



مستشفى الملك فيصل التخصصي ومركز الأبحاث  
King Faisal Specialist Hospital & Research Centre

Gen. Org. مؤسسة عامة

الشؤون الأكاديمية والتدريب  
Academic & Training Affairs

# PEDIATRIC RADIOLOGY FELLOWSHIP TRAINING PROGRAM

Department of Radiology

# **PEDIATRIC RADIOLOGY FELLOWSHIP PROGRAM**

## **DEPARTMENT OF RADIOLOGY**

### **I. INTRODUCTION**

Radiology of infants and children was recognized as distinct from that of adults as long ago as 1910, with the publication of the first Textbook of Pediatric Radiology written by Dr. Thomas Morgan Rosch from the Children's Hospital in Boston, Massachusetts, USA. Pediatric Radiology as a subspecialty began in the 1960's principally from the efforts of Dr. John Caffey and Dr. Edward Neuhauser.

As the pediatric subspecialties such as cardiology, neurology, neonatology, etc., began to be defined, interest in the radiology of the infant and child developed. In the past two decades, academic pediatric institutions of significant size and scope have developed. This has paralleled advances in the diagnosis and treatment of congenital heart disease, neoplasia and skeletal deformity, as well as in such areas as genetics, microbiology, biochemistry and immunology. Pediatric tertiary referral centers have developed and the sophistication of pediatric radiology has paralleled these changes.

In North America, The Society for Pediatric Radiology, founded in 1958 with a membership of 12, had in 1990 a membership of 750; The European Society, founded in 1964, now has a membership of 400. Pediatric Radiology encompasses all of the imaging modalities encountered in adult radiology, but has additional characteristics unique to the child, i.e., genetics, development and diseases, found only during the childhood years.

Fellowship training in pediatric radiology has been made available in major North American and European centers since the 1950's. Since 1989 formal accreditation of fellowship programs has been established in the U.S. so that Pediatric Radiology has become a listed medical subspecialty. It is likely that formal certification will follow, as has already happened in several European countries.

### **II. GOAL AND OBJECTIVE**

The goal of the Fellowship Program of the Section of Pediatric Radiology at the King Faisal Specialist Hospital and Research Centre is to give physicians who have completed formal training in Diagnostic Radiology comprehensive experience in the application of diagnostic imaging to the diseases of the child.

1- الخبير في تشخيص أمراض الأطفال  
2- توجيه وتنسيق التدريب في الباطن  
3- خبرة في تشخيص الأطفال

من برامج تدريبية في تشخيص أمراض الأطفال

**III. PREREQUISITES**

- A. Successful completion of an accredited training program in diagnostic radiology.
- B. Recommendation from his/her residency training Program Director.
- C. Additional clinical training in pediatrics would be considered an advantage.

**IV. DURATION OF FELLOWSHIP**

The Pediatric Radiology Fellowship Program requires two (2) years of study inclusive of approved leaves for holidays and meetings. Up to four months of this period may be undertaken at another approved institution with the consent of the Program Director and Department Chairman.

An optional third year of fellowship will be offered to applicants who have successfully completed the second year and passed the final exams. Such an additional year would be beneficial for radiologists planning to devote the main part of their work to Pediatric Radiology.

**V. NUMBER OF FELLOWSHIP POSITION**

One (1) position is offered each year.

**VI. QUALIFICATIONS OF PROGRAM STAFF**

- A. **Program Director.** The program will be directed by a physician certified in Diagnostic Radiology with wide experience in Pediatric Radiology and with an appropriate academic background including experience of supervision of residency training and fellowship programs.
- B. At least one other full-time pediatric radiologist.
- C. **Other Department Staff Members.** Other staff members are selected by the Program Director for their experience in various aspects of pediatric imaging, teaching skills and academic interests. Such include neuroradiology, interventional radiology and nuclear medicine.
- D. **Other Hospital Staff Members.** Other staff members of the King Faisal Specialist Hospital and Research Centre are selected by Program Director for their experience in certain aspects of pediatric imaging, teaching skills and academic interests. Such include Pediatric Cardiology.

All teaching staff should have demonstrated experience in education and in research as evidenced by publications in peer reviewed journals.

## VII. PROGRAM CONTENT

The program will provide the trainee with sufficient clinical material, technical facilities and supervision to attain competence in all standard imaging modalities and diagnostic and therapeutic procedures used in pediatric radiology, including their performance and interpretation, as well as opportunity for research. This includes knowledge in the following areas:

- A. Pediatrics
- B. Pediatric Pathology
- C. Physics as applied to diagnostic imaging
- D. Radiation protection
- E. Use of drugs in radiology including sedation and monitoring
- F. Diagnostic imaging:
  - Radiography
  - Ultrasound
  - Computed Tomography
  - Magnetic Resonance Imaging
  - Nuclear Medicine
  - Angiography and Interventional Radiology
- G. The fellow is required to actively participate, under guidance, in a research project during the fellowship year.

(A through F includes: Indications, contraindications, sequencing, benefits and risks, pediatric applications and interpretations, resource utilization, and quality assurance).

## VIII. FACILITIES

- A. The facilities used will be those of the Department of Radiology of the King Faisal Specialist Hospital & Research Centre. These comprise: 6 radiographic units; 4 RF units; 5 mobile radiographic units; 1 mobile fluoroscopic unit; 1 angiographic unit; 4 high resolution ultrasound units (2 with color doppler capability); 4 CT scanners; 2 MR scanners; 4 gamma cameras (2 with SPECT capability). The hospital has presently 77 pediatric beds, used for 2,324 admissions per year. In the year 1991, 18,941 pediatric outpatient visits took place. The total number of examinations per year for the X-ray Department is 120,000, of those approximately 20% are pediatric examinations.