I HIGHLIGHTS

There were no particular substantive developments in the Division of Nephrology this year. The division continues to provide excellence in patient care and teaching. In addition, although the division is small in terms of the number of members, there is significant activity in fundamental, translational, and clinical research domains.

Our satellite dialysis unit is in its sixth full year of service. The unit is located on the ground floor of Pavilion H. This past year the satellite unit was expanded with the addition of six hemodialysis stations. This expansion will allow us to accommodate up to 18 more hemodialysis patients. We have applied to the Agence de Montreal for operating funds for the additional stations.

We also continue to operate out of our original hemodialysis unit in Pavilion G. This unit is running at almost full capacity using 16 dialysis stations, three sessions per day, 6 days per week. This unit serves all our dialysis patients who are admitted to hospital as well as our more fragile out-patients.

The Kidney Treatment Centre (pre-dialysis clinic) which is located adjacent to the satellite dialysis unit in Pavilion H is in its fourth year of operation. The clinic provides the necessary educational, dietary, and psychological support to patients with progressive kidney failure and to their families. These programs have been shown to slow the decline of renal function in participants. In addition, the team in the pre-dialysis clinic help patients make the often difficult transition to dialysis therapy. This clinic now handles over 150 patients with Stage III and Stage IV CKD.

Our peritoneal dialysis program has continues to be among the largest in Montreal. We currently have 50 patients in this program. Of our total dialysis population 18% are on peritoneal dialysis as their mode of therapy. This figure is substantially higher than the provincial average of 12%.

We continue to aggressively promote renal transplantation to our patients as the preferred option for the treatment of end-stage renal disease. We emphasize the value of pre-emptive transplantation in order that the patient may avoid dialysis and we encourage donations from both living-related and living-unrelated donors.

The Division has continued to expand its research activities with three ongoing local investigator-conceived and implemented studies. This is in addition to the division participating in several multi-center clinical trials as well as the fundamental research taking place in Dr. Lipman’s laboratory.
The Division of Nephrology at the JGH continues to serve as a training site for the McGill Renal Fellowship program. Fellows rotate through our peritoneal dialysis program and the consulting service. The feedback from the fellows on the JGH experience has been uniformly positive.

II EVALUATION OF THE PAST ACADEMIC YEAR

1. Teaching activities

   Core Medicine lecture series.

   Dr. D. Bercovitch
   Dr. M. Davidman
   Dr. M. Lipman
   Dr. G. Frisch
   Dr. S. Nessim

   University teaching:

   Dr. G. Frisch & Dr. S. Nessim:
   Medicine I Physiology: Small group tutorials - Renal section - 18 hours/year each.
   Back to Basics Acid-Base - 6 hours/year each.

   Dr. M. Lipman: McGill Renal fellow seminar series.
   Immunobiology of renal transplantation rejection.
   2 hours/year

   Dr. M. Davidman: McGill Anesthesia resident seminar series - Fluids and electrolytes, acid-base and renal disease - 3 hours/year

   Undergraduate medical student lectures:

   Dr. D. Bercovitch, Hypertension, 6 hours
   Dr. M. Davidman, Renal failure, 6 hours
   Dr. M. Lipman, Electrolytes, 6 hours.
   Dr. G. Frisch, Electrolytes, 6 hours.
   Dr. S. Nessim, Hypertension, 6 hours

2. Research Activities

   Dr. Lipman

   Peer reviewed:

   Ace Inhibition for the Preservation of Renal Function and Patient in transplantation
   CIHR
**Pharma sponsored:**


Belatacept evaluation of nephroprotection and efficacy as first-line immunosuppression trial (BENEFIT), Bristol-Myers Squibb Pharma

An opened labeled extension study of the safety of long-term administration of Sirolimus (Rapamycin) in solid organ transplant recipients, Wyeth-Ayerst Pharma

A facilitated access program to provide Everolimus (RAD) for maintenance patients completing therapy in RAD trials in solid organ transplantation, Novartis Pharma

