Laparoscopic appendectomy. Instructional video session. *Canadian Surgery Forum*. London, 2011.

Andrew CG, Al-Romaihi S. Video: laparoscopic repair of a morgagni hernia, video presentation. *Canadian Surgery Forum*. Quebec, 2010.

Denis J, Hochman DJ. Transanal endoscopic microsurgery: the results of 35 patients. *Can J Surg.* 2011;54(Suppl):S47.

Elliot A, Reed M, Marles S, Torchia M, Preachuk C, Smith D. Insights from angiography in the etiology and patterning of limb vascular disorders. Meeting 2010.

Elliot A, Reed M, Chudley A, Torchia M, Wrogemann J, Smith D. Magnetic resonance angiography: Clues to pathogenesis in Cenani-Lenz Syndactyly. Meeting 2010.

Hardy K, Pitzul K, Kwong J, Vergis A, Urbach D, Okrainec A. A cost comparison of laparoscopic and open colorectal surgery in a Canadian hospital. *Can J Surg.* 2011; 54(Suppl):S41-42.

Hardy K, Vergis A, Sullivan P. Laparoscopic right hemicolectomy with intracorporeal versus extracorporeal anastomosis: a comparison of short term outcomes. *Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)*. Spring Meeting April 2011.

Hardy K, Vergis A, Sullivan P. Short-term outcomes of laparoscopic right hemi-colectomy with intracorporeal vs. extracorporeal anastomosis. *Can J Surg.* 2011;54(Suppl):S39-40.

Helewa R, Turner D, Wirtzfeld D, Park J, Czaykowski P, Mak G, Hochman DJ, McKay A. Local recurrence of rectal cancer in Manitoba. *Can J Surg.* 2011;54(Suppl):S10.

Horne D, Soni R, Hancock BJ, Kesselman M, Dr.ews T, Cronin C, Divekar A, Lee J. Paediatric rescue extra-corporeal membrane oxygenation, without local paediatric cardiac surgery program: single institutional review. *SEECMO Conference*. June 2011. (poster)

Keijzer R, Wang J, De Munck A, Tibboel D, Post M. Microrna microarray screen of human hypoplastic lungs from babies with congenital diaphragmatic hernia. *Canadian Association of Paediatric Surgeons*. Ottawa Ontario, September 2011.

Kholdebarin R, Higgins M, Iwasio B, Keijzer R. Role of NPAS3 in development of pulmonary hypoplasia in a rat model of congenital diaphragmatic hernia. *MICH Research Day*. Winnipeg Manitoba, October 2011.

Maniar R, Hochman DJ, Wirtzfeld D, Yaffe C, Yip B, McKay A, Silverman R, Park J. Documentation of quality of care data for colon cancer surgery: comparison of synoptic and dictated operative reports. *Can J Surg.* 2011;54(Suppl):S34.

McKay A, Katz A, Lipschitz J. A Population-based analysis of the morbidity and mortality of gallbladder surgery in the elderly. 97th Annual Clinical Congress of the American College of Surgeons. San Francisco, CA, October 2011.

Milbrandt K. Cholelithiasis in children – retrospective cohort review. Annual Meeting, Canadian Association of Pediatric Surgeons. Ottawa Ontario, September 2011.

Struijs M, Poley M, Meeussen C, Madern G, Tibboel D, Keijzer R. Timing of enterostomy closure for necrotizing enterocolitis: effects on adhesion formation, resource consumption and costs. European Congress of Paediatric Surgery. Barcelona Spain, June 2011.

Torchia M, Barnett G, Sloan A, Tyc R. Conformal laser irradiation of intracranial tumors: A clinical application. Eighth Interventional MR Symposium. Leipzig Germany. September 2010.

Van Loenhout R, Post M, Tibboel D, Keijzer R. Novel insight in pathogenesis of lung hypoplasia in congenital diaphragmatic hernia: fibroblast cell layer is defective. Pediatric Academic Societies. Denver Colorado, May 2011.

Invited addresses

Keijzer R. Hypoplastic lung and congenital diaphragmatic hernia. Neonatal update. London United Kingdom, December 2011.

McKay A. Respectability in pancreatic cancer. Western Canadian Gastrointestinal Cancer Consensus Conference. Calgary AB, September 2011.

Workshops Organized

Torchia M. Facilitating Small Group Teaching – Faculty of Medicine

Torchia M. Teacher Improvement Program – Faculty of Medicine

Torchia M. Continuing Clinical Education – WRHA Team Training

Grants

Keijzer R. CFI Leader Opportunity Fund – Funding for Research Infrastructure. (\$593,828.00) 2011

Keijzer R. Manitoba Institute of Child Health. (\$4,952.00) 2010

Keijzer R. Manitoba Institute of Child Health. Operating Grant (\$40,000.00) 2011

Keijzer R. Manitoba Institute of Child Health Establishment Grant. (\$50,000) 2011

Keijzer R. Manitoba Medical Service Foundation. (\$20,000.00) 2010

Keijzer R. Molly Towel Perinatal Research Foundation. (\$19,000.00) 2011-12

Keijzer R. The Rudy Falk Clinician Scientist Award. Declined in lieu of another award. (\$70,000.00/3 years) 2011

McKay A, Al-Subae H, Park J, Wirtzfeld D. Diagnosis of VTE post discharge for major abdominal and pelvic oncologic surgery: implications for a change in practice. University of Manitoba - Department of Surgery Research Grant (\$11,000.00) 2011-2012

McKay A, Helewa R, Wirtzfeld D, Turner D. Does geography influence the treatment and outcomes of colorectal cancer in the province of Manitoba? Winnipeg Foundation (\$12,500.00) 2010-2011

Park J and Vergis A. The effect of blocked versus random task practice schedules on the acquisition, retention, and transfer of surgical skills. Royal College of Physicians and Surgeons of Canada (RCPSC) - Medical Education Research Grant (\$25,000.00) 2010-2011

Park J, Vergis A, Unger B. Optimizing practice schedules for learning basic skills on a computer-based laparoscopic simulator. Canadian Association of General Surgeons (CAGS) - Ethicon Research Grant (\$25,000.00) 2011-2013

Torchia M. Real and virtual 3D anatomical models in education and research (co-applicant). Dean's Strategic Fund (\$350,000.00)

Vergis A, Hardy K, Steigherwald S, Park, J. Do fundamentals of laparoscopic surgery (FLS) and LapSim evaluation metrics predict intra-operative performance? University of Manitoba – Department of Surgery Research Grant (\$20,000.00) 2011-2012

Neurosurgery



Regional Lead/Section Head

Dr. Neil Berrington Assistant Professor

Faculty

| | |
|----------------------|---------------------|
| Dr. Jason Beiko | Assistant Professor |
| Dr. Loris Cristante | Professor |
| Dr. Derek Fewer | Associate Professor |
| Dr. Anthony Kaufmann | Associate Professor |
| Dr. Jerry Krcek | Associate Professor |
| Dr. Joseph Silvaggio | Assistant Professor |
| Dr. Michael West | Professor |
| Dr. Owen Williams | Assistant Professor |

Pediatric Neurosurgery

Dr. Patrick McDonald Associate Professor

Part-Time/Nil Appointment Faculty

Dr. Marshall Wilkinson Lecturer

After 10 years of service to the Section of Neurosurgery, Dr. Michael West stepped down as Section Head. Dr. West's legacy includes: the expansion of the Neurosurgery Program, the introduction of the first Gamma Knife Suite in Canada, the establishment of the Stereotactic Radiosurgery Program, the expansion of a comprehensive Endovascular Program, and expanded fronts in the fields of medical education and particularly inpatient care as the throughput of neurosurgery increased pace. During this time the program has been supported by a very motivated educational team including Dr. Patrick McDonald as Program Director. Neurosurgery enjoys full accreditation with the Royal College of Physicians and Surgeons of Canada and has graduated a number of excellent graduates during the 10 years that Dr. West spearheaded the program.

The clinical throughput in Neurosurgery continues to be at a significant level with over 5000 clinic visits and over 800 operative procedures performed to date during 2011.

The Stereotactic Radiosurgery Program, in particular, has become increasingly more operational as the KIAM Centre has come on line. The Gamma Knife completed 223 cases during 2011 and over 1700 cases have been treated to date. Dr. Derek Fewer, in conjunction with Radiotherapy, has begun performing stereotactic radiation for spinal pathology.

The meeting of the Canadian Association of Radiosurgeons was held in Winnipeg on September 14 and 15, 2011. It was organized and hosted by the Health Sciences Centre

Section of Neurosurgery, and CancerCare Manitoba. It proved to be a most fruitful scientific meeting. There were several papers presented by the Winnipeg group.

On the Research front, once again the Dean's Strategic Research Fund for 2010 has proved invaluable in establishing a research front in the KIAM building. Although the hardware is not yet on line, proposals for studies from Anesthesia and Neurosurgery are now being entertained.

Our Visiting Professor Program was exceptionally educational. We have been able to attract outstanding speakers by combining resources with Neurology, Neuroradiology, and Orthopedics, to invite some of the most outstanding specialists in their field.

- February 2011: Dr. Georg Noren, MD, Ph.D., Professor of Neurosurgery, Rhode Island Hospital, Gamma Knife Center presented at Neuroscience Rounds. "Gamma Knife Anterior Capsulotomy for Obsessive-Compulsive Disorder".
- May 2011: Dr. Edward Benzel, Professor and Chairman of Neurosurgery, Cleveland Clinic, Ohio. Dr. Benzel spoke at the Surgical Grand Rounds/4th Annual Dwight Parkinson Day. Topic title, "Back Pain: From the Basics to Rocket Science and Back". He also presented at the Neuroscience Rounds, "Cervical Spondylosis and Deformity", and "Concussion".

Recruitment of faculty Dr. Jason Beiko commenced as an Attending Surgeon in July 2011. Dr. Beiko is a graduate of the University of Ottawa who trained as a neurosurgeon here at the University of Manitoba. Following his completion of residency, he underwent a Fellowship at MD Anderson Cancer Center in the United States where he developed skills in both spine surgery and neuro-oncology.

Dr. Beiko brings a significant contribution to the Section, particularly in relation to oncological conditions including pituitary tumors and skull-based lesions.

Neurosurgery is currently participating in the recruitment of Neuroscientists for the Kleysen Institute of Advanced Medicine with the hopes to further elaborate our research role at the KIAM Centre.

The Neurointerventional Service hopes to expand into the KIAM Building once the Angio Suite is complete at that Centre.

The Winnipeg Spine Program continues as a collaboration between Orthopedics and Neurosurgery under the leadership of Dr. Michael Goytan of the Section of Orthopedics. The program continues to provide comprehensive 24-hour service for diseases of the spine. Collaboration on surgical outcomes continues between the two Sections to establish further the role of minimal access to spine surgery and the treatment of degenerative conditions of the lumbar and cervical spine.

Attempts to reduce wait times in clinic are currently underway with a collaborative program with the Section of Physical Medicine and Rehabilitation of the Department of Medicine. It is hoped that the appropriate triage of patients may be undertaken and appropriate interdisciplinary care instituted earlier for patients with degenerative conditions of the spine.

The Residency Program, under the direction of Dr. Patrick McDonald, has once again had a very successful year. The Program was joined by Dr. Behzad Sabit (R1) who is a graduate of McGill University in Montreal. Dr. Serge Rasskazoff has now completed his residency at the University of Manitoba and is presently undergoing further Fellowship training in Chicago. Dr. Colin Kazina continues as Chief Resident and is anticipated to start his examinations in 2012.

The Physician Assistant Program continues to provide an expansion of the physician role. We are currently recruiting Physician Assistants as Ms. Daman Sangha has unfortunately left our Section to live in Europe. Mr. Jon Stepaniuk has completed a Masters of Physician Assistant studies and has rejoined our Section as a Certified Physician Assistant. The opportunities for PA's to further alleviate half staff schedule shortages, clinic wait times, and improve resident work hours is an ongoing priority of our Section.

The Intraoperative Neurophysiology Program continues to provide intraoperative monitoring for both complex cranial and spinal procedures. It is hoped to recruit a third technician to assist in this role as the utility of this program increases.

Following the end of Dr. Michael West's second term as Chief of Neurosurgery in September of 2010, a Search Committee was established by Dr. Richard Nason. Dr. Neil Berrington was appointed the Neurosurgery Section Head effective October 3, 2011.

We recognize that the excellent level of care our patients receive is a collaborative effort involving individuals of many disciplines including administrators, nurses, physicians from all our specialties, residents, Physician Assistants, and the surgeons themselves. Special thanks to Krystyna Kruczek for her untiring professional administrative support again throughout this year and her contributions in completing our Annual Report.

We continue to be indebted to the Winnipeg Regional Health Authority, the Health Sciences Centre, and the Department of Surgery for their consistent support in the delivery of our responsibilities.

Respectfully submitted,
Neil Berrington

Journal Articles

Hughes P, Krcek J, Hobson D, Del Bigio M. An unusual inflammatory response to implanted deep-brain electrodes. *Can. J. Neurol. Sci.* 2011;38:168-170.

Spence J, Pasterkamp H, McDonald P. Isolated central sleep apnea in Type I Chiari malformation: Improvement after surgery. *Ped. Pulmonol.* 2010;45(11):1141-4.

Zeiler F, McDonald P, Kaufmann A, Fewer D, Butler J, Schroeder G, West M. Gamma knife radiosurgery for cerebral arteriovenous malformation: Results of treatment of 69 consecutive patients at a single centre. *Can. J. Neurol. Sci.* 2011;38:851-7.

Conference Presentations/Abstracts

Ellis M, Kazina C, McDonald P. Central nervous system blastomycosis in children: The Manitoba experience. *Can. J. Neurol. Sci.* 2011;38(3)suppl 1:S35.

McDonald P, Zeiler F, Kulkarni A. Documentation of ethical process and review in neurosurgical research. *Brain Matters 2-2nd International Neuroethics Conference.* Montreal Quebec, May 2011.

McDonald P. The ethics of sham surgery arms in neurosurgical research: A neurosurgeon's perspective. *Brain Matters 2-2nd International Neuroethics Conference.* Montreal Quebec, May 2011.

Potrebko P, Venkataraman S, West M, Lyn E, Butler J, McCurdy B, Fewer D, Schroeder G, Sasaki D. Improving the accuracy of spine SBRT treatment planning using a new commercial Monte Carlo dose algorithm. *Radiotherapy & Oncology.* 2011;100suppl 1-5.

Sasaki D, Venkataraman S, Butler J, Schroeder G, West M, Fewer D. Evaluation of patient setup and Intrafraction motion for hypofractionated spine treatments. *Radiotherapy & Oncology.* 2011; 100(1);S6.

Thanasupawat T, Hombach-Klonisch A, Ogbomo E, Bergen H, Krawitz S, Del Bigio M, Tetefeld J, Krcek J, Klonisch T. Tetrameric right handed coiled coil (RHCC) protein nanotubes as modular delivery system of chemotherapeutics for effective killing of glioblastoma cells. *Canadian Neuro-Oncology Meeting.*

Zeiler F, Kaufmann A, Fewer D, McDonald P, Butler J, Schroeder G, West M. Gamma knife radiosurgery for cerebral arteriovenous malformation: Results of treatment of 69 consecutive patients as a centre. *10th Biennial Congress of the International Stereotactic Radiosurgery Society.* Paris France, May 2011.

