



SHARPMINDS:SKILLEDHANDS

Department of Surgery

43rd GALLIE DAY

FRIDAY APRIL 28, 2017

Gallie-Bateman & McMurrich Research Presentations

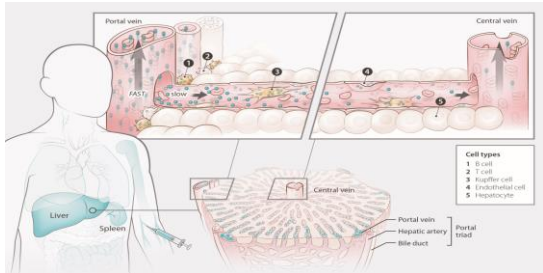
MaRS Centre Lower Concourse - 101 College Street

Gordon Murray Lecturer

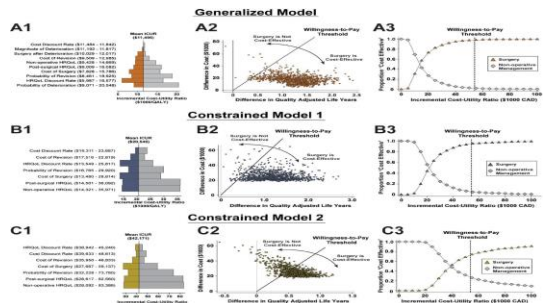


Dr. Allan D. Kirk

David C. Sabiston, Jr. Professor & Chairman, Dept of Surgery, Duke University School of Medicine; Surgeon-in-Chief, Duke University Health System, Durham, North Carolina USA



Mechanism of nanomaterial transport in the liver. Injected nanomaterials accumulate in the liver, reducing their delivery efficiency. The nanomaterial-liver interaction has been poorly understood and consequently, no solutions exist. This figure summarizes our findings into how hard nanomaterials are cleared by the liver. Briefly, as nanomaterials enter this organ, favourable flow dynamics permits interaction with sinusoidal cells. Nanomaterials are cleared by B cells, Kupffer cells and endothelial cells but not by T cells or hepatocytes. Differential uptake is driven by cellular phenotype and microarchitecture. (Tsoi, KM, MacParland, SA, et al. (2016). Mechanism of hard-nanomaterial clearance by the liver. Nature Materials, 15(11), 1212-1221) Supervisors: Warren Chan, Benjamin Alman



Witiw CD, Tetreault LA, Smieliauskas F, Kopjar B, Massicotte EM, Fehlings MG: Markov state transition modeling with deterministic and Monte Carlo probabilistic sensitivity analysis for estimates of the incremental cost-utility ratio (ICUR) of surgical intervention for Degenerative Cervical Myelopathy. Panel A: calculations from the General Model. A1, multiple single way deterministic sensitivity analyses; A2, cost-utility plane with probabilistic sensitivity analysis estimated values; A3, cost-utility acceptability curve showing proportion of ICUR estimates within a willingness-to-pay threshold. Panel B and C represent constrained models for model structure sensitivity analysis.

TRANSPLANTATION / REGENERATIVE MEDICINE

Friday April 28, 2017 MaRS Centre, Lower Concourse

7:30 a.m. Continental Breakfast and Registration

7:45 E-Poster Setup – Collaboration Centre Main Concourse

Session Coordinators: Val Cabral and M. Andrea McCart

8:00 Opening Remarks - Auditorium

Dr. James T. Rutka, R.S. McLaughlin Professor and Chair

Dr. Michael G. Fehlings, Vice Chair Research

Gallie-Bateman and McMurrich Research Presentations

Session Chair: Carmine Simone, MD; Thoracic Surgery, Surgeon-in-Chief, Michael Garron Hospital (MGH)

8:15 Joseph Catapano (SSTP) et al. (Supervisor: Gregory H. Borschel): "Corneal neurotization: A novel surgical procedure to restore sensation and preserve vision in patients with neurotrophic keratopathy"

8:30 Robert Qaqish et al. (Supervisor: Marcelo Cypel): "Lung lavage and surfactant replacement during ECMO in a severe ARDS aspiration pneumonia model"

8:45 James J. Jung (SSTP), (Supervisor: Teodor Grantcharov): "A prospective analysis of surgery using the operating room black box: a pilot study"

9:00 Maryam Alomair et al. (Supervisor: Glen Van Arsdell): "Should all patients with congenitally corrected transposition of great arteries (CC TGA) undergo anatomic repair?"

