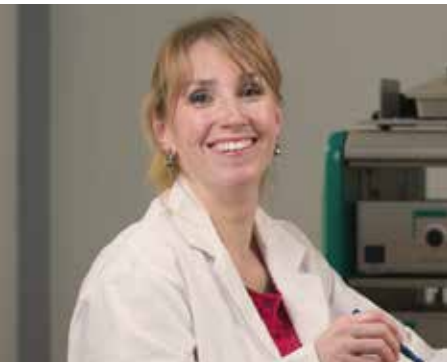


DEPARTMENT OF Surgery Newsletter

Winter 2019



SAYRA CRISTANCHO, PHD, ASSISTANT PROFESSOR AND SCIENTIST AT THE CENTRE FOR EDUCATION RESEARCH & INNOVATION (CERI) REFLECTS ON THE PARTNERSHIP BETWEEN CERI AND THE DEPARTMENT OF SURGERY. SEE PAGE 4 FOR MORE.

Chair's Column

Dear colleagues:

I am delighted to announce that we have started 2019 with an incredible research achievement: over \$3 million in CIHR funding distributed across four Department of Surgery faculty-led teams. This is an outstanding accomplishment in its own right; yet even more impressive when considered in the context of category specific success rates varying from 12 to 16 per cent of applications to the 2018 Fall CIHR competition. The details of the successful CIHR and other noteworthy grant awards are listed on page six.

Our Research Nodes continue to propel new alliances across the Academic Health Sciences Centre and beyond. The recent Internal Research Grant competition included 32 new collaborations among nine departments and programs. We are committed to leadership in transitioning from

the classic model of sole-investigator to the future of team-based research. This is not only beneficial from a grant application standpoint; it is clearly the path forward to new discoveries that will benefit the treatment of a broad spectrum of inter-related medical conditions and improve overall population health.

This newsletter issue has an in-depth feature article on the Centre for



Education Research & Innovation. We have a growing cadre of researchers in education in the Department of Surgery who will shape surgical education from curriculum design to skills analysis to patient centered evaluation of care. This informs the very core of who we are as surgeons and surgical educators in an academic tertiary care centre.

Lastly, I am proud to recognize our 2018 academic merit award winners in education, research, and service. The full announcement is on page three. Now let's hope for an early spring.

Sincerely,

Emil H. Schemitsch, MD, FRCS
Richard Ivey Professor
Chair/Chief, Department of Surgery
Schulich School of Medicine & Dentistry
Western University

Surgery News

Dr. Leslie Scott named first female President of the Canadian Association of Paediatric Surgery in 50 years



Congratulations to Dr. Leslie Scott, associate professor and chair/chief, Division of Paediatric Surgery, on her recent appointment as President of the Canadian Association of Paediatric Surgeons.

Dr. Scott began her term as President of the Association in the fall of 2018 and will serve until the fall of 2020. She is the first woman selected for the role in the Association's 50 year history. She is pictured below at the Association's recent annual meeting which took place in Toronto from September 26-29, 2018.



Dr. Muriel Brackstone appointed as Medical Director of Breast Care Program

Congratulations to Dr. Muriel Brackstone, associate professor, Division of General Surgery, on her appointment as the Medical Director of the Norton & Lucille Wolfe Breast Care Program. In her role as Medical Director, Dr. Brackstone will provide strategic leadership for clinical and academic goals. As Medical Director she will work closely with Chair/Chiefs and physician leads in General Surgery, Plastic and Reconstructive Surgery, Diagnostic Imaging, and Breast Care Program staff and leaders to set goals and establish metrics, monitor results, and develop improvements as needed, in order to continue to pursue clinical and academic excellence within the Norton & Lucille Wolfe Breast Care Program for patients being served across Southwestern Ontario.



Department of Surgery Academic Merit Awards for 2018

Congratulations to our exceptional faculty receiving awards.

