

Lung Transplantation Fellowship

Description

The Toronto Lung Transplant Program is one of the largest programs in the world and the site of the world's first successful single lung transplant (1983) and bilateral lung transplant (1986). The Toronto Lung Transplant Program has done more than 1500 transplants so far and currently performs an average of 100 transplants a year. The program is housed at the Toronto General Hospital site of University Health Network.

The Medical Lung Transplant Fellowship at the Toronto Lung Transplant Program offers the opportunity to obtain comprehensive experience in the clinical and research aspects of lung transplantation. This will include participation in the pre-transplantation assessment clinics, the pre-transplantation management of listed patients, and in post-transplant ambulatory clinics. The fellow will also have responsibilities for management of inpatients in the Lung Transplant Program and the Multi Organ Transplant Unit at the Toronto General Hospital. Fellows will also present patients considered for transplantation to the Assessment Committee of the Lung Transplant Program and will take part in the discussions concerning candidacy.

Medical Fellows will also have the opportunity to further their training in management of advanced lung diseases through attendance at specialized lung disease clinics. Medical fellows will have the opportunity to develop their skills in bronchoscopy and transbronchial biopsies.

Medical Fellows will also work closely with the surgical team and have the opportunity to be exposed to other procedures such as chest tube management, tracheostomy, the different modalities of extracorporeal life support (ECLS), Ex Vivo Lung perfusion use and donor management.

The program has weekly teaching sessions that include relevant topics in respirology, infectious diseases, palliative care, radiology and pathology. Fellows will participate in the teaching rounds, journal club, and the clinical rounds of both the Multi Organ Transplant Program and the Respiratory Division. Fellows are also expected to participate in a research or quality improvement project in lung transplantation.

Goals and Objectives

Medical Expert

- To be able to evaluate patients with different end-stage lung diseases and to counsel them about lung transplant.
- To be able to establish the right time to proceed with lung transplant assessment according to the different end stage lung diseases.
- To gain expertise in the process of assessing patients for transplantation, including pre-assessment review, ordering and interpretation of appropriate investigations, and participation in multi-disciplinary assessment meetings.
- To gain expertise in the management of patients listed for transplantation, including clinical follow-up, status assignment, palliative care and rehabilitation.
- To understand in detail the use, physiologic and adverse effects, indications, and monitoring of immunosuppressive medications used in lung transplant recipients and to be able to make appropriate decisions regarding changes in dose or type of medication.

- To be able to identify and manage medical issues in the early post-transplant period (including immunosuppression and anti-rejection therapy, chest tubes, infection prophylaxis, and the detection and management of primary graft dysfunction and acute rejection).
- To identify and manage post-hospitalization and long-term complications of lung transplantation, including rejection, infection (esp. CMV), bronchiolitis obliterans syndrome, post-transplant lymphoproliferative disorder, and osteoporosis.
- To be able to understand and identify possible complications in highly sensitized patients, their management, follow-up and interpretation of histocompatibility reports.
- To understand the epidemiology related to lung transplantation, including survival and morbidity data and how this varies with pre-transplant diagnosis.
- To learn to provide effective counseling about palliative and end-of-life care for patients with advanced lung disease.
- To gain an appreciation of the surgical procedure by observing the transplant operation and to understand the process of donor selection and organ allocation including DCD donors.
- To understand and participate in discussion of ethical issues surrounding transplant selection.
- To understand and be able to organize surveillance of transplant recipients, including blood tests, bronchoscopy, and clinical assessments.

Communicator

- To be able to counsel patients and their families about the lung transplant process, including the risks and benefits of lung transplantation.
- To communicate effectively with referring physicians in managing pre and post transplant patients.
- To be able to communicate with other physicians and other health care professionals in a very efficient and timely manner.

Collaborator

- To appreciate the multidisciplinary approach for caring for the transplant population, including the pre-transplant and the post-transplant patients.
- To be able to collaborate with other health professionals with respect and a sense of team work.

Manager

- To develop time management skills in order to be able to handle the care of both in and out patients and to deal with unexpected critical situations.
- To understand the factors limiting the supply of donor organs and the role of transplant programs in managing this limited resource.

