Academic Foundation Training Programmes

NHS West Midlands Workforce Deanery
Job Pack for Applicants entering August 2013

University of Birmingham School of Medicine
University Hospitals Birmingham Foundation NHS Trust
Birmingham Children’s Hospital Foundation NHS Trust
Sandwell and West Birmingham Hospitals NHS Trust
Heart of England Foundation NHS Trust
Royal Orthopaedic Hospitals NHS Foundation Trust

University of Keele School of Medicine
University Hospital of North Staffordshire NHS Trust
Mid Staffordshire NHS Foundation Trust

University of Warwick, Warwick Medical School
University Hospitals Coventry and Warwickshire NHS Trust
1. **ACADEMIC FOUNDATION TRAINING PROGRAMMES IN THE WEST MIDLANDS DEANERY**
   1.1 First Foundation Year
   1.2 Second Foundation Year
   1.3 Aims of academic programmes
   1.4 General information

2. **CASE STUDY:** Academic Foundation Trainee Dr C Yiannakis

3. **PARTICIPATING INSTITUTIONS: WARWICK**
   3.1 The University of Warwick
   3.2 Warwick Medical Schools (WMS)
   3.3 Research at WMS
   3.4 University Hospitals Coventry and Warwickshire NHS Trust
   3.5 Leisure facilities
   3.6 The Trust is managerially divided into the four areas
   3.7 The Trust operates from three sites

4. **THE UNIVERSITY OF BIRMINGHAM SCHOOL OF MEDICINE**
   4.1 University of Birmingham College of Medical and Dental Sciences
      4.1.1 Birmingham University Academic Foundation Programmes
      4.1.2 Taught programme for Academic F2
   4.2 University Hospitals Birmingham Foundation NHS Trust
   4.3 Birmingham Children’s Hospital Foundation NHS Trust
   4.4 Sandwell and West Birmingham Hospitals NHS Trust
      4.4.1 City Hospital
   4.5 Heart of England NHS Foundation Trust
      4.5.1 Heartlands Hospital
      4.5.2 Solihull Hospital
      4.5.3 Good Hope Hospital, Sutton Coldfield
   4.6 Royal Orthopaedic Hospital NHS Foundation Trust
      4.6.1 Research and Teaching Centre
      4.6.2 Musculoskeletal module for undergraduates
5. **KEELE**
   5.1 The University of Keele School of Medicine
      5.1.1 Research at Keele
      5.1.2 School of Medicine, Keele University
      5.1.3 The development of the undergraduate school of medicine
      5.1.4 Keele University Academic Foundation Programmes
   5.2 University Hospital of North Staffordshire NHS Trust
      5.2.1 Trust management arrangements
   5.3 Mid Staffordshire NHS Foundation Trust

6. **THE POSTS**

7. **ROTATIONS 1 to 12**

8. **ISSUES COMMON TO CLINICAL POSTS IN WEST MIDLANDS FOUNDATION ROTATIONS**
   8.1 Clinical and Educational Supervision
   8.2 Study & Training
   8.3 Induction, appraisal and assessment
   8.4 Audit and evidence based medicine
   8.5 Portfolio Management
   8.6 Trainee Representation
   8.7 Main conditions of Services
   8.8 Banding

9. **THE APPLICATION PROCESS**

10. **USEFUL LINKS AND FURTHER READING**

1. **ACADEMIC FOUNDATION TRAINING PROGRAMMES IN THE WEST MIDLANDS DEANERY**

   NHS West Midlands Workforce Deanery, the Universities of Birmingham, Warwick and Keele, NHS teaching trusts and GP practices have developed 10 two year integrated Academic Foundation programmes for trainees who are considering careers in clinical academic medicine.
The NHS has recognised that clinical academics, who undertake research and teaching, form a crucial part of the NHS. A pathway with a clear point of entry, career structure, and training programme has been developed for doctors who wish to pursue an academic career.

http://www.nihrtcc.nhs.uk/intetacatrain/

Programmes will engage trainees in rotations which value research and/or education and provide the individual with every opportunity to explore research and/or education interests. Clinical service and training will still comprise the majority of the trainee’s timetable.

1.1 First Foundation Year
In the first foundation year, postholders must focus on achieving the requirements for full registration by the General Medical Council and will rotate through 3 clinical posts. At least one of the clinical posts will be within an academic unit in addition; postholders will receive coaching, support, mentoring and supervision by a skilled senior academic to prepare for the second foundation year and subsequent academic specialty career. The formal teaching programme and other related experiences will be the same as for any other foundation trainee.

1.2 Second Foundation Year
In the second foundation year, one post is designated for academic training and preparation for application for academic clinical fellowship programme.