Academic Merit Award Recipients – Education

Dr. Ken Faber, Division of Orthopaedic Surgery
Dr. Neil Parry, Division of General Surgery
Dr. Christopher Schlachta, Division of General Surgery
Dr. Alp Sener, Division of Urology

Academic Merit Award Recipients – Research

Dr. Muriel Brackstone, Division of General Surgery
Dr. Michael Chu, Division of Cardiac Surgery
Dr. Ryan Degen, Division of Orthopaedic Surgery
Dr. Luc Dubois, Division of Vascular Surgery
Dr. Brent Lanting, Division of Orthopaedic Surgery
Dr. Blayne Welk, Division of Urology

Academic Merit Award Recipient – Service

Dr. Bing Gan, Division of Plastic & Reconstructive Surgery

Terri MacDougall receives Scholar of Merit Award

Congratulations to Terri MacDougall, Education Coordinator for the Department of Surgery, on receiving the Schulich School of Medicine & Dentistry Quality Committee's 2018 UME Scholar of Merit Award for staff. The award is in recognition of Ms. MacDougall's contributions to improving the medical education curriculum through innovative and integrative changes.

STABILITY study team selected for O'Donoghue award

Congratulations to Dr. Alan Getgood, assistant professor, Division of Orthopaedic Surgery, and the STABILITY study team on being awarded the American Orthopaedic Society for Sports Medicine (AOSSM) O'Donoghue research award for best clinical paper. The team's findings will be presented this summer in Boston at the Society's annual meeting.

The Department of Surgery welcomed two new full-time members in 2018

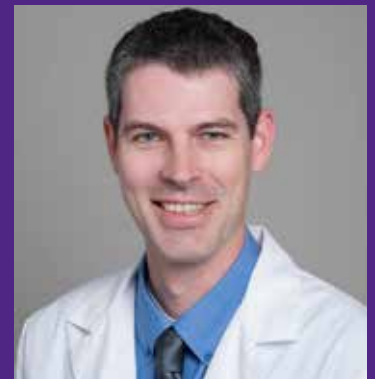
Dr. Ahmad Elnahas, Assistant Professor, Division of General Surgery, Department of Surgery, Schulich School of Medicine & Dentistry, Western University



Dr. Ahmad Elnahas joined the Division of General Surgery at University Hospital in April 2018. Prior to joining the team at University Hospital, Dr. Elnahas was appointed at Women's College Hospital in Toronto and at Toronto Western Hospital, specializing in general, acute care, and bariatric surgery.

After completing his medical education and training at McMaster University, Dr. Elnahas received his Master of Science in Clinical Epidemiology & Health Care Research at the University of Toronto's Institute of Health Policy, Management & Evaluation. Following his graduate degree, Dr. Elnahas completed a fellowship in Advanced Minimally Invasive Gastrointestinal & Bariatric Surgery at the University of Toronto, and a mini-fellowship in Minimally Invasive Surgery and Therapeutic Endoscopy at L'Institut de Recherche contre les Cancers de l'Appareil Digestif in Strasbourg, France.

Dr. Brad Moffat, Assistant Professor, Division of General Surgery, Department of Surgery, Schulich School of Medicine & Dentistry, Western University



Dr. Brad Moffat joined the Division of General Surgery at Victoria Hospital in September 2018.

A graduate of the Doctor of Medicine program at Schulich Medicine & Dentistry, Dr. Moffat also completed his General Surgery residency training and a MSc in Surgery at the School. Prior to joining the team at Victoria Hospital, Dr. Moffat was a Fellow in the Division of Trauma and Critical Care Services at Ryder Trauma Center in Jackson Memorial Hospital in Miami, Florida.

Dr. Moffat's clinical interests include acute care and trauma surgery as well as critical care transport medicine, and his research focus is on surgical quality improvement. Dr. Moffat is also an active level 4 minor hockey referee.

