

# IN THE LOUPE

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Office of Surgical Research

# OSR

Department of Surgery

## WHAT'S INSIDE

Meet Dr. Ganesh Swamy • 1

Award Winners • 2

Important Dates • 3

Publications • 4

## MEET DR. GANESH SWAMY

Dr. Ganesh Swamy is a Clinical Assistant Professor of Orthopaedic Surgery. In addition to an MD from the University of Ottawa, Dr. Swamy also received a PhD from the University of Calgary Medical Sciences program.

Dr. Swamy is involved in a clinical and lab-based research projects. His clinical research centres around the technical aspects of adult spine deformity surgery, and him and his colleagues have overseen significant advances in surgical methodology. As a result of these advancements, what was previously a highly technical resource-intensive operation has been reduced to a routine intervention. Consequently, Dr. Swamy and his colleagues have been recognized as national leaders in this field.



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Dr. Swamy's lab-based research centers around intervertebral disc (IVD) degeneration. His PhD work involved the study of murine models of IVD degeneration, compared to normal aging, increased inflammation and injury. The results of his thesis have been presented at international society meetings and will be published soon. Currently, preparations are underway for two projects looking at human IVD pathologies: determining whether there is a biomarker that can be used to identify IVD herniations (in collaboration with Eve Technologies) and an investigation into tissue properties in adult degenerative scoliosis and degenerative spondylolisthesis, both of which are driven by altered biomechanics of the IVD. These two projects have spurred the creation of a tissue bank, which will be a valuable resource for years to come and allow for fruitful investigation of IVD for years to come in Calgary.

For Dr. Swamy, the most rewarding part of being a researcher is the ability to use a variety of tools to solve the important questions germane to our surgical practice - from mice to detailed study of humans with new technology. He believes that there has been an explosion of such tools in recent years, and that he and his fellow surgeon-scientists, are lucky to be practicing in this time period.

# CONGRATULATIONS TO OUR GRANT & AWARD WINNERS!

## **CSRDF:**

- Dr. Jan Pasieka, General Surgery (Basic Science Research) – Can Molecular Testing Improve the Inter-Observer Variability in Diagnosing Challenging Follicular Thyroid Neoplasms?

Co-Applicants: Drs. Steven Craig, Ralf Paschke, Markus Eszlinger, Moosa Khalil

- Dr. Randy Moore, Vascular Surgery (Clinical Research) – Exercise Rehabilitation for Patients with Critical Limb Ischemia after Revascularization.

Co-Applicants: Drs. Andrea Devrome, Matt James, Todd Anderson, Brian MacIntosh, James Stone, Sandeep Aggarwal

- Dr. Derrick Randall, Otolaryngology, Head and Neck Surgery (Clinical Research) – Swallowing Outcomes Following Surgery for Obstructive Sleep Apnea

Co-Applicants: Drs. Alysha Rasool, Jason Chau

- Dr. Alexander Rezansoff (Clinical Research) – Randomized Feasibility Study Comparing Bracing Protocols Following MCL Injury

- Dr. Peter Lewkonja (Education Research) – Simulation-Based Training of Orthopaedic Residents in Pedicle Screw Fixation via a Minimally-Invasive Surgery.

Co-Applicants: Drs. Lian Willetts, Sarah Anderson

- Dr. Aaron Bois (Education Research) – Arthroscopic Double-Row Repair Technique for Small-to-Medium Sized Full-Thickness Rotator Cuff Tears.

- Dr. Tony MacLean (Health Systems Research) – How Often do Pathology Reports for Malignant Colorectal Polyps Contain Sufficient Information for Colorectal Surgeons to Make Clinical Decisions when Adhering to Clinical Practice Guidelines?

Co-Applicants: Drs. Donald Buie, Tamara Gimon, Mark Dykstra, Ksenia Chezar, Rebecca Buttar

- Dr. Tony MacLean (Health Systems Research) – Young patients with non-familial colorectal cancer: a population based analysis.