The programmes will deliver training for postholders to achieve a range of academic competencies as well as clinical competencies as stipulated by the “Curriculum for the Foundation Years in Postgraduate Education and Training”, and full registration with the General Medical Council.

1.3 Aims of academic programmes
Achievements in our academic foundation programmes would strengthen an application for clinical specialist training or an academic clinical fellowship in any specialty.

The programmes are suitable for
- trainees who have made firm decisions to commit to an academic career
- trainees who wish to explore their potential for a career in medical research and/ or education.

The specific aims of our foundation academic programmes are
- to achieve all competencies in the Foundation Programme in preparation for specialist training
- to provide exposure to academic medicine, clinical science and evidence based clinical practice to provide a foundation for a career in academic medicine.
1.4 General information
The trainees will rotate through 3 four month modules in each foundation year. Contracts of employment will be held by Trusts and will be for a fixed term of 12 months.

The academic programme in each of the three universities is different, but all three programmes involve one full time academic placement during year two with mentoring, coaching and appraisal by an established senior clinical academic.

Please note that rotations and specialties are subject to change.

2. CASE STUDY: ACADEMIC FOUNDATION TRAINEE DR C YIANNAKIS

Our academic foundation programmes can best be described by our 2011/12 foundation trainees

Dr Constantina Yiannakis Academic F2 2012

Journey into academic medicine
I got my first taste of academic medicine whilst at medical school when I got involve in writing a series of departmental patient information leaflets. The consultant I was working with made me aware of the academic foundation programme and strongly encouraged me to consider it. At the time, I had very limited knowledge of what academic medicine was and why it was relevant to me, someone who was committed to a career in surgery.

Here, in order to dispel myths, and answer a few questions I present my experience as an academic F2 (in the style of a research paper naturally).

Introduction - What are Academic Foundation Programmes?
Academic foundation programmes are not only aimed at those who know that they want to pursue a career in research. More importantly, they provide a rare opportunity to try academia for a short while. During the 4 months there is a chance to participate in clinical work, research and teaching thereby gaining skills relevant to all medical specialities.

Within the West Midlands, academic posts are available in a wide range of specialties including rheumatology, orthopaedic surgery, renal medicine and metabolic medicine. The academic units involved, affiliated to the Universities of Birmingham, Keele and Warwick, all have outstanding research credentials and enthusiasm for the academic programmes. The academic four month post is combined with two more traditional rotations; in my case acute medicine with endocrinology and general paediatrics. This provides a well-balanced mix of ward work, clinics, acute medical take, and research/teaching time.
Results - What did I get out of it?

Written down on paper
The first advantage of the rotation is the academic teaching programme. This is a series of weekly afternoon seminars which focus on issues faced by clinical academics. Sessions ranged from an introduction to statistics (often encountered, but usually poorly understood) to how to write a grant proposal. The value in this lies in the fact that it has provided me with a strong foundation on which to build future research. These sessions also provided an opportunity to discuss the different ways in which to research can be approached within clinical practice. During some of the less formal sessions we were able to discuss different career opportunities within research both in terms of formal academic clinical fellowships and within clinical medicine (or in my case surgery).

A different perspective
The reality of modern medicine is that it has to be evidence based regardless of whether it is general practice, medicine or surgery. The Academic Foundation Programme offers an opportunity to step back from the coal face and go back to first principles of science. This means that I am now better able to critically appraise the evidence within my scope of practice and am now beginning to identify areas where evidence may be lacking. By taking part in the academic foundation programme I feel I have gained the skills necessary to help build on that evidence.

Many of my colleagues asked if I was enjoying my “time off” in academia. Ironically, I was spending more time in hospital and working at home during my four month rotation, and afterwards. This is simply because collecting quality data takes time and is very much dependent on the individual. Essentially – if you want to get it published, it is entirely up to you!

Discussion - Would I do it again?
The academic foundation programme offers a unique experience. It provided me with an opportunity to gain a better understanding of the process involved in research.

There’s no doubt that an academic F2 sets you apart from your colleagues. It’s more that being just “something a bit different” and possible get a publication, is a rare opportunity to gain an insight into the inner workings of medicine. It offers some very different challenges, and frustrations, to clinical medicine, such as setting your own deadline or learning to use statistical programmes. It is often slow going, but then again, if something is worthwhile it is definitely worth waiting for.

The goal of the academic foundation programme isn’t just about publications or presentations, it is about gaining the skills for better clinical practice,
whether as an academic or not. It provides and excellent taste of what academia has to offer whilst providing the opportunity to gain skills relevant to any area of practice.

Asked whether or not I’d do it again, it would be a resounding “yes”.

