Faculty of Radiologists
Royal College of Surgeons in Ireland

Higher Training Programme

2019
Job Descriptions

University Hospital Waterford Radiology Fellowship Positions

Background

University Hospital Waterford is a constituent University Teaching Hospital of the Royal College of Surgeons in Ireland and University College Cork of 500-bed capacity. The hospital is one of the eight national Cancer Centres designated by the National Cancer Control Programme. The hospital serves the population of the South-East and is a secondary and tertiary centre for many medical and surgical specialties, with regional units in Orthopaedics and Trauma, Emergency Medicine, ENT, Ophthalmology, Oncology, Palliative Care, Interventional Radiology, Nephrology, Breast Surgery, Medical Physics, Haematology, Dermatology, Paediatrics, Laboratory Medicine, Vascular Surgery, Rheumatology, Anaesthesia, intensive care, Psychiatry and Obstetrics and Gynaecology.

In addition to the new relationship with Cork University Hospital, ongoing affiliations exist with:
St. Luke's Hospital Kilkenny 317 beds
Wexford General Hospital 206 beds
South Tipperary General Hospital 239 beds

University Hospital Waterford admits 17,000 patients per annum from an emergency department throughput of 65,000. 123,000 outpatients are seen annually with 17,978 day-cases performed.
The Department of Radiology performs over 140,000 examinations per year including in excess of 11,000 multislice CT examinations, 5,000 MRI examinations and 14,000 ultrasound examinations. At the time of post commencement, the Radiology department will have 9 consultants and over 30 radiographers. A dedicated principal grade physicist is on site.

Facilities:

-There are two CT scanners on site: a new 128 slice Siemens AS Definition MDCT installed in 2018 and a 128-slice Philips MDCT and a Siemens Somotom Sensation 16 slice MDCT which perform annually in excess of 11,000 examinations, including biopsies, drainages, radiofrequency ablation and osteoplasty.
-MRI is performed on a 1.5T system (MRI Siemens Symphony 1.5T MaestroClass). The emphasis in MR is on oncological, neurological, musculoskeletal and body imaging.
- 5 state of the art ultrasound units, 2 Toshiba and 3 GE units. The full spectrum of ultrasound is provided including abdominal, pelvic, endocavitary (endoanal and transvaginal), musculoskeletal, vascular and small parts imaging.

-In the Interventional suite a state of the art Artis Q Siemens machine and a dedicated GE logiq 5 US machine was installed in 2017.
-Mammography is fully digitised. A new Hologic 3D Digital Breast Tomosynthesis Mammography unit was installed in Sept 2018.
-The remainder of the department is equipped with digital chest radiography units, CR throughout the remainder of the department's general rooms and mobile units.
-NIMIS was installed on the 25th October 2011 resulting in a state of the art PACS and RIS. UHW was the first hospital in the country to have PeerVue installed (May 2014) facilitating peer review, meeting management and Alerts.

Training, Education, Teaching and Research:
The configuration of the 5th year will be based on the requirements of the Specialist Registrar and crossover from the posts outlined below is possible. The overarching ethos of the rotations will be educational; the SpR will receive at least three-four case-based tutorials per week in addition to the direct daily workstation based teaching. One of the Consultants examines in the Irish Final Fellowship exam. One of the consultants has a Higher Diploma in Medical Education. The consultants are heavily involved in the organisation of International Meetings such as the RSNA, ARRS, CIRSE and ECR and are regular invited speakers. The department is active in publishing and presenting its work nationally and internationally and the registrar will be expected to participate fully. All posts include a teaching commitment at both undergraduate and postgraduate levels. Up-to-date library, computer, digital image manipulation and Internet access facilities are available within the Department.

