

## **Clinical Kidney Transplantation Fellowship at the McGill University**

**Name of Institution:** Royal Victoria Hospital

**Type of Fellowship:** Clinical Fellowship

**Length of Fellowship:** One year

**Number of Fellowship Positions:** 1-2 per year

**Academic Affiliation:** McGill University

**Name of Hospitals Involved in Training:** Royal Victoria Hospital and Montreal General Hospital. 98% at RVH and 2% at MGH

### **Research Activity:**

D. Baran: Clinical outcomes in renal transplantation.

M. Cantarovich: Multi-organ immunosuppression, therapeutic drug monitoring, renal protection strategies.

P. Chaudhury: Implementation of glucose clamp on transplant patients, postoperative mortality and long-term survival after transplantation.

M. Lipman: T-cell rearrangements of graft infiltrating lymphocytes.

P. Metrakos: Molecular markers in colorectal cancer liver metastases; proprotein convertases in colorectal cancer liver metastases; clinical outcomes in hepatocellular carcinoma; and ischemia/reperfusion injuries in liver transplantation.

S. Paraskevas: Pulsatile kidney perfusion, islet transplantation and immune.

J. Tchervenkov: Clinical Outcomes of kidney transplants from expanded criteria donors, T- and B-cell activation in allo- and xeno-transplantation.

### **Mission:**

The fellowship is intended to enhance residency training for those fellows who would want to practice clinical transplantation either at an academic or community center. The fellowship will solidify the knowledge of clinical transplantation as well as allow further options for training such as immunology or epidemiology. The transplant fellow will have an opportunity to teach to nephrology fellows in specialized transplantation topics and have an opportunity to enhance the research potential of the department as well.

**Name of Fellowship Program Director:** Dr. Marcelo Cantarovich

**Names of Teaching Faculty:** Dr. Dana Baran, Dr. Roman Mangel, Dr. M. Lipman, Dr. Steven Paraskevas, Dr. Peter Metrakos, Dr. Prosanto Chaudhury, Dr. Jean Tchervenkov.

**Academic Facilities:**

The fellow will have access to work in basic (basic science laboratories) and clinical (clinical trials and database analysis) science.

**Fellow Duties and Responsibilities:**

Home call is expected during the months of clinical rotations is 9 nights per 28 day period, 7 nights of weekdays and 2 nights of a weekend. When the transplant fellow is on call with a nephrology fellow, the nephrology fellow will take first call and the transplant fellow will supervise. A mandatory of 2 blocks (6 months) will be required to complete clinical transplantation as the fellow covering inpatient transplantations. The fellow will be required to carry out one clinic weekly for acute transplantation follow-up and patients who have had a transplant for more than 3 months. Twice monthly the fellow will be evaluating pre-transplant donors and recipients in clinic under the supervision of the clinical transplant nephrologist. The fellow will supervise residents covering the nephrology transplant rotation, will attend daily rounds on the ward with the residents and will be responsible to communicate/discuss the cases with the attending transplant nephrologist. He/she will have the responsibility to teach the nephrology resident on the transplant service at the time. The fellow will be expected to cover at least 2 topics in transplantation with the resident each week. The fellow will be required to attend the weekly transplantation rounds and he/she will be asked to participate once per period as a speaker. The program coordinator will be available to the fellow for secretarial support and maintaining the call schedule. The proposed meeting for the fellow to attend are: CST, ATC and TTS. The fellow will be expected to complete a research project to present at one of these meetings and prepare for publication.

**Curriculum:**

The expected caseload for the transplant fellow while on the transplantation service will be about 15-20 patients admitted to hospital.

The fellow will see in average 1-2 patients per day in the Emergency Department.

During the on call period, the fellow will be expected to assess pre-operatively the candidates for kidney or kidney-pancreas transplantation.

