Trillium Gift of Life Network

RESEARCH ACTIVITY PROFILE

Acute Lung Allograft Rejection: Measurement of T cell immune synapses (ALARM-T)

Background		
Study description: This is a prospective observational study in the Toronto Lung Transplant Program designed to examine novel determinants and biomarkers of acute rejection (AR) in up to 50 lung transplant recipients. A better understanding of the mechanisms of AR, and of the lung allograft's response to AR, is required to improve the long-term outcome of lung transplantation. Also, effective detection of AR using a peripheral blood-based assay might obviate the need for lung biopsies, which are invasive and can have important complications.		
Study impact: The aim is to develop better ways to assess the state of the anti-donor immune response in individual lung transplant recipients over time. In the future it may be possible for clinicians to adjust immunosuppression based on the recipient's level of immune reactivity to donor antigens. In the long run, this work therefore has the potential to improve long-term lung transplant outcomes – a vital goal given the poor survival in this population in comparison with other solid organ allograft recipients.		
Program: Toronto Lung Transplant Program, Toronto General Hospital, University Health Network, University of Toronto		
Contact Person(s): Dr. Stephen Juvet, Dr. Shaf Keshavjee		
Contact Information:	Office (during day):	Dr. Juvet: 416-340-4800; ext. 8178
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Recovery		
Donor inclusions: 1. Adult donors only 2. Donor can be NDD or DCD 3. Consented Recipient **Donor exclusions:** none		
Methods: Number of patients required: 50 Applicable for any cases (NDD or DCD) where consent has been given for participation in research 50mL of donor blood and any available spleen tissue will be collected and appropriately labelled by the TLTP surgical fellow in the donor OR For DCD donors, blood will be taken post flush and will be collected by the TLTP surgical fellow in the donor OR Donor blood and spleen (if available) will be transported to UHN by the TLTP surgical fellow with the donor organs		
Requirements for Perfusion: As per normal		
Time Requirements: None		
Impact on Transplant/ Recovery Procedure: Procedure does not change from normal recovery procedure. One cooler only required.		
Effect on Body / Post-Mortem Care: None		
Consent Considerations:		
Requires TGLN consent for Scientific Research from the donor NOK 'Spleen' should be written in the TGLN consent form in the 'Medical Education and Scientific Research' section. (Blood is already covered in this portion of consent)		
Recovery Personnel:		
Toronto Lung Transplant Program Team, Toronto General Hospital, UHN		
Credentialing: As per PRC database		