

In Situ Investigation of Human Islet and Exocrine Function & Disease

RESEARCH PROFILE

Background
Brief Description of Program: The purpose of this research is to study both the endocrine (islets' secretion of insulin to control blood sugar; islet destruction in type-1 diabetes, and islet dysfunction in type-2 diabetes) and exocrine (enzyme secretion for food digestion; dysfunction in pancreatitis and cancer) roles of the pancreas. Access to fresh human pancreatic tissue is needed to conduct experiments that will elucidate these physiologic and disease processes.
Program: University Health Network – Toronto General Hospital
Contact Person(s) & Contact Information: Primary Contact: Dr. Toshimasa Takahashi, Cell: 647 468-9429 Secondary contact: Dr. Ya-Chi Huang, Cell: 647-921-4204
Offering Information: If both pancreas and pancreas for islets are declined for transplant in Ontario and nationally, pancreas will be offered <u>for research</u> in accordance with the following offering algorithm: <ol style="list-style-type: none"> 1. Ex-Vivo Perfusion of Human Pancreases (Dr. Reichman) 2. In Situ Investigation of Human Islet & Exocrine Function & Disease (Dr Gaisano) 3. Edmonton research program (Islet Core) For #1 and #2, TGLN-CSC will offer the pancreas for research to TGH-MOTC who will coordinate with Dr Reichman and/or Dr. Gaisano. This includes providing the diabetic status (not diabetic, type-1, type-2, unknown), to Dr Gaisano.
Inclusions: <ol style="list-style-type: none"> 1. Pancreas has been declined for transplantation, but is available for research AND 2. UHN abdominal recovery team is involved AND 3. At least one abdominal organ will be transplanted into a UHN recipient.
Exclusions: <ol style="list-style-type: none"> 1. Age \geq 65 years or $<$ 10 years 2. BMI $>$ 30 if NOT diabetic (if donor is diabetic they will accept higher BMI) 3. Infection: HBV positive, HCV positive, HIV positive
Recovery
Method: As per standard protocol
Recovery Personnel: UHN abdominal recovery team. Credentialing: As per PRC database.
Perfusion Requirements: TGLN SRC will package pancreas in standard solution on wet ice.
Time Requirements: Recovery of pancreas for research as per usual.
Impact on Transplant/ Recovery Procedure: Procedure does not change from normal recovery procedure.
Effect on Body / Post-Mortem Care: N/A
Consent Considerations: DOES require research consent from the donor NOK.
Transportation & Pick up: UHN abdominal recovery team will deliver to the TGH OR desk. The OR nurse will contact the TGH MOTC who will then contact Dr Gaisano.