Surgery News

CERI and the Department of Surgery: Looking back and looking ahead



Centre for **Education Research & Innovation**

Looking back: a brief history of CERI and the Department of Surgery

The Centre for Education Research & Innovation (CERI) was first established in 2009 to conduct and support research in health professions education. While the research produced at CERI is largely investigator-driven, it is also highly strategic; the centre's scientists' and researchers' programs of research are driven by our mandate to ask questions that both matter and have the potential to impact practice. Since its inception nine years ago, those programs of research have matured around key targeted areas most of which take place at the interface between clinical and supervisory/teaching practice. That is, in clinical settings such as operating rooms, intensive care units, clinical wards and ambulatory spaces. Areas of research include: decision making, reasoning and complexity; team communication and collaborative practice; coaching and feedback; competency and assessment; and trainee resilience. As a result of this work, CERI is increasingly recognized nationally and internationally for both the type of research conducted and the methodological expertise of its scientists, and a hub for high quality research training and mentorship.

The Department of Surgery's commitment to advance research in surgical education in Canada was the catalyst for its partnership with CERI which began in 2010 thanks to the efforts of Dr. John Denstedt. This partnership allowed for the hiring of CERI's second scientist, Sayra Cristancho, PhD. Dr. Cristancho's research program investigates the nature of collective adaptation in high-stakes environments. Her work is particularly focused on investigating the organizational, social and personal factors that influence clinicians' ability to adapt to complex situations. Since her recruitment, Dr. Cristancho has consistently collaborated with and mentored numerous faculty in the Department. Together, they have successfully received funding through CIHR, PSI and the RCPSC. Publications of particular note for the Department are listed on the next page.

In addition to research productivity, mentoring has been a key emphasis

of the partnership. For instance, Drs. Michael Ott, Marie-Eve Lebel, Megan Cashin and Aaron Grant are part of the Surgery faculty who have graduated or are currently pursuing masters in health professions education (MHPE) degrees under the mentorship of CERI scientists. They investigated a variety of phenomena around surgical training and practice including the topics of (see selected publications): residents' hesitation in the operating room and its influence on supervision (Dr. Ott), acquisition of basic skills in arthroscopy surgery using simulation (Dr. LeBel), consultant/resident collaborative work during intraoperative challenges (Dr. Cashin), and patterns of clinical supervision that take place in the operating room (Dr. Grant). The MSc in Surgery program has also become an avenue for graduate supervision in the CERI/Surgery collaborations. In 2017, Dr. Eman Khayat, a fellow in the Division of General Surgery, completed her thesis on the topic of intraoperative mentorship to facilitate the adoption of new surgical techniques in breast cancer surgery under the co-supervision of Dr. Muriel Brackstone and Dr. Sayra Cristancho.

Mentoring has also extended to support Surgery faculty in capturing external research funds. With the support of CERI scientists, Dr. Marie-Eve Lebel and Dr. Richard Novick have been funded by AMOSO opportunities in their research endeavours. Of particular note is Dr. Novick's exploration of help-seeking behaviours during challenging intraoperative situations. Dr. Novick's intriguing results were highlighted nationally by the Royal College of Physicians & Surgeons of Canada as one of 2015's most impactful papers in the KeyLIME – Key Literature in Medical Education (see selected publications).

Looking ahead

As part of the CERI/Surgery strategy for looking ahead, with the help of the surgical education research node, we recently conducted a survey about the state of surgical education research within

the Department. While our successes were acknowledged, we also learned that there is much work yet to be done. More specifically, we learned that for many, protected time remains elusive and that surgical education researchers continue to perceive a lack of recognition for the importance of their work. In part, this may relate to the periodic lack of visibility of the very important work surgical education researchers are doing. Despite these challenges, as is highlighted below, the CERI/Surgery partnership has become a highly productive endeavour worth celebrating and with much potential looking forward.

Leading the way in Competency Based Medical Education (CBME) research.

