

APPLICATION FOR INTERVENTIONAL CARDIOLOGY FELLOWSHIP

NAME OF INSTITUTION: Mc Gill University Health Center

TYPE OF FELLOWSHIP: One year training in interventional cardiology (after cardiology fellowship).

ACADEMIC AFFILIATION: Mc Gill University, MUHC cardiology program.

NAME OF HOSPITALS: Royal Victoria Hospital

BACKGROUND:

In 2006, the MUHC concentrated all cardiology interventional activities at the RVH, and opened three state of the art cardiac cath labs, including a bi-plane unit allowing the performance of diagnostic (coronary disease, cardiomyopathies, valvular disease, pericardial disease, adult congenital disease), including ultraspecialised diagnostic procedures such as intravascular and intracardiac ultrasound, fractional flow reserve, as well as therapeutic interventional work (PCI and stents, ASD & VSD closure, percutaneous valve implantation).

This newfound concentration of activities and standardization of care, with much tighter integration and professional formation of support staff, i.e. nursing and X-Ray technologists, has allowed us to finally consider providing level three interventional formation for suitably qualified cardiologists (ACC interventional task force). As well, it has allowed us to recruit three well trained interventionalists, including one additionally trained in adult congenital and structural heart disease.

Furthermore, we currently have three other candidates training in Boston (coronary and peripheral vascular intervention), Ottawa (genomics), and Rotterdam (ThoraxCenter, structural and valvular intervention). These new trainees are also training in research methodology and are already publishing.

RESEARCH ACTIVITY:

Up until two years ago, because of severe limitations in infrastructure, staffing (M.D.s and others), and research activity was quite limited to some collaboration in multicenter trials.

We have now acquired a full time research nurse, and are involved in 6 collaborative trials. We are just getting off the ground. But the addition of Drs Martucci, Prabhakar and Pelletier has given a new impetus to this effort and we will develop.

MISSION:

Cardiac catheterization laboratories activities are central to hospitalized tertiary care cardiology. There are three major objectives pursued.

The first, and most developed at this time, is clinical: diagnostic studies including aortic and coronary angiography, hemodynamic investigation of valvular, cardiomyopathic and pericardial disease, including performance of endomyocardial biopsies and therapeutic, i.e. percutaneous coronary intervention and stent implantation, intraaortic conterpulsation balloon, Impella device, percutaneous ASD and VSD closure and valvular implantation.

As well, the cath lab provides tight integration with cardiovascular surgery, providing diagnostic information and guidance in therapeutic intervention to our cardiological and surgical colleagues.

The second is teaching and formation: up until recently, we had limited ourselves to providing the necessary training to general cardiology requirements, but are now including interventional level three formation.

The third is research: this has been, heretofore, our weakest point, for reasons previously mentioned. We are now acquiring the necessary personnel to develop: a full time research nurse properly trained medical researchers, and we expect to develop rapidly.

The intent in now providing interventional formation is to prepare suitable candidates for independent performance of interventional coronary work, including PCI, IVUS and FFR, endomyocardial biopsy, trans-septal catheterization, as well as general diagnostic work. This may evolve eventually to further formation in peripheral vascular and structural heart disease, as we acquire suitably trained staff MD's.

Thus the candidate will develop a strong mastery of the various diagnostic and interventional technique's indications, contraindications, limitations, interpretation and clinical use. He will learn to work within a multidisciplinary team (cardiologists, surgeons, anesthesiologists, nurses and technicians, and trainees of various levels). He will develop appropriate clinical judgment, and self discipline in further learning and possibly research activities.

