University College Hospital

Radiology Training Scheme Prospectus

Incorporating:

The Royal Brompton Hospital

Great Ormond Street

The Whittington Hospital

Lister Hospital

Head of Training – Dr Colm Prendergast
INTRODUCTION

Welcome to the UCLH radiology training programme prospectus. I am pleased that you are considering undertaking your radiology training with us. In this prospectus we hope to provide you with an overview of the scheme and some of the features that we believe make our training scheme the best environment in which to undertake radiological training.

Our scheme combines an enthusiastic group of trainers with emphasis on clinically based learning. You will rotate through a group of hospitals and departments that are noted for the quality of their teaching and clinical excellence. The programme is based at UCLH, two large DGH’s within easy reach of London and uses a group of specialist central London hospitals of international renown. The ‘Department of Academic Radiology’ centred at UCLH also guarantees exposure to the leading edge of radiological research. We invite you to read below a more detailed description of what is available in each of these centres.

Our trainees enjoy great success in their Fellowship examinations and in their final placement in consultant posts. Our scheme offers an exciting opportunity to train as a radiologist coupled with living and working in one of the worlds great capital cities. We want you not only to be successful in your career, but enjoy the process of getting there.

Dr Colm Prendergast FRCP FRCR
Training Programme Director
UNIVERSITY COLLEGE HOSPITAL

Clinical Tutors: Dr Sam Read FRCR & Dr Charles House FRCR

This is the base hospital for the training scheme. It is a large central London teaching hospital that was completely rebuilt using a PFI and reopened in 2005. It is a modern and innovative hospital complex with a well equipped radiology department including three CT and three MR suites. There are also state of the art vascular and body interventional units. Training in the core curriculum and subspecialist training opportunities are detailed below.

Musculoskeletal Imaging and Intervention:

There are three musculoskeletal subspecialist radiologists, providing a comprehensive diagnostic service and range of image-guided musculoskeletal interventions.

Wide experience will be gained in musculoskeletal MRI and CT, as well as diagnostic ultrasound. The full range of MSK pathologies are covered, including acute trauma and sports-related injuries, inflammatory, metabolic and degenerative processes, paediatric and adult sarcomas and haematological malignancies. Training is offered in MR arthrography, ultrasound and CT-guided injection of joints and soft tissues, bone and soft tissue biopsy. Interventions under general anaesthetic, including vertebroplasty, are undertaken in day care beds within the department.

The department forms part of the London Sarcoma Service, providing imaging and interventional support in the diagnosis and management of primary malignancies of bone and soft tissue. Within this field, training is available in radiofrequency and laser ablation techniques. There is ample opportunity to become involved in teaching junior and clinical colleagues and to participate in clinical research projects.
Neuroradiology:

Neuroradiology at UCH is under the direction of two Academic Neuroradiologists: Dr Harpreet Hyare and Dr Rolf Jager with two Specialist Registrars in Radiology rotating through the program every three months. The Neuroradiology program provides a strong clinical training in the interpretation of all aspects of Neuroimaging with a particular emphasis on acute stroke, neuro-oncology and infectious diseases, including HIV. Specialist registrars will gain experience in the interpretation of CTA, MRA, CT perfusion, MR perfusion and Diffusion Tensor Imaging on a background of a structured neuroanatomy education program with ample opportunity to participate in clinical research projects.

GI and Hepatobiliary:

There are five GI/HPB subspecialist Radiologists, including two Academic GI Radiologists. You will gain extensive exposure to upper GI, lower GI and hepatobiliary/pancreatic imaging, as well as abdominal sarcomas, and have the opportunity to take part in specialist MDT meetings that cover these areas. As well as general and acute GI/abdominal imaging, specific techniques include: barium and water soluble contrast gut imaging, CT colonography, endoanal/rectal US, small bowel ultrasound and MR, pelvic floor functional MR, liver/pancreatic CT/MR, MRCP (including secretin stimulation). Endoscopic ultrasound is also performed in the GI unit.

The non-vascular abdominal intervention includes experience in liver, pancreatic and abdominal biopsies and drainages. There is also an opportunity to gain some experience in biliary intervention and image-guided gastrostomies. Radiofrequency ablation of liver tumours and photodynamic therapy of cholangiocarcinomas are also performed.
**Head and Neck:**

Head and Neck radiology at UCLH is provided by two radiologists (Dr Morley and Dr Beale). The Head and Neck Unit at UCLH consists of five maxillofacial surgeons, two ENT surgeons and three oncologists. The main focus of the unit is head and neck oncology with tertiary referrals in head and neck sarcomas. General ENT and maxillofacial surgery is a lesser component of the work.

