

Immune Deficiency Fellowship McGill University

Name of Institution: McGill University Health Centre

Type of Fellowship: Clinical and Clinical Research

Program Information:

The **global objective** of this fellowship is to provide training in clinical acumen, research and teaching, regarding primary and secondary immune deficiency. The fellow will be a Pediatric subspecialist who wishes to pursue an academic career focusing on clinical care and Research applied to immune deficiency.

Supervision: This program will be carried out under the direction of Dr. Christine McCusker, director of the MUHC Division of Pediatric Allergy and Clinical Immunology in conjunction with Immune Deficiency Treatment Center team members Dr. Reza Alizadehfar, Dr. Bruce Mazer, Dr Francisco Noya, Dr Marylin Desjardins and Dr Hanna Laure Elfassy as well as the ADULT immune deficiency team, Dr. Reza Alizadehfar and Dr. Christos Tsoukas and Dr Michael Fein.

The program will be specifically tailored to the trainee's needs with the possibility of focusing on both pediatric and adult patient clinical care and on clinical research.

The Fellow will participate in:

1. The clinical evaluation and management of immune deficiency, Immune dysregulation and auto-inflammatory syndrome, though involvement in the Adult and Pediatric Clinics. Here, advanced diagnostic testing will be learnt, so that the Fellow becomes comfortable with many rare disorders.
2. Research projects being performed within the Clinics.
3. Other collaborative projects taking place across Canada.
4. The management of Pediatric with immune deficiency under the supervision of Dr. Reza Alizadehfar and the team.
5. The management of Adults with immune deficiency under the supervision of Dr. Chris Tsoukas and the team.
6. Formal courses in immunology, genetics and statistics at McGill University if choosing the clinical research stream.

• **Number of Fellowship positions:** 1 position.

• **Academic affiliation:** Division of Clinical Immunology and Allergy, Department of Medicine, McGill University.

• **Length of Fellowship:** 1 year with an option to complete a second year after review by the program director.

• **Name of hospitals involved in training:** The Fellow is based at the MUHC where most of his/her time will be spent. Formal classes could be held also at McGill University main campus or at another McGill affiliated teaching hospital.

Weekly Paediatric and Adult Immune Deficiency rounds and combined Clinical Immunology

Journal Club are held at the McGill University Health Center Montreal General Hospital, Montreal Children's Hospital as well as the Glen site, and the trainee will also be able to participate in weekly rounds in Clinical Epidemiology.

• **Background:** The clinical research in immune deficiency has been funded by multiple sources, including the Canadian Immunodeficiency Society and the Canadian Institutes of Health Research. Other public or private programs to which he/she will be invited to apply may support the candidate.

• **Research activity:** The Fellow will work mostly but not exclusively under the supervision of Drs. R. Alizadehfar. There are many active projects being performed within both the paediatric and adult immune deficiency program. The Fellow will be involved in data collection and laboratory analyses for the ongoing projects.

• **Mission:** The goals of the Division of Clinical Immunology are to further research in immune deficiency, including the genetic basis, clinical phenotypes and clinical outcomes, to optimize care, and to develop new independent investigators.

• **Outline how intended Fellowship will enhance residency training.** This clinical research training program is offered for trainees who have already completed their adult or paediatric Core Medicine Residency program and Core Training in a medical sub-specialty (Clinical Immunology).

Name of the Fellowship Program Director: Dr. Christine McCusker

Names of the Current Teaching Faculty: Dr. Christine McCusker, Dr. Reza Alizadehfar, Dr. Bruce Mazer, Dr Francisco Noya, Dr Marilyn Desjardins and Dr Hanna Laure Elfass, and Dr. Christos Tsooukas and Dr Michael Fein.

Roles: Each of the faculty is involved in the clinical projects. The Fellow will work directly under the supervision of one or more of these mentors, depending on the project.

Summary of clinical practice: Patients, referred for registration in the CPRIME national Immune deficiency database seen at the MCH and the MGH. The Fellow will participate directly in the clinical evaluation of these patients including a directed history and physical exam to record pertinent predetermined data. Approximately 1000 patient visits are seen per year in the combined clinics. This affords a sufficient number of patients to ensure that Fellows receive appropriate experience in the management of complex problems without adversely affecting the experience of residents in the training program. In fact, learning will be enhanced because the Fellow will be able to help in the teaching process, to students at more junior levels, who participate in the clinic.

Competencies covered:

- Compassionate patient care, appropriate and effective treatment
- Ability to independently develop and execute patient care plans.
- Demonstrate appropriate knowledge in laboratory testing and genetics for their training level.
- Show knowledge about established and evolving issues within their field and apply to patient care (implementing evidence-based practice).
- Practice-based learning and self-evaluation and critique personal practice outcomes.

- Demonstrate effective documentation of practice activities in medical records.
- Demonstrate effective interpersonal and communication skills with the medical team, patients and families.
- Demonstrate professionalism, responsibility, adherence to ethical principles, sensitivity towards a diverse patient population.
- Practice high-quality, cost-effective patient care.
- Demonstrate knowledge of risk-benefit analysis.
- Demonstrate an understanding of the role of different specialists and other health care professionals in overall patient management.