Co-Applicants: Drs. Donald Buie, Alysha Keehn, Ameer Farooq

## **Other Awards:**

- Dr. Karim Manji (Donation from Dr. Mark Zivot) – Efficacy of a toe and flow model in reducing major amputations among DFU patients.

- Dr. Michael Monument (Canadian Orthopaedic Research Foundation) – STING Activation as an Immunotherapy for Soft Tissue Sarcoma.

- Dr. Jeff Biernaskie (Calgary Firefighters' Burn Treatment Society) – CFBTS Chair in Skin Regeneration and Wound Healing

- Dr. Murray Wong (Orthopaedic Trauma Association, Resident Grant) – Dynamic CT Analysis of Normal Syndesmosis Motion and Syndesmosis Motion After Static and Dynamic Fixation.

If you have recently received a grant or award and would like to be featured in the next newsletter, please contact Maria Fernando at [Maria.Fernando2@ahs.ca](mailto:Maria.Fernando2@ahs.ca).

# IMPORTANT DATES

## Upcoming Internal Events

- 37<sup>th</sup> Annual Surgeons' Day – June 14, 2019 (Register [here](#) for the Research Day)
- 37<sup>th</sup> Annual Surgeons' Day Gala – June 14, 2019 (Please RSVP to [Jo-El Buerlen](#) by May 31, 2019)

## Upcoming Internal Grant Competitions

- Department of Surgery Open Access Publication Fund – Deadline: June 30, 2019

All applications must be submitted to [osr@ucalgary.ca](mailto:osr@ucalgary.ca) by the specified deadline. For additional information on these competitions, please contact [Maria Fernando](#).

## Upcoming External Grant Competitions

- [National Institutes of Health Research Grants \(R01\)](#) - Deadline: June 5, 2019
- [National Institutes of Health Exploratory/Development Research Grant](#) – Deadline: June 16, 2019
- [The Arthritis Society Strategic Operating Grants](#) – Deadline: August 25, 2019

Please note that these competitions have internal University of Calgary deadlines and requirements. For assistance navigating the requirements, please contact [Maria Fernando](#) or the [Office of Research Services](#).

# RECENT DOS PUBLICATIONS (MID FEB 2019 – APRIL 2019)

## General Surgery:

- Dang JT, Switzer N, Delisle M, Laffin M, Gill R, Birch DW, Karmali S. Predicting venous thromboembolism following laparoscopic bariatric surgery: development of the BariClot tool using the MBSAQIP database. *Surg Endosc*. 2019. PMID: 30003351.
- Kennedy ED, Simunovic M, Jhaveri K, Kirsch R, Brierley J, Drolet S, Brown C, Vos PM, Xiong W, MacLean T, Kanthan S, Stotland P, Raphael S, Chow G, O'Brien CA, Cho C, Streutker C, Wong R, Schmocker S, Liberman S, Reinhold C, Kopek N, Marcus V, Bouchard A, Lavoie C, Morin S, Perigny M, Wright A, Neumann K, Clarke S, Patil NG, Arnason T, Williams L, McLeod R, Brown G, Mathieson A, Pooni A, Baxter NN. Safety and feasibility of using magnetic resonance imaging criteria to identify patients with “good prognosis” rectal cancer eligible for primary surgery: the Phase 2 nonrandomized QuickSilver Clinical Trial. 2019. *JAMA Oncol*. PMID: 30973610.