Posts available:

Post 1: Cross-sectional Imaging
Modalities include MDCT, MRI and US. Training strengths include Oncological, General Thoracic and Abdominal (including virtual colonoscopy), Gynaecology, Head and Neck Imaging and MSK imaging.
This post will allow the registrar to gain wide experience in all aspects of body, neurological, vascular and musculoskeletal CT and MRI. As a centre of excellence for cancer therapy, a large proportion of the caseload is oncology based. The sessional split between CT and MRI will be flexible and the needs of the successful candidate will be taken into account. A significant volume of dedicated musculoskeletal ultrasound is performed, a service which includes imaging of all large and small joints and ultrasound guided interventions, and the Registrar will be encouraged to get involved if this is an area of interest.
Many interventional procedures are performed under US and CT guidance, including biopsies, drainages and thermal ablations. The SpR will have the opportunity to gain wide experience in this area. Weekly multidisciplinary meetings are held across many specialties and the SpR will have the opportunity to take a lead role in these meetings. They will also be included in the registrar on-call rota.

Post 2: Breast Imaging.
University Hospital Waterford is the regional unit for symptomatic breast disease. Triple assessment breast clinics operate under the supervision of two consultant Radiologists with specialist training in breast imaging and experience in this post will ensure the development of subspecialty skills in all aspects of mammography, breast ultrasound, sentinel node

mapping and breast interventions – wire-guided needle localisation, stereotactic and ultrasound guided core biopsy.

The specialist registrar in breast imaging is an integral part of the team and has exposure to a large volume of patients with breast cancer and benign breast disease. This position allows for intense training leading to strong confidence in diagnosing and managing women with breast disease. Emphasis will be placed on the multidisciplinary approach to the management of breast cancer, including active involvement in multidisciplinary case conferences and triple assessment clinics.

For further information or to arrange visits to the department please contact:

Dr. Lorna Hanlon,
Consultant Radiologist,
Local Educational Coordinator,
University Hospital Waterford.
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Interventional Neuroradiology Fellowship position
Beaumont Hospital, Dublin, Ireland

Interventional Neuroradiology training post to commence July 2019.

Beaumont Hospital is an 820 bed hospital located in north Dublin city. It has a catchment area of approximately 250,000 people, and is the lead hospital in the Dublin North East HSE network, which extends the catchment area to over one million people. It employs 3,200 staff. Beaumont Hospital is a regional centre for oncology, radiation oncology, ENT and a designated centre of excellence for cancer specialties. It is the national referral centre in Ireland for neurology, neurosurgery, and cochlear implantation. The hospital has an academic link to and is paired with the Royal College of Surgeons in Ireland (RCSI) for teaching, training and research.

There are 6 neuroradiology consultants, 4 of whom are diagnostic and interventional and 2 of whom are diagnostic. The department has a long established record in diagnosis and treatment of cerebral aneurysms and vascular malformations. Since 2010, there has been a significant growing practice in mechanical thrombectomy as an interventional stroke treatment. The department has a 24/7 interventional neuroradiology on call service. Over 500 neurointerventional procedures are performed in the department annually. In 2016, the neurointerventional work load included 170 cases of mechanical thrombectomy for acute large artery occlusive stroke, this number increased to 248 cases in 2017, and a further rise is expected by end of 2018. In addition there are over 200 cases annually of endovascular coiling for aneurysm management (combination of emergent ruptured and elective unruptured cases), in addition to procedures such as carotid artery stenting, embolization of vascular malformations, endovascular management of epistaxis, and vertebroplasty among others. In addition, approximately 250 diagnostic cerebral angiograms are undertaken in the department annually. Diagnostic and interventional spinal vascular work is also performed, as are fluoroscopic and CT guided biopsies and nerve root blocks.

