McMaster University’s brand of academic excellence parallels the vision for our Department—to be committed leaders, tireless educators and strong advocates for the promotion of evidence-based surgery, locally and abroad. We have much to celebrate across 11 divisions. Our faculty, fellows, residents, medical students and research staff are involved in research that impacts the lives of millions of individuals and transforms surgical care. The challenge for us is not in our productivity, but in our communication and translation of the “evidence” we are creating. To serve as but one of a number of important Department initiatives to improve ‘connectedness’ in our research successes and milestones, Research In Focus intends to showcase our work regularly. Let’s all share in the pride of our collective successes!

Mohit Bhandari MD, PhD, FRCSC
Associate Chair, Research
Dr Richard Whitlock is a Principal Investigator for the Cardiovascular Surgery program at the Population Health Research Institute and is currently an Associate Professor within the Department of Surgery at McMaster University. He holds a Bachelor of Science, and both a Masters and PhD in Health Research Methodology and Clinical Epidemiology from McMaster University, during which his PhD Thesis was awarded the Outstanding Thesis Award by the Faculty of Health Sciences Graduate Program. He completed his Medical Degree from the University of Toronto, and his Residency in Cardiac Surgery and Fellowship in Critical Care Medicine at McMaster University. Dr. Whitlock has been awarded many honors for his various accomplishments including the Ted Thomas Prize from McMaster University and the Anemia Institute’s Award for Research and Education. He is a lead investigator for the CIHR funded studies SIRS, LAAOS III, and TRICS III. The SIRS trial completed in December 2013 and represents the largest clinical trial ever performed in cardiac surgery.

Tell us a bit about your research program.

RW: I’m involved in collaborative studies from bench to bedside, with a focus on cardiovascular patients. My research aims to understand inflammation, thrombosis and improve clinical outcomes.

You’re still in the early phase of your research career. What would you consider your greatest achievement to date?

RW: I’d say acquiring CIHR funding for the SIRS (Steroids In cardioSurgery) project and successfully completing the study. It’s the largest RCT in Cardiac Surgery. We put together the largest network of global academic sites, 82 sites in 16 countries, and with all the traveling and meetings we held, some of the site leads became good friends outside of the work. I’ve run a marathon with the Italian lead, learned to surf in Australia, and hosted the Greek lead here in Hamilton for a month. Getting that funding has led to other funding being awarded as well.

You’ve been publishing since 2004, when you were a resident and working on your Master’s, and you have more than 35 articles cited in PubMed. What article, again to date, are you most proud of?

RW: We have 4 more articles in press as well. I think the one I’m most proud of so far is the American College of Chest Physicians Chest Guidelines one published in 2012. It was an enormous amount of work and really highlighted the gaps in knowledge in this area. It also stimulated research ideas both here and internationally. One of the upcoming articles on early anticoagulation after mechanical valves came from that paper and we expect it will be...
“Rich is a very bright, hard working, passionate researcher. He is an outstanding role model for how to be a successful surgical clinical researcher. Rich’s global research will help to improve the lives of patients having cardiac surgery worldwide.”

Dr PJ Devereaux, CE&B

“Your need to have a strong mentor, someone you like working with and someone you consider a friend... You have to be able to bounce back, take the criticism and keep trying – a combination of hard work, dedication and stubbornness!”

Dr Rich Whitlock

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Dr Rich Whitlock

What do you have planned for the future?

RW: We’re finishing the SIRS analysis and presenting it at the American College of Cardiology meeting in Washington DC in March 2014. We’ll be looking for funding for LAAOS III (Left Atrial Appendage Occlusion Study), with a CIHR application going in March 2014. TRICS III (Transfusion Requirements in Cardiac Surgery) is starting very soon, it was recently funded by CIHR for $3 million over 4.5 years. It’s going to be a fun study, it has three Co-PIs, Dr David Mazer at St Mike’s who holds the funding, Dr Dean Ferguson at the Ottawa Heart Research Institute, and myself here at McMaster. I’m really excited about this one, because it was our experience with SIRS in study design and handling of high risk cardiac patients, along with the SIRS network providing the infrastructure for the study that highly enabled TRICS III to be funded.

Dr Rich Whitlock


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You completed your Master’s while you were a resident, and your PhD while running a busy practice and a research program. What kind of advice do you have for residents and new faculty members who want to have a similar career?