Zeiler F, Kaufmann A, Fewer D, McDonald P, Butler J, Schroeder G, West M. Gamma knife stereotactic radiosurgery: an institutional review in the treatment of cavernous sinus meningiomas. *10th Biennial Congress of the International Stereotactic Radiosurgery Society.* Paris France, May 2011.

Zeiler F, Kaufmann A, Fewer D, McDonald P, Butler J, Schroeder G, West M. Gamma knife stereotactic radiosurgery: an institutional review in the treatment of cavernous sinus meningiomas. *Canadian Radiosurgery Society.* Winnipeg Manitoba, September 2011.

Zeiler F, Kaufmann A, Fewer D, McDonald P, Butler J, Schroeder G, West M. Gamma knife stereotactic radiosurgery: an institutional review of the treatment of cavernous sinus meningiomas. Gama Knife in the Americas. Pittsburgh Pennsylvania, September 2011.

Zeiler F, McDonald P, Kaufmann, Fewer D, Butler J, Schroeder G, West M. Gamma knife surgery for cerebral arteriovenous malformation. Can. J. Neurol. Sci. 2011;38(3) Suppl 1:S92.

Zeiler F, Kaufmann A, Fewer D, McDonald P, Butler J, Schroeder G, West M. Gamma knife surgery for cerebral arteriovenous malformations: results of 69 consecutive patients at a single centre. Gamma Knife in the Americas. Pittsburg Pennsylvania, September 2011.

Invited Addresses

McDonald P. Ethics of placebo- Neurobiology of Placebo Course. 46th Annual Congress of the Canadian Neurological Sciences Foundation. Vancouver British Columbia, June 2011.

McDonald P. Ethical Issues in Clinical Research- Expert Panel. Council for Canadian Child Health Research/Canadian Child Health Clinician Scientist Program Joint Trainee Symposium. Winnipeg Manitoba, October 2010.

Workshops Organized

West M. Co-Chair – Canadian Association of Radiosurgery Conference. Winnipeg Manitoba, September 2011.

Grants

Krcek J. (PI) Chemoresistance in glioblastoma: role of high mobility group A – ½ proteins. Department of Surgery – University of Manitoba (\$15,000.00)

Krcek J. (PI) Right handed coiled coil (RHCC) protein tetramers as microcarriers of cisplatin for the local therapy of brain tumor xenografts. Department of Surgery – University of Manitoba (\$20,000.00)

McDonald P. (Local PI) Characterization of pediatric thalamic brain tumours in Canada. C17 Research Network (\$17,000.00)

McDonald P. (Co-PI) Youth involvement in health care decisions: ethical, social and cultural perspectives. Canadian Institutes of Health Research (\$95,853.00)

West M. (collaborator) Multi-objective optimization for improved stereotactic radiosurgery treatment planning. Health Sciences Centre (\$268,323.00)

West M. (collaborator) Multi-objective optimization for improved stereotactic radiosurgery; (multi-CPU computer to support the research project). Health Sciences Centre Foundation (\$35,000.00)

West M. (collaborator) Patient-specific virtual reality systems for surgical oncology. National Research Council of Canada. (\$13 million) 2008-continuing.

Orthopedic Surgery



Regional Lead/Section Head

Dr. Peter MacDonald

Professor

Faculty

Dr. Laurie Barron

Assistant Professor

Dr. Eric Bohm

Associate Professor

Dr. Colin Burnell

Assistant Professor

Dr. Tod Clark

Assistant Professor

Dr. Mario Dascal

Assistant Professor

Dr. James Dubberley

Assistant Professor

Dr. Michael Goytan

Assistant Professor

Dr. Christopher Graham

Assistant Professor

Dr. Allan Hammond

Assistant Professor

Dr. David Hedden

Assistant Professor

Dr. Michael Johnson

Assistant Professor

Dr. Jason Old

Assistant Professor

Dr. Brad Pilkey

Assistant Professor

Dr. Greg Stranges

Assistant Professor

Dr. Ted V. Tufescu

Assistant Professor

Dr. Thomas Turgeon

Assistant Professor

Pediatric Orthopedic Surgery

Dr. G. Brian Black

Professor

Dr. Paul Jellicoe

Assistant Professor

Dr. Jack McPherson

Assistant Professor

Dr. Virginie Pollet

Assistant Professor

Dr. Susan Thompson

Assistant Professor

Part-Time/Nil Appointment Faculty

Dr. Jan-Mels Brandt

Assistant Professor

Dr. Dean Kriellaars

Associate Professor

Dr. Phillip De Muelenaere

Lecturer

Dr. Frank Duerksen

Associate Professor

Dr. David Huebert

Assistant Professor

Dr. Norman Klippenstein

Lecturer

Dr. Jeffrey Leiter

Assistant Professor

Dr. Ronald Monson

Associate Professor

Dr. William Rennie

Professor

The Section of Orthopedics was busy on multiple fronts in 2011. At the Health Sciences Centre we have Spine and Trauma Services, as well as Pediatrics. The Spine Service continues to be extremely busy with long wait lists for elective surgery. There is a case to be made for further Spine recruitment, which we are hoping to have for 2012. The Spine Research Program, with the assistance of Dr. Dean Kriellaars, is also growing. Due to the logistics of Spine patient consultation, exploration of a Spine Assessment Clinic out of Pan Am has been undertaken and will likely assist with the triaging of Spine patients.

The Trauma Service also had a very busy summer. The summer slowdowns impacted negatively on the Trauma Service from both a bed and access to OR perspective. The case is being made for fewer slowdowns in the summer as the back ups in the Trauma Service negatively impact any elective activity at the Health Sciences Centre and also impact Trauma Services for Orthopedics around the city. The Trauma Research Program continues to grow, under the direction of Dr. Ted Tufescu, and several ongoing projects are underway. Support for their research and research throughout the Section has continued with the Alexander Gibson Fund which awards about \$175,000.00 a year to Orthopedic Research.

At Concordia Hospital, approximately 1,500 total joint arthroplasties continue to be done every year by the Concordia Joint Replacement Group. There is a strong academic part to this group under the direction of Martin Petrak. 2011 was a very successful year for the Research Program with the granting of multimillion dollar seed money from the Western Economic Diversification Fund. This helps with basic science and clinical research and the hiring of several biomechanical engineers to carry this out. On the clinical side, the Program is renowned throughout Canada for its efficiency and high quality work. Dr. David Hedden has been recruited by one of the supply companies to assist in the design of a new, total knee prosthesis. Dr. Eric Bohm's work is nationally renowned in terms of wait lists and management of the ever increasing demand for joint arthroplasty across Canada. Dr. Tom Turgeon serves as President of the Concordia Foundation.

Dr. Colin Burnell, Adult Orthopedics, and Dr. Paul Jellicoe, Pediatric Orthopedics, were recently chosen as co-winners of the Resident Teaching Award for 2011. Congratulations to both of these surgeons.

At the Pan Am Clinic, the addition of Dr. Tod Clark in Orthopedics and Dr. Jennifer Giuffre in Plastics has been a huge addition to the care, treatment, teaching, and research of hand injuries and conditions. Both surgeons trained at the Mayo Clinic in a renowned Fellowship Program. In addition to their outpatient work at Pan Am, they perform inpatient work including the Brachial Plexus Program at Victoria Hospital.

The recruitment of Dr. Allan Hammond has improved not only trauma care, but also the care of multiligament knee injuries and complex foot and ankle injuries. Dr. Hammond is located at the Health Sciences Centre but does clinical and outpatient surgical work at Pan Am.

The Pan Am Clinic Foundation is largely dedicated to musculoskeletal research and education. The Foundation continues to become an ever increasing and well recognized center of research across Canada. This is under the capable direction of Dr. Jeff Leiter, who also serves as Resident Research Director. Resident Academic Day was held this fall with Dr. Robert Bourne as Visiting Professor from the University of Western Ontario. Another successful Arthroscopy Skills Day was held in 2011, with multiple visiting professors teaching surgical skills of the shoulder.

The future direction for Orthopedics in the city is a promising one. Consolidation of Orthopedics between Grace and Seven Oaks will offer a more coordinated community approach to

Orthopedics. This will also offer residents an opportunity to have community rotations at a traditionally nonteaching setting in the future.

Orthopedic care is expensive due to its reliance upon implants. With a year of cost containment, a delicate balancing act with government has to constantly occur with regard to the continued growth in demand for Orthopedic Services balanced against fiscal responsibility.

Respectfully submitted,
Peter B. MacDonald

Journal Articles

Black B. Noise Levels in Adult and Pediatric Orthopedic Clinics. *Am Jr of Orthopedics* 2011;40(7): E122-29.

Bohm E, Dunba, M, Frood J, Johnson T, Morris K. Re-hospitalizations, early revisions, infections and hospital resource use in the first year following hp and knee replacement surgery, *The Journal of Arthroplasty*. July 2011. (Epub ahead of print)

Burnell C, Turgeon TR, Hedden D, Bohm E. Paraneoplastic clostridium septicum infection of a total knee arthroplasty. *Journal of Arthroplasty*. June 2011;26(4):666.e9-11. (Epub 2010 Sept 25)

Clark TA, Heyliger C, Edel A, Koilas M, Maddaford T, Goel D, Ganguly P, Aguilar F, Pierce G. A tea/vanadate decoction delivered orally over 14 months to diabetic rats induces long-term glycemic stability without organ toxicity. *Metabolism*. 2011, in press.

Clark TA, Skeete K, Amadio P. Flexor tendon pulley reconstruction. *Journal Hand Surgery of America*. October 2010;35(10):1685-9. Review

Fu K, Smith J, Polly D Jr, Perra J, Sansur C, Berven S, Broadstone P, Choma T, Goytan MJ, Noordeen H, Knapp D Jr, Hart R, Donaldson W 3rd, Boachie-Adjei O, Shaffrey C. Morbidity and mortality in the surgical treatment of six hundred five pediatric patients with isthmic or dysplastic spondylolisthesis. *Spine*. 2011;36(4):308-12.

Hammond A. Talonavicular arthrodesis: The safety and efficacy of arthroscopic debridement, a cadaveric study. *Arthroscopy*. 2011;2:228-34.

Scuderi GR, Hedden DR., Maltry JA, Traina SM, Sheinkop MB, Hartzband MA. Early clinical results of a high-flexion, posterior-stabilized, mobile-bearing total knee arthroplasty: a US investigational device exemption trial. *J Arthroplasty*. Epub 2011 Aug 19.

Hiscox C, Bohm E, Turgeon TR, Hedden D, Burnell C. Randomized trial of computer-assisted knee replacement: Impact on clinical and radiographic outcomes. *Journal of Arthroplasty*. May 2011. (epub ahead of print)

Leiter J, de Korompay N, MacDonald L, McRae S, Froese W, MacDonald PB. Reliability of tunnel angle in ACL reconstruction: Two-dimensional versus three-dimensional guide technique. *Knee Surgery, Sports Traumatology, Arthroscopy*. August 2011;19(8):1258-64.

Leiter J, de Korompay N, MacDonald L, McRae S, Froese W, MacDonald PB. Reliability of tunnel angle in ACL reconstruction: Two-dimensional versus three-dimensional guide technique. *Knee Surgery, Sports Traumatology, Arthroscopy*. February 2011, online first.

Leiter J, Peeler J, Anderson J. Exercise-induced muscle growth is muscle-specific and age-dependent. *Muscle and Nerve*. June 2011;43(6):828-38.

Marsh J, Jellicoe PA, Black B, Monson R, Clark TA. Noise levels in adult and pediatric orthopedic cast clinics. *American Journal of Orthopedics*. July 2011;40(7):E122-4.

McRae S, Chahal J, Leiter J, Marx R, MacDonald PB. Survey study of the members of the Canadian Orthopedic Association on the natural history and treatment of anterior cruciate ligament injury. *Clinical Journal of Sports Medicine*. May 2011;21(3):249-258.

McRae S, Leiter J, Walmsley C, Rehsia S, MacDonald PB. Relationship between self-reported shoulder function/quality of life and body-mass index and other contributing factors in patients awaiting rotator cuff repair surgery. *Journal of Shoulder and Elbow Surgery*. January 2011;20(1):57-61.

McRae S, Leiter J, Walmsley C, Rehsia S, MacDonald PB. Relationship between self-reported shoulder function/quality of life and body-mass index and other contributing factors in patients awaiting rotator cuff repair surgery. *Journal of Shoulder and Elbow Surgery*. October 2010; electronic publication.

Peeler J, Leiter J, Anderson J. Reproducibility of a simplified q-angle measurement technique. *Current Orthopedic Practice*. 2010;21(2):158-64.

Peskun C, Levy B, Fanelli G, Stannard J, Stuart M, MacDonald PB, Marx R, Boyd J, Whelan D. Diagnosis and management of knee dislocations. *The Physician and Sportsmedicine*. December 2010;38(4):101-11.

Skeete K, Hess E, Clark TA, Moran S, Kakar S, Rizzo M. *Journal Hand Surgery of America*. March 2011;36(3):469-74.

Smith J, Fu K, Polly D Jr, Sansur C, Berven S, Broadstone P, Choma T, Goytan MJ, Noordeen H, Knapp D Jr, Hart R, Donaldson W 3rd, Perra J, Boachie-Adjei O, Shaffrey CI. Complication rates of three common spine procedures and Dr. Rates of thromboembolism following spine surgery based on 108,419 procedures: A report from the Scoliosis Research Society Morbidity and Mortality Committee. *Spine*. November 2010;35(24):2190-9.

Smith J, Sansur C, Donaldson W 3rd, Perra J, Mudiyaam R, Choma T, Zeller R, Knapp D Jr, Noordeen H, Berven S, Goytan MJ, Boachie-Adjei O, Shaffrey C. Short-term morbidity and mortality associated with correction of thoracolumbar fixed sagittal plane deformity: A report from the Scoliosis Research Society Morbidity and Mortality Committee. *Spine*. Epub ahead of print – December 2010.

Smith J, Shaffrey I, Berven S, Fu K, Broadstone P, Choma T, Goytan MJ, Noordeen H, Knapp D Jr, Hart R, Donaldson W 3rd, Polly D Jr, Perra J, Boachie-Adjei O. Rates of infection after spine surgery based on 108,419 procedures: A report from the Scoliosis Research Society Morbidity and Mortality Committee. *Spine*. April 2011;36(7):556-63.

Takacs J, Leiter J, Peeler J. Novel application of lower body positive-pressure in the rehabilitation of an individual with multiple lower extremity fractures. *J Rehabil Med*. 2011 Jun;43(7):653-6.

Tay A, MacDonald PB. Complications associated with treatment of multiple ligament injured (dislocated) knee. *Sports Medicine & Arthroscopy Review*. June 2011;19(2):153-61.