There are weekly consultant led multidisciplinary team conferences in neurology, neurovascular disease, stroke, brain and spinal tumours, ENT, ENT oncology, pituitary and clinical neuroscience, in addition to weekly INR-specific teaching and case review and monthly thrombectomy case review. The department also has a busy diagnostic neuroradiology service, with in excess of 500 neuroradiological CT studies and 800 neuroradiological MRI studies performed on a monthly basis. Dedicated time slots will also be assigned to allow trainee to pre view and pre dictate diagnostic neuroradiology studies, this together with MDT attendance and participation will provide experience in diagnostic neuroradiology imaging as well as intervention. For a neurointerventional post it is expected that 20% of trainee timetable would be reserved for diagnostic neuroradiology.

The department is a collaborator in several prospective and randomized controlled trials related to neuroradiology, was a participating centre in the ESCAPE trial and is currently a participating centre in The ESCAPE-NA1 Trial. The department publishes several original research papers, review papers, and case reports annually. Research is an integral component of the post and a dedicated half day a week will be timetabled for research purposes. Under supervision and guidance from the neuroradiology consultants, the fellow will be encouraged and expected to participate in and lead on research related to

neuroradiology with the aim of local and international presentations as well as journal publications. There will be allocated teaching time set aside to allow self-directed learning as well as didactic and case based consultant led teaching, with a view to trainees developing the necessary knowledge base required of a diagnostic and interventional neuroradiologist.

There have been a number of major capital investments in equipment in the Radiology Department in recent years, most recently two new 128 slice CT scanners, with expected addition of a second biplane neuroangiography suite before July 2019. The department has state of the art digital radiography rooms, 2 fluoroscopy rooms, ultrasound, a dedicated ultrasound intervention suite, 2 x SPECT-CT, an additional existing 1 x 128 slice CT scanner, a state of the art 3T MRI magnet, 2 x 1.5T MRI magnets, a biplane angiography suite for neurointerventional radiology and a single plane interventional radiology suite. The Radiology Department as a whole performs well over 180,000 radiological tests and procedures annually.

Applicants are required to participate in the SpR on-call roster for the radiology department in Beaumont Hospital.

For enquiries, and further additional details please contact:

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Higher Training Post

Cardiothoracic Imaging Fellowship

Tallaght University Hospital

Background:
Tallaght University Hospital is a 600 bed teaching hospital affiliated to Trinity College Dublin. Located in south-west Dublin, the hospital is a provider of local, regional, supraregional and national medical and surgical specialities. Tallaght University Hospital has both an Adult and Children's Emergency Department and is a National Urology Centre, a Regional Dialysis Centre and a Regional Orthopaedic Trauma Centre. The clinical referral base includes General Surgery, Colorectal Surgery, Hepatobiliary and Pancreatic Surgery, Vascular Surgery, Cardiology, Urology, Orthopaedics, Gynaecology, ENT, Gastroenterology, Hepatology, Neurology, Endocrinology, Rheumatology, Medical Oncology and Haematology, Radiation Oncology, Cardiology, Respiratory Medicine and Emergency Medicine.

Elective and acute cardiology services are provided. Cardiothoracic surgical referrals are via the cardiac and radiology multidisciplinary weekly meetings with St James's Hospital Surgical representation. There is an active Acute Chest Pain Unit. The Centre for Cardiac Risk in the Young is a service provided to families of patients who have experienced sudden cardiac deaths providing screening to identify cardiovascular risk factors.

Diagnostic facilities include two 1.5 Tesla MRI scanners, one 64-slice MDCT with CT fluoroscopy, one dual energy 80 detector row CT, two SPECT/CT gamma cameras, three ultrasound rooms and a fluoroscopy suite and a state of the art interventional radiology suite.

The interventional radiology department provides urologic, gynaecologic, vascular and oncologic interventions under ultrasound, CT and fluoroscopic guidance. Other subspecialties include musculoskeletal ultrasound and interventions, neuroradiology, GI/GU including women's imaging; prostate imaging with fused MRI/US transrectal biopsy; and CT colonography. The departmental PACS system is the national NIMIS system, enabling seamless review of imaging studies from other NIMIS sites and the department is also an active participant in the National Radiology Quality Improvement Programme.

