

Thrombosis Clinical and Research Fellowship at the SMBD Jewish General Hospital, a McGill University Teaching Hospital

General Description of Program

The JGH Thrombosis Program is an active, academic, tertiary care subspecialty service. Our Thrombosis physicians comprise a multidisciplinary, collaborative group that includes hematologists, internists and a pulmonologist, with close links to related specialties such as vascular surgery, cardiology, neurology and obstetrics. A number of us also have training in clinical epidemiology.

The Thrombosis Program encompasses a broad range of clinical and research activities that relate to diagnosis, risk factors and treatment of venous and arterial thromboembolic disease, management of thrombophilia and issues pertaining to long-term anticoagulation. Specific areas of clinical activity include the Thrombosis Clinic, Anticoagulation Clinic and In-patient Thrombosis Consultation Service. Research activities include basic science, clinical, health services and outcomes research pertaining to thrombotic diseases. Our clinical and research activities have grown tremendously over the last few years such that we are now able to provide an ideal training environment for trainees interested in becoming expert in thrombosis medicine.

McGill University via the JGH Thrombosis Program currently offers a one year clinical fellowship to acquire and consolidate expertise in Thrombosis. During the fellowship, the trainee will acquire knowledge of the physiology, pathology, diagnosis and treatment of thrombotic diseases through a variety of activities, including direct inpatient and outpatient care and exposure to pertinent diagnostic laboratory and imaging facilities. The trainee will be assigned to the in-patient Thrombosis Consult Service as well as the outpatient Anticoagulation and Thrombosis Clinics, where he/she will be directly supervised and taught by Thrombosis attending physicians during all rotations. By the end of the first six months, it is expected that the trainee will be able to perform independently as a thrombosis consultant with minimal supervision. During the second six months, the candidate will consolidate knowledge and take on greater teaching responsibilities (e.g. medical student and core resident education). The candidate is also expected to regularly participate in formal educational initiatives such as presentation at rounds, journal club and thrombosis case conferences in order to complete the training that is necessary to become an expert consultant in thrombosis. We also encourage the candidate to do rotations in diagnostic imaging (e.g. vascular lab, nuclear medicine, CT, MRI) and the special coagulation laboratory to consolidate learning around diagnostic testing of patient with suspected and confirmed thromboembolic disease. Fellows will be encouraged to undertake a research project alongside their clinical training, and will be assigned to a research mentor who will meet with the trainee during the first month of fellowship to plan the project and supervise the trainee throughout the year.

During the Thrombosis Fellowship, the fellows will be expected to present at Thrombosis Rounds (once monthly), Case Conference (once monthly) and Journal Club (held in the evening 4 times per year). Presentations at Thrombosis Rounds should highlight key articles and identify gaps in knowledge. See Table 1 for a suggested curriculum of topics to be covered.

Qualifications

Applicants should have completed Royal College of Physician and Surgeons certified (or equivalent) training in Hematology, Respiriology or General Internal Medicine.

Facilities

The Thrombosis Group is physically located within the 637-bed Jewish General Hospital (www.jgh.ca), a busy, tertiary care McGill University (www.mcgill.ca) teaching hospital. The JGH building complex also houses the Lady Davis Institute for Medical Research and the Center for Clinical Epidemiology and Community Studies. Approximately 2000 patients with suspected venous thrombosis, 400 patients with confirmed DVT and 150 patients with PE are evaluated per year. In addition, there are numerous referrals to the Thrombosis Clinic for issues pertaining to thrombophilia screening, pregnancy-related complications, recurrent or unusual arterial thrombosis, post-thrombotic syndrome and other thrombosis-related issues. The anticoagulation clinic is a busy service that receives 15,000 patient visits per year.

The Thrombosis In-Patient Consultation Service receives an average of 1-3 requests for consultation per day.