Van Tongel A, MacDonald PB. How I manage the multiple-ligament injured knee. *Operative Techniques in Sports Medicine*. December 2010;18(4):245-9.

Van Tongel A, MacDonald PB. Single bundle posterior cruciate ligament reconstruction: Surgical technique and results. *Sports Medicine and Arthroscopy Review*. December 2010;18(4):238-41.

Van Tongel A, Tung T, Stranges GA, MacDonald PB. Double Hill-Sachs lesion: A report of two cases. *Acta Orthop Belg*. August 2011;77(4):552-4.

Williams B, Sansur C, Smith J, Berven S, Broadstone P, Choma T, Goytan MJ, Noordeen H, Knapp D Jr, Hart R, Zeller R, Donaldson W, Polly D, Perra J, Boachie-Adjei O, Shaffrey C. Incidence of unintended durotomy in spine surgery based on 108,478 cases. *Neurosurgery*. 2011;68(1):117-23; discussion 123-4.

Book Chapters/Review Articles/Monographs

Boileau P, Zumstein M, Old J, O'Shea K. Decision process for the treatment of anterior instability. In Boileau P, ed. *Shoulder Concepts 2010*. Montpellier, Paris: Sauramps, Medical; 2010:65-78. (C)

Fanelli G, Stannard J, Stuart M, MacDonald PB, Marx R, Whelan D, Boyd J, Levy B. Management of complex knee ligament injuries. *AAOS Instructional Course Lectures*. Volume 60:523-35 (Chapter 39), 2011.

MacDonald PB, Altamimi S. Principles of arthroscopic repair of large and massive rotator cuff tears. *AAOS Instructional Course Lectures Shoulder and Elbow*. Volume 2:101-12, 2010.

MacDonald PB, Altamimi S. Principles of arthroscopic repair of large and massive rotator cuff tears. *AAOS Instructional Course Lectures Sports Medicine*. Volume 2:143-54 (Chapter 12), 2011.

MacDonald PB, Altamimi S. Principles of arthroscopic repair of large and massive rotator cuff tears. *AAOS Instructional Course Lectures*. Volume 59:269-80, 2010.

O'Shea K, Vargas P, Pinedo M, Old J, Zumstein M, Boileau P. Arthroscopic Hill-Sachs Remplissage: Does the capsulo-tenodesis really heal? In Boileau P, ed. *Shoulder Concepts 2010*. Montpellier, Paris: Sauramps Medical; 2010:49-64. (CPA)

Stannard J, Hammand A. Knee Dislocation. In Bhandari M., *Evidence-Based Orthopedics*. Wiley-Blackwell. 2011:527-33.

Stranges GA, Hawkins R. Massive rotator cuff tears: Options other than repair. In Chen AL (ed.). *Orthopedic Care of the Mature Athlete*. Rosemont IL. American Academy of Orthopedic Surgeons. 2011.

Tufescu T. Mangled Extremity. In Bhandari M., *Evidence-Based Orthopedics*. Wiley-Blackwell. 2011:655-60.

Zumstein M, Pinedo M, Old J, Boileau P. Problems, complications, reoperations, and revisions in reverse shoulder arthroplasty: a systematic review. *J Shoulder Elbow Surg*. January 2011;20(1):f146-57. (CPA)

Conference Presentations/Abstracts Published

Black B. What's new in hip dysplasia and fracture dislocation in the elbow in children? Atlantic Veterinary College. Charlottetown Prince Edward Island, April 2011.

Bohm E. Monitoring patient reported outcomes after elective THA/TKA: The value of patient satisfaction. International Consortium of Orthopedic Registries (ICOR) Conference to Support Regulatory Science, FDA Conference Centre. Silver Spring Maryland, May 2011.

Bohm E. Overview of the Canadian Joint Replacement Registry. International Consortium of Orthopedic Registries (ICOR) Conference to Support Regulatory Science, FDA Conference Centre. Silver Spring Maryland, May 2011.

Bohm E, Deluzio K, Shay B, Rudan J. An RCT comparing fixed to mobile bearing TKA: Any difference in post operative gait and motion? American Academy of Orthopedic Surgeons Conference. San Diego California, February 2011.

Boileau P, Old J, Thélou C, Ohi X, Mercier N. Arthroscopic Bristow-Latarjet Procedure: A computed tomography analysis of bone block positioning and healing. American Shoulder and Elbow Surgeons Annual Closed Meeting. White Sulphur Springs, October 2011. (CPA)

Dascal M. Charcot foot, diagnosis and treatment. XII Latin America Conference. Buenos Aires Argentina, June 2011.

Dascal M. Diabetic foot, a team effort. XII Latin America Conference. Buenos Aires Argentina, June 2011.

Dascal M. Talking with experts. Diabetic foot and neuropathy. XII Latin America Conference. Buenos Aires Argentina, June 2011.

Dubberley J. How many times is enough? Shoulder dislocation. Pan Am Fellows' Orthopedic Sport Medicine Meeting. Phoenix Arizona, March 2011.

Garbuz D, Masri B, Duncan C, Greidanus N, Bohm E, Valle C, Gross A. Prevention of dislocation in revision THA: Randomized clinical trial of 36/40 mm versus 32 mm head. American Academy of Orthopedic Surgeons Conference. San Diego California, February 2011.

Gascoyne T, Petra, M, Bohm E, Turgeon TR, Van der Put R, Burger A. Comparison of a CR and DR. imaging system for radiostereometric analysis – A precision phantom study using a novel spine pedicle screw. 66th Canadian Orthopedic Association Annual Meeting. St. John's Newfoundland, July 2011.

Gillis D, Leiter J, MacDonald PB. Development of a self-audit form for ACL reconstruction based on long-term follow-up data (poster). Council of Orthopedic Residency Directors (CORD) Meeting at the American Orthopedic Association Annual Meeting. Boston Massachusetts, June 2011.

Goytan MJ. Morbidity and Mortality data 2011. Scoliosis Research Society Annual Meeting. Louisville Kentucky, September 2011.

Graham C. Intra-capsular hip fractures. AO Basic Principles and Techniques of Operative Fracture Management Course for Residents. Halifax Nova Scotia, May 2011.

Greenberg C, Whyte M, Wenkert D, McAlister W, Madson K, Reeves A, Mack K, Yakimoski A, Bourrier L, Mhanni A, Jellicoe PA, Mayhew J, Skrinar A, Landy H. Hypophosphatasia: A six month controlled study in affected children using bone targeted, tissue nonspecific alkaline phosphatase. ACMG Annual Clinical Genetics Meeting. Vancouver British Columbia, March 2011.

Hussain A, Srinivasan G, Reed M, Menticoglou S, Thompson S. Break a bone and save a nerve? The increasing incidence of birth injury associated fractures of the humerus in a tertiary care medical centre in Manitoba. XVII International Symposium on Brachial Plexus Surgery, Club Narakas. Lisbon Portugal, May 2011.

Knapp R, Goytan MJ, Smith J, Shaffrey C, Sansur C, Donaldson W, Polly D, Perra J, Boachie-Adjei O. Morbidity and mortality data 2010. Scoliosis Research Society Annual Meeting. Louisville Kentucky, September 2011.

Leiter J. A multicenter randomized control trial comparing single row with double row fixation in arthroscopic cuff repair. Herodicus Society 2011 Annual Meeting. Sun Valley Idaho, June 2011.

Leiter J. Arthroscopic rotator cuff repair with and without acromioplasty in the treatment of full-thickness rotator cuff tears: A multi-centre randomized controlled trial. International Society of Arthroscopy, Knee Surgery and Orthopedic Sports Medicine Congress. Rio de Janeiro Brazil, May 2011.

Leiter J. Ipsilateral vs contralateral hamstring graft in ACL reconstruction. Fowler Fellows' Orthopedic Society Meeting. Santa Barbara California, March 2011.

Leiter J. Prospective randomized trial of ipsilateral vs contralateral hamstring graft in ACL reconstruction. Arthroscopy Association of North American Meeting. San Francisco California, April 2011.

Leiter J. Prospective randomized trial of ipsilateral versus contralateral hamstring graft in ACL reconstruction (E-Poster). International Society of Arthroscopy, Knee Surgery and Orthopedic Sports Medicine Congress. Rio de Janeiro Brazil, May 2011.

Leiter J, Elkurbo M, McRae S, MacDonald PB. Determining ACL hamstring graft diameter from anthropometric and radiology measurements. 66th Annual Meeting of the Canadian Orthopedic Association. St. John's Newfoundland, July 2011.

Leiter J, Peeler J. Performing an oblique incision to harvest a semitendinosus autograft during ACL reconstructive knee surgery: Is there an infra-patellar branch of the saphenous nerve "safe zone"? World Federation of Athletic Therapy and Training Meeting (WFATT). Banff Alberta May 2011.

Loucks L, Bohm E, Tan A. A determination of the minimum clinically important difference and the minimum value for clinical benefit for the Oxford 12 Knee Score following total knee replacement. 66th Canadian Orthopedic Association Annual Meeting. St. John's Newfoundland, July 2011.

MacDonald PB. A multicenter randomized control trial comparing single row and double row fixation in arthroscopic cuff repair. Herodicus Society Annual Meeting. Sun Valley Idaho, June 2011.

MacDonald PB. Arthroscopic rotator cuff repair with and without acromioplasty in the treatment of full-thickness rotator cuff tears: A multi-centre randomized controlled trial. International Society of Arthroscopy, Knee Surgery and Orthopedic Sports Medicine Congress. Rio de Janeiro Brazil, May 2011.

MacDonald PB. Arthroscopic rotator cuff repair with or without arthroscopic acromioplasty: A prospective randomized clinical trial. Twentieth Century Orthopedic Association Annual Meeting. Teton Springs Idaho, August 2011.

MacDonald PB. Bone defects associated with shoulder instability. Pan Am Fellows' Orthopedic Sports Medicine Meeting. Phoenix Arizona, March 2011.

MacDonald PB. Bone defects in shoulder instability. Fowler Fellows' Orthopedic Society Meeting. Santa Barbara California, March 2011.

MacDonald PB. Co-moderator for paper session sports/upper extremity. 66th Annual Meeting of the Canadian Orthopedic Association. St. John's Newfoundland, July 2011.

MacDonald PB. Common surgical injuries in the athlete. University of Manitoba Faculty of Medicine Continuing Professional Development. Winnipeg Manitoba, February 2011.

MacDonald PB. Develop self-audit forms for knee arthroscopy to measure motor skills (poster). Council of Orthopedic Residency Directors (CORD) Meeting at the American Orthopedic Association Annual Meeting. Boston Massachusetts, June 2011.

MacDonald PB. Ipsilateral vs contralateral hamstring graft in ACL reconstruction. Fowler Fellows' Orthopedic Society Meeting. Santa Barbara California, March 2011.

MacDonald PB. Management of bone defects associated with instability of the shoulder. Innovative Arthroscopy Meetin. Clearwater Beach Florida, December 2010.

MacDonald PB. Moderator for knee and hip presentations. Innovative Arthroscopy Meeting. Clearwater Beach Florida, December 2010.

MacDonald PB. Prospective randomized trial of ipsilateral vs contralateral hamstring graft in ACL reconstruction. Arthroscopy Association of North America Meeting. San Francisco California, April 2011.

MacDonald PB. Prospective randomized trial of ipsilateral vs contralateral hamstring graft in ACL reconstruction (e-poster). International Society of Arthroscopy, Knee Surgery and Orthopedic Sports Medicine Congress. Rio de Janeiro Brazil, May 2011.

MacDonald PB. Revision ACL surgery: Tips and tricks. Pan Am Fellows' Orthopedic Sports Medicine Meeting. Phoenix Arizona, March 2011.

MacDonald PB. Shoulder arthroplasty live surgery video presentation. 50th Annual Manitoba Orthopedic Symposium. Winnipeg Manitoba, October 2010.

MacDonald PB. Surgical management of patellar instability, ICL 12:Sports: The treatment of patello-femoral instability. 66th Annual Meeting of the Canadian Orthopedic Association. St. John's Newfoundland, July 2011.

MacDonald PB. What do I do with a 16 year-old high school rugby player with an acute ACL? 66th Annual Meeting of the Canadian Orthopedic Association. St. John's Newfoundland, July 2011.

MacDonald PB, Leiter J, Mohamed E, McRae S. Determining ACL hamstring graft diameter from anthropometric and MRI measurements. Arthroscopy Association of North America Meeting, San Francisco California, April 2011.

Mandzuk I, McMillan D, Bohm E. A longitudinal study of quality of life and functional status in total hip and total knee replacement patients. 16th Canadian Gerontological Nurses Association Conference. Mississauga Ontario, June 2011.

Masri B, Garbuz D, Duncan C, Greidanus N, Bohm E, Valle C, Gross A. Prevention of dislocation in revision THA: Randomized clinical trial of 36/40mm versus 32 mm head. 66th Canadian Orthopedic Association Annual Meeting. St. John's Newfoundland, July 2011.

O'Shea K, Old J, Boileau P, Vargas P, Pinedo M, Zumstein M. Arthroscopic labral repair and posterior capsulo-tenodesis for antero-inferior instability of the shoulder associated with large Hill-Sachs defects. Annual Meeting of the American Academy of Orthopedic Surgeons. San Diego California, February 2011. (CPA)

Peeler J, Leiter J, MacDonald PB, Vancura D. Characterizing the structural anatomy of the supraspinatus muscle of the rotator cuff complex (poster/podium). 28th Annual Meeting American Association of Clinical Anatomists. Columbus Ohio, July 2011.

Peeler J, MacDonald PB, Leiter J. Accuracy of meniscal injury diagnosis in an anterior cruciate ligament injured knee (Poster). World Federation of Athletic Therapy and Training Meeting (WFATT). Banff Alberta, May 2011.

Petrak M, Bohm E, Turgeon TR, Van der Put R, Burger A. Precision phantom study of a CR and DR. imaging system for radiostereometric analysis (RSA) using a novel spine pedicle screw. International Society for Technology in Arthroplasty, Intercontinental Dubai Festival City Hotel. Dubai United Arab Emirates, October 2010.

Petrak M, Slobodan I, Turgeon TR, Bohm E. Patient satisfaction when completing self-administered questionnaires on a touch screen data entry system in an orthopedic clinic. International Society for Technology in Arthroplasty. Interncontinental Dubai Festival City Hotel. Dubai United Arab Emirates, October 2010.

Takacs J, Leiter J, Peeler J. A novel technology to decrease knee pain and joint load in early-onset knee osteoarthritis. 2011 World Congress on Osteoarthritis. San Diego California, September 2011.

Takacs J, Leiter J, Peeler J. A novel technology to decrease knee pain and joint load in early-onset knee osteoarthritis. World Federation of Athletic Therapy and Training Meeting (WFATT). Banff Alberta, May 2011.

Takacs J, Leiter J, Peeler J. The relationship between knee pain and body weight in early onset knee osteoarthritis. Canadian Physiotherapy Association's Annual Congress. Whistler British Columbia, 2011.

