

DEPARTMENT OF PEDIATRICS, DIVISION OF PEDIATRIC CARDIOLOGY

McGILL UNIVERSITY

1-Year INTERVENTIONAL CARDIOLOGY FELLOWSHIP

Duration of training: 1 Year Fellowship Program

Name of Fellowship Director: Dr Adrian Dancea

Name of Program Director: Dr. Tiscar Cavalle

Requirements:

Candidates applying for this position need to hold a certification in pediatric cardiology from their respective country. A background clinical knowledge in the area of heart catheterization and basic technical skills (including percutaneous access and basic catheter manipulation) are an asset. The 'academic' year is July 1 to June 30, however 'off-cycle' candidates will also be considered.

Program Description:

The Division of Pediatric Cardiology of the Montreal Children Hospital (MCH), as part of the McGill University Health Center, (MUHC) offers a 1-year fellowship in Pediatric Interventional Cardiology. The fellowship program provides exposure to all areas of diagnostic and interventional heart catheterization procedures. The fellowship consists in an integrated exposure to clinical care, research, and teaching. The Montreal Children Hospital is a 154 inpatient beds institution that has a busy Cardiac Program that offers a full range of cardiac care. In May 2015, the MUHC has moved to the new Glen site that provides tertiary and quaternary cardiac care from fetal to adult life. The facility features key adjacencies for the Fetal Maternal unit and between the pediatric and adult interventional platforms (operating room and heart catheterization laboratory).

Heart catheterizations are performed in a new, dedicated state of the art biplane laboratory that offers advanced imaging capabilities including rotational angiography. The laboratory is also fully equipped for complex electrophysiology applications including 3D mapping. Between 100-120 catheterization procedures are done yearly at our institution.

Interventions are carried out under the supervision of Dr Adrian Dancea and, occasionally, Dr Giuseppe Martucci from the immediately adjacent Royal Victoria Hospital (RVH). Occasionally, the fellow will also participate in structural heart catheterization cases in the biplane lab at the RVH under the supervision of either Dr Dancea or Martucci.

Objectives of training

General Objective: To learn the principles and practice of Pediatric Interventional Cardiology (PIC). These include: general topics in PIC such as: preparation of cases, attendance to pre-catheterization clinics, post catheterization care and preparation of heart catheterization reports. The candidate will acquire knowledge of pertinent risks and benefits of each intervention and obtain informed consent from families. In addition, the fellow will gain awareness of occupational hazards and radiation safety as pertaining to the field on Interventional Cardiology. The fellow will learn a team approach to care delivery with constant interactions with other members of the Cardiac Team. More specifically, the fellow will present the results of the heart catheterization to the members of the Cardiac Team and conjointly devise further care plans.

Specific objectives are to provide exposure in the following areas:

1. Obtaining vascular access (venous, arterial) in various sites including femoral, jugular,

radial, transhepatic in children of all ages either by palpation and landmarks or using ultrasound guidance

2. Performing diagnostic heart catheterizations (right and left heart) in children of all ages including hemodynamic assessment, evaluation of cardiac output and intracardiac shunts, assessment of pulmonary hypertension and manipulation of pulmonary vascular bed in the cath lab. The candidate will be versed in all aspects of a heart catheterization including catheter selection and manipulation, titration of anticoagulation including post cath hemostasis, generating diagnostic angiograms including appropriate selection of projections.

3. Performing interventional procedures including:

a. balloon dilation (with or without stent implantation) of semilunar valves, pulmonary arteries, aorta, systemic and pulmonary veins

b. device occlusion of atrial septal defects, patent foramen ovale, patent ductus arteriosus, Fontan fenestration

c. device of coil occlusion of abnormal vessels or collaterals

d. retrieval of embolized foreign bodies

e. percutaneous implantation of pulmonary valves

f. balloon atrial septostomies (bedside or in the cath lab)

g. endomyocardial biopsies

h. management of complications that can arise from any of the above complications

4. Research: All fellows are expected to participate in at least one research project, with the goal of publishing in a major peer-reviewed journal. Fellows are also encouraged to take advantage of the many opportunities to contribute to multi-disciplinary research projects ongoing with other departments.

5. Teaching: Fellows are expected to teach resident rounds whenever appropriate. This could include general teaching rounds with all the residents and more specifically core pediatric cardiology fellows. With respect to procedures, the fellow is primarily responsible for all interventional procedures with the help of the overseeing interventional cardiologist. When appropriate, the fellow will be involved in the hands on teaching of core pediatric cardiology fellows.

Schedule: Currently, cath lab procedures are scheduled twice a week. Procedures begin at 07:30 hrs. In addition the fellow will also attend to pre-catheterization consultations, all clinical rounds and other general cardiology activity that are relevant to heart catheterization. In addition, for the first few weeks of his/her training the fellow will be oriented to the clinical activity of the division/Program and as such, expected to participate to the general cardiology activities of the division.

On-Call: Fellows are on call via pager for all interventions that he/she is involved with. There is attending staff back up at all times. In addition, the fellow will also take general pediatric cardiology call.

Vacation/Conferences: The fellow is granted 4 weeks of vacation plus an additional time at Christmas or New Year's holidays. The fellow is also granted one week to attend a conference if he/she wishes to do so with possible support from the division if he/she is presenting.

Fellow Evaluation: The fellow is evaluated on a daily basis by the attending staff and will meet regularly for face-to-face feedback. A formal written evaluation is completed every six months, using the CanMEDS roles structure.

Academic Facilities

1. Internet access from all workstations and from fellow's office
2. Access to libraries at MCH and McGill
3. Multimedia learning materials available
4. Free online journal access via McGill portal

The fellow's responsibilities are separate from those of the residents, and the fellows positively impact residency training. There is no negative impact of the fellowship on residency training.