## **PUBLICATIONS** **(since 2004)**

1. Birnbaum LM, Lipman M, Paraskevas S, Chaudhury P, Tchervenkov J, Baran D, Herrera-Gayol A, Cantarovich M. Management of chronic allograft nephropathy: a systematic review. *Clin J Am Soc Nephrol.* 2009 Apr;4(4):860-5.
2. Cantarovich M, Hirsh A, Alam A, Giannetti N, Cecere R, Carroll P, Edwardes ME. The clinical impact of an early decline in kidney function in patients following heart transplantation. *Am J Transplant.* 2009 Feb;9(2):348-54.
3. Hassanain M, Tchervenkov J, Cantarovich M, Metrakos P, Paraskevas S, Keith D, Baran D, Fernandez M, Mangel R, Chaudhury P. Delayed graft function has an equally bad impact on deceased donor renal graft survival in both standard criteria donors and expanded criteria donors. *Transplant Proc.* 2009 Jan-Feb;41(1):133-4.
4. Hassanain M, Tchervenkov J, Cantarovich M, Metrakos P, Paraskevas S, Keith D, Baran D, Fernandez M, Mangel R, Chaudhury P. Recovery of graft function early posttransplant determines long-term graft survival in deceased donor renal transplants. *Transplant Proc.* 2009 Jan-Feb;41(1):124-6.
5. Cantarovich M, Durrbach A, Hiesse C, Ladouceur M, Benoit G, Charpentier B. 20-year follow-up results of a randomized controlled trial comparing antilymphocyte globulin induction to no induction in renal transplant patients. *Transplantation.* 2008 Dec 27;86(12):1732-7.
6. Hassanain M, Schricker T, Metrakos P, Carvalho G, Vrochides D, Lattermann R. Hepatic protection by perioperative metabolic support? *Nutrition.* 2008 Nov-Dec;24(11-12):1217-9.
7. Jevnikar A, Arlen D, Barrett B, Boucher A, Cardella C, Cockfield SM, Rush D, Paraskevas S, Shapiro J, Shoker A, Yilmaz S, Zaltzman JS, Kiberd B. Five-year study of tacrolimus as secondary intervention versus continuation of cyclosporine in renal transplant patients at risk for chronic renal allograft failure. *Transplantation.* 2008 Oct 15;86(7):953-60.
8. Demyttenaere S, Hassanain M, Ghali P, Valenti D, Chaudhury P. An unusual cause of lower gastrointestinal bleeding. *Liver Transpl.* 2008 Oct;14(10):1541-3.
9. Anselm A, Cantarovich M, Davies R, Grenon J, Haddad H. Prolonged basiliximab use as an alternative to calcineurin inhibition to allow renal recovery late after heart transplantation. *J Heart Lung Transplant.* 2008 Sep;27(9):1043-5.

10. Boutros T, Chevet E, Metrakos P. Mitogen-activated protein (MAP) kinase/MAP kinase phosphatase regulation: roles in cell growth, death, and cancer. *Pharmacol Rev.* 2008 Sep;60(3):261-310.
11. Tangri N, Alam A, Giannetti N, Deedwardes MB, Cantarovich M. Predicting glomerular filtration rate in heart transplant recipients using serum creatinine-based equations with cimetidine. *J Heart Lung Transplant.* 2008 Aug;27(8):905-9.
12. Al Riyami D, Alam A, Badovinac K, Ivis F, Trpeski L, Cantarovich M. Decreased survival in liver transplant patients requiring chronic dialysis: a Canadian experience. *Transplantation.* 2008 May 15;85(9):1277-80.
13. Cantarovich M, Ross H, Arizón JM, Gómez MA, Straatman L, Orús J, Alonso-Pulpón L, Molina BD, Wang S, Lage E, Crespo MG, Manito N, Howlett J, Haddad H; Motown Study Group. Benefit of Neoral C2 monitoring in de novo cardiac transplant recipients receiving basiliximab induction. *Transplantation.* 2008 Apr 15;85(7):992-9.
14. Hanley SC, Paraskevas S, Rosenberg L. Donor and isolation variables predicting human islet isolation success. *Transplantation.* 2008 Apr 15;85(7):950-5.
15. Bergman S, Feldman LS, Anidjar M, Demyttenaere SV, Carli F, Metrakos P, Tchervenkov J, Paraskevas S, Fried GM. "First, do no harm": monitoring outcomes during the transition from open to laparoscopic live donor nephrectomy in a Canadian centre. *Can J Surg.* 2008 Apr;51(2):103-10.
16. Năstăsescu OS, Popa IM, Vereștiuc L, Butnaru M, Baran D. Scaffolds based on collagen and chitosan for post-burn tissue engineering. *Rev Med Chir Soc Med Nat Iasi.* 2008 Apr-Jun;113(2):547-53.
17. Ross H, Pflugfelder P, Haddad H, Cantarovich M, White M, Ignaszewski A, Howlett J, Vaillancourt M, Dorent R, Burton JR; CADENCE Study Group. Cyclosporine reduction in the presence of everolimus: 3-month data from a Canadian pilot study of maintenance cardiac allograft recipients. *J Heart Lung Transplant.* 2008 Feb;27(2):197-202.
18. Keith DS, Cantarovich M, Paraskevas S, Tchervenkov J. Duration of dialysis pretransplantation is an important risk factor for delayed recovery of renal function following deceased donor kidney transplantation. *Transpl Int.* 2008 Feb;21(2):126-32.
19. Raju DL, Cantarovich M, Brisson ML, Tchervenkov J, Lipman ML. Primary hyperoxaluria: clinical course, diagnosis, and treatment after kidney failure. *Am J Kidney Dis.* 2008 Jan;51(1):e1-5.