Thompson S. Congenital anomalies of the upper extremity. McGill Grand Rounds. Montreal Quebec, November 2011.

Tufescu T. Instructional course lecture on the management of open fractures. 66th Annual Meeting of the Canadian Orthopedic Association. St. John's Newfoundland, July 2011.

Turgeon TR, Bohm E, Hedden D, Burnell C. Functional outcome of revision total knee replacement: Is it as poor as we think it is? American Academy of Orthopedic Surgeons Conference. San Diego California, February 2011.

Turgeon TR, Bohm E, Loucks L. Comparison of registry satisfaction data for primary and revision knee arthroplasty. 66th Canadian Orthopedic Association Annual Meeting. St. John's Newfoundland, July 2011.

Turgeon TR, Hedden, D, Bohm E., Burnell C. Success of revision knee arthroplasty for stiffness. American Academy of Orthopedic Surgeons Conference. San Diego California, February 2011.

Turgeon TR, Petrak M, Slobodian I, Bohm E. Touch screen technology improves data collection and efficiency in a high volume orthopedic clinic. 66th Canadian Orthopedic Association Annual Meeting, St. John's Newfoundland, July 2011.

Invited Addresses

Bohm E. Joint replacement registries: What have we learned, Canadian Multiple Sclerosis Monitoring System. Ottawa Ontario, September 2011.

Bohm E. Joint replacement registries: What have we learned, DePuy Canadian National Training Meeting. Winnipeg Manitoba, January 2011.

Bohm E. Improving access and quality for hip and knee replacement surgery in the WRHA, Promoting innovation in the healthcare system – optimizing use of knowledge. The George & Fay Yee Centre for Healthcare Innovation Conference, Hilton Hotel. Winnipeg Manitoba, April 2011.

Bohm E. Using outcome data to improve care - Results from a regional joint replacement registry, International Consortium of Orthopedic Registries Conference, Sponsored by the FDA. Silver Spring Maryland, May 2011.

MacDonald PB. Innovative Arthroscopy Meeting. Clearwater Beach Florida, December 2010.

Old J. Do all rotator cuff tears need repair? Indications for and alternatives to rotator cuff repair. Pan Am Clinic physiotherapy Rounds. Winnipeg Manitoba, March 2011.

Old J. Do all rotator cuff tears need repair? Indications for and alternatives to rotator cuff repair. Community Therapy Services Annual Meeting. Winnipeg Manitoba, March 2011. Community Therapy Services Annual Meeting. Winnipeg, March, 2011

Session Chairs/Discussion Groups

Dubberley J. 50th Annual Manitoba Orthopedic Symposium. Winnipeg Manitoba , October 2010.

Dubberley J, Co-moderator for upper extremity paper session. Canadian Orthopedic Association Meeting. St. John's Newfoundland, July 2011.

MacDonald PB. The Shoulder Arthroscopy Course. Winnipeg Manitoba, April 2011.

Trauma Fracture Symposium. Winnipeg Manitoba. January 2011.

Workshops Organized

Graham C. Organizer and Faculty. Manitoba Orthopedic Fracture Surgeon Symposium. January 2011.

Grants

Bohm E (PI). Return to work following total knee replacement in working individuals. Research and Workplace Innovation Program, Workers Compensation Board of Manitoba (\$197,250.00). May 2011- May 2013.

Brandt J (PI), Bohm E (CPI). The effects of hyaluronic acid on PE wear in total joint replacements. Alexander Gibson Grant – University of Manitoba (\$24,000.00). March 2011- March 2012.

Burnell C. Comparison of intraoperative fracture risk using traditional and compaction broaching methods. Alexander Gibson Research Fund (\$8,320.00). 2010

Burnell C. OMEGA Medical Grant Association, University of Manitoba Adult Hip and Knee Reconstruction Fellowship. Fellowship Director: Dr. Colin Burnell, Residency Program Director: Dr. Michael Johnson. 2010

Frank C (PI), Bohm E (CIP). Creating bone and joint health from the bedside to the bench and back again. Alberta Heritage Foundation for Medical Research (AHFMR) (\$500,000.00). April 2008-April 2013.

Hammond A. Arthroscopic ankle arthrodesis a prospective study to assess potential for outpatient surgery. The Alexander Gibson Orthopedic Fund.

Jellicoe PA. Outcome of distal tibial physeal fractures. Gibson Fund (\$2,000.00) 2011.

Jellicoe PA, Black B. Pattern of ATV injuries in Manitoba following change in legislation. Gibson Fund (\$8,000.00) 2011.

Johnson M. Spine lab research equipment. Private donation research grant (\$12,400.0). April 2011.

Johnson M, Goytan MJ, Berrington N. Rick Hansen spinal cord injury database. Rick Hanson Foundation (\$60,000.00). March 2011.

Johnson M, Goytan MJ, Kriellaars D. Fatigue failure during repetitive trunk motion. Alexander Gibson Fund Grant (\$17,500.00). March 2011.

Johnson M, Kriellaars D. Physical activity, shoulder injuries and wheelchair calibration studies. Canadian Paraplegic Association Grant (\$81,565.00). November 2010.

Johnson M, Passmore S, Kriellaars D. The impact of lumbar spinal stenosis on lower extremity motor control: Identification of a functional challenge point as a baseline performance Dr.iven outcome measure. Alexander Gibson Fund Grant (\$17,500.00). March 2011.

MacDonald PB. Arthroscopic bankart repair with and without arthroscopic infraspinatus remplissage in anterior shoulder instability with a Hill-Sachs Defect: A randomized controlled trial. Alexander Gibson Chair Fund (\$25,000.00). March 2011 – March 2012

MacDonald PB. Develop self-audit forms for knee arthroscopy to measure motor skills. OMeGA Medical Grants Association for Residency Core Competency Innovation Grant (\$13,800.00). 2010-2011 Academic Year

MacDonald PB. Exploring the biologics of rotator cuff injury and advancing repair. Alexander Gibson Chair Fund (\$10,000.00). March 2011 – March 2012

MacDonald PB. Exploring the biologics of rotator cuff injury and advancing repair. The Canadian Orthopedic Foundation 2010 Canadian Orthopedic Research Legacy (CORL) Grant (\$20,000.00). February 2011

MacDonald PB. Exploring the biologics of rotator cuff injury and advancing repair. University of Manitoba, Faculty of Medicine, Department of Surgery (\$20,000.00). January 2011

MacDonald PB. The effects of body weight supported activity on joint pain and physical function in individuals suffering from chronic symptomatic osteoarthritis (OA). Manitoba HyDr.o Research Development Program (\$43,945.00). December 2010 – December 2011

MacDonald PB, Sheps D. A randomized study of non-operative management versus expedited surgery among WCB patients with small rotator cuff tears: Effect upon time to claim closure in two prairie centres. Workers Compensation Board of Manitoba (\$126,500.00). November 2010.

Noseworthy T (PI), Bohm E (CPI). Total joint replacement strategic management for timely treatment. CIHI Emerging Team Grant-Canadian Institutes of Health Research, (CIHR) (\$100,000.00). November 2008-November 2013.

Thompson S, Jellicoe PA. Pattern of referrals from remote medical facilities. Gibson Fund (\$10,000.00) 2011.

Tufescu T, Jellicoe PA, Thompson S. Incidence of mal-alignment after intramedullary nailing of paediatric shaft fractures: A meta analysis. Gibson Fund (\$5,000.00) 2011.

Pediatric General Surgery



Regional Lead/Section Head

Dr. B.J. Hancock

Associate Professor

Faculty

Dr. Nathan Wiseman

Associate Professor

Dr. Richard Keijzer

Associate Professor, Clinician Scientist

Dr. Suyin Lum Min

Assistant Professor

Dr. Kris Milbrandt

Assistant Professor

OVERVIEW

Essential Services

Pediatric General Surgery provides surgical services for newborns, infants, children and adolescents, 0-16 years of age, in the Province of Manitoba, Nunavut, and Northwestern Ontario. Specialty coverage includes congenital anomalies, head and neck, thoracic, gastrointestinal, hepatobiliary, surgical oncology, and trauma. Surgical services are provided at Children's Hospital of Winnipeg, the only tertiary care pediatric facility in the province. Neonatal surgical services are also provided at St. Boniface General Hospital.

Synergistic Services

Surgical staff on Pediatric General Surgery share Tracheostomy and Airway Endoscopy call coverage with Pediatric Otolaryngology. They also provide call coverage 1 night in 2 for Pediatric Urology and occasional call coverage for Pediatric Gynecology. Pediatric General Surgery staff also perform gastrointestinal endoscopy, and have provided considerable support to the Section of Pediatric Gastroenterology during their recruitment endeavors.

Unique Contributions

Pediatric General Surgery staff participate in rescue ECMO for infants and children requiring emergent circulatory support and support/backup for Pediatric Interventional Cardiology. They also provide Surgical Services for the MPAD (Manitoba Pediatric and Adolescent Dialysis) Program (hemodialysis and peritoneal dialysis). Dr. Hancock is one of four Intensivists who cover the Pediatric Intensive Care Unit, the Pediatric Special Care Unit and the Procedural Sedation Program at Children's Hospital. She also provides physician support for the Manitoba Home Nutrition Program. Dr. Hancock administers the Advanced Trauma Life Support Program (ATLS®) in Manitoba.

FACULTY

New Faculty- Succession Planning

Dr. Melanie Morris completed her Fellowship in Pediatric Surgery at Ste. Justine Hospital in Montreal June 30, 2011. She is currently completing a second Fellowship in Advanced Minimally Invasive Pediatric Urologic Surgery at Ste. Justine Hospital. She has been recruited to the Section of Pediatric Surgery commencing September 2012. She will also work with the Section of Pediatric Urology and assist them in developing MIS expertise.

Pediatric Surgery requires broad experience with many surgical problems, both congenital and acquired, in newborns, infants, children, and adolescents. There are a large number of cases that fall within the low volume/high risk category. In order to guarantee that tertiary level pediatric surgical expertise is maintained within the Section, with limited exposure to lower volume index cases, it is critical that careful succession planning occurs. Equitable distribution of cases and team work with close collaboration among attending staff are essential for maintaining a high level of surgical expertise in the centre. Although surgeons are normally considered established after three years of service, limited case numbers of index cases mandate consideration that five years would be more appropriate for surgical expertise in cases falling within the low volume/high risk category in Pediatric Surgery. As four of the new recruits will be within the first five years of practice, succession planning is very important to the Section. Dr. Wiseman has accepted an appointment as Senior Mentor to the Section of Pediatric Surgery with the mandate that index cases be distributed to more junior faculty to further develop their expertise with low volume/high risk cases, while maintaining support from a more senior mentor.

Other Faculty Endeavors

Dr. Milbrandt began a Master of Education, University of Dundee in October 2011.

Dr. Milbrandt was appointed Director of Surgical Undergraduate Medical Education to succeed Dr. Larry Tan in 2012.

Dr. Keijzer is a Clinician Scientist doing 75% Research in MICH and 25% clinical /education /administration. He is a member of the Biology of Breathing Group, Manitoba Institute of Child Health and is actively involved in planning their Annual Research Day as well as the Department of Surgery Annual Research Day.

Dr. Lum Min continues to develop her expertise in Surgical Standards, participating in several related committees in this area.

PROMOTIONS/AWARDS

Dr. Hancock was appointed to the Board of Regents, American College of Surgeons in October 2011.

RESEARCH

Research Projects and Creative Works

Sheyma Al-Romaihi, Fellow Pediatric Surgery, has started a systematic review study on the available literature in pediatric general surgery. This is supervised by Dr. Richard Keijzer and Dr. Sadeesh Srinathan from Thoracic Surgery. It is anticipated that her research will be ready

for presentation at the Department of Surgery Annual Research Day, January 2012, and for the Annual Meeting of the Canadian Association of Pediatric Surgeons in September 2012. The Section of Pediatric Surgery participates in The Canadian Pediatric Surgical Network (CAPSNET). This national network collects data on certain neonatal anomalies. Collated data can be accessed for research publications and presentations. Dr. Suyin Lum Min is leading our Section's Pediatric Surgical Data Base which will be used for clinical research on patient outcomes and quality management.

Respectfully submitted,
BJ Hancock

PUBLICATIONS

O.O. Adibe, S.R. Amin, E.N. Hansen, A.J. Chong, L. Perger, R. Keijzer, O.J. Muensterer, K.E. Georgeson, C.M. Harmon (2011) An evidence-based clinical protocol for diagnosis of acute appendicitis decreased the use of computed tomography in children. *J. Ped. Surg.* 46(1):192-6.

C. Senger, R. Keijzer, G. Smith, O.J. Muensterer (2011) Pediatric fire arm injuries: a 10-year single-center experience of 194 patients. Accepted for publication in *J. Ped. Surg.* 46(5):927-32

O.J. Muensterer, R. Keijzer (2011) Single-incision pediatric endosurgery (SIPES) - assisted ileocecectomy for resection of a NEC stricture. Accepted for publication in *Ped. Surg. Int.*

O. J. Muensterer, R. Keijzer (2011) A simple vacuum dressing reduces the wound infection rate of single-incision pediatric endosurgical appendectomy. *J.S.L.S.* 15(2):147-50

R. van Loenhout, I. Tseu, E. Fox, Z. Huang, D. Tibboel, M. Post, R. Keijzer (2011) The pulmonary mesenchymal cell layer is defective in congenital diaphragmatic hernia. Accepted for publication in *Am. J. Path.*

R. Kholdebarin, B.M. Iwasow, R. Keijzer (2011) Pulmonary development considerations in the surgical management of congenital diaphragmatic hernia. Accepted for publication in *Early Hum. Dev.*

MC Struijs, M.J. Poley, C.J.H.M. Meeussen, G.C. Madern, D. Tibboel, R. Keijzer (2011) Late versus early ostomy closure for necrotizing enterocolitis: analysis of adhesion formation, resource consumption and costs. Accepted for publication in *J. Ped. Surg.*

R. Keijzer, E.D. Wilschut, R.J. Houmes, C.P. van de Ven, L. van den Hout, I. Sluijter, P. Rycus, N.M.A. Bax, D. Tibboel (2011) Congenital diaphragmatic hernia: to repair on or off ECMO? Accepted for publication in *J. Ped. Surg.*

R. Keijzer, O.J. Muensterer, K.E. Georgeson. Minimal invasive neonatal surgery. Book Chapter in *Newborn Surgery* Editor: Prem Puri. Hodder Education, November 2011.

Chung S, Mikrogianakis A, Wales P, Dirks P, Shroff M, Singhal A, Grant V, Hancock BJ, et al. Trauma Association of Canada Pediatric Subcommittee National Pediatric Cervical Spine Evaluation Pathway: Consensus Guidelines. *J Trauma* 70(4) 873-884, 2011.

Abdoh, A, Hancock, BJ, Saadia, R, Nason, R. A web-based trauma registry system: assessing the reliability of severity scoring. *Can J Surg*, 54(3): S18, 2011. (Abstract)

Abstracts presented

R. van Loenhout, M. Post, D. Tibboel, R. Keijzer. Novel insight in Pathogenesis of Lung Hypoplasia in Congenital Diaphragmatic Hernia: Fibroblast Cell Layer is Defective. Pediatric Academic Societies, Denver, USA, May 2011.