RW: You need to have a strong mentor, someone you like working with and who you also consider a friend. You have to have a thick skin, and remember that it’s very uncommon to be successful on a first try for funding, you have to be able to bounce back, take the criticism, implement it and keep trying – a combination of hard work, dedication and stubbornness! It’s also really important to get the input from review committees, you need to see what direction your peers outside of your home institute think the research should be taking. It helps a lot if your colleagues are friends, a good relationship means pushing yourselves hard at work and outside of work. I try to be as inclusive as possible within the authorship rules when submitting papers, it takes a team to run a large trial.
Honours

Dr Luis Braga is the American Urological Association Research Forum Keynote Speaker for Paediatric Urology. He will be presenting his research program in urinary tract infections in children, including the systematic review, retrospective and prospective databases and the current study - Antibiotic prophylaxis versus Placebo in infants diagnosed with Hydronephrosis Antenatally (ALPHA): A prospective, randomized controlled trial in May at the AUA Annual Meeting.

Dr Richard Whitlock was invited to present the Steriods in Cardiac Surgery (SIRS) trial at the American College of Cardiology / Joint New England Journal of Medicine Late Breaking Clinical Trials session at the ACC meeting in Washington in March. This presentation garnered interest by various news networks, including CBC and the Chicago Tribune.

Congratulations are due to Dr Chris Coroneos and the team of Plastic Surgery Residents and Faculty for being awarded Third Prize for their poster at the American Association of Plastic Surgeons Annual General Meeting, recently held in Miami Beach: Coroneos CJ, Voineskos S, Coroneos MK, Alolabi N, Goekjian SR, Willoughby LI, Thoma A, Bain JR and Brouwers MC. Obstetrical brachial plexus injury: A national clinical practice guideline. This work is Dr Coroneos’ Master’s thesis in the Surgeon Scientist Program.

On January 23rd, Dr Mohit Bhandari was one of 25 Ontario citizens appointed to the Order of Ontario by our Lieutenant-Governor The Honorable David C Onley. Dr Bhandari received this recognition for his work in the education of medical practitioners in their care of victims of Intimate Partner Violence.

McMaster Paediatric Surgery Research Collaborative was one of 5 research groups at HHS that were the beneficiaries of $600 000 in fundraising through HHS Foundation’s “For Your Eyes Only” Gala on March 29th. Specific projects that will be supported through this funding include Dr Braga’s ALPHA Trial, looking at UTIs in babies, Dr Cameron’s Disability Averted by Pediatric Surgery study in Kenya and Canada, and Dr Sabri’s National SCREEN-Retinopathy of Prematurity Study.
Publications: March 2014

Cardiac Surgery


General Surgery


Neurosurgery


Orthopaedics


"Odontoid fractures are the most common geriatric cervical spine fractures and their clinical management has proven particularly challenging. Our collaborative work suggests that aggressive management might be warranted for patients with severe atlantoaxial instability and supports further high quality research in this area."

Dr Nathan Evaniew
SSP / Orthopaedics

Otolaryngology

Urology


Funding: 2013-2014 to date

**Cardiac Surgery**
Dr Andre Lamy: FORESITE-VISION (Further Observation for chronic pain and poor functional recovery Risk Factor Examination at two SITEs): A study in partnership with the Vascular events In Surgery patients cOhort evaluatioN – Cardiac Surgery (VISION Cardiac Surgery), HAHSO Innovation

**General Surgery**
Dr Peter Lovrics: LHIN4 Breast Cancer Quality Initiative, Cancer Care Ontario

**Neurosurgery**
Dr Sheila Singh: Role of Stem Cell Signalling Pathways in Human Medulloblastoma BTICs, Cancer Research Society Operating Grant

Dr Sheila Singh: Selective Therapeutic Targeting of Brain Tumour Initiating Cells in Glioblastoma, Stem Cell Network Undergraduate Research Training Co-operative Award

Dr Sheila Singh: Identification of Brain Metastasis-Initiating Cells and Regulators of Brain Metastasis from Lung Cancer, Boris Family Foundation

Dr Sheila Singh: Selective Therapeutic Targeting of Brain Tumour Initiating Cells in Glioblastoma, Stem Cell Network Studentship - M Qazi

Dr Sheila Singh: Sox2 marks the treatment-refractory population on Shh-dependent medulloblastoma stem cells, Brain Tumour Foundation Canada Studentship - T Vijayakumar

**Orthopaedics**
Dr Mohit Bhandari: HIP fracture accelerated surgical treatment and care track (HIP ATTACK) trial, Physicians’ Services Inc

Drs Gerard Slobogean and Mohit Bhandari: Study of Hip Fracture Outcomes in China: SHOC, University of Baltimore