Major Strengths: This is a multi-site, multi-disciplinary clinical and research program with a large population of suspected and confirmed immune patients followed and enrolled in a large research database. Our team collaborates with several other basic and clinical researchers.

Academic Facilities

- **Outline facilities for clinical and academic pursuit:** Office space and computer equipment are provided to the Fellow at the MCH and MGH in the Division of Clinical Immunology.
- **Library** access and materials relevant to Fellowship training is available from McGill University libraries and all libraries of its Network of Teaching Hospitals, including that of the MCH and the MGH.
- **Laboratories:** Availability of multiple wet laboratories within the Division of Clinical Immunology, the Laboratory of the Immune Deficiency Treatment Center and also the MUHC-RI Flowcytometry core facility directed by Dr. Ciro Piccirillo, a member of the clinical division.
- **Teleconferences:** The Jeffery Modell Foundation Monthly National Teleconferences.

Fellow Duties and Responsibilities

- **On Call responsibilities:** Yes
- **Acting as Senior Supervisor to residents:** Yes
- **Fixed rotations** at various institutions: Yes with flexibility
- **Outpatient clinic responsibilities:** Candidates will have the opportunity to attend both Paediatric and Adult immunology clinics.
- **Teaching responsibilities:** The Fellow will have specific teaching responsibilities particularly related to clinical immune competence and research methodology. There will be close interaction between the Fellowship Program and the Residency Program. The Fellow may serve as teaching assistants for residents when appropriate.

Outline participation in academic activities involving the residents:

- Seminars, weekly division journal club, immunology courses, weekly immune deficiency

case review and academic rounds.

· **Support staff** available to the Fellow: research coordinator and laboratory assistants, clinical and research nurses, secretarial and other support (IT, biostatistician).

Proposed meetings to be attended by the Fellow: Yearly scientific meeting of the Annual Clinical Immunology Society Primary Immune Deficiency Symposium and one other meeting related to Immune Deficiency including the Jeffery Modell Foundation meetings. The Division of Clinical Immunology will fund these activities.

Research productivity and publications expected by the Fellow: The Fellow will be expected to present at a major scientific meeting. By the end of one year he/she should have participated in the writing of at least one scientific paper. It is understood that it may require more time to complete such a paper and some of this work could take place after one year.

Funding: For information regarding salary amount and acceptable sources of funding please visit the link at:

<http://www.mcgill.ca/pgme/admissions/prospective-fellows>

Evaluation: The Fellow will receive a written evaluation of his/her performance every 3 months, which will be submitted through One45. A written final evaluation at the completion of the Fellowship will be submitted to the Program Director and will be placed in the Fellow's completion file. The Residency Training Committee and Program Director will evaluate the Fellowship Program Director annually with respect to teaching, scholarly research activity and feedback by residents and current Fellows.

The Fellow will evaluate his/her supervisors, and annually the assessments of the teaching faculty will be updated on file and available for review. The Program Director and its Residency Training Committee will assess the quality of the curriculum and the extent to which the Fellowship has met its educational goals regularly. The approval of a Fellowship will be subject to a 1-year probationary period and once approved, be reviewed as stated every 2 years.

Curriculum: The Fellow will be provided with the opportunity of taking one summer epidemiology and one summer biostatistics course at McGill University.

The schedule of academic conferences is as follows. The Fellow will have active participation in the planning and production of these activities:

Monday 8:00 - 12:00 PM Adult Clinical Immunology Clinic and resident training

1:00 - 3:00 PM Adult Immune Deficiency Clinical Rounds

4:00 - 5:00 PM Department of Epidemiology and Biostatistics Seminars

Tuesday 8:00 - 12:00 PM Paediatric Immune Deficiency Clinic

1:00 - 3:00 PM Paediatric Immune Deficiency Clinic Rounds

Wednesday 8:00 - 12:00 PM Adult Clinical Immunology Clinic and resident training

Thursday 8:00 - 5:00 PM Laboratory Training or Clinical research program

Friday 8:00 - 9:00 AM Clinical Immunology Journal Club, MUHC

9:00 - 11:00 AM Basic Immunology (Janeway) Course

Other aspects of training:

The Fellow will also be trained in managerial aspects of a large research team. Also, the Fellow will have access to the help of summer research students who are hired by our team and will learn the skills of supervising a student. The Fellow will also participate in the grant writing process for any research grant applications generated during the training period.

Completion of the Fellowship

- Fellows must provide the Fellowship Program Director and the Program Director of the Residency Training Program with their clinical case log (if applicable), research activity and publication list, and CV. These documents will be collected in a completion file and stored in the Office of the Residency Training Program.
- On successful completion of the Fellowship, Fellows will receive a certificate signed by the Fellowship Director and/or the Dean of the Faculty of Pediatrics.