The main imaging modalities are CT, MRI and ultrasound including ultrasound guided FNAs and core biopsies, with all cases discussed at a weekly multidisciplinary meetings.

There are opportunities for developing specialist skills in reporting head and neck oncology and gaining practical skills in head and neck ultrasound and biopsy (four ultrasound lists per week). We are fortunate to have close links with cytology who are in attendance at two ultrasound lists per week.

There are research opportunities – in particular looking at the use of functional MRI for predicting and detecting tumour recurrence and the use of molecular markers in diagnostics with FNA.

**Paediatric Radiology at UCH:**

There are currently two Paediatric Radiologists at UCH, with a wide and varied case mix of paediatric and adolescent patients undergoing imaging.

UCH has a busy general paediatric service, providing secondary care to the local community, with 6 paediatric consultants based onsite, with a variety of subspecialist interests including respiratory medicine and allergy.
There are a number of sub-speciality paediatric specialties on site, including paediatric urology, paediatric orthopaedics, paediatric rheumatology, paediatric endocrinology and paediatric and adolescent gynaecology. UCH has a large adolescent oncology practice, with a dedicated teenage cancer unit providing care for patients with bone and soft tissue sarcomas, CNS tumours and haematology oncology, which is the largest adolescent haematology practice in the UK.

The neonatal unit is nationally recognised as a centre of excellence. The new Elizabeth Garret Anderson wing houses this 30 bedded level 3 unit, which opened in November 2008.

Within Imaging we provide a comprehensive paediatric service, utilizing all modalities, including Interventional Radiology. Paediatric ultrasound is Consultant led, within a multidisciplinary team comprising sonographers and radiology SpRs. There are regular MDT meetings for general paediatrics, paediatric/adolescent haematology oncology, sarcoma service, NNU and urology.

There is a paediatric radiology assessment test in place to assist SpRs attain their learning objectives. There are close links between the paediatric radiology consultant staff and Great Ormond Street Hospital radiology department, which could be explored if sub-speciality trainees wish to join the UCLH scheme.

There is a cohesive academic department of radiology at UCLH, with excellent cross-specialty collaboration. Current paediatric research interests include anatomical and physiological MRI evaluation of haematological malignancy pre and post treatment, MRI detection and characterisation of pulmonary nodules in sarcoma patients and the effect of CT dose reduction techniques on nodule detection.
Uroradiology:

UCH is a leading urological centre, and our four full time uro-radiologists work closely with each other and with 18 urologists. Every aspect of the specialty is covered, including intervention (emergency and 5 percutaneous stone treatment lists per week), andrology, reconstruction and oncology. Opportunities for research abound, and although we are delighted to train enthusiastic future uro-radiologists, we are also happy to be part of a wider training program for budding abdominal or interventional radiologists.

Thoracic Radiology:

During this rotation you are encouraged to be an active member of the thoracic imaging team and to develop their communication skills via several MDT’s that you will participate in.

As well as core training, you will be given the opportunity to develop skills in thoracic radiology via supervised CT guided lung biopsy and US guided lymph node and pleural biopsies.

You will have an opportunity to review imaging and take specialised multidisciplinary meetings with the consultant. UCLH has a large HIV unit and the world famous Hospital for Tropical disease, which together provide a variety of unusual and exciting radiological diagnoses.

You will really feel part of a team during this rotation and you will be expected to undertake thoracic audit or research project.
The Institute of Nuclear Medicine:

The Institute of Nuclear Medicine is the largest single UK department committed to radioactive tracer methodology. The department performs up to 15,000 studies a year enabling both basic and advanced imaging. There are seven consultants including two professors, one therapy, one nuclear cardiology and two dual radiology/ nuclear medicine. Routine imaging includes large volume, oncology, cardiac, neuro and musculoskeletal procedures. Procedures are integrated with CT and Radiology within the department using two SPECT CT and two PET CT cameras and PAKs.

The unique breath and volume of imaging allows full coverage of Nuclear Medicine training entirely under one roof. The Institute of Nuclear medicine has introduced several technologies and techniques to the UK (e.g. PET/CT, use of Rubidium-82 generators, Gallium-68 generators, solid state cardiac-specific SPECT, hybrid cardiac imaging). It has an international reputation with state-of-the-art equipment to support a range of translational research activity across disciplines and this capability extends to the support of other key development platforms.
ACADEMIC RADIOLOGY

Clinical Leads: Professor Steve Halligan & Dr Stuart Taylor

Developing world-class translational imaging research is a priority for UCH/UCL and close working relationship between the hospitals in the Trust and the UCL medical school is central to this development. UCH has an international reputation in clinical and academic excellence. It is one of just 6 NIHR Comprehensive Biomedical research centers in the UK and is a key member of UCL Partners (UCLP), recently designated as one of the UK’s first academic health science centres (based on demonstrating excellence in research, education and patient care). World-class infrastructure exists around the campus (both personnel and equipment) providing an ideal environment to promote and develop research in biomedical imaging. There is a very strong basic science foundation in novel imaging technologies, for example the Biomedical Optics Research Laboratory, Centre for Advanced Biomedical Imaging (CABI) and the London Centre for Nanotechnology, together with advanced computational methods within the Centre for Medical Image Computing.