M-C. Struijs, M.J. Poley, C.J.H.M. Meeussen, G.C. Madern, D. Tibboel, R. Keijzer. Timing of enterostomy closure for necrotizing enterocolitis: effects on adhesion formation, resource consumption, and costs. European Congress of Paediatric Surgery, Barcelona, Spain, June 2011.

R. Keijzer, J. Wang, A. de Munck, D. Tibboel, M. Post. MicroRNA microarray screen of human hypoplastic lungs from babies with congenital diaphragmatic hernia. Canadian Association of Paediatric Surgeons, Ottawa, Canada, September 2011.

C. Fraser, R. Kholdebarin, B.M. Iwasiew, R. Keijzer. Exploring the role of miR-200b in lung epithelial cell in vitro. MICH Research Day, Winnipeg, October 2011.
J. Chen, B.M. Iwasiew, M.M.Q. Xing, R. Keijzer. Exploring the use of biodegradable hyperbranched poly(amidoamine)s based nanoparticles to deliver microRNAs. MICH Research Day, Winnipeg, October 2011.

R. Kholdebarin, M. Higgins, B.M. Iwasiew, R. Keijzer. Role of NPAS3 in development of pulmonary hypoplasia in a rat model of congenital diaphragmatic hernia. MICH Research Day, Winnipeg, October 2011.

Abdoh, A, Hancock, BJ, Saadia, R, Nason, R. A web-based trauma registry system: assessing the reliability of severity scoring. Trauma Association of Canada Annual Scientific Meeting, Banff Park Lodge, Banff AB, April 7-8, 2011 (poster).

Horne D, Soni R, Hancock BJ, Kesselman M, Drews, T, Cronin C, Divekar A, Lee J. Paediatric rescue extra-corporeal membrane oxygenation, without local paediatric cardiac surgery program: single institutional review. SEECMO Conference June 2011 (poster)

PROMOTIONS/AWARDS

Dr. Hancock was appointed to the Board of Regents, American College of Surgeons, October 2011

PRESENTATIONS

Milbrandt, K. Cholelithiasis in Children- Retrospective Cohort Review. Annual Meeting, Canadian Association of Pediatric Surgeons, Ottawa, September, 2011

Hancock, BJ. Surgery Chief Resident Workshop Asper Institute, SBGH, Winnipeg, MB, March 9, 2011

Hancock BJ. New Resident Orientation: Introduction and Orientation, CanMEDS Introduction, Department of Surgery, June 27, 2011

Invited Presentations

Milbrandt, K. Chest Wall Deformities in Children. Pediatric Ground Rounds, October 2011

Milbrandt, K. Chest Wall Deformities in Children. Thoracic Ground Rounds, May 2011

Keijzer, R. Hypoplastic Lung and Congenital Diaphragmatic Hernia. Neonatal Update 2011, London, UK, December 1, 2011

Hancock BJ. Pediatric Emergency Surgeries: Recognizing Red Flags During an Office Visit. Pediatrics- Bannatyne Campus Program, Faculty of Medicine, University of Manitoba, September 30, 2011

GRANTS AND CONTRACTS

Dr. Keijzer

2010: Manitoba Institute of Child Health, small grant (\$4,952)

2010: Manitoba Medical Service Foundation (\$20,000)

2011: Clinical earnings of the academic surgeons (GFT Group) (\$20,000)

2011: Manitoba Institute of Child Health, operating grant (\$40,000)

2011 and 2012: Molly Towel Perinatal Research Foundation (\$19,000)

2011: Manitoba Institute of Child Health, establishment grant (\$50,000)
2011: Declined the Rudy Falk clinician scientist award in lieu of another award (3 years of \$70,000 annual salary support)
2011: CFI Leader Opportunity Fund – Funding for research infrastructure (\$593,828)

OTHER SIGNIFICANT CONTRIBUTIONS

R. Keijzer:

Member of the MICH Research day organizing committee
Co-organizer Bowman symposium on The Developing Lung
Member of the Department of Surgery Research Committee
Representative for the Department of Surgery on the Associate Dean's Research Committee
Associate Editor International Journal of Surgery and International Journal of Surgery Case Reports
Editorial Board Pediatric Surgery International

Plastic Surgery



Regional Lead/Section Head

Dr. Edward Buchel Associate Professor

Faculty

Dr. Jennifer Giuffre Assistant Professor
Dr. Tom Hayakawa Assistant Professor
Dr. Avinash Islur Assistant Professor
Dr. Sarvesh Logsetty Associate Professor
Dr. Stephanie Olivier Assistant Professor
Dr. Leif Sigurdson Associate Professor

Pediatric Plastic Surgery

Dr. Lonny Ross Assistant Professor

Part-Time/Nil Appointment Faculty

Dr. Kenneth Dolynchuk Associate Professor
Dr. Jyoti McGregor Lecturer
Dr. Kenneth Murray Professor

2011 was another busy year for the Department of Plastic Surgery. Throughout the year we had several visitors through the section, as well as three Microsurgical Fellows. We had a great group of residents return and some new ones join the team. Many of the doctors had the opportunity to travel to different facilities throughout the world as invited speakers, visiting professors, and examiners.

Our Microsurgical techniques in Plastic Surgery continue to be of great interest to many other teams around the world and that has been evident by the number of Observers that have come over the past few years. This year has been no exception with visitors including Dr. Rebecca Nelson from Burnaby Hospital in British Columbia, Dr. Geethan Chandran and his OR Nursing staff, Martine Zimmer and Janet Maier, from Regina, Saskatchewan, Dr. Toni Zhong along with his two Fellows, Dr. Michelle Locke and Dr. Natalie Ngan, from the University of Toronto, Dr. Randall Craft from Harvard, and Dr. Miles Banwell from Chelmsford in the United Kingdom.

In addition, we had Visiting Professors, Dr. Michael Neumeister from St John's Hospital in Springfield Illinois, and Dr. Mirek Stranc, retired Plastic Surgeon from right here in Winnipeg. Dr. Neumeister gave his presentation "Innovation and Perseverance in Burn Reconstruction", at

our annual Resident Research Day on May 4, 2011. Dr. Stranc presented “50 years of Change in Plastic Surgery”, at Grand rounds on September 21, 2011.

As our Microsurgical Fellowship program continues to grow we were able to accommodate three Fellows in 2011. Dr. Geethan Chandran from Dalhousie University and Dr. Effie Katerinaki from the University of Sheffield in the United Kingdom, joined us from January through June and in July we had the pleasure of having Dr. Agnieszka Hassa from London, Ontario.

Dr. Christian Petropolis received the George W. Leroux Memorial Award in 2011. Dr. Margie Wheelock and Dr. Ian MacArthur both passed the 2011 Principles of Surgery exam. Dr. Kim Bjorklund and Dr. Quinton Chivers both passed the RCPSC Fellowship exams and have gone on to complete their Fellowships. As a result of the 2011 CARMS interviews, Dr. Tianyi Liu and Dr. Arash Izadpanah have joined our team.

Our Surgeons had a busy year with speaking engagements, organizing meetings, serving as examiners, as well as having many other responsibilities. Dr. Leif Sigurdson continued on with his Secretary/Treasurer position on the Educational Foundation for the Canadian Society of Plastic Surgery. He is also a member of the RCPSC Specialty Committee in Plastic Surgery. Dr. Tom Hayakawa participated as an examiner for the Royal College specialty exams again this year, and also sits as President, as well as helps to organize the GAM committee meetings at the Canadian Society of Plastic Surgery meeting.

Dr. Ken Murray attended the annual Virgin Islands Workshop in Plastic Surgery and presented; 1)-Cubital Tunnel- Revisited, 2)-Free Flaps in Hand Trauma Reconstruction; 3)- Arthroscopic Shaver resection of Gynecomastia, and Ascension CMC Pyrohemisphere Implant Arthroplasty: An Alternative to LRTI for thumb CMC Joint Osteoarthritis. These last two were presented jointly with Dr. Avi Islur.

Dr. Murray was also a guest speaker at the University of Alberta Division of Plastic Surgery 6th Annual Resident Research Day in Edmonton on April 8, 2011. He presented, “Things I Wasn’t Taught and Never Thought I’d Do”.

Dr. Jennifer Giuffre attended the American Society of Orthopedic Surgery Annual Meeting in San Diego, California in February 2011 where she did a presentation entitled “Partial Tibial Nerve Transfer to the Tibialis Anterior Motor Branch for the Treatment of Peroneal Nerve Injury”. This presentation was also made at the American Society of Peripheral Nerve Annual Meeting in Cancun, Mexico in January of 2011.

Dr. Sarvesh Logsetty was invited to speak at the American Burn Association Annual Meeting in March 2011 where he presented the poster, “Necrotizing Fasciitis: Our Six Year Regional Experience”. At the Canadian Special Interest Group Annual Meeting in Chicago he made two presentations, “Burns and Child Abuse: Are Factors Related to Burn Injury Predictors of Child and Family Services Intervention?”, and “Successful use of Heated Closed Circuit Intravascular Fluid Circulation Catheter to Maintain Patient Core Body Temperature During Extensive Burn Surgery”. At the International Plastic Reconstructive and Aesthetic Surgery Conference in Vancouver, Dr. Logsetty presented the Development and Implementation of E-Learning Software Designed for Plastic Surgery Residency Programs.

Dr. Edward Buchel continued as Section Head, and also continued as Membership Chair of the Canadian Society of Plastic Surgery and the Editorial Board of the Microsurgery Journal and reviewer with the Canadian Journal of Surgery. He served as external reviewer for the RCPSC in Toronto in March 2011. Dr. Buchel was invited as a guest speaker at MD Anderson in February 2011, as well as invited to speak at the 11th Annual Breast Symposium in Toronto, Ontario, in April, and invited by Dr. Luca Devalle to Milan, Italy in March to do a presentation on

flap reconstruction, in the O.R, alongside Dr. Devalle, and was a Visiting Professor at McMaster's Annual Resident Research Day, September 14, 2011.

In 2011 Plastic Surgery, in conjunction with Health Sciences Centre executive, and the Emergency Department, continued developing the urgent care clinic for decanting plastic surgery patients from the ER. As a result, over the course of 2011 approximately 2000 patients are now being treated through this clinic.

Respectfully submitted,
Ed Buchel

Journal Articles

Aronson D, Verbalis J, Mueller M, Krum H, on behalf of the investigators (including Logsetty S). Short and long-term treatment of dilutional hyponatraemia with satavaptan, a selective arginine vasopressin V2-receptor antagonist: The DILIPO study. *Eur J Heart Fail*. March 2011;13(3):327-36. Epub January 2011.

Giuffre JL, Kakar S, Capo J, Bishop A, Spinner R, Levy B and Shin A. Partial tibial nerve transfer to the tibialis anterior motor branch for the treatment of peroneal nerve injury. *Canadian Journal of Plastic Surgery*. Summer 2010;18(2).

Giuffre JL, Kakar S, Jacobson N, Rizzo M, Bishop A, Shin A. Outcomes of septic arthritis of small joints of the hand. *Journal of Hand Surgery*. August 2011;36(8):1273-81.

Giuffre JL, Kovachevich R, Bishop A, Shin A. Recurrent calcifying aponeurotic fibroma of the thumb treated by amputation and great toe transfer. *J Hand Surg Am*. January 2011;36(1):110-15.

Hammeed S, Schuurman N, Razek T, Boone D, Van Heest R, Taula T, Lakha N, Evans D, Brown D, Kirkpatrick A, Stefox H, Dyer D, Van Wijngaarden-Stephens M, Logsetty S, Nathens A, Charyk-Stewart T, Rizoli S, Tremblay L, Brenneman F, Ahmed N, Galbraith E, Parry N, Girotti M, Pagliarello G, Tze N, Khwafa K, Yanchar N, Tallon J, Trenhold J, Tegart C, Amram O, Berube M, Hameed U, Simons R, Research Committee of the Trauma Association of Canada. Access to trauma systems in Canada. *J. Trauma*. December 2010;69(6):1350-61. (discussion 1361)

Kakar S, Giuffre JL, Shin A. Revascularization procedures for Kienbock disease. *Tech Hand Up Extrem Surg*. March 2011;15(1):55-65.

Kakar S, Giuffre JL, Skeete K, Elhassan B. Dupuytren's disease. *Orthopedics and Trauma*. 2010;24(3):197-206.

Mitchell R, Fund D, Spiwak R, Logsetty S. Phenylephrine tumescence in split thickness skin graft donor sites in surgery for burn injury – A concentration finding study. *The Journal of Burn Care & Research*. January/February 2011;32(1):129-34.

Richdeep G, Sumeet G, Harshdeep M, Logsetty S. Tuberculosis-associated gastric perforation: A case report. *Case Report Med*. 2011;2011:392769. Epub 2011 May 5.

Conference Presentations/Abstracts Published

Brooks D, Saffa B, Islur A. Treatment of chronic sten III PIP joint contractures with arterialized venous flaps: A novel approach International Confederation of Plastic Reconstructive and Aesthetic Surgery Congress. Vancouver British Columbia, June 2011.

Brooks T, Hayakawa TEJ, Sigurdson L, Olivier S, Buchel E. Outcomes and complications of breast reconstruction using SIEA free flaps, one institutions experience. American Society for Reconstructive Microsurgery. Cancun Mexico, 2011.

Bjorklund K, Islur A. The use of interpositional A-V-A venous flow-through flaps for reconstruction of volar soft tissue defects in severe Dupuytren's Contracture. International Confederation of Plastic, Reconstructive and Aesthetic Surgery Congress. Vancouver British Columbia, June 2011.

Bjorklund K, Islur A. The use of interpositional A-V-A venous flow-through flaps for reconstruction of volar soft tissue defects in severe Dupuytren's Contracture. Younger Fellows Forum. 2011 Plastic Surgery Congress. Gold Coast Australia, July 2011.

Bzura T, Tunovic E, Sigurdson E, Spiwak R, Logsetty S. Burns and child abuse: Are factors related to burn injury predictors of Child and Family Services intervention. Canadian Special Interest Group (CSIG). Chicago Illinois, 2011.

Chivers Q, Murray KA. Arthroscopic shaver resection of gynecomastia. Virgin Islands Workshop in Plastic Surgery. St. John US Virgin Islands, January 2011.

Chivers Q, Murray KA. Cosmetic surgery in Canadian plastic surgery residences: Are we training competent surgeons? Canadian Society of Aesthetic Plastic Surgeons (CSAPS), Annual Meeting. September 2011, Calgary Alberta.

Chivers Q, Sigurdson L. Prevalence of MRSA within surgical staff. Can. J. Plast. Surg. 19(A):82A.

Choi M, Althubaiti G, Logsetty S, Hayakawa TEJ, Sigurdson L. A new technique for total oral sphincter reconstruction. American society for Reconstructive Microsurgery. Cancun Mexico, January 2011.

