

**Annual Report  
Division of Nephrology  
Department of Medicine - Jewish General Hospital  
April 1, 2009 - March 31, 2010**

**I HIGHLIGHTS**

This past year we welcomed a fifth nephrologist, Dr. Sharon Nessim, to our division. Dr. Nessim obtained both her B.Sc. (Physiology) and M.D. degrees at McGill University. She then completed her internal medicine residency training at McGill followed by a two year fellowship in clinical nephrology at the University of Toronto. Subsequently, she simultaneously pursued a Master's degree in Clinical Epidemiology and research fellowship training under the supervision of Dr. S.V. Jassal, also at the University of Toronto. Her research focus centered on predictors of peritonitis in the peritoneal dialysis population for which she was awarded support from both the Baxter Educational and Kidney Foundation of Canada Fellowship programs.

In a relatively short time period her research efforts have spawned multiple peer-reviewed publications in high impact nephrology journals such as Clinical Journal of the American Society of Nephrology and Kidney International. She also serves as a reviewer for many top journals and is a recognized national and international speaker in her field of expertise.

Dr. Nessim is an exceptional clinician having been the recipient of the Marc Goldstein Clinician of the Year Award in 2005 during her fellowship training as well as a previous winner of both the Dave Feder and Sheldon Zemelman awards during her residency at the Jewish General Hospital.

Dr. Nessim brings her skills as a clinician, clinical-researcher, and teacher to the Division of Nephrology and will make an important contribution on all fronts. Please join us in welcoming Dr. Nessim back to the Jewish General Hospital and McGill University.

Our satellite dialysis unit is in its fourth full year of service. The unit is located on the ground floor of the newly renovated Pavilion H, formerly the Nuns' property adjacent to the hospital. The satellite dialysis unit was the first clinical service activity to be offered in Pavilion H and led the way for the many clinical activities that are now being relocated to this pavilion. This unit has the capacity for 12 additional dialysis stations. This translates into the ability to accommodate up to 72 hemodialysis patients. Currently, we are running at full capacity in this relatively new unit. Our hemodialysis population continues to grow at an annual rate of 12% which is double the provincial average.

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 second 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 40 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. In the last three years 44 of our patients received kidney transplants. Our program accounts for approximately 21% of the kidney transplants performed at McGill.

The Division has continued to expand its research activities with three major local investigator-conceived and implemented studies initiated this past year. 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:

Determination of the dialysis clearance of antihypertensive drugs during high permeability hemodialysis in patients and in vitro, Kidney Foundation of Canada (submitted)

Ace Inhibition for the Preservation of Renal Function and Patient in Transplantation, CIHR

Pharma sponsored:

Quantitative cytokine transcript monitoring in kidney allograft biopsies: Effect of treatment of subclinical rejection on long-term graft function and histology. Fujisawa Canada

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.

Dr. Davidman

AURORA: A study to evaluate use of Rosavustatin in subjects on Regular Hemodialysis; an Assessment of survival and cardiovascular events, Astra-Zeneca

Research Trainees

Dr. Paul Raju, Nephrology Fellowship (Research year)

Dr. Cedric Edwards, Nephrologist (Sabbatical) University of Ottawa

Dr. Marie Briet, Nephrologist (Sabbatical), Hôpital André-Grégoire, Montreuil, France

Dr. Nada Kanj, Medical Biochemistry Resident, McGill University

Publications

Birnbaum LM, Lipman M, Paraskevas S, Chaudhury P, Tchervenkov J, Baran D, Herera-Gayol A, Cantarovich M, Management of chronic allograft nephropathy: A systematic review. Clinical Journal of the American Society of Nephrology 2009; Volume 4: 860-865.

Nessim SJ, Bargman JM, Austin PC, Story K, Jassal SV, Impact of age on peritonitis in peritoneal dialysis patients: an era effect. Clin J Am Soc Nephrol 2009; 4: 135-41.

Nessim SJ, Bargman JM, Austin PC, Nisenbaum R, Jassal SV, Predictors of peritonitis among patients on peritoneal dialysis: results of a large, prospective Canadian database. Clin J Am Soc Nephrol 2009; 4: 1195-2000.

Fellstrom BC et al. AURORA Study Group Investigators, Rosuvastatin and Cardiovascular Events in Patients Undergoing Hemodialysis. N Engl J Med 2009; 360: 1395-407.

### **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

#### **5. Consulting Activities**

Private sector consulting (# days)	
Dr. Mark Lipman	5
Dr. Gershon Frisch	2

### **III OBJECTIVES AND PRIORITIES**

The Division of Nephrology is, once again, faced with the need to expand its infrastructure in order to meet the growing demand for dialysis. In this regard, a proposal for expansion has been sent to the Agence de Montreal for an expansion of six stations. If approved, this should provide a sufficient infrastructure bridge until the eventual move of the dialysis program that will follow the completion of Phase I of Pavilion K.

The Division of Nephrology has expanded its clinical research activities with the arrival of Dr. Sharon Nessim from Toronto. Dr. Nessim has acquired a national reputation in the field of peritoneal dialysis and will undertake clinical studies in this area. She will be accompanied by Dr. Frisch who is participating in a clinical trial for patients with IgA nephropathy. Dr. Davidman was an investigator in the AURORA study, a landmark trial on the use of statins in patients on hemodialysis, which was published this year in the New England Journal of Medicine.

Dr. Lipman continues to contribute the fundamental research activities of the division. In collaboration with Dr. Ernesto Schiffrin, two nephrologists (one from France and one from

Ottawa) are doing sabbaticals at the Jewish General Hospital focusing on arterial changes in patients with chronic kidney disease.

Respectfully submitted,

Mark L. Lipman, M.D.  
Chief, Division of Nephrology  
Jewish General Hospital