

“Ex Vivo Liver Perfusion: Assessment and Repair of liver grafts”

REVISED RESEARCH PROFILE

Background
Brief description of research study: Using ex vivo liver perfusion technology: <ol style="list-style-type: none">1. Modulate mediators of hepatic reperfusion injury;2. Determine if intrahepatic fat content can be reduced using a DNP containing perfusate;3. Assess if intrahepatic fat reduction improves function and decreases proinflammatory signaling;4. Establish assays to study mitochondrial function in human liver tissue;5. Examine the effects of hypoglycemic agents on mitochondrial function/dysfunction. It is estimated that the study will need 40 livers.
Program: University Health Network – Toronto General Hospital
Contact Person(s) & Contact Information: Primary Contact: Dr. Markus Selzner – cell 416-889-6372, On-Call Pager: 416-715-8784 Secondary contact: Dr Nazia Selzner – cell 416-889-0327, Office 316-340-4800, ext. 5884.
Offering Information: TGLN-CSC will offer the liver for research to TGH-MOTC, who will coordinate with Dr M. Selzner, from donors whose liver has been declined for transplantation due to steatosis, as well as cases in which the liver was accepted for transplantation at UHN but subsequently declined by the accepting surgeon.
<u>Inclusion:</u> <ol style="list-style-type: none">1. Donors whose livers have been declined for transplantation due to steatosis as well as cases in which the liver was accepted for transplantation at UHN but subsequently declined by the accepting surgeon.2. NDD/DCD adult donors.3. UHN abdominal recovery team recovering kidneys to transplant into one or more UHN recipients.
<u>Exclusion:</u> none
Recovery
Method: UHN abdominal recovery team recovering kidneys will recover the livers for this study. Livers will be recovered using standard technique as if they were being recovered for transplantation.
Requirements for Perfusion: Same as a normal liver donor for transplant. Liver will be perfused and stored in abdominal flush solution on ice.
Time Requirements: No additional time.
Impact on Transplant/ Recovery Procedure: Procedure does not change from normal recovery procedure.
Effect on Body / Post-Mortem Care: N/A
Consent Considerations: Requires research consent from the donor NOK for liver.
Recovery Personnel: UHN abdominal recovery team. Credentialing: As per PRC database.
Required Documentation: As per usual documentation
Transportation: UHN abdominal recovery team will deliver the liver to the TGH OR desk. The OR nurse will contact the TGH MOTC who will then contact Dr M. Selzner.
Return of organ: When the ex vivo team has finished with the liver, they will repackage it and return it to the cooler, ensuring it is labelled. They will bring it to TGH OR desk and notify TGLN for pick up and disposal