Giuffre JL, Capo J, Bishop A, Spinner R, Levy B, Shin A. Partial tibial nerve transfer to the tibialis anterior motor branch for the treatment of peroneal nerve injury. American Association of Orthopedic Surgery. San Diego California, February 2011.

Giuffre JL, Capo J, Bishop A, Spinner R, Levy B, Shin A. Partial tibial nerve transfer to the tibialis anterior motor branch for the treatment of peroneal nerve injury. American Society of Peripheral Nerve. Cancun Mexico, January 2011.

Giuffre JL, Jacobson N, Rizzo M, Bishop A, Shin A. Outcomes of septic arthritis of small joints of the Hand International Federation of Societies of Surgery of the Hand (IFSSH). Seoul Korea, November 2010.

Giuffre JL, Jacobson N, Rizzo M, Bishop A, Shin A. Outcomes of septic arthritis of small joints of the hand. American Society for Surgery of the Hand. Boston Massachusetts, September 2010.

Hayakawa TEJ, Buchel E, Sigurdson L, Friesen J, Sowa M. The sensitivity of a new tissue oxygenation imaging device in predicting flap necrosis. International Confederation for Plastic, Reconstructive and Aesthetic Surgery. Vancouver British Columbia, May 2011.

Hnatiuk G, Thakrar S, Medved M, Logsetty S, Hiebert-Murphy D, Brockmeier J, Sareen J, Hunter T. Through the lens of sex: Narratives of adjusting to a burn injury (poster). Canadian Psychological Association Annual Convention. June 2011.

Hunter T, Medved M, Logsetty S, Hiebert-Murphy D, Brockmeier J, Sareen J, Thakrar S. Self-silencing following burn injury: Narrative from women. Canadian Psychological Association Annual Convention. June 2011.

Islur A, Murray KA. Ascension CMC pyrohemisphere implant arthroplasty: An alternative to LRTI for thumb CMC joint osteoarthritis. Virgin Islands Workshop in Plastic Surgery. St. John US Virgin Islands, January 2011.

Islur A, Murray KA. Free flaps in hand trauma reconstruction. Virgin Islands Workshop in Plastic Surgery. St. John US Virgin Islands, January 2011.

Kovachevitch R, Giuffre JL, Bishop A, Shin A. Immediate great toe transfer for thumb reconstruction following tumor resection, IFSSH. Seoul Korea, November 2010.

Liu S, Logsetty S. Durability of N-halamine biocide to ethylene oxide sterilization. 43rd Annual American Burn Association. Chicago Illinois, March 2011.

Logsetty S, Sagness K. Successful use of heated closed circuit intravascular fluid circulation catheter to maintain patient core body temperature during extensive burn surgery. Canadian Special Interest Group (CSIG). Chicago Illinois, 2011.

MacArthur I, al-Thubaiti G, Choi M, Hayakawa TEJ, Sigurdson L, Buchel E. A comparison of patient-reported satisfaction rates following breast reconstruction using different autologous free tissue transfer techniques. International Confederation for Plastic, Reconstructive and Aesthetic Surgery. Vancouver British Columbia, May 2011.

McDonald D, Hayakawa TEJ, Buchel E, Sigurdson L, Sowa M, Friesen J. Correlating SPY imaging (ICG fluorescence angiography) with flap outcomes. American Society for Reconstructive Microsurgery. Cancun Mexico, January 2011. (awarded best paper)
Murray KA. Cubital tunnel revisited. Virgin Islands Workshop in Plastic Surgery. St. John, US Virgin Islands, January 2011.

Olivier S, Sigurdson L, Hayakawa TEJ, Buchel E. Fascial free flap reconstruction of soft tissue intra-oral defects. Can. J. Plast. Surg. 19(A):10A.

Petropolis C, Logsetty S. Development and implementation of E-learning software designed for plastic surgery residency programs. International Plastic Reconstructive & Aesthetic Surgery Conference. Vancouver British Columbia, 2011.

Shumila L, Campbell D, Logsetty S, Sareen J, Wallace M, Mota N, Joyal K, Reiss J. Burn severity predicts emotional processing. Canadian Psychological Association Annual Convention. Chicago Illinois, 2011.

Shumila L, Campbell D, Logsetty S, Sareen J, Wallace M, Mota N, Joyal K, Reiss J. Burn severity predicts emotional processing. Canadian Special Interest Group. Chicago Illinois, 2011.

Thakrar S, Medved M, Logsetty S, Hiebert-Murphy D, Brockmeier J, Sareen J, Hunter T. Men's narratives after a burn injury, reasserting masculinity in the face of pain and disfigurement (poster). CIHR Innovations in Gender, Sex, and Health Research Conference. November 2010.

Thakrar S, Medved M, Logsetty S, Hiebert-Murphy D, Brockmeier J, Sareen J, Hunter T. Reasserting masculinity after burn injury, men's narratives about agency and physical disability (poster). Canadian Psychological Association Annual Convention. June 2011.

Tunovic E, Bzura T, Esmail A, Embil J, Logsetty S. Necrotizing fasciitis: Our 6 year regional experience (poster). 43rd Annual American Burn Association. Chicago Illinois, March 2011.
Invited Addresses

Buchel E. Instructional Course. Strategies for microsurgery practices. American Society for Reconstructive Microsurgery. Cancun Mexico, January 2011.

Buchel E. Invited Lecturer/Live Surgery Demonstration. Autologous perforator flap breast reconstruction, Head and neck reconstruction and perforator flaps, complex abdominal wall reconstruction, ascending helical rim free flap nasal reconstruction. Milan Italy, October 2011.

Buchel E. Visiting Professor. Autologous tissue algorithm for breast reconstruction, efficiencies in microsurgical reconstruction, rare free flaps in the head and neck. Plastic Surgery Residents' Research Day, McMaster University. Hamilton Ontario, September 2011.

Buchel E. Visiting Professor. Functional abdominal wall reconstruction – local/distant/alloplastic options, OR efficiency – microsurgical model, non-abdominal wall autologous tissue breast reconstruction, head and neck reconstruction using rare free flap options, monopolar cautery harvest technique of perforator flaps. Department of Plastic Surgery, University of Michigan. Ann Arbor Michigan, September 2011.

Buchel E, Hayakawa TEJ. Master Class. Time and motion in microsurgery – making your OR work efficiently. International Confederation for Plastic, Reconstructive Aesthetic Surgery. Vancouver British Columbia, May 2011.

Hayakawa TEJ. Master Class. Preoperative imaging in perforator flap reconstruction. American Society for Reconstructive Microsurgery. Cancun Mexico, January 2011.

Logsetty S. Acute care of burns. Boundary Trails Manitoba, October 2011.

Logsetty S. Fire prevention/burn injury and flesh eating disease. Manitoba Keewatinowi Okimakanak Inc. 30th Annual General Assembly. August 2011.

Logsetty S. Firefighters & First Responders Presentation. Winnipeg Fire & Paramedics. July 2011.

Logsetty S. Homecare Burn Presentation. Winnipeg Homecare Workers. Winnipeg Manitoba, March 2011.

Logsetty S. Prevention of hypothermia in the Operating Room. Manitoba Operating Room Nurses Association Workshop. March 2011.

Logsetty S. Respiratory Therapy Day Lecture: Inhalation injuries. Winnipeg Manitoba, May 2011.

Murray, K. Visiting Professor. Things I wasn't taught and never thought I'd do. Division of Plastic and Reconstructive Surgery 6th Annual Resident Research Day. Edmonton Alberta, April 2011.

Session Chairs/Discussion Groups

Buchel E. Chair – Resident Presentation Competition. IPRAS. Vancouver British Columbia, May 2011.

Hayakawa TEJ. Session Chair – Microvascular Surgery. International Confederation for Plastic, Reconstructive and Aesthetic Surgery. Vancouver British Columbia, May 2011.

Logsetty S. Correlative VII epidemiology. American Burn Association Annual Meeting. March 2011.

Workshops Organized

Buchel E. Faculty – TRAM/DIEP/SIEA Flaps and IMA/IMV Vessel Exposure. Techniques in flap dissection with cadaver workshop. UT Southwestern Medical Centre. Dallas Texas, July 2011.

Grants

Hayakawa TEJ. A new non-invasive oxygen saturation imaging device. Predicting flap necrosis utilizing a reverse McFarlane skin flap model. GFT Research Grant (\$20,000.00).

Islur A. Local anesthetic in improving range of motion in physical rehabilitation of isolated digital hand fractures. GFT Research Grant (\$9,900.00).

Islur A. Morphological analysis of the carpal tunnel following endoscopic and open carpal tunnel release. Health Sciences Centre Foundation Grant (\$34,300.00).

Logsetty S, Doupe M, Medved M, Asmundson G, Enns M, Leslie W, Saadia R, Stein M, Sareen J. Mental health consequence of trauma and burn injury. Health Sciences Centre Foundation (\$35,000.00). 2001/12

Logsetty S, Medved M, Sareen J. Mental illness and traumatic injury: An investigation of risk and resilience among survivors of trauma. Manitoba Medical Service Foundation Grant (\$20,000.00).

Sigurdson L. A randomized controlled trial of DIEP and SIEA flaps in breast reconstruction. Keeping Abreast Charitable Foundation (\$10,000.00).

Sigurdson L. Cost analysis and determination of waiting times for post-mastectomy breast reconstruction. Canadian Society of Plastic Surgery Outcomes Research Fund (\$8,855.00).

Sigurdson L. The impact of breast reconstruction on breast cancer survival: A population based cohort study. Canadian Breast Cancer Foundation (CBCF) (\$45,345.00).

Surgical Oncology



Regional Lead/Section Head

Dr. Debrah Wirtzfeld

Associate Professor

Faculty

Dr. Ethel MacIntosh

Assistant Professor

Dr. Richard Nason

Professor

Dr. Jason Park

Assistant Professor

Dr. K. Alok Pathak

Professor

Dr. Ross Stimpson

Assistant Professor

During this last year, Surgical Oncology has focused its efforts in several areas including: expansion as an academic department with enhanced recruitment; establishment of a Provincial Surgical Oncology Network (SON); continued implementation of Surgical Synoptic Reporting; and collaborative efforts between Surgical Oncology and Colorectal Surgery to establish approved clinical and research efforts in the area of colorectal cancer.

Recruitment

The division is seeking to recruit two academic Surgical Oncologists; one with an interest in Complex GI/Peritoneal procedures and a second with an emphasis on Breast/Melanoma/Sarcoma surgery. We have had several candidates participate in the Visiting Professor Program. Although we have not been successful in our recruitment efforts to date, we continue to emphasize this as a major part of our initiative in building an academic division of Surgical Oncology that will enhance provincial efforts.

Provincial Surgical Oncology Network (SON)

At a provincial level, the division is interested in the implementation of a Provincial General Surgical Oncology Network (SON). This would include a provincial electronic communication network and an attempt to establish knowledge translation initiatives through various educational symposia, consensus conferences, and frank discussions of resource utilization patterns across the province. Part of this initiative involves division members participating in sponsored activities across the province in order to establish professional relationships with health care providers in their own environment. This includes family physicians, surgeons and other allied health care providers. During the past year, Dr. Park has traveled to Selkirk and Dr. Wirtzfeld has traveled to Brandon. Dr. Macintosh has participated in several conferences linked by telehealth services. The Surgical Oncology Network will work to provide an approach to standardized care for all cancer patients requiring surgery in the province.

Surgical Synoptic Reporting

Surgical Oncology continues to be invested in the development of a National Surgical Synoptic Reporting Initiative. Dr. MacIntosh has recruited the largest number of breast cancer patients, on a national basis, within the surgical synoptic reporting mechanism and we hope to move forward in using this in a collaborative fashion to look at outcomes. In January 2012, she will be attending a national symposium in collaboration with the Canadian Partnership Against Cancer to discuss template standardization. Dr. Nason and Dr. Pathak continue in the area of Head & Neck Surgery with synoptic reporting templates expanded to include thyroid surgery. This follows a National Consensus Conference to be held in Winnipeg in 2012. The Colorectal group has been discussing ways in which the end product, the operative report, can be made more user friendly. General Surgical Oncology hopes to introduce the Melanoma Surgical Synoptic Reporting Templates.

Colorectal Cancer Initiatives

In April of 2011, the first biennial Colorectal Cancer Gala was held in collaboration with the CancerCare Manitoba Foundation. This was an effort between Colorectal surgeons and Surgical Oncologists concerned primarily with the treatment of colorectal cancer in moving forward with initiatives to raise awareness and funds to be put toward improvements in clinical approaches to colorectal cancer and research initiatives. The first "Bottoms Up" event was successful in raising over \$70,000 toward colorectal cancer associated efforts through CancerCare Manitoba. One of the first endeavors that these funds will be used for is to establish appropriate resources to expand the tumor bank to include colorectal cancer specimens. Through the GI Disease Site Group, CancerCare Manitoba, we also participated in a Provincial Rectal Cancer Symposia in April 2011. This was aimed at developing provincial consensus guidelines with regard to the staging, diagnosis and treatment for rectal adenocarcinoma. Invited lecturers included Dr. Terry Phang, Colorectal Surgeon from Vancouver, and Dr. Pamela Leco, Radiation Oncologist from British Columbia. This initiative was attended by nearly 85% of all general surgeons performing rectal cancer surgery within the province. We were able to develop a consensus statement with regard to the use of diagnostic procedures and treatment approaches. The results of the Consensus Conference will be developed into a guideline paper which will be distributed, through the Surgical Oncology Network, for wide comment, endorsement, and acceptance.

It was decided that rectal cancer surgery within the Province should not be centralized, but should be brought up to a certain basic level and that provincial initiatives should be undertaken with this goal in mind. On April 21, 2012, a Total Mesorectal Excision (TME) course, including didactic sessions and cadaveric total mesorectal dissection exercises, with pathologic assessment, will be held. This course will be predicated on the one held in British Columbia and will include Visiting Professor, Dr. Don Buie, Colorectal surgeon from Calgary. This will be a joint provincial effort between surgery (Dr. Cliff Yaffe, Chair), Pathology (Dr. Robert Wightman) and Radiology (Dr. Iain Kirkpatrick).

Respectfully submitted,
Debrah Wirtzfeld

Journal Articles

Chuah T, Lee T, Wirtzfeld DA, Polett W. Management of primary rectal cancer by surgeons in Atlantic Canada: results of a regional survey. *Can. J. Surg.* 2010;53:396-402.

Garg A, Dwivedi R, Sayed S, Katna R, Komorowski A, Pathak KA, Rhys-Evans P, Kazi R. Robotics in head and neck cancer: is it the future? *Oral Oncol.* 2010;46:571-76.

Kazi R, Manikanthan K, Pathak KA, Dwivedi R. Head and neck squamous cell cancer: need for an organized time-bound surveillance plan. *Eur. Arch Otorhinolaryngol.* 2010;267:1969-71.

Pathak KA, Aljabab A, Kazi R, Nason RW. Lateral approach to central compartment of neck. *J. Surg. Oncol.* 2011;103:101-2.