FELLOWSHIP PROGRAM DIRECTOR: Jean-Pierre Beaudry MD

TEACHING FACULTY:

Jean-Pierre Beaudry (diagnostic and interventional coronary disease, support devices)

Giuseppe Martucci (as above plus structural, adult congenital and valvular intervention)

Jean-Philippe Pelletier (diagnostic and interventional coronary disease, clinical research)

Manu Prabhakar (diagnostic and interventional coronary disease, clinical research)

Yves Beaudry (coronary disease intervention)

RSL Kwee (coronary disease intervention)

Christian Constance (coronary disease intervention)

ACADEMIC FACILITIES:

The MUHC cath lab facilities have been totally renewed and concentrated at the RVH pavilion. The facilities consist of three brand new cath lab suites, including a biplane room, located in a separate, closed and air conditioned suite at the end of the S-4 corridor, with integrated secretariat, dedicated fellow's teaching and conference room with dedicated AV equipment, including a numeric projector, two full access computers to hospital, library database and internet, as well as a dedicated PAC station, allowing immediate access to angiographic records and images. As well, there is a fully monitored and nursing staffed seven bed ward for pre and post cath activities, a dedicated staff room and suitable sanitary accommodations. This produces a privileged working and learning environment, with close access to a reserved reading space and immediate, moment to moment access to staff interventionalists.

One would be hard put to find a better physical environment to facilitate learning. There is no 'skill lab' at the moment, but technical skills are acquired in the labs with the immediate presence and active mentoring and physical demonstration and guidance of the staff MD in the cath lab.

Our labs yearly perform roughly 3,000 or more procedures, including 1,400+ interventional procedures. It is therefore very easy for the trainee to reach and exceed the recommended 300 diagnostic procedures (200 as primary operator), and 200 interventional procedures (125 as primary operator). This still leaves ample opportunity to continue delivering adequate clinical cath lab exposure to general cardiology trainees.

FELLOWS DUTIES AND RESPONSIBILITIES:

The interventional fellow(s) will be expected, over the year, to develop satisfactory expertise in case selection, procedural judgment and technical ability, gathering and interpretation of hemodynamic and angiographic data in the following: coronary disease, cardiomyopathies, valvular disease, and pericardial disease.

He will be expected to master all aspects of cardiac chamber and coronary angiography, pericardiocentesis, temporary pacemaker insertion, intra-aortic conterpulsation balloon, FFR, and possibly trans-septal catheterization. He will develop full competence in percutaneous jugular and femoral venous access, radial, brachial and femoral arterial access, and implantation of arterial closure devices (AngioSeal, StarClose, Perclose).

He will be expected to perform at least 300 diagnostic studies (including 200 as primary operator), and 300 coronary interventional procedures (including at least 125 as primary operator). This will not be a problem with our present caseload. He will keep a formal journal of completed procedures.

As well as on the above mentioned skills, he will be evaluated formally every 6 months on the following criteria: competent clinical follow-up, availability and reliability, complications, and quality of interpersonal (patients, staff and peers) and interdisciplinary relations, initiative, teaching and mentoring ability.

He will become competent with pre-procedure evaluation (pre cath clinic), timely and informative reporting of results and therapeutic recommendations.

He will be expected to arrive at work at 07:30 every working day, except for specified out of lab teaching opportunities (conferences, research activities) holiday or illness.

He will be responsible for working up patients on whom he will intervene.

He will be responsible for organizing the weekly hour long cath conference, with case presentations, including all major complications or difficult clinical cases during the preceding week. He will also collaborate with formal cath lab teaching to cardiology trainees. He will be an active participant in the cath lab journal club. He will demonstrate competent knowledge of the relevant medical literature.

He will be supervised and directly responsible to the program director, but will work with the other staff interventionalists to widen the range of clinical experience. He will be included in ongoing clinical research activity, and if a project is feasible in a year, will be expected to develop and complete one with a view to publishing.

We truly believe that our group has acquired the necessary infrastructure and MD experience and competence to now offer selected candidates an instructive and rewarding learning experience, at the end of which he/she will fully meet the necessary qualifications required by the appropriate governing bodies.

Respectfully submitted,

Jean-Pierre Beaudry MD
Director, MUHC Cath Labs