Drs Gerard Slobogean and Mohit Bhandari: Development of Expertise in RCTs: An Opportunity for Impact in International Orthopedic Fracture Trials, CIHR Randomized Controlled Trials-Mentoring

Drs Gerard Slobogean and Mohit Bhandari: A Multi-Centre 2x2 Factorial Randomized Trial Comparing Sliding Hip Screws versus Cancellous Screws AND Vitamin D versus Placebo on Patient-Important Complications and Quality of Life in the Treatment of Young Adult (Ages 18-60) Femoral Neck Fractures (FAITH-2)

Dr Mohit Bhandari: International Orthopaedic Multicentre Trial in Fracture Care (INORMUS) Planning Grant, CIHR Planning
Dr Michelle Ghert: Epigenetic Regulation of Sox9 and Downstream Invasive Properties in Human Chondrosarcoma, Juravinski Cancer Centre Foundation

Dr Mohit Bhandari: FAITH-2: A Multi-Centre Factorial Randomized Trial Comparing Sliding Hip Screws versus Cancellous Screws AND Vitamin D versus Placebo on Revision Surgery Rates and Quality of Life in the Young Adult (Ages 18-60) Femoral Neck Fractures , CIHR Operating Grant

Dr Femi Ayeni: Cost-effectiveness Analysis of the Utility of Arthroscopic Management of Femoroacetabular Impingement (FAI) versus Open Surgical Approaches, ConMed Linvatech

Plastic Surgery
Drs Chris Coroneos and Achilleas Thoma: Early Range Of Motion In 5th Metacarpal Fracture: A Randomized Controlled Trial, HHS New Investigator Fund

Thoracics
Dr Christian Finley: Exploring the Impact of Regionalization Activities on Patients Undergoing High-Risk, Resource-Intensive Cancer Surgery in Canada, Canadian Partnerships Against Cancer

Urology
Drs Christopher Allard and Anil Kapoor: Contrast-Enhanced Ultrasound for the Evaluation of Complex Renal Cysts, Canadian Urologic Oncology Group

Dr Anil Kapoor: Canadian Kidney Cancer Information System, Kidney Cancer Research Network Studentship - K Giendraitis

Other
Dr Ranil Sonnadara: Development and Validation of a Novel Hand Motion Tracking Instrument for Assessing Task Performance and Skill Acquisition, Science and Engineering Research Board-NSERC

Crossing Departmental Borders: Inter-Disciplinary Research

Radiation Oncology / General Surgery
Drs Arsenault (Rad Oncology), Lovrics and Hodgson: Feasibility Study of the Role of Stereotactic Body Radiotherapy for the Treatment of Early Stage Breast Cancer, Juravinski Cancer Centre Foundation

Diagnostic Imaging / Orthopaedics
Drs Chiavaras (Diag Imaging), Ayeni and Bhandari: IMPACT of Platelet Rich Plasma Over Alternative Therapies in Patients with Lateral Epicondylitis (IMPACT) - A Multicentre, Randomized Trial Comparing Autologous Platelet Rich Plasma (PRP) vs Autologous Whole Blood vs Dry Needle Tendon Fenestration on Pain and Quality of Life in Patients with Lateral Epicondylitis, Physicians’ Services Inc Foundation
Cardiac Surgery / Haematology & Thromboembolism
Drs Iqbal Jaffer and Jeffrey Weitz (Haematology & Thromboembolism): Methods to Prevent Mechanical Heart Valve Thrombosis, HHS New Investigator Fund

Thoracic Surgery / Population Health Research Institute
The Thoracic Surgery Research Group and PHRI launched their collaborative study: COlchicine For Prevention Of Perioperative Atrial Fibrillation In Patients Undergoing Thoracic Surgery (COP-AF) Pilot Study

Invitations to Participate

Dr. Deepak Dath and colleagues would like to invite the faculty, residents and medical students to participate in a study looking at how surgeons teach CanMEDS Intrinsic Roles in their day-to-day practice, an opportunity to influence the training of future physicians. Sessions will include a didactic presentation on CanMEDS and the upcoming changes, and a workshop activity on the teaching of Intrinsic Roles and how this is being done across different disciplines. All programs are invited to participate and explore the diverse opinions and ideas of all Divisions in Surgery. Upcoming sessions will be held:

Tues April 15th- HGH theatre auditorium (McMaster Building level B), 6 pm
Wed April 16th- SJH, Miller Amphitheatre, 5:30 pm
Wed May 7th- JCC Rm 1-231, 5:30 pm.