The Trust has invested heavily in Academic Radiology, recognising the importance to Biomedical research excellence. We have expertise in multimodality gastrointestinal, oncological, uro-radiological, musculoskeletal and neurological imaging as well as medical physics, statistical methodology, health economics, modelling, and health behaviour. The Department has attracted £16.9M grant funding (£4.4M principal applicants and £12.5M as co-applicants) in the last 7 years and has published over 120 peer-reviewed publications in the last 5 years.

Prof Steve Halligan is NIHR senior faculty and the only Radiologist PI to date awarded a NIHR program grant (£1.5M award). Dr Stuart Taylor is the current Royal College of Radiologists Rontgen Professor for Research, recently promoted to Reader in Clinical radiology by UCL and is only one of two UK radiologists to be awarded Higher
Education Funding Council for England (HEFCE) senior lecturer status with full academic salary support for 5 years. Dr Shonit Punwani has a PhD in MRI physics and is helping develop MRI imaging research in the department. To this end, we have just been awarded funding to install a new 3T MRI scanner which will have 50% time ring fenced for research. The department is also one of around 10 UK departments to host the Department of Health Walport academic clinical fellow (ACF) scheme, and has 3 such ACFS in post.

Dr Margaret Hall-Craggs has an international reputation in MRI Imaging and has published extensively. She was recent meeting president of the 2009 ISMRM. Dr Hapreet Hyare and Dr Rolf Jager are neuroradiologists holding joint academic appointments with the Institute of Neurology and have a developed academic interest in neurological infective, oncological and vascular disorders. Other research active departmental members include Drs Claire Allen, Alex Kirkham and David Rickards who work in collaboration with colleagues in the Institute of Urology. Dr Penny Shaw has published extensively on the subject of chest imaging, notably in the field of immunodeficiency, Dr Alice Gillams who leads the image guided intervention program, Dr Paul Humphries who is developing functional MRI in adolescent oncology, and Dr Zahir Amin who has published on gastrointestinal imaging, notably inflammatory bowel disease and hepato-biliary intervention.

Radiological trainees are actively encouraged to take advantage of the academic opportunities available at UCH and undertake research as part of their training program. Many present at international conferences such as the ECR and RSNA, and publish in high quality radiological journals including Radiology. For those with a specific interest in research, opportunities also exist for more a more formal academic program including undertaking a higher research degree.
THE ROYAL BROMPTON HOSPITAL

Clinical Tutor: Dr Simon Padley FRCR

The Royal Brompton & Harefield NHS Trust is the largest specialist heart and lung centre in the UK and among the largest in Europe. The trust works from two sites, the Royal Brompton Hospital in Chelsea, West London and Harefield Hospital near Uxbridge. Radiology training on this scheme is delivered at the Chelsea site.

There are five consultant staff in radiology, headed by Professor David Hansell, and including Dr Michael Rubens, Dr Dennis Carr, Dr Simon Padley and Dr Farhat Kazmi.

There are four SpRs in full time attendance, from four training schemes, together with a thoracic imaging fellow. In addition we also usually have one or more visitors from around the UK and abroad attending for short attachments to learn specific skills.

The department is suitably equipped for delivery of first class radiology services across the spectrum of heart and lung diseases, in children and adults patients of all ages.

For the trainee this is an exciting attachment, most appropriate after two to three years of general radiology experience. By the end of this period of training you will be competent in most areas of thoracic imaging. Furthermore this attachment offers the opportunity to develop sub-specialist interests in heart or lung disease.

As a tertiary referral centre we have large numbers of patients with common heart and lung diseases and also attract unusual numbers of patients with uncommon conditions. Coupled with many pioneering programs for treatment and intervention, this offers you the opportunity to participate in numerous academic projects and achieve one or more publications or presentations during you attachment.
We believe your time with us will be memorable and enjoyable.

Recent markers of the exceptional quality of this institution include;

- Our services for children were given the highest possible 'excellent' rating in the most recent Healthcare Commission survey, reflecting our facilities for children and training for staff who deal with children.

- We are Europe's top-ranked respiratory research centre and our cardiac, cardiovascular and critical care teams are rated in the top three most highly cited health research teams in Europe.