As Schulich School of Medicine & Dentistry continues its efforts to implement CBME, CERI and the Department of Surgery are partnering to conduct critical research about the opportunities and challenges of the Competence-by-Design (CBD) movement. Two of our key collaborators are Dr. Julie Ann Van Koughnett and Dr. Michael Ott who are involved in CERI projects exploring the potential of using cross-specialty assessors in the Surgical Foundations curriculum, as well as the unintended consequences of CBD implementation. Insights from these projects will inform strategies and best practices for CBD implementation, as well as assisting Surgery in adapting to the new system of CBME.

Studying intraoperative practice and supervision.

Not surprisingly, Surgery faculty have also had, and continue to have, a focus on clinical supervision in the operating room. Besides the already completed studies in this area

including those by Drs. Michael Ott, Richard Novick, Megan Cashin, Eman Khayat and Tavis Apramian, PhD, several new studies are also underway that will continue to offer important insights into surgical training. Drs. Cristancho and Apramian, funded by the RCPSC, are looking into current clinical competence assessment tools and how they might run the risk of glossing over the complexity of surgeons' procedural variations. Furthermore, Dr. Aaron Grant as part of his MHPE thesis, is studying surgical attending styles in the OR, how they supervise, how they teach and how excellence in supervision and teaching does not come only in one shape and size.

Providing methodological expertise to Surgery research beyond education.

As more faculty learn about CERI, more opportunities to collaborate beyond education research arise. Since 2014, Dr. Luc Dubois and Dr. Sayra Cristancho have been working together on projects related to exploring dimensions of clinical success from the patient's perspective. Similarly, Drs. Sarah Jones and Chris Bailey have partnered with Dr. Cristancho in using a qualitative approach to develop a patient-centered questionnaire that captures pre-surgery expectations and post-surgery satisfaction.

The CERI/Surgery partnership has flourished since 2009. This is evident in its research productivity, as well as, in its practical impact. Moving forward, both the Department of Surgery and CERI are working diligently to capitalize on CERI's national and international reputation to increase the reach and impact of their partnership.

SELECTED PUBLICATIONS

- Apramian T, Cristancho S, Sener A, Lingard L. How Do Thresholds of Principle and Preference Influence Surgeon Assessments of Learner Performance? *Ann Surg.* 2018 Aug;268(2):385-390
- Ott M, Schwartz A, Goldszmidt M, Bordage G, Lingard L. Resident hesitation in the operating room: does uncertainty equal incompetence? *Med Educ.* 2018 Aug;52(8):851-860
- LeBel ME, Haverstock J, Cristancho S, van Eimeren L, Buckingham G. Observational Learning During Simulation-Based Training in Arthroscopy: Is It Useful to Novices?. *J Surg Educ.* 2018 Feb;75(1):222-230
- Cristancho S, Lingard L, Forbes T, Ott M, Novick R. Putting the puzzle together: the role of 'problem definition' in complex surgical judgement. *Med Educ.* 2017 Feb;51(2):207-214
- Apramian T, Cristancho S, Watling C, Ott M, Lingard L "Staying in the Game": How Procedural Variation Shapes Competence Judgments in Surgical Education. *Acad Med.* 2016 Nov;91:S37-S43.
- Apramian T, Cristancho S, Watling C, Ott M, Lingard L. They Have to Adapt to Learn: Surgeons' Perspectives on the Role of Procedural Variation in Surgical Education. *J Surg Educ.* 2016 Mar-Apr;73(2):339-47
- Novick R, Lingard L, Cristancho S. The Call, the Save and the Threat: Understanding Expert Help-Seeking Behavior during Non-Routine Operative Scenarios. *J Surg Educ.* 2015 Mar-Apr;72(2):302-9
- Cristancho S, Bidinosti S, Lingard L, Novick R, Ott M, Forbes T. What's Behind Scenes? Exploring the Multidimensionality of Complex and Challenging Surgical Situations. *Acad Med.* 2014 Nov; 89(11): 1540-7

Research News

CIHR Fall 2018 Project Grant competition results



The Department of Surgery is pleased to announce that four applications were approved in the CIHR Project Grant competition, for an approximate amount of \$3.19 million.