Questions and RSVPs should be directed to Megan O’Connor (research assistant) at oconnm2@mcmaster.ca

Dr Braga and MPRSC invite all to attend the premiere screening of a new animated video, “Bladder Training for Kids” on May 1st at 4 pm in the Farnecombe Research Auditorium, MCH 3rd Floor Blue Section. The video is part of a research initiative that aims to improve patient care for children with voiding dysfunction, and was funded by MSA and Canadian Urology Association. Please RSVP by April 17th to rickardm@hhsc.ca.

Save the Date: Research Training, Education and Promotion

Society of Clinical Research Associates
Conducting Clinical Trials in Canada: May 8-9th 2014
For more information, please check the SOCRA website: http://www.socra.org/conferences-and-education/events-calendar/

Department of Surgery Research Showcase Event: June 3rd 2014, 8am-1pm
Ron Joyce Centre, South Service Rd (between Walkers and Appleby Lines), Burlington
Contact: Catherine Gill Pottruff—gillc@mcmaster.ca or ext 44167

McMaster Evidence-Based Practice Workshop: June 9-13th 2014
Learn from the best how to incorporate Evidence-Based Medicine into your clinical practice. http://ebm.mcmaster.ca
Upcoming Funding Application Deadlines

**American Society for Surgery of the Hand**
Clinical research grant for hand surgery  
Amount: $20 000  
Deadline: April 7th 2014  
http://www.assh.org/PROFESSIONALS/RESEARCH/GRANTS/CLINICAL/Pages/default.aspx

**CIHR Barer-Flood Prize for Health Services and Policy Research - Nominate an Exceptional Researcher**
A career achievement award for a body of work that has had a substantial impact on health services and policy research, policy and/or care delivery.  
Amount: $25,000 grant as well as paid travel and expenses to the award presentation event for both the prize winner and nominator  
Deadline: May 1st 2014  
To nominate a McMaster researcher, please contact Serena Jennings, HRS Senior Grants Advisor sjenn@mcmaster.ca or x 22057, by April 17, 2014

**Canadian Association of Plastic Surgeons Education Foundation Research Endowment Fund**
Seed funding for clinical research projects in Plastic Surgery  
Amount: $10 000  
Deadline: May 23rd 2014  
http://www.plasticsurgery.ca/content.aspx?catID=757&subcatID=470

**Physicians’ Services Inc / Canadian Society for Clinical Investigators Resident Research Prizes**
Awards for residents’ completed work  
Amount: 5 $2000 prizes, additional $1000 for the top paper  
Deadline: May 31st 2014, to apply please contact your Program Director  

**Association for Surgical Education: Centre for Excellence in Surgical Education, Research and Training**
Grants to support innovative research in Surgical Education to improve patient care, performance evaluation and assessment, student programs, resident/faculty development or educational administration  
Amount: $25 000  
Deadline: June 1st 2014  
Physicians’ Services Inc Health Research and Resident Research Grants
Grants for clinical research, medical education research and health systems research, with some restrictions on the topics
Amounts: Health Research - $85 000/year for 2 years; Resident Research - $20 000
Deadline: June 5th 2014
http://psifoundation.org/ForApplicants/ApplicationForms.php

Orthopedic Trauma Association: Resident Research Grants
Amount: $20 000
Deadline: June 9th 2014
http://ota.org/research/research-studies/

CIHR Foundation Scheme: 2014 1st Live Pilot
A new funding opportunity to support programs of research across all career levels
Amounts: approximately $50K to $1.5M
Timeframe: new/early career investigators – 5 years; midcareer/senior investigators – 7 years
Registration Deadline: June 23rd 2014
Application Stage 1 Deadline: September 15th 2014
Anticipated Funding Start Date: July 1st 2015
Website: https://www.researchnet-recherchenet.ca/rnr16/vwOpprtntyDtls

Canadian Association of General Surgeons: Canadian General Surgery Research Grant
Amount: $10 000
Deadline: June 30th 2014
http://www.cags-accg.ca/index.php?page=113

US DOD Congressionally Directed Medical Research Programs
Pre-application information packages have been released for deadlines later in the year for various fields including breast, lung and prostate cancer, orthopaedics research and other peer reviewed cancer research

DID WE MISS YOUR RESEARCH RELATED NEWS?
Send us the details for our next newsletter by Friday April 25th for inclusion.
All news and events can be emailed to Catherine Gill Pottruff gillc@mcmaster.ca