Job Structure:
A Fellowship in Radiology at Tallaght University Hospital with subspecialty interest in cardiothoracic imaging is available to interested candidates. The training can be a six or a 12 month duration.

The Cardiac Imaging Fellowship component would consist of both Cardiac CT and Cardiac MRI. A supervised Cardiac CT and Cardiac MRI session would be part of the weekly work schedule for the Fellow.

Cardiac CT training would aim to provide background information about the scanner physics, contrast dynamics, acquisition methods, and administration of medication to

enhance image quality. The fellow will learn CT Cardiac protocol optimisation, dose optimisation, troubleshooting difficult protocols for specific clinical questions (egg cardiac masses, bypass graft evaluation, intra cardiac thrombus evaluation), ECG edited from a technical stand point.
Cardiac CT acquisition will be performed on both Toshiba Aquilion Prime (2014) and Siemens Somatom (2018). Clinically supervised reporting will be conducted with 2018 edition Vitrea Imaging Software and SyngoVia Siemens post processing software. Skills in 3d post processing and segmentation will be acquired. The fellow will be encourage to maintain a log book of cases to ensure Level II Cardiac Imaging certification can be completed.

A supervised Cardiac MRI session per week would be scheduled for the Cardiothoracic Imaging fellow. All aspects of Cardiac MRI acquisition, post processing and reporting will be incorporated into this experience for the fellow. The major referral source for our cardiac MRI is via the Cardiac Risk in Young Unit, this unit sees families with risk factors for sudden cardiac death such as Hypertrophic cardiomyopathy, ARVC, idiopathic, acquired and neuromuscular cardiomyopathies.

Elective exposure to Echocardiography sessions, Cardiac Surgery Case Conferences can be arranged through our cardiology colleagues.

The thoracic imaging component of the fellowship will incorporate benign and malignant respiratory pathologies. There is one benign respiratory pathology MDM per week and one respiratory oncology MDM per week which the fellow will be invited to contribute to under supervision of a consultant Radiologist. There is a Thoracic Interventional component if the fellow is interest in this, with CT and Ultrasound guided lung intervention available under the supervision of the IR Consultant Radiologists. Incorporated into the thoracic imaging fellowship is exposure to ICU/Critical Care general and respiratory radiology with one Radiology/ICU Case conference per week conducted under the supervision of Consultant Diagnostic and Interventional Radiologist. The successful candidate would be expected to take part in the general registrar on call rota.

Job Structure (Academic): The department has a strong academic record, active in publishing and presenting work both nationally and internationally. The SpR will be encouraged to participate in research and a protected research session can be given to a candidate who is involved in active research projects. The registrar will also be encouraged to help coordinate the undergraduate teaching schedule for the medical students of Trinity College Dublin and to provide tutorials to junior SpRs prior to Part I or Part II FFR exams. The registrar will be encourage to complete Level II cardiac CT training during their time via their log book and attendance at BCSI/SCCT training course.

Job Structure (Quality Improvement and Governance): The SpR will participate in at least one audit project during their year in Tallaght University Hospital. The SpR along with all SpRs and consultants will participate in departmental quality improvement meetings and become proficient in the use of peerVue (QI Programme software).

For further information please contact:
Dr. Emily Ward, Consultant Radiologist & Training Co-ordinator; **emily.ward@tuh.ie**

Dr Orla Buckley, Consultant Radiologist, **orla.buckley@tuh.ie**

HIGHER TRAINING POST IN PAEDIATRIC RADIOLOGY

OUR LADY'S CHILDRENS HOSPITAL, CRUMLIN.

Fifth year SPR position.
6 or 12 month post

OLCHC is the largest paediatric tertiary referral hospital in the country (243 beds), offering many specialty services. It is the National Referral Centre for paediatric oncology/haematology, cardiology, cardiothoracic surgery, genetics, and hepatology, with very busy units serving neonatal and general paediatric surgery and urology together with orthopaedics, neurology, respiratory, neonatology and infectious diseases amongst others. Our busy A/E department sees over 30,000 children per annum.