A Comparison of Effects of Standard Dose vs. Low Dose Advagraf with IL-2 Receptor Antibody Induction, MMF and Steroids With or Without ACEi / ARB - based Antihypertensive Therapy on Renal Allograft Histology, Function, and Immune Response, Fujisawa Canada

An observer-blinded, randomized study comparing the safety and immunogenicity of HEPLISAV to licensed vaccine (Energix-B) among adults with chronic kidney disease, Dynavax Technologies

Dr. Lipman and Dr. Nessim

**Investigator initiated:**

Effect of vitamin D3 supplementation on arterial and bone remodelling in chronic kidney disease patients.

The effect of hemodialysis (and ultrafiltration) on large arteries on hemodialysis (HD) patients.

The Effect of anemia correction by erythropoietin on the macro- and micro-vasculature in patients with moderate chronic kidney disease.

**Research Trainees**

Dr. Marie Briet, Nephrologist (Sabbatical), Hôpital André-Grégoire, Montreuil, France
Dr. Nada Kanj, Medical Biochemistry Resident, McGill University

**Publications**

Effects of recombinant human erythropoietin on resistance artery endothelial function in stage 4 chronic kidney disease: Role of oxidative stress and endothelin-1.
Briet M, Barhoumi T, Davidman M, Bercovitch B, Frisch G, Nessim SJ, Lipman ML, Schiffrin EL. (submitted)


Abdominal wall leak after radiologic peritoneal dialysis catheter manipulation, Nessim SJ, Lipman ML, Peritoneal Dialysis International 2011; Volume 31: 207-209


3. **Clinical Activities:**

Monday - Saturday: 8:00 - 8:30 a.m. Hemodialysis rounds
Monday - Friday: 8:30 - 12:00 a.m. Inpatient rounds with residents on elective
1:30 - 4:00 p.m. Renal Clinic
Tuesday: 8:45 a.m - 3:00 p.m. Dr. M. Lipman - McGill Transplantation Clinic
12:30 - 4:00 p.m. C.A.P.D. Clinic
Thursday: 11:00 - 11:30 a.m. C.A.P.D. patient meeting
9:00 - 11:30 Renal Clinic
13:00-14:00 Nephrology Rounds
Mon-Thu: 8:30-12:00 Kidney Treatment Center Clinic
Mon-Thu: 8:30-12:00, 13:00-16:00 General Nephrology Clinic

Every 4th Thursday: 1:30 - 4:30 p.m. Hemodialysis patient meeting
CTU Ward attendings: Dr. Lipman (8 weeks), Dr. Frisch (8 weeks), Dr. Nessim (8 weeks)
ICMB: Dr. G. Frisch, Dr. S. Nessim

4. Academic Staff

Dr. David Bercovitch  Associate Professor of Medicine
Dr. Michael Davidman  Associate Professor of Medicine
Dr. Gershon Frisch  Assistant Professor of Medicine
Dr. Mark Lipman  Associate Professor of Medicine
Dr. Sharon Nessim  Assistant Professor of Medicine

III OBJECTIVES AND PRIORITIES

The Division of Nephrology is actively involved in long-term planning for the future with the goal to securing adequate resources for our end-stage renal disease patients. In this regard, we are currently planning for the relocation of all dialysis and nephrology out-patients services to the physical space currently housing the Emergency Department. Once the ED moves to the new facility in Pavilion K, we will be able to consolidate our services in the vacated ED space. This will greatly improve our ability to deliver efficient, integrated services to our patients.

We will continue to pursue our investigator-initiated clinical studies with energy and enthusiasm. Several studies are currently underway as noted above. In addition, Dr. Lipman continues to contribute the fundamental research activities of the division. Dr. Nessim continues to consolidate her position on the national stage as a leading expert in the area of peritoneal dialysis.

Respectfully submitted,

Mark L. Lipman, MD
Chief, Division of Nephrology