## Ophthalmology:

- Aghazadeh H, Crump T\*, Tennant M, Weis E. Use of mobile health (mHealth) technologies in ophthalmology patients in Alberta. 2019. *Can J Ophthalmol*. PMID: 30975338. \**Urology*
- Felfeli T, Juncal VR, Hillier RJ, Mak MY, Wong DT, Berger AR, Kohly RP, Kertes PJ, Eng K, Boyd SR, Altomare F, Giavedoni LR, Muni RH. Aqueous humor cytokines and long-term response to anti-vascular endothelial growth factor therapy in diabetic macular edema. 2019. *Am J Ophthalmol*. PMID: 30959004.
- Roelofs KA, Aghazadeh H, Cheema M, Weis E, Badilla J. Enucleation and evisceration: an analysis of indications, histopathological findings, and surgical trends over 23 years at a tertiary care hospital in western Canada. *Can J Ophthalmol*. 2019. PMID: 30851761.
- Schock K, Ragan A, Huang JT. Defunding preoperative histories and physical exams: putting the cart before the evidence? 2019. *Can J Ophthalmol*. PMID: 30975339.

## Orthopaedics:

- Affan A, Al-Jezani N, Railton P, Powell JN, Krawetz RJ. Multiple mesenchymal progenitor cell subtypes with distinct functional potential are present within the intimal layer of the hip synovium. *BMC Musculoskelet Disord*. 2019. PMID: 30909916.
- Al-Jezani N, Cho R, Masson AO, Lenehan B, Krawetz R, Lyons FG. Isolation and characterization of an adult stem cell population from human epidural fat. *Stem Cells Int*. 2019. PMID: 31007686.
- Beaupre LA, Khong H, Smith C, Kang S, Evens L, Jaiswal PK, Powell JN. The impact of time to surgery after hip fracture on mortality at 30- and 90-days: does a single benchmark apply to all? *Injury*. 2019. PMID: 30948037.
- Bortz CA, Passias PG, Segreto F, Horn SR, Lafage V, Smith JS, Line B, Mundis GM, Kebaish KM, Kelly MP, Protosaltis T, Sciubba DM, Soroceanu A, Klineberg EO, Burton DC, Hart RA, Schwab FJ, Bess S, Shaffrey CI, Ames CP, International Spine Study Group (ISSG). Indicators for nonroutine discharge following cervical deformity-corrective surgery: radiographic, surgical, and patient-related factors. *Neurosurgery*. 2019. PMID: 30848284.
- Hiemstra LA, Kerslake S, Kupfer N, Lafave MR. Generalized joint hypermobility does not influence clinical outcomes following isolated MPFL reconstruction for patellofemoral instability. *Knee Surg Sports Traumatol Arthrosc*. 2019. PMID: 30919002.
- Hiemstra LA, Page JL, Kerslake S. Patient-reported outcome measures for patellofemoral instability: a critical review. *Curr Rev Musculoskelet Med*. 2019. PMID: 30835079.
- Matthewson G, Kooner S, Kwapisz A, Leiter J, Old J, MacDonald P. The effect of subscapularis repair on dislocation rates in reverse shoulder arthroplasty: a meta-analysis and systematic review. 2019. *J Shoulder Elbow Surg*. PMID: 30827833.
- Morrison L, Taylor R, Mercuri M, Thompson J. Examining Canada's return visits to the emergency department after a concussion. 2019. *CJEM*. PMID: 30947758.
- Ono Y, Makihara T, Yamashita S, Tam KK, Kawai N, Lo IK, Kimura A. Supraspinatus muscle location changes after arthroscopic rotator cuff repair: a potential source of preoperatively predicting tear patterns. *Open Access J Sports Med*. 2019. PMID: 30881154.

- Premnath P, Ferrie L, Louie D, Boyd S, Krawetz R. Absence of p21(WAF1/CIP1/SDI1) protects against osteopenia and minimizes bone loss after ovariectomy in a mouse model. 2019. PLoS One. PMID: 30970032.
- Shimomura K, Rothrauff BB, Hart DA, Hamamoto S, Kobayashi M, Yoshikawa H, Tuan RS, Nakamura N. Enhanced repair of meniscal hoop structure injuries using an aligned electrospun nanofibrous scaffold combined with a mesenchymal stem cell-derived tissue engineered construct. Biomaterials. 2019. PMID: 30471629.