- **Drs. Dianne Bryant and Alan Getgood**, “Anterior Cruciate Ligament Reconstruction using Bone Patellar Bone or Quad Tendon Autograft with or without Lateral Extra Articular Tenodesis in Individuals who are at High Risk of Graft Failure (STABILITY II)” \$952,425
- **Dr. Xiufen Zheng**, “The Role of Circular RNA in Heart Transplantation” \$849,150
- **Dr. Emil Schemitsch**, “The DECIPHER Study: Determinants of Function and Clinically Important Outcomes following Proximal Humerus Fractures in the Elder Population: A National Cohort” \$ 875,925
- **Dr. Patrick Luke**, “Therapeutic potential of bloodless oxygenated perfusion of donor kidneys for prolonged storage and protection for transplantation” \$520,200

More funding results are listed below:

AMOSO OPPORTUNITIES FUND - FALL 2018

Dr. Kelly Vogt, “Patient important outcomes in emergency general surgery: What are they and how does the Acute Care Surgery model measure up?” \$65,000

CANADIAN UROLOGICAL ASSOCIATION SCHOLARSHIP FUND

Dr. Peter Wang, “Portable Endoscopic Simulator: Impact on Urological Education” \$40,000

DEPARTMENT OF SURGERY INTERNAL RESEARCH FUND

Patient Centered Research Node

Dr. Neil Merritt, “Impact of Gastrostomy Tube Type on Patient and Caregiver Experience” \$10,000

Dr. Chris Bailey, “Development of a Patient Satisfaction Questionnaire for Adult Surgical Patients” \$9,981

Dr. Richard Malthaner, “Pleurodesis Using Glucose Administration to Treat Post-Operative Air Leaks Following Lung Resection Surgery (PLUG): Phase 1 and Phase 2 Trials” \$10,000

Big Data/ICES Node

Dr. Sumit Dave, “A Retrospective Population-Based Cohort Study to Compare Outcomes and Health Care Costs Between Paediatric Patients with Spina Bifida Transitioning to Adult Care in Ontario, 1986-1996” \$9,968

Dr. Chris Vinden, “Quantitative Metrics to Support Fee Code Relativity” \$9,950

Dr. Blayne Welk, “The Impact of Opioid Prescriptions after Low-Acuity Urology Surgery” \$7,500

Dr. Luc Dubois, “Predictors of Academic Productivity among Academic Surgeons in Ontario and Impact of Clinical Workload” \$10,000

Dr. Ahmad Elnahas, “Impact of Bariatric Surgery on Healthcare Utilization among Elderly Patients” \$10,000

Fundamental Sciences & Surgical Innovation Node

Dr. Gerald Brock, “Early Intralesional Interventions for Peyronie’s Disease: A Change in Treatment Paradigms” \$10,000

Dr. Andreana Bütter, “The Effects of Congenital Diaphragmatic Hernia on Epithelial-Mesenchymal Transition Pathways During Early Lung Development in a Rabbit Model” \$10,000

Dr. Kevin Gurr, “Mechanical Testing of Interconnection Mechanisms and Subassemblies for a Novel Atlantoaxial Fusion Construct” \$10,000

Dr. Adam Power, “First-in-Human Study of Novel 4 French REBOA Device”

Dr. Alp Sener, “The Effect of Hydrogen Sulphide Cream on Recovery from Acute Frostbite Injury” \$10,000

Surgical Education Node

Dr. Michael Ott, “Unintended Consequences: Mapping the Effects of CBD Implementation” \$10,000

Dr. Nicholas Power, “Can Peer-Reviewed Multimedia Publications Improve Knowledge Mobilization for Surgeons? A Uro-Oncological Perspective from a Cadaver-Based Simulation” \$10,000

Dr. Hassan Razvi, “Teaching Residents to Perform Point of Care Ultrasound to Identify Testicular Torsion” \$7,290

