

FELLOWSHIP IN AVIATION MEDICINE : CRITICAL CARE FIXED AND ROTARY WING

Fellowship Director: Dr. Dev Jayaraman

Fellowship Information:

Number of positions available: 2

Training site : McGill University Health Center

Duration: 1 year

Admission requirements:

Completion of Critical Care Medicine, Cardiology, General Internal Medicine, General Surgery (Trauma), Anaesthesia, Emergency Medicine, or Respiriology Training at an accredited program and wish to become academic leaders in Aviation Medicine. Candidates not in the aforementioned specialties but have equivalent training in acute care medicine will be evaluated for eligibility on a case by case basis.

Application Process:

Applicants interested in pursuing this fellowship must apply through the McGill University Faculty of PostGraduate Medical Education website: <https://www.mcgill.ca/pgme/fellowships/admissions>

They must also submit a letter of intent, curriculum vitae as well as 3 letters of reference before the appropriate deadlines

General Information and Summary of Clinical Practice:

The McGill Division of Critical Care Fixed and Rotary wing Program (AVFWRW), previously the Aviation Medicine Program, has existed for 27 years. The program itself has been available to a variety of surgical and medical Residency programs as an elective fully approved by the Collège des Médecins in the province of Quebec. Residents have been involved in more than 25,000 fixed wing critical care flights since inception, including pediatric and adult cases. The scope of conditions include high acuity critical care transports such as polytrauma, ECMO, VAD and patients on full hemodynamic and respiratory support. Although there is no Rotary Wing (helicopter) activity in Quebec currently, it is expected that within 2-3 years, it will be implanted throughout the province. Regardless, with our academic connections with other rotary systems within Canada and internationally, we will be able to offer the applicant access to an accredited Rotary wing program for training under our supervision.

THE MCGILL UNIVERSITY CRITICAL CARE FIXED AND ROTARY WING FELLOWSHIP

Mission: The mission of the Fellowship training is to provide the necessary experience in Aviation Medicine in its entirety. Since there are many different associated training topics within this large field, a Fellowship can be tailored to meet the specific needs of the trainee along with core requirements. The goal is to launch trainees into a tailored academic practice with a strong foundation for their future clinical and academic careers as a consultant.

Description: This fellowship is designed for the aspiring clinician from many different specialties interested in obtaining advanced exposure to Fixed and Rotary Wing Transport based on a strong understanding of physiological principles. Core parts of the program will include Fixed and Rotary wing flights, and fundamental principles of Aviation Physiology. Additional options that can be included in the Fellowship include Hyperbaric Medicine, Surgical skills training-Aviation Medicine, Ground Ambulance training, Ultrasound, Trauma, Call Centre training, further ICU exposure including ECMO/VAD and Research. At the completion of the 1-year advanced fellowship, the successful trainee will be well suited for an independent practice in Aviation Medicine Fixed Wing and Rotary Wing clinical activities.

Curriculum: The proposed core schedule is as follows: 1 month Core principles of Aviation Physiology, 3-6 months Fixed wing, up to 3 months Rotary wing and 5 months of further training in core activities or selective time in the list options above. This core training can be adapted in terms of the duration in each of these areas to the differing goals of the candidate. Until Quebec has a dedicated rotary wing program, candidates will spend a maximum of 3 months at an accredited site in North America or United Kingdom.

Time Distribution:

80% clinical related to transport

20% clinical research or review manuscript generation

Funding source:

Candidates are expected to secure funding from governments or institutions.

Faculty:

The training program will recruit a multidisciplinary faculty selected from critical care medicine, emergency medicine and traumatology. Faculty will also include those from institutions with rotary wing capability until Quebec has its own program.

Academic responsibilities

It is expected that the trainee will regularly attend Critical care rounds and present at least 4-6 times at these rounds on topics related to AMFWRW. The trainee is expected to submit for publication a review article or a research article that explores a new clinical aspect of AMFWRW. To aid in this endeavor, the Program has several academics at McGill University who will be responsible to mentor the trainee through the Fellowship. These composite activities will allow the trainee entry into the academic critical care community with particular expertise in AMFWRW.

Call responsibilities:

In addition to being on call for appropriate transports, the fellow will also take 2-3 calls per period in critical care to keep up skills required for the critically ill during transport.

Training Expectations:

Medical Expert: By the end of the training, the trainee will be able to demonstrate knowledge of flight physiology and its impact on care of the critically ill patient as well as health care workers. The trainee will also be able to identify risks and contra-indications to transport. It is expected that this will be acquired in a progressive manner during the course of the training.

Communicator: Throughout the training period, the trainee is expected to demonstrate appropriate communication with patients and families, accurately transfer information both verbally and in writing to other health care workers. In particular, the trainee will be able to demonstrate high fidelity communication as it pertains to the transport of the critically ill patient by the end of the training.

Collaborator: The trainee will demonstrate appropriate collaboration with other health care workers before, during and after transport. The trainee will also be expected to teach junior learners and other health care providers so that they may have enhanced understanding of critical care transport.

Leader: The trainee will be expected to lead teams during transport in a progressive manner during the course of the training.

Health Advocate: The trainee will be expected to advocate for the overall well-being of the patient weighing the risks and benefits of transport.

Scholar: All trainees will be expected to present at critical care rounds and publish a review article or a research article as it pertains to transport of the critically ill by the end of their training. In addition, they will be expected to teach junior learners as described in the collaborator section.

Professional: Trainees will be expected to demonstrate respect for diversity and the highest ethical and moral boundaries. They will deliver care in a compassionate and caring manner while maintaining professional boundaries.

Evaluations:

The AMFWRW Fellowship Training Program has a comprehensive evaluation system. Evaluations will be performed every two months. Feedback will be solicited from the faculty who have had the opportunity to supervise the trainee during the two month period as well as from nurses, respiratory therapists and flight crew that would have worked with the trainee during this period. These evaluations are summative evaluations addressing both knowledge and practical skills reflecting the training expectations of the AMFWRW training program. All evaluations are reviewed with the fellow by the Fellowship Director in consultation with the McGill AMFWRW Training Program Committee.

At the end of the 1 year Fellowship, the trainee, upon approval of the AMFWRW Training Committee, will receive a Certificate confirming successful completion of the Fellowship from McGill University.