9:15 Vivek P. Bodani (SSTP) et al. (Supervisor: James M. Drake): "Development and validation of a high-fidelity surgical simulator for endoscopic colloid cyst resection"

9:30 E-Poster Judging – Moderated - MaRS Centre Café & CR2 – Main Floor

10:30 SYMPOSIUM: REGENERATIVE MEDICINE SOLUTIONS FOR HUMAN DISEASE: WHERE ARE WE NOW? WHERE ARE WE GOING?

Chair: Michael G. Fehlings, Vice Chair Research

♦ Cindi M Morshead, PhD; Professor & Chair, Division of Anatomy, Department of Surgery, University of Toronto

"Activating resident stem cells to promote neural repair: A stroke of genius"

♦ Marc Jeschke, MD PhD FACS FCCM FRCS(C); Professor, Divisions of Plastic & Reconstructive Surgery and General Surgery, Department of Surgery, University of Toronto; Director Ross Tilley Burn Centre, Chair in Burn Research, Sunnybrook Health Sciences Centre

"The future of burn and complex wound care: Stem cell and tissue engineering"

♦ Peter Zandstra, BEng (McGill), PhD (UBC), FAAAS, FAIMBE, FRSC, PEng; Professor & Canada Research Chair, Stem Cell Bioengineering, Centre for Cellular & Biomolecular Research, University of Toronto

"Stem cell bioengineering"

♦ Thomas K. Waddell, MD, MSc, PhD, FRCS, FACS; Head, Division of Thoracic Surgery, UHN; Thomson Family Chair in Translational Research; Professor and Pearson-Ginsberg Chair, Division of Thoracic Surgery; University of Toronto

"Engineering (mechanical and genetic) to advance lung regeneration"

12:00 pm Lunch and E-Poster Viewing

1:05 GORDON MURRAY LECTURE: Allan D. Kirk, MD, PhD, FACS

David C. Sabiston, Jr. Professor and Chairman, Department of Surgery Duke University School of Medicine; Surgeon-in-Chief, Duke University Health System, Durham, NC USA

"Costimulation blockade for organ transplantation"

2:05 E-Poster Judging – Moderated - MaRS Centre Café & CR2 – Main Floor

Gallie-Bateman and McMurrich Research Presentations

Session Chair: Elisa Greco, MD, MEd; Vascular Surgery, St. Michael's Hospital

3:05 Sergio Acuna, Rinku Sutradhar, S. Joseph Kim (Supervisor: Nancy N. Baxter): "Malignancy and solid organ transplantation: Outcomes of recipients with pre-transplant malignancies, uptake of cancer screening, and cancer mortality after solid organ transplantation"

3:20 James P. Byrne (SSTP), Stephanie Mason (SSTP), (Supervisor: Avery B. Nathans): "The relationship between Emergency Medical Service response time and prehospital death from motor vehicle crashes: Rural-urban disparities and implications for trauma system performance improvement"

3:35 Vivian Y. Szeto et al. (Supervisor: Hong-Shuo Sun): "Cerebrovascular safety of sulfonylureas: The role of KATP channels in neuroprotection and stroke risk in sulfonylurea treatment of Type 2 diabetes"

3:50 Dale J. Podolsky (SSTP) et al. (Supervisors: James M. Drake, Christopher R. Forrest): "Development and evaluation of a high-fidelity cleft palate simulator for surgical training and for development of a robotic approach to infant cleft palate surgery"

4:05 Stephanie W. Tobin (Supervisor: Ren-Ke Li): "Loss of ERK1/2 activity in BAV triggers AP-1 degradation and aortic wall instability"

4:20 Closing remarks: James T. Rutka, Michael G. Fehlings

Friday April 28, 2017 – Gordon Murray Lectureship Dinner ♦ Omni King Edward Hotel Sovereign Ballroom, 37 King St E, ♦ 7 pm Reception ♦ 8 pm Dinner & Awards Ceremony Admission \$125 per person



Gallie Day 2017 is an accredited group learning activity as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada (6.5 credits)