### Otolaryngology, Head and Neck Surgery:

- Allen L, Al Afif A, Rigby MH, Bullock MJ, Trites J, Taylor SM, Hart RD. The role of repeat fine needle aspiration in managing indeterminate thyroid nodules. J Otolaryngol Head Neck Surg. 2019. PMID: 30894222.
- Atchison KM, Pham TM, Sikdar KC, Weeks LA, Karosas APV, Sinnarajah A, Dort JC, Cheung WY, Shack L. Premature deaths due to head and neck cancers in Canada: a nationwide analysis from 1980 to 2010. 2019. Laryngoscope. PMID: 31021397.
- Beswick DM, Mace JC, Rudmik L, Soler ZM, Alt JA, Smith KA, Detwiller KY, Smith TL. Socioeconomic factors impact quality of life outcomes and olfactory measures in chronic rhinosinusitis. Int Forum Allergy Rhinol. 2019. PMID: 30548212.
- Frank E, Carlson B, Hu A, Randall DR, Tamares S, Inman JC, Crawley BK. Assessment and treatment of pain during in-office otolaryngology procedures: a systematic review. Otolaryngol Head Neck Surg. 2019. PMID: 30885070.
- Purcell C, Moolman N, MacKay C, Hatchette TF, Trites J, Taylor SM, Rigby MH, Hart RD. Bacterial contamination of surgical loupes and headlights. 2019. J Laryngol Otol. PMID: 31006387.
- Shen SC, Nachalon Y, Randall DR, Nativ-Zeltzer N, Belafsky PC. High elevation training mask as a respiratory muscle strength training tool for dysphagia. 2019. Acta Otolaryngol. PMID: 31035838.

### Pediatrics:

- Fischer S, Vinall J, Pavlova M, Graham S, Jordan A, Chorney J, Rasic N, Brookes JT, Hoy M, Yunker WK, Noel M. Role of anxiety in young children's pain memory development after surgery. 2019. Pain. PMID: 30586022.
- Gimon T, Almosallam O, Lopushinsky S, Eccles R, Brindle M, Yanchar NL. Optimizing postoperative follow-up in pediatric surgery. 2019. J Pediatr Surg.
- Moore L, Lauzier F, Tardif PA, Boukar KM, Farhat I, Archambault P, Mercier E, Lamontagne F, Chasse M, Stelfox HT, Berthelot S, Gabbe B, Lecky F, Yanchar N, Champion H, Kortbeek J, Cameron P, Bonaventure PL, Paguet J, Truchon C, Turgeon AF, Canadian Traumatic Brain Injury Research Consortium. J Trauma Acute Care Surg. 2019. PMID: 30882763.
- Naqvi SA, Thompson GC, Joffe AR, Blackwood J, Martin DA, Brindle M, Barkema HW, Jenne CN. Cytokines and chemokines in pediatric appendicitis: a multiplex analysis of inflammatory protein mediators. Mediators Inflamm. 2019. PMID: 30918467.
- Noel M, Pavlova M, Lund T, Jordan A, Chorney J, Rasic N, Brookes J, Hoy M, Yunker WK, Graham S. The role of narrative in the development of children's pain memories: influence of father- and mother-child reminiscing on children's recall of pain. Pain. 2019. PMID: 30908359.
- Pavlova M, Graham SA, Jordan A, Chorney J, Vinall J, Rasic N, Brookes J, Hoy M, Yunker WK, Noel M. Socialization of pain memories: parent-child reminiscing about past painful and sad events. J Pediatr Psychol. 2019. PMID: 30844062.
- Tansley G, Schuurman N, Bowes M, Erdogan M, Green R, Asbridge M, Yanchar N. Effect of predicted travel time to trauma care on mortality in major trauma patients in Nova Scotia. 2019. Can J Surg. PMID: 30907993.
- Yang MMH, Hader W, Bullivant K, Brindle M, Riva-Cambrin J. Calgary Shunt Protocol, an adaptation of the hydrocephalus clinical research network shunt protocol, reduces shunt infections in children. 2019. J Neurosurg Pediatr. PMID: 30797206.

