

# Regenerative Medicine Symposium

April 20-21, 2022

Virtual



*Regenerative Medicine: from Discoveries to Therapies*

## WEDNESDAY APRIL 20, 2022

7:45 am	Zoom waiting room opens	
8:00 am	Welcome & Introduction – Dr. Sonya MacParland KEYNOTE SPEAKER: <b>Dr. Lorenz Studer, Sloan Kettering Institute</b> <b>APPLICATIONS OF HUMAN PSCS IN MODELING AND TREATING HUMAN DISEASE</b>	
9:10 am	Presentation Guidelines & Grader Introductions – Humna Noman	
Time	Title	Presenter
<b>BIOENGINEERING APPLICATIONS FOR IMPROVED FUNCTIONAL OUTCOMES</b>		
Student Chair: Doris Adao		Grading Panel – Humna Noman, Golnaz Karoubi, Sara Vasconcelos
9:15 am	Designing And Selecting Nutrient Enriched Perfusate Solutions For Ex Vivo Lung Perfusion In Vitro	Dejan Bojic (Dr. Mingyao Liu)
9:30 am	Evaluating A Cell-Surface Engineered Glycocalyx Mimic During EVLP	Jenny Hojeong Yune (Dr. Marcelo Cypel)
9:45 am	Bioengineering Human Airway Mimetic For Precision Medicine & Disease Modelling Cystic Fibrosis	Kayshani Rebecca Kanagarajah (Dr. Amy Wong)
10:00 am	Exosome-Based CRISPR/Cas9 Delivery As A Treatment For Genetic Renal Thrombotic Diseases	Ergi Duli (Dr. Mathieu Lemaire)
10:15 am	Direct Astrocyte To Neuron Reprogramming As A Treatment For Ischemic Stroke	Daria Ivanova (Dr. Cindi Morshead)
10:30 am	BREAK	
10:40 am	Methacrylic Acid-Based Synthetic Hydrogel Supplemented With Collagen Improves Islet Survival In Subcutaneous Transplant	Benedikt Licht (Dr. Michael Sefton)
10:55 am	Modulation Of The Biophysical And Biochemical Properties Of Collagen By Glycation For Tissue Engineering Applications	Mina Vaez (Dr. Laurent Bozec)
11:10 am	Shape-Adaptable Printhead For Single-Step Conformal Bioprinting Of Tissue Sheets Onto Physiologically Curved Surfaces	Sushant Singh (Dr. Axel Guenther, Dr. Teodor Veres)
11:25 am	Automated Diagnosis Of Liver Allograft Fibrosis Using Deep Learning	Madhumitha Rabindranath (Dr. Mamatha Bhat)
<b>STEM CELL THERAPIES FOR DISEASE MODULATION</b>		
Student Chair: Doris Adao		Grading Panel – Kathryn Lye, Michael Sefton, Sonya MacParland
11:40 am	Utilizing A Patient-Specific Ipsc Platform For The Study Of Rare Genetic Kidney And Vascular Diseases	Daniel Diatlov (Dr. Christoph Licht)
12:00 pm	Introduction – Dr. Sonya MacParland KEYNOTE SPEAKER: <b>Dr. Alison McGuigan, University of Toronto</b> <b>ENGINEERED CELLULAR MODELS TO EXPLORE HUMAN DISEASE AND REGENERATION</b>	

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1:00 pm	LUNCH BREAK	
1:30 pm	Mesenchymal Stem-Cell Based Therapies For Pulmonary Fibrosis – A 3D Bioprinting Modelling Approach	Fatima Hasan (Dr. Nicoletta Eliopoulos)
1:45 pm	Chromatin Organization Of The Nucleolus In Early Human Embryonic Stem Cells	Lamisa Mizan (Dr. Miguel Ramalho-Santos)
2:00 pm	Identifying Metabolic Abnormalities In Cardiomyocytes Differentiated From Human Induced Pluripotent Stem Cells	Karm Alhasan (Dr. Steven Greenway)
2:15 pm	Endothelial Progenitor Cells For The Treatment Of Neonatal Pulmonary Hypertension	Mahnaz Nazari (Dr. Bernard Thebaud)
2:30 pm	Human Pluripotent Stem Cells Reveal Fetal Lung Development As A Critical Therapeutic Window For Cystic Fibrosis	Henry Tat Quach (Dr. Amy Wong, Dr. Theo Moraes)
2:45 pm	Development Of FGFR Agonists Modalities For Directed Stem Cell Differentiation	Sijia (Althea) Xu (Dr. Stephane Angers)
3:00 pm	Granulocyte Colony-Stimulating Factor Use In Hematopoietic Stem Cell Transplant Expands Two Novel Populations Of Myeloid Cells.	Erika McCartney (Dr. Donna Wall)
3:15 pm	<b>Closing Remarks – Dr. Sonya MacParland, Symposium Chair</b>	

