1. Training Outline
This 12 month fellowship program has a prerequisite 12 months training in General Hepatology and basic liver transplantation. It is designed to prepare the candidate for an advanced career in tertiary and quaternary care academic liver transplantation and hepatology.

The focus is clinical, but all candidates are expected to complete at least two research projects during the period of training. Furthermore, candidates will be expected to function as an attending staff hepatologist with a view to independent care of outpatients, and management of the consultation service. The candidate will also be responsible for the education of junior housestaff including surgical transplant fellows. The candidate is also expected to identify an area of expertise that he or she wishes to acquire within the field of hepatology.

The following clinical components are expected of the candidate
   a) Liver Transplant service (at least 4 months)
   b) Hepatology outpatient clinic with supervision of viral therapy of at least 30 Hepatitis B and 30 Hepatitis C patients
   c) Independent longitudinal transplant clinic with care of at least 30 patients
   d) Primary on-call coverage (at least one week per month)
   e) Attend at least three living donor evaluation discussions (Dr. Philip Wong)
   f) Attend multidisciplinary hepatocellular / malignant liver disease clinic
   g) Attend pediatric hepatology clinic (at least one month)

During the course of the 12 month fellowship, candidates will attend at least one international liver meeting (generally AASLD).

2. Training Objectives
The advanced fellowship in Transplantation and Liver Disease is intended to refine training over and above that received in a basic hepatology and liver transplant fellowship. The expectation is that the candidate will obtain certification in Transplant Hepatology from the American Board of Internal Medicine (or equivalent Canadian certification should it become available).
Roles of the Trainee

1. MEDICAL EXPERT/CLINICAL DECISION MAKER
The trainee should demonstrate:

1.1 Diagnostic and therapeutic skills for independent care of patients with all common and uncommon hepatobiliary disorders

1.2 Advanced knowledge of the molecular biology and genetics of liver disease including liver virology.
Advanced knowledge of the immunology of liver transplantation and immune suppression

1.3 The trainee should independently manage the care of at least 30 transplant recipients, including the decision to perform invasive diagnostic and interventional techniques.

The trainee should be versed in all aspects of:

i) Acute and fulminant hepatitis: Viral, drug, toxic.
ii) Chronic hepatitis and cirrhosis with its complications
iii) Prevention of complications of cirrhosis
iv) Advanced therapeutic options of hepatocellular carcinoma.
v) Advanced diagnostic and therapeutic options of tumours of the biliary system such as cholangiocarcinoma, including molecular diagnostic techniques and the role of transplantation, chemotherapy and photodynamic therapy
vi) All aspects of the care of chronic liver diseases such as: alcohol, Wilson's disease, primary biliary cirrhosis, autoimmune hepatitis, hemochromatosis, and alpha 1-antitrypsin deficiency. This care should include the management of extrahepatic complications
vii) Congenital and acquired biliary disease including hepatic fibrosis, Caroli’s disease, and biliary stones.
viii) Hepatobiliary disorders associated with or incidental to pregnancy.
ix) Preoperative evaluation of known liver disease patients undergoing surgery, including assessment techniques for measuring hepatic reserve, and techniques for improving hepatic reserve
x) Pediatric and congenital hepatobiliary disorders.
xi) Comprehensive management of the liver transplant recipient, including immune suppression and assessment of immune function, including an understanding of novel assays of immune function.
xii) Assessment and selection of individuals for liver transplantation, including assessment for living donation.

2. COMMUNICATOR
The trainee should be able to:
- Educate the patient in the relevant area of disease prevention,
transmission, detection, progression, and therapy to promote liver health.
- Communicate and cooperate with allied health care personnel involved in the care of individual patients afflicted with hepatobiliary diseases.
- Educate colleagues and other physicians as to the advanced aspects of liver disease and its complications.

3. COLLABORATOR
The trainee should:
- Identify the role and expertise of all members of interdisciplinary teams involved in the management of hepatobiliary disease and liver transplantation.
- Actively contribute to the plan of management proposed by the interdisciplinary team.
- Actively participate in the surgical teams management of transplant patients by attending weekly surgical transplant rounds, and rounding with the hepatobiliary transplant team twice a week in the capacity of a consultant and co-attending physician.

4. MANAGER
The trainee should be able to:
- Work effectively and efficiently in the daily care of hospitalized and ambulatory patients with liver disease.
- Utilize time and resources effectively to provide optimum care to patients.
- Coordinate with allied health professionals (such as nursing) to efficiently distribute limited resources for clinical use, including fibroscan and other imaging techniques.

5. HEALTH ADVOCATE
The trainee should be able to:
- Identify important determinants and obstacles to health in patients with liver disease. These include socio-economic status, education, social support systems, lifestyle, psychosocial and biologic factors, as well as cultural and linguistic issues.
- Understand and identify the strengths and weaknesses of current public policies of liver disease that affect health.
- Identify in hepatology practice the populations at risk and provide the available knowledge about prevention. This involves implementing practice guidelines put forth by various provincial, national and international societies within the realm of what is practical for the individual patient.
- Understand the principles of genetic testing for liver disease.

6. SCHOLAR
The trainee should be able to:
- Recognize the importance of self-assessment in practice development.
- Appraise and evaluate the medical literature in the field of hepatology.
as it applies to clinical practice.
- Recognize the gaps in published knowledge of common and uncommon liver
disease, and how these gaps might be filled.
- Participate in the education of peers with regards to liver disease and
developments in liver transplantation.

7. PROFESSIONAL
The trainee should be able to:
- Offer the highest quality of care with integrity, honesty and
  compassion.
- Practice medicine ethically consistent with obligations of a physician.
- Exhibit appropriate personal and interpersonal professional
  behaviours.