Health Advocate

- To understand the social and economic impact of transplant on the patient and their families.
- To understand strategies for promotion of organ donation, including legislation and education of hospital staff and the public.

Scholar

- To effectively teach other health care trainees and/or practitioners about topics in lung transplantation.
- To participate as primary author in the publication of an abstract (minimum for six month fellowship) and/or scientific manuscript (minimum for one year fellowship) relevant to lung transplantation.
- To critically evaluate information and its sources, and apply this appropriately through development of clinical protocols, journal club participation. and in clinical practice.

- To participate actively in the different teaching activities of the program (Multi Organ Rounds, M&M, Journal Club)

Professional

- To demonstrate a high level of professionalism when interacting with patients, families, colleagues, and other health professionals.
- Demonstrate a commitment to offer the best care possible to patients and families with high responsibility, compassion and respect.
- To protect the confidentiality of the donor organ procurement process and information about transplant patients.

Faculty

Name	Title	Research Interest
Dr. Lianne Singer	Medical Director	Quality of Life Health Outcomes
Dr. Cecilia Chaparro	Respirologist Lung Transplant and Cystic Fibrosis	Cystic Fibrosis Complications Post-transplant
Dr. Matthew Binnie	Interstitial Lung Disease	
Dr. Chung-Wai Chow		
Dr. Shaf Keshavjee	Surgical Director	
Dr. Thomas Waddell		
Dr. Andrew Pierre		
Dr. Kazuhiro Yasufuku		
Dr. Marc De Perrot		
Dr. Marcelo Cypel		
Dr. Coleman Rotstein	Infectious Diseases	
Dr. Shahid Husain	Infectious Diseases	

Training Structure

Medical Fellowships will be at least 6 months, but a 12-month fellowship is preferred. The fellowship schedule is structured to include a breadth of inpatient and outpatient activities.

Clinical – 80% of the time is divided between inpatient and outpatient/outreach service. On the inpatient service, the Medical Fellow functions as a team leader for the lung transplant service (typically 15-20 patients). On the outpatient/outreach service, the Medical Fellow participates in the assessment of newly referred patients, ambulatory pre- and post-transplant clinics, consults to ER and other inpatient services, and management of medical issues in lung transplant outpatients. Fellows gain extensive experience with bronchoscopies and transbronchial biopsies.

Elective rotations may include HLA lab, transplant infectious diseases, and other areas.

Medical Fellows are currently required to provide in-house first call to the Multi-Organ Transplant Program one night/weekend day in 10. Fellows are excused from clinical duties on the post-call day. Second call for the lung transplant program is required to a maximum of 1 in 3, but typically 1 in 4-5.

Research 20% - This will be protected time 1 week in 5.

Fellows are expected to complete a new project or participate substantially in pre-existing research or quality improvement projects. Presentation at meetings and publication are expected and will be supported by the program.

Application Process

Fellows must have completed subspecialty training in Pulmonary Medicine. Applicants should submit an introductory letter describing their interests and career objectives, curriculum vitae and three letters of reference to:

Lianne G. Singer, MD, FRCPC
Medical Director, Toronto Lung Transplant Program
Toronto General Hospital
585 University Avenue, NCSB 11C-1196
Toronto, ON Canada M5G 2N2
Phone 416-340-4996
Fax 416-340-3609

Email lianne.singer@uhn.ca

The number of fellowship positions is contingent upon funding and is currently 3-4 fellows per year. Both Canadian and non-Canadian applicants are encouraged to apply.

Canadian applicants must apply by September 1 to be considered for a start date of July 1 the following year. Other start dates may be available.

Non-Canadian applicants are encouraged to apply as early as possible, but no later than 1 year before the anticipated start date. Preference will be given to non-Canadian applicants who are already affiliated with a lung transplant program where they will be able to apply the skills learned during their fellowship. Fluency in spoken and written English to the extent required for a busy clinical service is mandatory.

Funding Opportunities

The fellowship is funded by the Multi-Organ Transplant Program at University Health Network. Some international fellows may be funded by their local institution or other local funding agencies.

Dedicated research fellowships may also be available with an identified project and supervisor. There are several external and internal sources of funding for research fellowships including the ISHLT, Canadian Society of Transplantation, and others, which can be identified in consultation with the supervisor depending on candidate eligibility.