Pathare S, Gerstung M, Beerenwinkel N, Schäffer A, Kannan S, Pai P, Pathak KA, Borges A, Mahimkar M. Clinicopathological and prognostic implications of genetic alterations in oral cancers. *Oncol. Lett.* 2011;2:445-451.

Sayed S, Dwivedi R, Katna R, Garg A, Pathak KA, Nutting C, Rhys-Evans P, Harrington K, Kazi R. Implications of understanding cancer stem cell (CSC) biology in head and neck squamous cell cancer. *Oral Oncol.* April 2011;47(4):237-43.

Sisler J, Seo B, Katz A, Shu E, Chateau D, Czaykowski P, Wirtzfeld DA, Singh H, Turner D, Martens P: CIHR/CCMB Team in Primary Care Oncology Research. Concordance with ASCO guidelines for surveillance after colorectal cancer treatment: a population-based analysis. *J. Oncol. Pract.* 2011;

Wirtzfeld DA. Hereditary gastric cancer. Invitation from UpToDate. 2011.

Book Chapters/Review Articles/Monographs

Dwivedi R, Agrawal N, Dwivedi R, Pathak KA, Kazi R. Evaluation, management and outcomes of head and neck cancer, in Staffiere A, Sebastian P, Kapre M, Varghese B, Kazi R, Eds. *Essentials of Head and Neck Cancer*. New Delhi: Byword Publications, 2010.

Park J, Guillem J. Rectal Cancer, in Cameron JL, Cameron AM, Eds. *Current Surgical Therapy*, 10th Ed. Philadelphia: Elsevier Mosby, 2011.

Conference Presentations/Abstracts Published

Hajjai H, Pathak KA, Abdoh A, Nason RW. Predicting long term survival in squamous cell carcinoma of the tongue base: assessment of evolving treatment strategies. *Oral Oncology.* 2011;47:S28.

Helewa R, Turner D, Wirtzfeld DA, et al. Local recurrence of rectal cancer in Manitoba. *Can. J. Surg.* 2011;54(Sup):260.

Maniar R, Hochman D, Wirtzfeld DA, McKay AM, Yip B, Yaffe C, Silverman R, Park J. Documentation of quality of care data for colon cancer surgery: comparison of electronic synoptic versus dictated operative reports. *Can. J. Surg.* 2011;45:S34.

Pathak KA, Bykova E, Nason RW, Kung S. Levels of CD3 chain in head and neck cancer patients correlates with their disease status. *Oral Oncology*. 2011;47(Suppl1):35.

Invited Addresses

Nason RW. Panelist. Cancer control guidelines action group, synoptic reporting tools project. Canadian Partnership Against Cancer Stakeholder Forum. Toronto Ontario, December 2010.

Pathak KA. Intraoperative recurrent laryngeal nerve monitoring. Canadian Society of Otolaryngology Annual Meeting. Victoria British Columbia, May 2011.

Pathak KA. Thyroid cancer. General Surgery Review Course. Mississauga Ontario, March 2011.

Wirtzfeld DA. Extent of resection for gastric adenocarcinoma. Western Canada Annual Gastrointestinal Carcinoma Consensus Conference. Winnipeg Manitoba, September 2010.

Wirtzfeld DA. Improving safety in surgery. Canadian Surgical Forum, CAUS Sponsored Symposium. Quebec City Quebec, September 2010.

Wirtzfeld DA. Synoptic surgical reporting: a practical approach. Canadian Surgical Forum, CSSO Sponsored Symposium. Quebec City Quebec, September 2010.

Session Chairs/Discussion Groups

Wirtzfeld DA. Chair. Manitoba Rectal Cancer Consensus Conference. Winnipeg Manitoba, April 2011.

Wirtzfeld DA. Expert panel. Colorectal Cancer Association of Canada Round Table Discussion, Vancouver British Columbia, May 2011.

Workshops Organized

Park J, Wirtzfeld DA. CancerCare Manitoba Foundation Inaugural 'Bottoms Up' Gala. Winnipeg MB, April 2011.

Pathak KA. Controversies in thyroid cancer, Canadian Society of Otolaryngology Annual Meeting. Victoria BC, May 2011.

Wirtzfeld DA. Manitoba Rectal Cancer Consensus Conference, CancerCare Manitoba Gastrointestinal Disease Site Group Activity. Winnipeg MB, April 2011.

Grants

Nason RW. Synoptic reporting tools project. Canadian Partnership Against Cancer (\$400,000.00) 2011-13.

Park J, Hochman D, Yaffe C, Yip B, Silverman R, Wirtzfeld DA. Assessment of anorectal function and quality of life following transanal endoscopic microsurgery for rectal tumours. University of Manitoba – Department of Surgery Research (\$19,000.00) 2010-13.

Park J, Maniar R, Yaffe C, Hochman D, Yip B, Silverman R, McKay AM, Wirtzfeld DA. Documentation of quality of care data for colorectal cancer surgery: comparison of electronic synoptic versus dictated operative reports. University of Manitoba – Department of Surgery Research (\$8,000.00) 2011-12.

Park J, Vergis A. Effects of blocked versus random task practice schedules on the acquisition, retention, and transfer of surgical skills. Royal College of Physicians and Surgeons of Canada (RCPSC) Medical Education Research (\$25,000.00) 2010-13.

Park J, Vergis A, Unger B. Optimizing practice schedules for learning basic skills on a computer-based laparoscopic simulator. Canadian Association of General Surgeons (CAGS) Research Fund Grant by Ethicon Endo-Surgery (\$25,000.00) 2011-13.

Pathak KA. A trend in the serial levels of CD3z chain in radically treated head & neck cancer patients can predict their disease status. Manitoba Medical Service Foundation (\$20,000.00) 2011.

Pathak KA. Molecular basis for age related behavior of the thyroid cancer. Department of Surgery Research (\$20,000.00) 2011-12.

Pathak KA. Prognostic potential of marks for invasiveness in human thyroid. Department of Surgery Research (\$30,000.00) 2010-11.

Vergis A, Hardy K, Steigerwald S, Park J. Do fundamentals of laparoscopic surgery (FLS) and LapSim evaluation metrics predict intra-operative performance? University of Manitoba – Department of Surgery Research (\$20,000.00) 2011-2014.

Wirtzfeld DA, Katz A. Sexual function in women undergoing treatment for rectal adenocarcinoma: an innovative quality of life initiative. Cancer Care Manitoba Foundation Research (\$15,000.00) 2010-12.

Thoracic Surgery



Regional Lead/Section Head

Dr. Helmut Unruh Professor

Faculty

Dr. Sadeesh Srinathan Assistant Professor
Dr. Lawrence Tan Associate Professor

Part time/Nil Appointment Faculty

Dr. Renelle Myers Assistant Professor

The Section's activities are broadly based in three responsibilities.

First, we are the tertiary referral source and the largest secondary care providers for patients with thoracic surgical diseases in the province. This includes the additional responsibility of care of patients from Nunavut. We also have a fairly large referral base covering Northwestern Ontario. Included within these clinical responsibilities is the Manitoba Lung Transplant Program. The Lung Transplant Program remains an integral part of the Section. Dr. Darren Freed has assumed a leadership role in the program, and care of donor patients is now provided by on-call physicians. We are pleased that Dr. Nancy Porhownik joined our program in July 2011, to bolster and rejuvenate the respirology aspects of the program. Since our last report, the donor situation has continued to show improvement. We look forward to new initiatives to increase our donor numbers. Transplant Manitoba continues to function as its own independent entity with its mandate restricted to donor issues. The Canadian Blood Services (CBS) has recently assumed the task of launching a Canadian Transplant Registry (NOW). They are hopeful to implement a registry of all non-renal programs by January 2012. The Section also has major responsibilities with Cancer Care Manitoba in the area of programs dealing with lung and esophageal carcinoma.

Our second responsibility includes teaching. We currently have one Fellow in the program and we also provide elective rotations for general surgery residents, respirology residents, and medical students.

Our third responsibility is research and furthering the scientific basis of our specialty. Dr. Srinathan leads the Section in research initiatives and has committed a significant portion of his time to epidemiologic studies involving post-operative care. He has obtained significant start-up funds and participates as a co-investigator in international multicentre studies studying, notably, cardiac complications following surgery. We continue to encourage our Fellow to become involved in a clinical research project. Several fruitful collaborations have also been undertaken

in the past year with members of other departments, notably, Dr. A. Halayko from the Department of Medicine.

All thoracic surgery is concentrated at the HSC site. The activity level of the remaining three surgeons is significant with busier clinics, longer wait lists, and increased bed occupancy. Our success over the next several years will depend on our ability to address serious manpower and resource issues. There is an urgent need for a fourth academic surgeon to expand our expertise in minimally invasive skills in the gastrointestinal domain. We are pleased to work in collaboration with Dr. Renelle Myers, an Interventional Pulmonologist, who joined the Section of Respiratory Medicine in July 2011.

The members of the Section continue to be active in affairs external to the Section. Dr. Tan, in addition to serving as Postgraduate Director for Thoracic Surgery, also serves as Undergraduate Director of Medical Education for the Department. Dr. Unruh serves the Department as Associate Chair Academic with additional responsibilities for Research and Promotions. He was also the Faculty Academic Lead for the recent UGME Accreditation and serves as a Councilor for the College of Physicians and Surgeons of Manitoba. Dr. Srinathan serves on the GFT Executive and the Curriculum Renewal Task Force.

Visiting Professors:

Our Section was pleased to host Dr. Jean Deslauriers, Professor of Surgery, Thoracic Surgery Division, Laval University on February 22 & 23, 2011

Promotions/Awards/Appointments:

Dr. Helmut Unruh -
Faculty Lead, Accreditation, U of M
Award of Recognition – Administration, Department of Surgery, U of M

Dr. Sadeesh Srinathan -
2011 Rudy Falk Clinician Scientist Award (July 1, 2011 – June 30, 2014)

Respectfully submitted,
Helmut Unruh

Journal Articles

Ghavami S, Mutawa M, Sharma P, McNeill K, Klonsch T, Unruh HW, Los M, Halayko A. Autophagic and apoptotic cell death triggered by mevalonate cascade inhibition in airway mesenchymal cells: a dual role for p53. *PLoS ONE*. 2011;6(1):e16523.

Grocott H, Gulati H, Srinathan SK, Mackensen G. Anesthesia and the patient with pericardial disease. *Canadian Journal of Anesthesia*. *Can J Anaesth*. Epub 2011 Jul 26.

Kavsak P, Walsh M, Srinathan SK, Thorlacius L, Lurati Buse G, Botto F, Pettit S, McQueen M, Hill S, Thomas S, Mrkobrada M, Alonso-Coello P, Berwanger O, Biccari B, Cembrowski G, Chan M, Chow C, de Miguel A, Garcia M, Grahm M, Jacka M, Hueh J, Li S, Lit S, Martinez-Brú C, Naidoo P, Nagele P, Pearse R, Rodseth R, Sessler D, Sigamani A, Szczeklik W, Tiboni M, Villar J, Wang C, Xavier S, Devereaux P. High sensitivity troponin T (TnT hs) concentrations in patients undergoing cardiac surgery. A prospective cohort study. *Clin. Biochem*. 2011;44:1021.

Schaafsma D, McNeill K, Mutawa M, Ghavami S, Unruh HW, Jacques E, Laviolette M, Chakir J, Halayko A. Simvastatin inhibits TGF β 1-induced fibronectin in human airway fibroblasts. *Respiratory Research*. 2011;12:113.

Singer C, Lontay B, Unruh H, Halayko A, Gerthoffer W. Src mediates cytokine-stimulated gene expression in airway myocytes through ERK MAPK. *Cell Commun. Signal*. 2011;9(1):14.

Sun X, Briel M, Busse J, Akl E, You J, Mejza F, Bala M, Diaz-Granados N, Bassler D, Martz D, Srinathan SK, Vandvik P, Malaga G, Alshurafa M, Dahm P, Alonso-Coello P, Heels-Ansell D, Bhatnagar N, Johnston B, Wang L, Walter S, Altman D, Guyatt G. The influence of industry funding on reporting of subgroup analyses in randomized controlled trials. *British Medical Journal*. 2011;342:31569.

Tran T, Teoh C, Tam J, Qiao Y, Puneet P, Chin C, Stewart A, Harris T, Wong W, Guan S, Chong O, Melendez A, Leung B, Koh D, Gerthoffer W, Unruh HW, Halayko A. Laminin Drives features of airway wall remodeling and airways hyperresponsiveness in experimental asthma. Submitted to *J. Exp. Med*. November 2010.

Book Chapters

Srinathan SK: Randomization – systems and technologies in: clinical research for surgeons: advanced concepts in clinical research. Edited by Mohit Bhandara and Bernd Robionek.

Conference Presentations/Abstracts Published

Ghavami S, Mutawa M, McNeill K, Sharma A, Klonsch T, Schaafsma D, Unruh HW, Halayko A. Dual role for p53 in simvastatin-induced cell death in airway mesenchymal cells. *Am. J. Respi. Crit. Care Med*. 2010; 181:A2125.

Ghavami S, Mutawa M, Unruh HW, Halayko A. The mevalonate cascade modulates endoplasmic reticulum (ER) stress during human airway mesenchymal cell apoptosis. *Am. J. Respi. Crit. Care Med*. 2010; 181:A2124.

Kashani H, Ghavami S, Mutawe M, Tripathi S, Stelmack G, Unruh HW, Halayko A. HMGB1: an autocrine mediator of TGF- β 1 induced extracellular matrix production by human airway smooth muscle cells. Submitted to American Thoracic Society Internationals Conference. San Francisco California, May 2011.

Perrella M, Nicherson P, Freed D, Unruh HW. Impact of restructuring an organ donation program on overall donation and lung transplantation. Poster presentation. Presented at the 2011 Annual Scientific Meeting, Canadian Society of Transplantation. Mont-Tremblant Quebec, March 2011.

Ryu M, Wadsworth S, Dorscheid D, Xing M, Unruh HW, Stelmack G, Halayko A. Bioengineered tubular nano-fiber scaffolds for 3D culture of human airway smooth muscle cells. Submitted to American Thoracic Society Internationals Conference. San Francisco California, May 2011.

Schaafsma D, Dueck G, McNeil K, Unruh HW, Jacques E, Chakir J, Halayko A. Involvement of the mevalonate cascade in the fibrotic function of health and asthmatic fibroblasts. *Am. J. Respir. Crit. Care Med.* 2010; 181:A2304.

Schaafsma D, Maltby S, Yeganeh B, Basu S, McNeill K, Stelmack G, Unruh HW, Halayko A. The RhoA-Rho kinase axis contributes hyperreactivity of airway smooth muscle from allergen naïve caveolin-1 knockout mice. Submitted to American Thoracic Society Internationals Conference. San Francisco California, May 2011.

Sharma P, Ghavami S, Stelmack G, McNeill K, Mutawe M, Unruh HW, Halayko A. Dystrophin glycoprotein complex (DGC) regulates spatial organization and function of caveolae in human airway smooth muscle cells. *Am J. Respir. Crit. Care Med.* 2010;181:A5294.

