



**Courtyard Marriott Downtown Toronto (475 Yonge Street, Toronto, ON)**

### **WEDNESDAY APRIL 26, 2023**

7:00 am	Registration Desk opens – outside University Room	
7:00 am	Breakfast Buffet (College and Yonge Rooms)	
8:00 am	Welcome & Introduction of Keynote Speaker – Dr. Sonya MacParland  <b>Promoting Self-Repair of the Injured Brain: A Stroke of Genius</b> <b>Dr. Cindi Morshead</b>	
9:10 am	Presentation Guidelines & Grading Panel Introduction – Humna Noman, Teaching Assistant	
Time	Title	Presenter
Student Chair: Gabriel Siebiger		



## WEDNESDAY APRIL 26, 2023

Student Chair: Gabriel Loesch Siebiger

Grading Panel – Humna Noman, Kathryn Lye, Shin Ogawa

### MATERNAL HEALTH AND THE GUT MICROBIOTA

1:00 pm	Bacteriocins in Human Breast Milk Regulate the Infant's Oral and Gut Microbiomes	Cara Marks
1:15 pm	Assess the Functional Impact of Tumor-associated Microbiota Secreted Factors on Pancreatic Ductal Adenocarcinoma (PDAC) Tumor Cells Regrowth after Chemotherapy	Chantelle Benxi Shing
1:30 pm	Lineage-Specific Metabolic Distinctions in the Human Breast Epithelium	Bowen Zhang
1:45 pm	Evaluation of the Effects of Female Cells and Hormones on Inflammatory Responses to Surgical Mesh	Kaylee A Fennell
2:00 pm	BREAK (College and Yonge Rooms)	

### DISEASE MECHANISMS AND CELL THERAPIES

2:10 pm	Senescent Cell Clearance Regenerates Aged Burn Wounds in Mice	Sara Faour
2:25 pm	Investigating the Role of Signal Transducer and Activator of Transcription Factor 3 (STAT3)-mediated Astroglia on the Pathogenesis of Degenerative Cervical Myelopathy and decompression-induced Ischemia Reperfusion Injury (IRI)	Sarah Sadat*
2:40 pm	The Role of CD4 <sup>Pos</sup> /CD28 <sup>Null</sup> T-cells in Periodontal Diseases and Their Link to Other Inflammatory Diseases	Sina Zargarani
2:55 pm	Anti-Desmoglein 2 Specific Signalling in Arrhythmogenic Right Ventricular Cardiomyopathy	Shaylyn Joseph
3:10 pm	Exploring the Cell Therapy Potential of ILC2s for Type 1 Diabetes and Islet Transplant	Sinhuja Jegatheeswaran
3:25 pm	Exosomal Delivery of Wnt7a as a Therapeutic Approach for Muscle Wasting Diseases	Ehsan Javandoost*
3:40 pm	Closing Remarks – Dr. Sonya MacParland, Symposium Chair	



### THURSDAY APRIL 27, 2023

8:00 am	Breakfast Buffet (College and Yonge Rooms)	
8:55 am	Welcome – Dr. Sonya MacParland Presentation Guidelines & Grader Introduction – Humna Noman	
Time	Title	Presenter
Student Chair: Lauren Belfiore                      Grading Panel – Humna Noman, Dr. Sonya MacParland, Dr. Elmar Jaeckel		
ENGINEERING APPROACHES IN REGENERATIVE MEDICINE		
9:00 am	3D Bioprinted Decellularized Skin Substitute Reinforced with PCL/PEG for Enhanced Burn Healing	Faraz Chogan
9:15 am	Bioresorbable Hydrogel-nanoparticle Release System for the Controlled Local Delivery of Therapeutics to the Central Nervous System	David Li
9:30 am	Evaluation of Collagen-based Hydrogels and Nicotinamide on Lens Epithelial Cell Migration and Behaviour	Kathryn Jalink
9:45 am	In vivo Monitoring of Conductive Cardiac Patches in Arrhythmic Mice using Iron Nanoparticles	Adrian Dychiao
10:00 am	Characterization of Fibroblasts-collagen Modular Microtissues in a Foreign Body Reaction In Vitro Model	Fredrick Bulondo
10:15 am	Identifying Biomarkers to Detect Congenital Heart Block	Stephanie W Benjamin
10:30 am	Evaluating Immunogenicity of Partial Heterotopic Hindlimb Allografts in Mice	Angela (Jiahui) Sun
10:45 am	BREAK (College and Yonge Rooms)	
11:00 am	Introduction of Keynote speaker - Dr. Sonya MacParland  <b>Opportunities and Challenges of Machine Learning in Regenerative Medicine</b> <b>Dr. Bo Wang</b>	
INNOVATIONS IN ORGAN TRANSPLANTATION: THE KIDNEY		
12:00 pm	Generating an Ex-vivo Organ Perfusion System to Model Murine Kidney Fibrosis	Jorge David Castillo-Prado
12:15 pm	Ex-vivo Delivery of Autologous Regulatory T Cells during Normothermic Machine Perfusion in Porcine Kidney Transplantation	Kaitlin Lees
12:30 pm	Defining Protective and Pathogenic Resident Immune Cells in Kidney Transplantation	Martin Louis Mak
12:45 pm	LUNCH (College and Yonge Rooms)	



## THURSDAY APRIL 27, 2023

Student Chair: Lauren Belfiore		Grading Panel – Humna Noman, Dr. Michael Sefton, Dr. Golnaz Karoubi
INNOVATIONS IN ORGAN TRANSPLANTATION: THE LUNGS		
1:45 pm	Ex Vivo Treatment of Infected Donor Lungs with Antimicrobial Doses of inhaled Nitric Oxide	Vanessa Costa Menezes
2:00 pm	The Clinical Relevance of Necroptosis in Ischemia Reperfusion Injury in Human Lung Transplants	Kimberly Main
2:15 pm	Mitochondrial Isolation in a Porcine Model for Autologous Mitochondrial Transplantation in Ex-Vivo Lung Perfusion	Gabriel Siebiger
2:30 pm	Identifying and Characterizing Autoantibodies in Chronic Lung Rejection	Daniel Vosoughi
2:45 pm	Exploring Druggable Targets for Tissue Repair and Blood Vessel Regeneration in Fibroproliferative Acute Respiratory Distress Syndrome (FP-ARDS) Using a High Throughput Human Lung on a Chip System	Kelsie Volek
3:00 pm	BREAK (College and Yonge Rooms)	
MECHANISMS IN ORGAN DISEASES		
3:10 pm	The Role of PBX1 in Kidney Development and Maldevelopment	Caoimhe Costigan
3:25 pm	Investigating Hepatocyte Nuclear Factor 4 Alpha as a Central Regulator of Kidney Graft Repair	Slaghaniya Neupane
3:40 pm	Understanding the Mechanisms of Human Liver Regeneration via Characterization of Circulating Extracellular Vesicles	Yilin Sun
3:55 pm	Ex Vivo Perfusion of the Native and Humanized Murine Pancreas to Model Type 1 Diabetes	Marwa Sadat
4:10 pm	Examining the Effect of Supra-Physiological Insulin in an In Vitro Human Insulin Infusion Cannula Host Response Model	Grace Riddell
4:25 pm	Protease-Based Tailoring Of 3D Hepatic Organoids	Soumili Sarkar*
4:40 pm	Closing Remarks - Sonya MacParland, Symposium Chair	