### Plastic Surgery:

- Sinha S, Nunez Martinez CM, Hartley RL, Quintana Alvarez RJ, Yoon G, Biernaskie JA, Nickerston D, Gabriel VA. Epidemiological analysis of pediatric burns in the Dominican Republic reveals a demographic profile at significant risk for electrical burns. *Burns*. 2019. PMID: 30573295.
- Stone JP, Siotos C, Sarmiento S, Temple-Oberle C, Aliu O, Cooney DS, Broderick KP, Sacks JM, Manahan MA, Rosson GD. Implementing our microsurgical breast reconstruction enhanced recovery after surgery pathway: consensus obstacles and recommendations. 2019. *Plast Reconstr Surg Glob Open*. PMID: 30859019.
- Thiboutot E, Craighead P, Webb C, Temple-Oberle C. Patient-reported satisfaction following radiation of implant-based breast reconstruction. 2019. *Plast Surg*.
- Webb C, Jacox N, Temple-Oberle C. The making of breasts: navigating the symbolism of breasts in women facing cancer. 2019. *Plast Surg (Oakv)*. PMID: 30854362.
- Yang MMH, Hartley RL, Leung AA, Ronksley PE, Jette N, Casha S, Riva-Cambrin J. Preoperative predictors of poor acute postoperative pain control: a systematic review and meta-analysis. 2019. *BMJ Open*. PMID: 30940757.

### **Surgical Oncology:**

- Abdel-Rahman O, Xu Y, Kong S, Dort J, Quan ML, Karim S, Bouchard-Fortier A, Cho H, Cheung WY. Impact of baseline cardiovascular comorbidity on outcomes in women with breast cancer: a real-world population-based study. 2019. *Clin Breast Cancer*. PMID: 30630679.
- Turner B, Alghamdi M, Henning JW, Kurien E, Morris D, Bouchard-Fortier A, Schiller D, Puloski S\*, Monument M\*, Itani D, Mack LA. Surgical excision versus observation as initial management of desmoid tumors: a population based study. 2019. *Eur J Surg Oncol*. PMID: 30420189. \**Orthopaedics*
- Chohan MBY, Taylor N, Coffin C, Burak KW, Bathe OF. Spontaneous regression of hepatocellular carcinoma and review of reports in the published English literature. 2019. *Case Rep Med*. PMID: 21049068.
- Horkoff MJ, Ahmed Z, Xu Y, Sutherland FR\*, Dixon E\*, Ball CG\*, Bathe OF. Adverse outcomes after bile spillage in incidental gallbladder cancers: a population-based study. 2019. *Ann Surg*. PMID: 30998534. \**General Surgery*
- Amin S, Rattner J, Keramati MR, Farshidfar F, McNamara MG, Knox JJ, Kopciuk K, Vogel, Bathe OF. A strategy for early detection of response to chemotherapy drugs based on treatment-related changes in the metabolome. 2019. *PLoS One*. PMID: 30939138.
- Xu Y, Kong S, Cheung WY, Bouchard-Fortier A, Dort JC\*, Quan H, Buie EM, McKinnon G, Quan ML. Development and validation of case-finding algorithms for recurrence of breast cancer using routinely collected administrative data. *BMC Cancer*. 2019. PMID: 30849954. \**OHNS*
- Xu Y, Steckle S, Lui A, Dixon E\*, Ball CG\*, Sutherland FR\*, Spratlin J, Bathe OF. Effect of proximity to specialty care on outcomes for biliary cancers: a population-based retrospective cohort study. *CMAJ Open*. 2019. PMID: 30819693. \**General Surgery*

### **Thoracic:**

- Turner SR, Nasir BS, Lai J, Yasufuku K, Schieman C, Louie BE, Bedard EL. Development and pilot testing of an assessment tool for performance of invasive mediastinal staging. 2019. *Ann Thorac Surg*. PMID: 31009628.