- In data published in March 2008 by the Healthcare Commission, we were shown to have the lowest MRSA bacteraemia in England per 1,000 bed days.

- Europe's largest unit for the treatment of cystic fibrosis is based at Royal Brompton Hospital: we see over 1,100 adults and 200 children with this condition.

- The Brompton hospital has operated a 64-slice cardiac CT scanner for five years allowing us to diagnose many patients without invasive procedures. A second state of the art scanner is now being installed.

- We are the country's largest centre for the treatment of adult congenital heart disease, staffed by a specialist team including four full-time specialist consultants.

- We help over 8,000 adults who have breathing problems caused by diseases such as COPD (chronic obstructive pulmonary disease) and severe asthma.
GREAT ORMOND STREET HOSPITAL

Clinical Tutor: Dr Ali Calder FRCR

Great Ormond Street Hospital (GOSH) is an internationally recognised specialist hospital for children, treating tertiary, national and international referrals. The hospital has the widest range of paediatric specialties of any UK hospital. It is the largest UK centre for paediatric cardiothoracic surgery, neurosurgery and oncology. GOSH and the allied Institute for Child Health is the largest centre for research into childhood illness outside the United States.

Trainees in radiology in years 3 and 4 from 6 London based training schemes undergo rotational attachment to GOSH. Attachments are for from 3-4 months depending on training scheme.

During the attachment, trainees are exposed to a wide range of often complex paediatric pathology from all paediatric medical and surgical specialties. Trainees rotate through the different modalities within the department including plain film reporting, ultrasound, fluoroscopy, CT, MRI, neuroradiology and nuclear medicine.

Trainees experience a high level of clinical supervision from a friendly and approachable Consultant body. There are 8 consultant general paediatric radiologists, 3 interventional radiologists, 3 neuroradiologists and 2 nuclear medicine consultants.

The department is excellently equipped: there are 4 1.5T MRI units, including one composite MRI and cardiac intervention lab. CT is provided by a 64 slice dual source scanner (installed 2007), capable of performing gated cardiac imaging even in neonates with rapid heart rates. We have a brand new Fluoroscopy unit (installed June 2009). DR and CR digital radiography units are utilised, with funding secured for a new state of the art CR unit, to be installed in 2010.
There is a rolling 4 month long weekly didactic teaching programme covering all aspects of paediatric radiology, and delivered by the Consultants on Mondays or Tuesdays. There is weekly case based review teaching on Wednesday lunchtimes and most Thursday mornings. Monthly audit meetings and bi-monthly discrepancy meetings are also held on Thursday mornings. There is weekly Nuclear Medicine teaching on Friday lunchtimes. There is a monthly teaching and training committee meeting, chaired by the college tutor, to which all trainees are invited. Changes to the teaching program, training and supervision issues and external trainee attachments are discussed at this meeting. A confidential session is held at the end of the meeting to discuss trainee progress.

Trainees are encouraged to get involved in audit and research, and many high quality audit studies, case reports and research studies have been carried out by trainees on rotational attachment at GOSH over the past few years, resulting in prizes and publications.
LISTER HOSPITAL, STEVENAGE

Clinical Tutor: Dr Peter Brooks FRCR

The Lister Hospital, Stevenage is part of the East & North Herts NHS Trust, with easy access to London by road and rail. It is a busy and rapidly growing hospital that in addition to the expected range of clinical specialties, hosts a number of supra-district specialties, including renal medicine, urology and plastic surgery. The department is able to offer the full range of radiological procedures with modern equipment in all modalities.

Education is an important part of the life of the department, with a group of consultants committed to training and development. There is a programme of formal weekly tutorials. We are linked to 3 training schemes within London and have been a consistently popular rotation. In the 2009 PMETB survey, we were rated overall as the best training department in the Eastern Region.
THE WHITTINGTON HOSPITAL

Clinical Tutor: Dr R Chaudhuri FRCR
Regional Advisor: Dr Jane Young FRCR

The Whittington is a DGH at Archway, North London. We serve a diverse and significantly deprived community. The Hospital is part of UCL/ Royal Free medical school with a third of the clinical students on this site. The hospital has a tradition of excellence in postgraduate education and training. The radiology department is part of this tradition with active and enthusiastic trainers.

The radiology department is situated in the new wing with purpose built facilities, and state of the art imaging equipment. We offer radiology training through all years of registrar training. We have 6 registrars from the UCLH and Royal Free training schemes. There are 14 consultants. The department covers all modalities and specialities. We encourage trainees to develop their educational skills as well and expect them to be actively involved in undergraduate teaching. There are opportunities to undertake projects with us with a view to publication.