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## THURSDAY APRIL 21, 2022

9:20 am	Zoom waiting room opens	
9:30 am	Opening Remarks Dr. Sonya MacParland, Symposium Chair, Course Director	
9:35 am	Presentation Guidelines & Grader Introduction – Humna Noman	
Time	Title	Presenter
<b>MECHANISMS OF ACTION IN DISEASE AND REGENERATION</b>		
Student Chair: Ergi Duli		Grading Panel – Humna Noman, Harold Atkins, Ana Konvalinka
9:40 am	Investigating Uremic Toxins As A Risk Factor For Cardiac Dysfunction In Pediatric Chronic Kidney Disease	Heshini Dalpathadu (Dr. Steven Greenway, Dr. Andrew Wade)
9:55 am	Mechanisms Of Mitochondrial Fragmentation In Polycystic Kidney Disease	Rohankrishna Harikumar (Dr. Andras Kapus)
10:10 am	The Role Of Complement In Idiopathic Membranous Nephropathy	Valentina Bruno (Dr. Christoph Licht)
10:25 am	BREAK	
10:35 am	Role Of The Complement System And Vascular Endothelium In COVID-19 Pathogenies	Niyousha Rostam Shirazi (Dr. Christoph Licht)
10:50 am	The Role Of Micrnas In Endothelial Cell-Cardiomyocyte Crosstalk In Hypertrophic Cardiomyopathy	Doris Adao (Dr. Craig Simmons, Dr. Phyllis Billia)
11:05 am	Characterization Of The TAZ Protein Interactome In Skeletal Muscle	Jonathan Kelebeev (Dr. John Charles McDermott)
11:20 am	Investigating The Protective Effects Of Conditioned Medium Derived From Human Amniotic Fluid Stem Cells Against Intestinal Injury	Mina Yeganeh (Dr. Agostino Pierro)
11:35 am	Rejuvenation Through Regeneration	Adithya Achuthan Karikandathil Vineeth (Dr. Bernard Thebaud)
12:00 pm	Introduction - Dr. Sonya MacParland KEYNOTE SPEAKER <b>Dr. Jessica Whited, Harvard University</b> <b>SYSTEMIC RESPONSES TO LIMB LOSS IN THE HIGHLY-REGENERATIVE AXOLOTL</b>	
1:00 pm	BREAK	
Student Chair: Fatima Hasan		Grading Panel – Kathryn Lye, Sarah LePage, Siba Haykal
1:25 pm	Investigating Peripheral Nerve-Driven Changes In The Membrane Potential Of Keratinocytes To Control Cell Proliferation	Rozana Qubrosi (Dr. Samantha Payne)
1:40 pm	The Role Of Fractalkine In Degenerative Cervical Myelopathy	Cindy Manning Zhou (Dr. Michael G. Fehlings)

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1:55 pm	Investigating Neuronal Control Of Human Dermal Fibroblasts And ECM Remodelling In Response To Injury	Solsa Cariba (Dr. Samantha Payne)
2:10 pm	Therapeutic Role For Nrf2 In A Stress-Induced Rat Model System Of Depression	Ryan McCallum (Dr. Melissa Perreault)
2:25 pm	The Role Of Chd1 In Myc-Driven Hypertranscription	Brandon Cho (Dr. Miguel Ramalho-Santos)
2:40 pm	Delineating The Role Of DPP4+ Mutipotent Stromal Cells In Skeletal Muscle Regeneration	Chun Wai Cheung (Dr. Fabio Rossi)
2:55 pm	A Conditional Deletion Model To Investigate ILC3-Intrinsic Functions In Vivo	Faustina Lau (Dr. Arthur Mortha)
3:10 pm	Closing Remarks - Sonya MacParland, Symposium Chair	