### **Urology:**

- Crump T, Sehgal A, Wright I, Carlson K, Baverstock R. From prostate health to overactive bladder: developing a crosswalk for the IPSS to OAB-V8. *Urology*. 2019. PMID: 30803722.
- Desai S, Peterson AC, Wing K, Younger A, Crump T, Liu G, Veljkovic A, Penner M, Sutherland JM. Minimally important difference in the foot and ankle outcome score among patients undergoing hallux valgus surgery. 2019. *Foot Ankle Int*. PMID: 30873859.
- Lee J, Brock G, Barking J, Bryson N, Gronski MA, Ormsby R. The My-T study: Patient satisfaction and preference comparing topical and nasal testosterone therapies. *Can Urol Assoc J*. 2019. PMID: 30817284
- Liu G, Peterson AC, Wing K, Crump T, Younger A, Penner M, Veljkovic A, Foggin H, Sutherland JM. Validation of the ankle osteoarthritis scale instrument for preoperative evaluation of end-stage ankle arthritis patients using item response theory. 2019. *Foot Ankle Int*. PMID: 30628474.

- Ospina J, Liu G, Crump T, Sutherland JM, Janjua A. The impact of comorbid depression in chronic rhinosinusitis on post-operative sino-nasal quality of life and pain following endoscopic sinus surgery. 2019. J Otolaryngol Head Neck Surg. PMID: 31039822.
- Parkhomenko E, O'Leary M, Safiullah S, Walia S, Owyong M, Lin C, James R, Okhunov Z, Patel RM, Kaler KS, Landman J, Clayman R. Pilot assessment of immersive virtual reality renal models as an educational and preoperative planning tool for percutaneous nephrolithotomy. 2019. J Endourol. PMID: 30460860.
- Patel P, Sun R, Shiff B, Trpkov K, Gotto GT. The effect of time from biopsy to radical prostatectomy on adverse pathologic outcomes. Res Rep Urol. 2019. PMID: 30881945.
- Shiff B, Patel P, Trpkov K, Gotto GT. Changes in risk-group stratification of patients undergoing radical prostatectomy at the Southern Alberta Institute of Urology over time. Res Rep Urol. 2019. PMID: 30937290.
- Sutherland JM, Kurzawa Z, Karimuddin A, Duncan K, Liu G, Crump T. Wait lists and adult general surgery: is there a socioeconomic dimension in Canada? BMC Health Serv Res. 2019. PMID: 30866903.
- Sutherland JM, Mok J, Liu G, Crump T, Wing K, Younger A, Penner M, Veljkovic A. Cost-utility study of the economics of bunion correction surgery. Foot Ankle Int. 2019. PMID: 30557044.
- Sutherland JM, Wing K, Younger A, Penner M, Veljkovic A, Liu G, Crump T. Relationship of duration of wait for surgery and postoperative patient-reported outcomes for hallux valgus surgery. Foot Ankle Int. 2019. PMID: 30345811.

#### **Vascular:**

- Kayal A, Mirakhur A, Petrasek P, Forbes N. Erosion of duodenal metal object into inferior vena cava: an unusual cause of bilateral deep vein thromboses. Gastrointest Endosc. 2019. PMID: 30822417.

**\*\*Publications are retrieved from PubMed using a search based on Calgary (location) and Department of Surgery (affiliation) with a cut-off date of April 30, 2019 or from publications that have been submitted to the OSR for inclusion in the newsletter. If your publication was missed please send the information to Maria Fernando at [Maria.Fernando2@ahs.ca](mailto:Maria.Fernando2@ahs.ca) to have it featured in the next issue.**