20. Knoll GA, Cantarovitch M, Cole E, Gill J, Gourishankar S, Holland D, Kiberd B, Muirhead N, Prasad R, Tibbles LA, Treleaven D, Fergusson D. The Canadian ACE-inhibitor trial to improve renal outcomes and patient survival in kidney transplantation—study design. *Nephrol Dial Transplant* 2008 Jan;23(1): 354-8
21. Chan G, Horton PJ, Thyssen S, Lamarche M, Nahal A, Hill DJ, Marliss EB, Metrakos P. Malignant transformation of a solitary fibrous tumor of the liver and intractable hypoglycemia. *J Hepatobiliary Pancreat Surg*. 2007;14(6):595-9.
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23. Vassiliou MC, Feldman LS, Fraser SA, Charlebois P, Chaudhury P, Stanbridge DD, Fried GM. Evaluating intraoperative laparoscopic skill: direct observation versus blinded videotaped performances. *Surg Innov*. 2007 Sep;14(3):211-6.
24. Schiffrin EL, Lipman ML, Mann JF. Chronic kidney disease: effects on the cardiovascular system. *Circulation*. 2007 Jul 3;116(1):85-97.
25. Krassilnikova M, Deschenes M, Tchevenkov J, Giannetti N, Cecere R, Cantarovich M. Effectiveness of posttransplant prophylaxis with anti-hepatitis B virus immunoglobulin in recipients of heart transplant from hepatitis B virus core antibody positive donors. *Transplantation*. 2007 Jun 15;83(11):1523-4.
26. Bergman S, Feifer A, Feldman LS, Bell L, Flageole H, Tchervenkov J, Anidjar M, Stanbridge D, Fried GM. Laparoscopic live donor nephrectomy: the pediatric recipient in a dual-site program. *Pediatr Transplant*. 2007 Jun;11(4):429-32.
27. Potter BJ, Giannetti N, Edwardes MD, Cecere R, Cantarovich M. Calcineurin inhibitor substitution with sirolimus vs. reduced-dose calcineurin inhibitor plus sirolimus is associated with improved renal dysfunction in heart transplant patients. *Clin Transplant*. 2007 May-Jun;21(3):305-8.
28. Bernier PL, Grenon M, Ergina P, Schricker T, Chaudhury P, Metrakos P, Lachapelle K. Combined simultaneous heart and liver transplantation with complete cardiopulmonary bypass support. *Ann Thorac Surg*. 2007 Apr;83(4):1544-5.
29. Cantarovich M. Renal protective strategies in heart transplant patients. *Curr Opin Cardiol*. 2007 Mar;22(2):133-8.

30. Schiff J, Cole E, Cantarovich M. Therapeutic monitoring of calcineurin inhibitors for the nephrologist. *Clin J Am Soc Nephrol*. 2007 Mar;2(2):374-84.
31. Alam A, Badovinac K, Ivis F, Trpeski L, Cantarovich M. The outcome of heart transplant recipients following the development of end-stage renal disease: analysis of the Canadian Organ Replacement Register (CORR). *Am J Transplant*. 2007 Feb;7(2):461-5.
32. Papali A, Giannetti N, Cantarovich M. Unilateral upper extremity edema associated with sirolimus in a heart transplant patient. *Transplantation*. 2007 Jan 27;83(2):240.
33. Han K, Tzimas GN, Barkun JS, Metrakos P, Tchervenkov JL, Hilzenrat N, Wong P, Deschênes M. Preoperative alpha-fetoprotein slope is predictive of hepatocellular carcinoma recurrence after liver transplantation. *Can J Gastroenterol*. 2007 Jan;21(1):39-45.
34. Emadali A, Metrakos PP, Kalantari F, Boutros T, Boismenu D, Chevet E. Proteomic analysis of tyrosine phosphorylation during human liver transplantation. *Proteome Sci*. 2007 Jan 2;5:1.
35. Baran D, Apostol I. Signification of biorhythms for human performance assessment. *Rev Med Chir Soc Med Nat Iasi*. 2007 Jan-Mar;111(1):295-302.
36. Raghavan R, Cecere R, Cantarovich M, Giannetti N. Tricuspid valve replacement after cardiac transplantation. *Clin Transplant*. 2006 Nov-Dec;20(6):673-6.
37. Paraskevas S, Kandaswamy R, Humar A, Gillingham KJ, Gruessner RW, Payne WD, Najarian JS, Sutherland DE, Matas AJ. Risk factors for rising creatinine in renal allografts with 1 and 3 yr survival. *Clin Transplant*. 2006 Nov-Dec;20(6):667-72.
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46. Znajda TL, Hayashi S, Horton PJ, Martinie JB, Chaudhury P, Marcus VA, Jass JR, Metrakos P. Postchemotherapy characteristics of hepatic colorectal metastases: remnants of uncertain malignant potential. *J Gastrointest Surg.* 2006 Apr;10(4):483-9.
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