

Congenital Cardiothoracic Surgery fellowship

Introduction

The Congenital Heart and lung Surgery Fellowship is under the direction of Prof JM Redmond, Mr L Nölke and Mr Jonathan McGuinness. The field of congenital heart and lung surgery has developed into a separate super-subspecialty. Optimal surgical results are only achieved in highly dedicated, specialized centres with focused specialists attending to the medical necessities of these very ill children and adults. Central to this team is the congenital cardiothoracic surgeon.

It is well recognized that cardiothoracic surgeons wishing to focus their careers on Congenital Heart Surgery benefit from additional, concentrated training in this difficult field. As such, the Fellowship in Congenital Heart Surgery at Children's Health Ireland at Crumlin offers an outstanding opportunity for the appropriate candidates.

The Cardiothoracic surgery department at Children's Health Ireland at Crumlin is the national program serving a population of 4.4million, with a further population (of 1.5million) in Northern Ireland beginning to be served by the same surgical group. The current birth rate in Ireland of over 60,000 means there are over 600 newborns per year with congenital heart disease. Approximately 200-250 will need surgical intervention in the first year of life. This places the hospital in a particularly advantageous position in terms of training future paediatric cardiothoracic surgeons. At Children's Health Ireland at Crumlin (CHI), we perform approximately 500-550 open and closed cardiac cases per year.

This surgical caseload encompasses a variety of complex congenital open cardiac repairs and includes correction in even the smallest neonates. We also have an active extracorporeal life support (ECLS) program for cardiac patients. A dedicated paediatric cardiac surgical intensive care unit is staffed by paediatric cardiologists / intensivists / anaesthesiologist. There is also an active cardiac catheterization lab, and a busy, progressive echocardiography and cardiac MRI service.

Rotations

The fellow will have progressive responsibility based on experience and capability. All rotations will be at Children's Health Ireland at Crumlin. If selected for a second year, the fellow's responsibilities will continue to advance, dependent upon his or her skills. The operative experience will be determined by the fellow's ability and understanding of the complexities of paediatric cardiothoracic surgery. It will be designed toward gradual, but progressive responsibility commensurate with the fellow's training and surgical expertise.

Surgical fellows will rotate through the operating theatre on elective operating days (currently Monday, Tuesday, Wednesday, Thursday and Friday). Fellows will assist the consultant surgeon or perform major open intracardiac repairs in infants and children. They will be expected to understand fully the anatomy, physiology, and planning of major cardiac reconstructions as well as the technical performance of these complex procedures. A thorough understanding of the anatomy and physiology will be gained through operative experience, individual study, didactic conferences, and direct communication with the consultant trainers.

Fellows will take in-house night call on a rotating schedule with the cardiothoracic registrars. This will require between 1 in 5 weeknights of in-house call, plus one in four weekends. Practically the fellow or a registrar is required to stay in house the night of an open cardiac case. On-call responsibilities include the acute perioperative management of paediatric cardiac and thoracic

surgical patients, preoperative evaluation of upcoming surgical cases, and gathering of information and pertinent data concerning potential surgical candidates. An intensive experience in the postoperative management of paediatric cardiac surgical patients will be gained in the paediatric intensive care unit, where the fellow will work closely with paediatric intensivists registrars in training, consultant intensivist, consultant cardiologist and consultant cardiothoracic surgeon.

A registrar / fellow can take up to 6 weeks holidays / conference leave per year. This leave can be taken in block of no more than 2 weeks at a time and must be coordinated with the other registrars / fellow so that no more than one person is away at any one time.

Year One - Basic Skills in Paediatric / Congenital Heart Surgery

1. Introduction to complex cardiac anatomy: understanding of all major anatomic/pathologic conditions.
2. Study of all advanced diagnostic modalities: cardiac echo, MRI, catheterization.
3. Intensive care unit management of postoperative complex cardiac malformations: ventilator, inotrope and fluid management, hemodynamic assessment.
4. Basic principles of paediatric operative technique, such as cardiopulmonary bypass, cannulation, approaches to and repair of basic lesions: atrial septal defect, ventricular septal defect, coarctation, single ventricle, basic palliation.
5. Basic research projects in congenital heart surgery.

Year Two - Advancing Training in Paediatric/Congenital Heart Surgery

1. Advancing technical responsibilities in the operating theatre: neonatal open cardiac repairs, arterial switch, truncus arteriosus, hypoplastic left heart syndrome, interrupted aortic arch. The technical aspects of these procedures are extremely demanding and require intensive training and study. Only the very advanced fellow is capable of performing these tasks.
2. Advanced care management and coordination of patient care: collection and interpretation of diagnostic/anatomic data to derive a detailed, longitudinal, complex management plan. Fellows at this level will be required to formulate and defend management strategies for highly difficult surgical problems.

Advanced intensive care management: as per above, fellows will coordinate and provide advanced intensive care management of postoperative congenital cardiac patients.

Conferences

- Joint Cardiology and Cardiothoracic Conference (JCC) – weekly (Thursday 7am)
- Didactic discussion / lecture series – bi-Weekly (Wednesday and Thursday)
- Combined Cardiology and Cardiothoracic and ICU rounds – Monday / Wednesday / Friday
- Morbidity and Mortality Conference – Monthly
- Thoracic and airway multi-disciplinary meeting - monthly

Application and Eligibility

Applicants must be fully trained in adult-acquired cardiothoracic surgery.

The candidate must have a fluent level of English proficiency (*IELTS Overall 7.0 & OET Minimum Grade B*). We encourage all applicants to look at the Irish Medical Council website re registration requirements for working as a doctor in Ireland (www.medicalcouncil.ie)

The fellowship is for a minimum of one year, with the possibility of extension to two or three years, depending on the individual's abilities and desires.

There is no board certification process in paediatric cardiac surgery, so fellows completing the program at Children's Health Ireland at Crumlin do not receive additional formal certification.

Summary

Introduction: This Fellowship is intended for Peri-CCST candidates who have a special interest in congenital cardiac and thoracic disease. It is expected that the applicant has completed their adult cardiothoracic training and FRCS C-Th or equivalent examinations. The candidate should have some experience in congenital heart disease.

Location: Children's Health Ireland at Crumlin.

Trainers: Prof JM Redmond, Mr L Nölke, and Mr J McGuiness

Clinical Responsibility: Full spectrum of paediatric congenital management, from diagnosis, preoperative assessment and planning, surgery, postoperative management.

Research responsibility: Clinical research is encouraged and supported.

Contact for further information: Medical Talent acquisition specialist –
Cillian.greene@childrenshealthireland.ie

Please apply through the Children's Health Ireland recruitment link.

Closing date: 11:45pm on Sunday May 17th