The Radiology department currently has 6 (5.7WTE) paediatric radiology consultants, with over 25 radiographers. A dedicated principal grade physicist is on site. More than 53,000 examinations are performed each year. Our department has undergone major redevelopment, over the past years with a new building housing a Siemens 1.5 T Avanto MRI scanner and a Philips 128 slice CT scanner. A new GE Discovery SPECT CT was added to the Nuclear Medicine Department last year. We have a Siemens Axiom Iconos pulsed fluoroscopy unit, three Ultrasound rooms (Hitachi), a mobile ultrasound unit, three general DR rooms and biplane angiography. We are currently in the process of installing an EOS for dedicated spinal and Orthopaedic imaging.

We are part of the NIMIS PACS network.

During their rotation with us, the specialist registrar(s) will gain experience in all aspects of paediatric radiology. They will be rostered to participate in all of the imaging modalities, under close supervision of the consultants. They will be expected to have close interaction with the paediatric medical and surgical teams. They will organise and present material at the multidisciplinary conferences. They will partake in teaching their paediatric colleagues, at both undergraduate and postgraduate level. They will participate on the on-call roster, again under close supervision of the consultants who carry out the first on call duties.

They will have at least one protected research session per week and will have full access to the extensive library and other facilities of the Children's Research Centre. They will be expected and encouraged to submit their research findings to national and international meetings.

For further information please contact:

Dr Angela Byrne
Consultant Paediatric Radiologist.

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Post Fellowship Training in Paediatric Radiology,

Children's University Hospital, Temple Street, Dublin 1

5th year SpR position: 6 or 12 month post

Hospital and Departmental Profile

The Children's University Hospital is a busy 140 bed paediatric hospital with over 10,000 admissions and 44,000 outpatients visits per year. It has a wide range of tertiary paediatric specialities including the national centres for inherited metabolic disorders, paediatric epilepsy surgical evaluation, paediatric craniofacial surgery, neonatal ophthalmology and head and neck tumour surgery. It has the national centre for neurosurgery for children under 6 years of age with the appointment of paediatric neurosurgeons with principal attachment to the Children's University Hospital. It serves as a specialist centre for paediatric neurology, neonatology (14 000+ births), nephrology, neonatal and paediatric surgery, orthopaedics and has the busiest paediatric emergency department in Ireland.

The radiology department does more than 45,000 examinations per year. The Radiology department, including neonatal radiology at the National Maternity and Rotunda Hospitals, has 5.3 paediatric radiology consultants as well as a full time principal grade physicist.

Description of Post

Children's University Hospital trains post FFR registrars in the specialty of Paediatric Radiology for 6 month or 12 month periods.
The 5th year registrar will have an opportunity to observe, be taught and to take part in all the activities of the department including

- Plain film interpretation and fluoroscopic procedures
- Ultrasound: abdominal, cranial, hip and vascular ultrasound
- Nuclear medicine, including SPECT
- CT scanning A 64 slice CT scanner with I Dose dose reducation.
- MRI: A 1.5 T GE MR scanner and a wide variety of studies are being done including brain, spine, orthopaedic and body imaging, angiography and spectroscopy. As a dedicated paediatric MR scanner the potential for research is great.
- Foetal and Neonatal MR at NMH on 1.5T GE MR scanner
- Interventional procedures
- Sedation: Registrars learn about use and monitoring of paediatric sedation.

He or she will attend regular multidisciplinary conferences in the hospital including a well-attended hospital Radiology Conference every Friday, and respiratory, neonatal, neuroradiology, nephrourology and orthopaedic conferences as well as a radiology department journal club.