Sharma P, Liu X, Ghavami S, McNeill K, Kashani H, Unruh HW, Halayko A. Modifiers of cAMP signaling inhibit TGF β 1-induced fibrosis through PKA mediated regulation of the MAP kinase pathway. *Am. J. Respir. Crit. Care Med.* 2011;183:A5337.

Sharma P, Stelmack G, Unruh HW, Giembycz, Halayko A. Reduction in airway smooth muscle contraction and airway narrowing by PDE4 inhibitor Roflumilast is enhanced in presence of an inhaled corticosteroid. Submitted to American Thoracic Society Internationals Conference. San Francisco California, May 2011.

Tufescu T, Srinathan SK, Sutlant N, Walsh M, Gottscgchalk T, Bhandari M. The incidence of malrotation after intramedullary nailing of femur fractures: a meta-analysis. Canadian Orthopedic Association Annual Meeting. St. John's Newfoundland, July 2011.

Invited Addresses

Srinathan SK. 4th Annual Principles and Practice of Clinical Research Course: How I hope to become a successful researcher. Delta Meadowvale Resort and Conference Centre. Mississauga Ontario, November 2010.

Grants

Srinathan SK. Department of Surgery GFT Funds, University of Manitoba (\$20,000.00). January 2011 (1 year)

Srinathan SK. Health Sciences Foundation (\$16,231.88). September 2011 (1 year)

Srinathan SK. Physicians' Services Incorporated (\$85,000.00). January 2011 (1 year)

Unruh HW. Canadian Cystic Fibrosis Foundation, CF Transplant Centre Incentive Grant (\$7,118.00). April 2010-March 2011

Unruh HW. Cystic Fibrosis Canada, CF Transplant Centre Incentive Grant (\$5,787.00) April 2011-March 2012

Urology



Regional Lead/Section Head

Dr. Karen Psooy Assistant Professor

Faculty

| | |
|------------------------|---------------------|
| Dr. Turki Al-Essawi | Assistant Professor |
| Dr. Robert Bard | Assistant Professor |
| Dr. Nafisa Dharamsi | Assistant Professor |
| Dr. Darrel Drachenberg | Assistant Professor |
| Dr. Brenda Hildebrand | Assistant Professor |
| Dr. Denis Hosking | Professor |
| Dr. Ross MacMahon | Associate Professor |
| Dr. Tom McGregor | Assistant Professor |
| Dr. Brian Peters | Assistant Professor |
| Dr. Jeff Saranchuk | Assistant Professor |

Part-Time/Nil Appointment Faculty

Dr. John Milner Lecturer

2011 was the year of new recruits in the Section of Urology. The Section was faced with the unusual situation of having a sufficient number of faculty members, but with a limited amount of hospital resources. Potential solutions continue to present, and include:

- 1) The Section has its first Physician Assistant, supervised by Dr. MacMahon. This position will allow residents, in the presence of an expanded number of faculty members, to focus their attention on key learning opportunities, while ensuring that patient safety is secure.
- 2) Further expansion of outpatient endoscopy at SBGH, with potential for expanded use of conscious sedation.
- 3) Development of a satellite academic urology centre within one of the community hospitals. As shortages of hospital beds and operating time continue to be resource issues at the academic hospitals, less complex cases could be decanted to this less tertiary site.
- 4) Expansion of the GA-1-HSC outpatient urology facility continues as a plan for the future.

Dr. Tom McGregor joined the Section in the spring of 2011, upon completion of fellowship training of MIS and Renal Transplant in London Ontario. He joins the surgical transplant team, consisting of a number of vascular surgeons, and brings to Winnipeg the procedure of Laparoscopic Donor Nephrectomy.

Dr. Brenda Hildebrand joined the Section in the summer of 2011, upon completion of fellowship training in Incontinence and Infertility. She will likely pioneer the expansion of academic urology into a community hospital setting.

Dr. Nafisa Dharamsi is currently the President of the Medical Staff at the Rehabilitation Centre for Children, and serves as the physician representative on the Board of Directors.

Dr. Karen Psooy is the Secretary-Elect of the Canadian Urological Association (CUA), beginning a 5-year term as Secretary in June 2012. She is also the Canadian Representative on the Board of the Northeastern Section American Urological Association.

Dr. Darrel Drachenberg continues his term as Chair of the Socioeconomic Committee of the CUA, an important role as critical questions emerge regarding the number of urology residency positions needed to address, but not overwhelm, the future manpower needs in Canada.

The Section welcomed Visiting Professor, Dr. Neil Fleshner, University of Toronto, to speak on Prostate Cancer, and enjoyed another successful Resident Research Day in the fall. Recipients of the George W. Leroux Memorial Award went to Drs. Jason Archambault (1st Prize), Jay Nayak (2nd Prize) and Deepak Pruthi (3rd Prize).

As a result of the 2011 CaRMS match, Dr. Deepak Pruthi (University of Manitoba) and Dr. Clare Gardiner (IMG) entered the residency training program on July 1, 2011. Drs. Garry Sandhu and Sri Sivalingam completed their residency training on June 30, 2011. Both passed their RCPSC exams. Dr. Sandhu has gone on to do an oncology fellowship in St. Louis, MO, while Dr. Sivalingam is doing an MIS fellowship in Madison WI. Both hope to return to Canada thereafter if jobs are available. Dr. Karen Psooy will be stepping down as Program Director at the end of 2011. The Section will welcome Dr. Turki Al-Essawi to the position in January 2012.

Respectfully submitted,
Karen Psooy

Journal Articles

Chalasanani V, Kassouf W, Chin J, Fradet Y, Aprikian A, Fairey A, Estey E, Lacombe L, Rendon R, Bell D, Cagiannos I, Drachenberg D, Lattouf J, Izawa J. Radical cystectomy for the treatment of T1 bladder cancer: The Canadian Bladder Cancer Network experience. **Can Urol Assoc J.** April 2011;5(2):83-7.

Fairey A, Kassouf W, Aprikian A, Chin J, Izawa J, Fradet Y, Lacombe L, Rendon R, Bell D, Cagiannos I, Drachenberg D, Lattouf J, Estey E. Age \geq 80 years is independently associated with survival outcomes after radical cystectomy: Results from the Canadian Bladder Cancer Network Database. **Urol Oncol.** September 2011. (E Pub, ahead of print)

Fulton C, McGregor T, Forbes T, Peck D, Luke P. Catheter-directed thrombolysis with tPA to restore renal function after iliac venous thrombosis post-renal transplantation. **Ann Transplant.** March 2011;16(1):61-5.

Herschorn S, Gajewski J, Ethans K, Corcos J, Carlson K, Bailly G, Bard R, Valiquette L, Baverstock R, Carr L, Radomski S. Efficacy of botulinum toxin A injection for neurogenic detrusor overactivity and urinary incontinence: A randomized, double-blind trial. **J Urol.** June 2011;185(6):2229-35.

Jewett M, Mattar K, Basiuk J, Morash C, Pautler S, Siemens D, Tanquay S, Rendon R, Gleave M, Drachenberg D, Chow R, Chung H, Chin J, Fleshner N, Evans A, Gallie B, Haider M, Kachura J, Kurban G, Fernandes K, Finelli A. Active surveillance of small renal masses: Progression patterns of early stage kidney cancer. **Eur Urol.** July 2011;60(1):39-44.

Psooy K, Archambault J. Vaginal entrapment of bathwater: A source of extra-urethral incontinence. **Can Urol Assoc J.** October 2010;4(5):E123-6.

Psooy K. Undeserved authorship: Too much of a good thing. **Can Urol Assoc J.** December 2010;4(6):391-2. (Invited Commentary)

Roth M, Mingin G, Dharamsi N, Psooy K, Koyle M. Endoscopic ablation of longitudinal vaginal septa in prepubertal girls: A minimally invasive alternative to open resection. **J Pediatr Urol.** October 2010;6(5):464-8.

Toren P, Al-Essawi T, McLean A, Jain U. Use of a novel parenchymal clamp for laparoscopic and open partial nephrectomy. **Can Urol Assoc J.** October 2010;4(5):E133-6.

Yafi F, Aprikian A, Chin J, Fradet Y, Izawa J, Estey E, Fairey A, Rendon R, Cagiannos I, Lacombe L, Lattouf J, Bell D, Drachenberg D, Kassouf W. Contemporary outcomes of 2287 patients with bladder cancer who were treated with radical cystectomy: A Canadian multicentre experience. **BJU Int.** August 2011;108(4):539-45.

Invited addresses

Drachenberg D. Management of BPH in 2010. National Primary Care Update. October 2010.

Drachenberg D. PSA/BPH/Prostate cancer. National Primary Care Update. September 2011.

Psooy K. Advantages of open surgery for vesicoureteral reflux. CIPERJ Brazilian Congress of Pediatric Urology. Rio Brazil, June 2011.

Session Chairs/Discussion Groups

Drachenberg D. Session Chair, Western Regional Prostate Cancer Prevention Advisory Board. October 2010.

Drachenberg D. National Advisor, Avodart Working Group. February 2011.

Drachenberg D. National Advisor, Prostate Cancer Working Group (skeletal related events). April 2011.

Drachenberg D. National Prostate Cancer Advisory Committee. September 2011.

Grants.

Drachenberg D, Saranchuk J. Prostate Cancer Translational Research Project (\$83,858.00)

Vascular Surgery



Regional Lead/Section Head

Dr. Randy Guzman

Professor

Faculty

Dr. April Boyd

Associate Professor

Dr. Gregory Harding

Assistant Professor

Dr. Joshua Koulack

Assistant Professor

Part-Time Faculty

Dr. Allan Downs

Professor Emeritus

Dr. Francisco Violago

Assistant Professor

The Section of Vascular Surgery remains very active clinically at both the Health Sciences Centre and St. Boniface Hospital. Nearly 1700 operations have been performed over the last year (923 HSC, 726 SBGH and remainder at Seven Oaks). Advances in endovascular technology continue to evolve with improvements in the treatment of complicated aneurysm cases (short, conical, angled aortic necks) and endovascular aortic aneurysm repair (EVAR) cases. Technological advances in arterial access for endovascular procedures are also being considered with percutaneous approaches to EVAR. Collaboration with interventional radiology and Cardiac Surgery continues. Notably, some time in the radiology suite (HSC) will now be allocated to Vascular Surgery to support endovascular initiatives and procedures done by Dr. Harding. Resources and a dedicated budget supporting endovascular technology are crucial for the future care of vascular patients. This is also vital for the maintenance and improvement of surgical endovascular skills. A proposal for a provincial vascular database is also being developed for the Section.

The Eighth Annual Winnipeg Vascular & Endovascular CME Symposium was held on April 8 & 9, 2011 at the Fairmont Winnipeg hotel. This is a national meeting with speakers being invited from across Canada. A Fellows' Day was held on April 7th with presentations from 14 Fellows from across the country. There were also 35 vascular surgeons from across the country that attended the symposium and our total number of attendees reached 162. Advances in the treatment of patients with aneurysms, carotid and lower extremity arterial disease, as well as hemoaccess and trauma care were included in the program. All the presentations were well received by those who participated. Plans are in progress for the 2012 meeting which will begin on Thursday, April 19 with Fellows' Day, followed by the formal Symposium on Friday, April 20 & Saturday, April 21.

The transition of Vascular Surgery from a subspecialty to primary specialty status begins in 2012 and is being coordinated through the efforts of Dr. Koulack. This is a major shift for the

specialty and we thank Dr. Koulack for his dedication and direction in this endeavour. We also anticipate the start of a Vascular resident in the 2 year program steam starting in July 2012.

We thank Dr. Harding for his time and efforts in coordinating the Vascular Undergraduate teaching courses.

We also thank Dr. Boyd, who is our lead for Research in the Section of Vascular Surgery. Research activity in Vascular Surgery remains productive as outlined in the Section's Research Summary.

Respectfully submitted,
Randy Guzman

Journal Articles

Espenell A, McIntyre I, Gulati H, Girling L, Wilkinson M, Silvaggio J, Koulack J, West M, Harding GE, Kaufmann A, Mutch W. Lactate flux during carotid endarterectomy under general anesthesia: Correlation with various point-of-care monitors. *Can. J. Anaesth.* 2010;57(10):903-12. Epub July 2010.

Harding GE. Upper extremity occlusive disease. *The Canadian Journal of CME.* March 2011;23(2).

Leyva D, Zahradka P, Ramjiawan B, Guzman R, Aliani M, Pierce G. The effect of dietary flaxseed on improving symptoms of cardiovascular disease in patients with peripheral artery disease rationale and design of the FLAX-PAD randomized controlled trial. *Contemporary Clinical Trials.* September 2011;32:724-730.

Lozowy R, Kuhn D, Boyd AJ. CFD analysis of abdominal aortic aneurysm growth. Departments of Mechanical Engineering & Department of Vascular Surgery, University of Manitoba. 23rd Congress of Applied Mechanics, WP 2.4. June 2011.

March J, Turgeon T, Guzman R. Acute limb ischemia following closed reduction of a hip arthroplasty dislocation. *Orthopedic.* October 2010;33(10):768.

Wang G, Luo L, Yin T, Li Y, Jiang T, Ruan C, Guidoin R, Chen Y, Guzman R. Ultrasonic atomization and subsequent desolvation for monoclonal antibody (mAb) to the glycoprotein (GP) IIIa receptor into Dr.ug elution stent. *Journal of Microencapsulation.* 2010;27(2):105-14.

Conference Presentations/Abstracts Published

Lozowy R, Kuhn D, Boyd AJ. CFD analysis of abdominal aortic aneurysm growth: The effect of iliac stenosis. Departments of Mechanical Engineering & Department of Vascular Surgery, University of Manitoba (Abstract published ATVB 2010).

Grants

Guzman R. (CI). Flax Council of Canada. The effects of dietary flaxseed on improving symptoms of cardiovascular disease in patients with peripheral arterial disease (\$570,000). 2008-2011

Guzman R. (CI). Agri-Food Research and Development Initiative. The effects of dietary flaxseed on improving symptoms of cardiovascular disease in patients with peripheral arterial disease (\$90,000). 2008-2011

Guzman R. (PI). Advanced Foods and Material Network. Nutrigenomic approach to understanding the cardioprotective mechanisms of dietary flaxseed in patients with peripheral arterial disease (\$150,000). 2008-2011

Guzman R. (CI). Egg Producers of Canada. The impact of egg consumption on indices of vascular health in patients with peripheral arterial disease (\$100,000). 2009-2011

Guzman R. (CI). CIRH Strategic Training Initiative in Health Research (STIHR). Integrated and Mentored Pulmonary and Cardiovascular Training (IMPACT) (\$40,000). 2001-2014

Guzman R. (CI). Canola/Flax Agri-Science Cluster & Canola Council of Canada. Effects of canola oil on blood vessel function in peripheral arterial disease (PAD) (\$300,000). 2010-2013

Guzman R. (CI). Pulse Canadian Agri-Science Cluster. The effects of pulse varieties on blood vessel function in individuals with peripheral artery disease (PAD) (\$350,000). 2010-2013