

**Annual Report**  
**Division of Nephrology**  
**Department of Medicine -Jewish General Hospital**  
**January 1, 2018 -December 31, 2018**

**SUMMARY**

**1. Research & publications**

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. Details are presented below in Section II.

**2. Teaching and learning**

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, hemodialysis unit, and the consulting service. The feedback from the fellows on the JGH experience has been uniformly positive. In addition, McGill internal medicine residents and medical students do rotations on the nephrology consult service. Typically we have 2-4 individuals at any given time on the service.

Two of our nephrologists also act as attending staff on the medical CTUs. In an average year we provide 5 weeks of CTU service.

We also give many lectures throughout the year including Grand Medical Rounds, Core teaching for internal medicine, and core lectures for nephrology fellows. We also participate in teaching at the undergraduate level both through lecture series and through small group teaching at the medical school.

**Teaching activities (outside of CTU & Nephrology service)**

**Core Medicine lecture series:**

Dr. R. Sabbagh  
Dr. M. Davidman  
Dr. M. Lipman  
Dr. G. Frisch  
Dr. S. Nessim

**University teaching:**

**Dr. S. Nessim:**

Med 1: Renal physiology small group seminars (4 hours)  
Med 1: Classroom lecture on divalent Cations (1 hour)  
Med 2: Renal failure and electrolyte teaching ( 2 hours)

Med 3: Nephro teaching ( 2 hours)

**Dr. M. Lipman:**

McGill Renal fellow seminar series, 1-2 hours/year each

**Dr. M. Lipman, Dr. Frisch, & Dr. Nessim:**

McGill Renal fellow seminar series, 1-2 hours/year each

**Dr. M. Davidman:**

McGill Anesthesia resident seminar series - Fluids and electrolytes, acid-base and renal disease - 2 hours/year

**Undergraduate medical student lectures:**

Dr. R. Sabbagh, Nephrolithiasis, 2 hours

Dr. M. Davidman, Renal failure, 6 hours

Dr. M. Lipman, Electrolytes, 11 hours

Dr. G. Frisch, Electrolytes, 11 hours

Dr. S. Nessim, Hypertension, 6 hours

**3. Involvement in the community**

Drs. Lipman, Frisch, Sabbagh and Nessim give several CME rounds throughout the course of the year included at the McGill Refresher Course as well as JGH family medicine rounds amongst others.

**4. Partnerships**

Dr. Lipman is actively engaged in research partnerships with Drs. Ernesto Schiffrin and Andrew Karaplis at the Lady Davis Institute for Research, and with Drs. Marcelo Cantarovich and Steve Paraskevas at the MUHC. Dr. Nessim has research collaborations with Dr. Joanne Bergman, among others, at the University of Toronto.

**5. Milestones:**

Successful completion of Phase 2 of Nephrology Division relocation.

**6. New hires, promotions, and retirements**

Dr. Daniel Blum was successfully recruited as a full-time physician in the fall of 2018. Dr. Blum will have clinical duties at the JGH, where he will be involved in teaching students and supervising medical residents and nephrology fellows. He will continue to advance his understanding in the field of nephrolithiasis.

Dr. Michael Davidman a pioneer in the field of Nephrology here at JGH will retire in July 2019.

**SECTION I - DIVISION STATUS UPDATE**

## 1. Mission and objectives of the Division

The Division of Nephrology continues to provide excellence in patient care and teaching. In addition, although the division is modest in terms of the number of members, there is significant activity in fundamental, translational, and clinical research domains.

Our consult service is extremely active and follows between 20 and 30 admitted patients daily.

The new hemodialysis unit is operating since September 2016 and includes 37 stations serving over 230 patients.

Our peritoneal dialysis program has continues to be among the busiest in Montreal. We currently have close to 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%.

The Kidney Treatment Centre (pre-dialysis clinic) which is located adjacent to the satellite dialysis unit in Pavilion H is in its fifth 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 helps patients make the often difficult transition to dialysis therapy. This clinic now handles over 250 patients with Stage III and Stage IV CKD.

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.