The 5th year registrar will have more responsibility than the 3rd year registrar, with more direct contact with the paediatricians, and more hands on experience in procedures. He/she will be expected to prepare and present at clinical conferences and take an active part in teaching radiology to paediatric trainees. He/she will gain some experience in management

and audit and will be expected to become involved in monitoring radiation protection in the department. He/she will participate on the on-call roster, under close supervision of the consultants who will be jointly rostered with them.

Neonatal radiology

Registrars will accompany the consultants once a week to each of these hospitals:
National Maternity Hospital, Holles Street, Department of Neonatal Medicine
At this hospital, the registrar attends a weekly radiology review conference and a neonatal grand rounds type conference as well as doing cranial, hip and other ultrasound examinations and doing supervised reporting of neonatal radiographs. The registrar will gain experience in foetal MRI.

Rotunda Hospital, Department of Neonatal Medicine
At this hospital, the registrar attends a weekly journal club, a neonatal bedside grand round, review of interesting radiology, as well as doing cranial and other ultrasound examination. The registrar thus learns some neonatal medicine as well as the role of radiology in this setting.

Radiological Research

The 5th year registrar will have dedicated research time and access to the research facilities of the Faculty of Radiologists and of the affiliated medical schools. The radiologists in the department regularly present papers at International Paediatric Radiology meetings and publish in peer reviewed journals. The radiology department of the Children's University Hospital has a principal grade physicist and this further enhances our research environment.

The 5th year registrar will be expected to set up and complete at least one prospective study at a level suitable for publication in a leading journal. He/she will be encouraged to attend and present papers at national and international radiology meetings.

For further information please contact:

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Lecturer (fellow) in Interventional Radiology, Beaumont Hospital and The Royal College of Surgeons, In Ireland

One post in Interventional Radiology will be available in July 2018. The post is whole time and is a specialist registrar post, on the Faculty of Radiologists Training Scheme in Ireland. Candidates should have completed their radiology training (4-5 years) and completed competency testing in diagnostic radiology.

Job Description

Job Title: Lecturer in Interventional Radiology

Reporting To: Professor Michael J. Lee

Location: Beaumont Hospital

The Imaging and Interventional radiology Department at Beaumont Hospital is equipped with 3 multislice CT scanners, 2 x 1.5 T MR and 1 x 3.0 T MR scanners, 2 new interventional suites with integrated US, Cone beam CT and targeting/tracking software. There are 5 consultant Interventional Radiologists in the Department.

Objective

The objective of these posts is to provide teaching and related support to the Academic Radiology Department, to contribute to the development of the Department, and to gain widespread experience in Interventional Radiology and clinical practice in IR.

Specifically the duties of this post include:

1. The gamut of Interventional Radiology procedures are performed at Beaumont, including: EVAR, carotid stenting, peripheral vascular intervention, renal and iliac stenting, renal denervation, thrombolysis, venous access and caval filters, trauma embolization, embolization for GI Bleeding and Hemoptysis, chemoembolization and uterine artery embolization. A complete non-vascular interventional radiology service is also offered, which includes: Abscess drainage, biopsy, microwave ablation, biliary intervention, GU intervention and musculoskeletal intervention. The lecturer will be familiar with all of the above techniques on completing the year.
2. Clinical practice in interventional radiology is a vital ingredient in a complete IR program. Day case and inpatient beds are part of the IR service. Pre-procedure assessment, post procedure care and OPD follow-up will be an important part of the learning process.
3. Vascular Imaging eg CTA, MRA, Doppler will be emphasized during this year and the Lecturer will gain expertise in pre and post procedure imaging and clinical assessment.
4. Gaining practical and academic experience to pass the European Board of Interventional Radiology (EBIR)
5. Participating in the research activities of the Department as required. The department has a very active research program in IR with many publications in peer-reviewed journals and presentations to international meetings. The lecturer will be expected to take up a number of research projects and see them to completion during the training period.

If interested, further information can be obtained from Professor Lee at 353-1-8092831, e-mail: gobrien@rcsi.ie.