Dr. Peter Wang, “Augmented Reality and Competence Assessment for Open Surgery” \$9,989

LAWSON HEALTH RESEARCH INSTITUTES: INTERNAL RESEARCH FUND

Dr. Peter Wang, “Augmented Reality and Competence Assessment for Open Surgery” \$14,300

Surgical Quality Council Update

Surgical Quality Council (SQC)

The first quarterly meeting of 2019 occurred on Monday, January 14. Membership includes representation from each surgical service, as well as administration and hospital site chiefs. Discussions pertained to the surgical quality improvement (QI) infrastructure with the creation of two new roles (Surgical Quality Officer and Quality Improvement Facilitator), updates on current QI initiatives and projects, as well as implementation of QI across all surgical services with toolkits to assist.



SURGICAL QI TEAM (LEFT TO RIGHT): MICHAEL DORWARD, FRAN PRIESTAP, DR. LESLIE SCOTT, RHONDA THOMAS, HELAT MAHMOOD, NAJLA HAMMOUD-MASAYMI, CELIA DANN, ALISON ARMSTRONG, DR. PATRICK COLQUHOUN, KATHERINE GIROTTI, DR. NEIL PARRY, DR. KELLY VOGT, AND DR. KEN LESLIE. NOT SHOWN: CYNTHIA DETTLOFF, KATHRYN ELLETT, JOANNA GAEBEL, AND TAMMI STURGEON.

American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP®)

In July of 2018, London Health Sciences Centre initiated both the adult and paediatric programs at Victoria Hospital. Currently, there have been 955 adult cases abstracted into the data platform and 480 paediatric cases. University Hospital has participated in this program since May of 2016 and has collected more than 3,900 cases. The Trauma Program is now participating in the American College of Surgeons Trauma Quality Improvement Program (ACS TQIP®) and started collecting data in October of 2018. Please contact the Surgical Quality Officer Dr. Patrick Colquhoun (Patrick.Colquhoun@lhsc.on.ca), the Quality Improvement Facilitator Celia Dann (Celia.Dann@lhsc.on.ca) with any program questions, or Alison Armstrong (Alison.Armstrong@lhsc.on.ca) for specific TQIP inquiries.

NSQIP Research

As a NSQIP participating hospital, LHSC is able to access and use the ACS NSQIP® Participant Use Data File (PUF).

The 2017 PUF is now available and contains 1,028,713 surgical cases submitted from 708 NSQIP participating hospital sites. Please contact Kathryn Ellet (Kathryn.Ellett@lhsc.on.ca), Research Associate, for further details.

Ontario Surgical Quality Improvement Network (ON-SQIN)

ON-SQIN is a Community of Practice that facilitates collaboration from surgical teams from all NSQIP participating hospitals across the province. As of June 1, 2018, nearly 77 per cent of Ontario’s adult surgeries took place in an ON-SQIN member hospital. ON-SQIN members review their ACS NSQIP data to identify areas for improvement and strategize a plan to address those issues. Surgical Quality Improvement Plans (SQIPs) are a tool used to help teams leverage their data to create actionable ideas and goals. University Hospital’s 2018/19 SQIP aligned with the ON-SQIN campaign, Committing to Better: Reducing Infections after Surgery. LHSC will be submitting 3 separate site specific SQIPs to ON-SQIN by April 1, 2019.

SAVE THE DATE:

Department of Surgery Research Day

Monday, June 24, 2019

Kenny Theatre, King's University College
London, ON

*On-Line Registration coming April 2019

Annual Resident & MSc in Surgery Student Celebration Dinner

Sunningdale Golf & Country Club (465 Sunningdale Road West)
London, ON

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All members of the Department are invited to submit story ideas, articles, photos, or comments for the spring/summer issue. Please send them to:

Surgery_E-CAST@lhsc.on.ca, or call **519.646.6100 ext. 34776**

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