## 2. List of academic staff

### Full-time JGH based:

Dr. Michael Davidman	Associate Professor of Medicine	GFT-H
Dr. Gershon Frisch	Assistant Professor of Medicine	GFT-H
Dr. Mark Lipman	Associate Professor of Medicine	GFT-H
Dr. Sharon Nessim	Assistant Professor of Medicine	GFT-H
Dr. Ramsey Sabbagh	Assistant Professor of Medicine	GFT-H

### Associate staff:

Dr. Johanna Eid  
Dr. Laura Pilozzi-Edmonds, MD  
Dr. Natalie Ng Cheung

## SECTION II- GRANTS, PUBLICATIONS, AND SERVICE OUTSIDE MCGILL

### 1. Grants

*Peer reviewed:* none

*Industry sponsored:*

Dr. Lipman in collaboration with Dr. Ernesto Schiffrin

Gene expression profile in small resistance arteries of patients with hypertension with or without nephroangiosclerosis and its relations to small and large artery function and remodeling Sponsor: Servier Institute.

*Investigator initiated:*

Dr. Lipman

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

The pharmacodynamic and pharmacokinetic profiles of Apixiban in hemodialysis patients

Dr. Nessim

Reviewer for several journals. Most recent include:

Journal of the American Society of Nephrology  
American Journal of Kidney Diseases  
Nephrology Dialysis Transplantation  
Peritoneal Dialysis International

### 2. Research Trainees

Dr. Thomas Mavrakanas, Nephrology Fellow, McGill University

Dr. Tofol Al-Nashmi, Vascular Fellow, McGill University

### 3. Publications

#### **Lipman, Mark**

--El-Majzoub S, Mucsi I, Li M, Moussaoui G, **Lipman ML**, Looper KJ, Novak M, Rej S. Psychosocial Distress and Health Service Utilization in Patients Undergoing Hemodialysis: A Prospective Study. *Psychosomatics*. 2018 Oct 10. pii: S0033-3182(18)30466-3. doi: 10.1016/j.psych.2018.10.001. [Epub ahead of print] PMID: 30396686

--Mavrakanas TA, **Lipman ML**. Angiotensin-Converting Enzyme Inhibitors vs. Angiotensin Receptor Blockers for the Treatment of Hypertension in Adults With Type 2 Diabetes: Why We Favour Angiotensin Receptor Blockers. *Can J Diabetes*. 2018 Apr;42:118-123. doi: 10.1016/j.cjcd.2017.11.006. Epub 2017 Dec 22. Review. PMID: 29602404

--Panda DK, Bai X, Sabbagh Y, Zhang Y, Zaun HC, Karellis A, Koromilas AE, **Lipman ML**,

Karaplis AC. Defective interplay between mTORC1 activity and endoplasmic reticulum stress-unfolded protein response in uremic vascular calcification. *Am J Physiol Renal Physiol*. 2018 Jun 1;314:F1046-F1061. doi: 10.1152/ajprenal.00350.2017. Epub 2018 Jan 10. 29357413

--Bahbahani H, AlTurki A, Dawas A, **Lipman ML**. Warfarin anticoagulation in hemodialysis patients with atrial fibrillation: comparison of nephrologist-led and anticoagulation clinic-led management. *BMC Nephrol*. 2018 Jan 8;19(1):4. doi: 10.1186/s12882-017-0809-x. PMID: 29310600 Free PMC Article

**Nessim, Sharon**

--Boudville N, Johnson DW, Zhao J, Bieber BA, Pisoni RL, Piraino B, Bernardini J, **Nessim SJ**, Ito Y, Woodrow G, Brown F, Collins J, Kanjanabuch T, Szeto CC, Perl J. Regional variation in the treatment and prevention of peritoneal dialysis-related infections in the Peritoneal Dialysis Outcomes and Practice Patterns Study. *Nephrol Dial Transplant*. 2018 Jul 23. doi: 10.1093/ndt/gfy204. Epub ahead of print.

#### **4. Service outside McGill**

We are participating in the Dialysis Outcomes and Practice Patterns Study Program (DOPPS) with Dr. Nessim and our point person. This is a multi-national effort to monitor and record dialysis practices around the world. We provide all relevant statistics from our program which are incorporated into the overall study. Here too, we can compare how our dialysis program performs with respect to those in other regions of the world.

We participate in the Canadian Organ Replacement Register (CORR). This effort is sponsored by the Canadian Institute for Health Information and is designed to monitor trends and practices in end-stage renal disease populations. It includes both hemodialysis and transplantation practices. We provide our annual statistics which are then included with other centers across the country. This allows us to compare ourselves to other programs with respect to many clinically relevant aspects of patient management.

Respectfully submitted,



Mark L. Lipman, M.D.  
Chief, Division of Nephrology, JGH