Our Team

The Thrombosis Fellowship at the JGH offers a unique opportunity to work with a diverse and talented team of professionals for whom provision of multidisciplinary, evidence-based patient care is the number one priority. In addition to excellence in clinical care and teaching, our group has achieved notable success in thrombosis-related research. Three of us (Drs. Blostein, Kahn and Tagalakis) have been awarded prestigious peer reviewed Clinical Investigator salary awards for our research programs in thrombosis. Dr. Blostein is a basic science researcher interested in mechanisms of thrombosis. He has also been instrumental in developing the Anticoagulation Clinic as a rich source of patients for our clinical research studies on optimal anticoagulant therapy. Both Drs. Kahn and Tagalakis have research training in Epidemiology and have been awarded peer review operating grants to lead a number of clinical research projects in various areas of thrombosis. Dr. Hirsch, a respirologist, has expertise in pulmonary embolism and chronic thromboembolic pulmonary hypertension. We have also established successful research collaborations with the Departments of Oncology and Emergency Medicine. Our team includes 5 full time and 3 part time research coordinators, a clinical nurse specialist who is expert in thrombosis and a program administrator, all of whom are important assets to our program.

The City of Montreal

Life in Montreal, a large and exciting Canadian city with a European flair, is truly an experience: old world charm, French joie de vivre and a modern style all its own. Montreal is known for its superb cuisine, vibrant nightlife, festivals, sunny terraces, cultural diversity and "joie de vivre" (joy of life). See these websites for more information on what makes Montreal such a unique place to live: <http://www.tourisme-montreal.org/B2C/00/default.asp>; <http://www.go-montreal.com/>

Application information

Please forward your CV and a cover letter that includes the names of two referees to:

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Table 1. Suggested topics for Thrombosis Rounds or individual study

1. Epidemiology of deep vein thrombosis and pulmonary embolism.
2. Natural history of deep vein thrombosis and pulmonary embolism.
3. Approach to the diagnosis of PE, with discussion of different diagnostic test modalities (spiral CT scan, VQ scan)
4. Approach to the diagnosis of DVT, with discussion of different diagnostic test modalities (ultrasound, MRV, venography)
5. Diagnosis and management of thrombophilias:
 - Protein S deficiency, laboratory and clinical diagnosis, management implications.
 - Protein C deficiency, laboratory and clinical diagnosis, management implications.
 - Antithrombin deficiency, laboratory and clinical diagnosis, management implications.
 - Factor V Leiden, laboratory and clinical diagnosis and management implications.
 - Prothrombin mutation, laboratory and clinical diagnosis, management implications.
 - Hyperhomocysteinemia, laboratory and clinical diagnosis, management implications.
 - Antiphospholipid antibody, laboratory and clinical diagnosis, management implications.
6. Management of thrombosis:
 - Initial therapy: LMWH, UFH
 - Warfarin dosing induction and maintenance.
 - Thrombolytics for pulmonary embolism, deep vein thrombosis.
 - Duration of anticoagulation for different thrombotic conditions.
 - Thrombosis at unusual sites: mesenteric vein, cerebral sinus thrombosis, central retinal artery and central retinal vein occlusion
 - Malignancy and venous thromboembolism.

- Management of venous thromboembolism in pregnancy.
- 7. Prevention (thromboprophylaxis) of thrombosis: orthopedic patients, medical patients, general surgery, pregnancy, trauma
- 8. Management of asymptomatic thrombophilia.
- 9. HIT: diagnosis and clinical management
- 10. IVC filters – permanent and retrievable: benefits and risks.
- 11. Management of anticoagulation for atrial fibrillation, mechanical heart valves, peripheral arterial disease, stroke.
- 12. Hormonal therapy and thrombosis.
- 13. Reversal of anticoagulation, indications and strategies.
- 14. Post-thrombotic syndrome, diagnosis and management.
- 15. Chronic thromboembolic pulmonary hypertension, diagnosis and management.
- 16. Heparin and coumadin allergy.
- 17. Pharmacology of antithrombotics:
 - Heparin.
 - Pharmacology of Low Molecular Weight Heparin.
 - Pharmacology of Warfarin.
 - Pharmacology of Direct thrombin inhibitors.
 - Pharmacology of Heparinoids.
 - Pharmacology of Lepirudin.
 - Pharmacology of Pentasaccharide.