Dr Matthew Szeto academic foundation trainee 2011/12 echoes these sentiments and says “Overall, the Academic Foundation Programme provided me with a wide spectrum of clinical experience to prepare me for specialty training. It also provided a means of connection to excellent academic units allowing me to develop skills in research. At the end of my attachment I will have two papers published putting me on a pathway of academic and clinical success.”
PARTICIPATING INSTITUTIONS

The following is an overview of the institutions participating in the Academic Foundation Year Programmes. The next section highlights facts with regards to the respective medical school facilities as well as general facts about the history and background of the areas Warwick, Birmingham and Keele.

3. WARWICK

3.1 The University of Warwick
Dean: Professor Peter Winstanley
Warwick is one of the UK’s leading research universities. Warwick is consistently rated in the top ten of national rankings. Over 90% of staff have research ratings of 5 or 5* in the Research Assessment Exercise and the great majority of academic departments assessed by the Quality Assurance Agency had their teaching quality rated as “excellent”.

The University is situated on a site of over 700 acres of pleasant land on the boundary between Coventry and Warwickshire. It has a turnover of over £210 million per annum and a total student population of 20,000. Of these, over 6,500 are postgraduates.

3.2 Warwick Medical Schools (WMS)
http://www2.warwick.ac.uk/fac/med/

The Medical School at Warwick was established in 2000 as part of an expansion in the number of Medical Schools nationally to deliver the additional capacity needed to support the Government’s plan to increase the number of UK trained medical graduate’s joining the NHS.

The undergraduate MB ChB course at Warwick is a four-year graduate entry programme which requires entrants to already have a first degree in biological sciences or a similar subject.

At University Hospitals of Coventry and Warwickshire (UHCW), a state of the art PFI hospital opened in June 2006. This provides an optimal environment to support both research and education at the Trust. The Clinical Sciences Building and the Clinical Sciences Research Institute provide a base for education and laboratory research for the Medical School.

The Medical School works closely with the Coventry and Warwickshire Foundation School (Foundation School Director: Mr Dan Higman) in delivering training to foundation doctors. Each subspecialty has its own clinical teaching and education programme.

One of the strengths of the foundation year 2 rotations in Coventry is the very strong Generic Skills Programme that is offered on Thursday afternoons. It is generally located at the Clinical Science Building at the Walsgrave Hospital,
and attendance is compulsory for all F2 trainees. This programme will be under the supervision of Dr David Bennett-Jones, Consultant Physician and Generic Skills Tutor.

The core of the Generic Skills Programme is the Post Graduate Award (PGA) in Professional Skills at Warwick University. This is a modular course that will be a requirement of each trainee, funded from the study leave budget. The PGA comprises modules in:

- Communication Skills
- Teamworking
- Evidence Based Medicine
- Medical Ethics

The Medical School is also very active in the provision of postgraduate and continuing professional development programmes for junior doctors who wish to go on to further academic study during specialty training. The School provides a number of entry routes into postgraduate study, students can initially register for our flexible masters programme in Health Sciences which allows students to select their own combination of modules from the wide range on offer to build sufficient credit for the award of a masters degree. We also offer specialist masters programmes in Child Health, Medical Education, Public Health, Implant Dentistry and a number of other subject areas. We offer short courses both accredited and non-accredited in areas such as diabetes care (Warwick Diabetes Care), clinical systems improvement and team building.

The School is organised in three Institutes, the Institute of Clinical Education (ICE) which is the base for all the School’s taught programmes, the Clinical Sciences Research Institute (CSRI) in which biomedical and acute hospital based research groups are based, and Health Sciences Research Institute (HSRI) which is the base for our research in the community based clinical disciplines.

The Medical School’s research is focused around a number of multi-disciplinary and cross-specialty teams; collaboration within and outside School and University is encouraged and investigators are encouraged to work across traditional disciplinary boundaries in innovative ways.

The Warwick Medical School works closely with many departments across the University for both our Research and Education programmes; these include the Department of Life Sciences, the School of Health and Social Studies, the Department of Sociology, the Department of Statistics, Warwick Business School, Warwick Manufacturing Group and the Department of Mathematics.
3.3 Research at WMS

Division of Biomedical Cell Biology - Led by: Professor John Davey
The Division of Biomedical Cell Biology (BCB) carries out fundamental molecular and cellular research into biomedical problems. BCB explores a broad, integrated ‘systems’ understanding of the highly complex interactions between components of physiological systems at the molecular, cellular, tissue, organ and system levels. The division has research links with colleagues in WMS, Life Sciences and Systems Biology, as well as Chemistry, Physics, Computer Sciences, Complexity and Engineering. For further information, please visit our website at http://www2.warwick.ac.uk/fac/med/research/biomedical/

Division of Health Sciences - Led by: Professor Martin Underwood
The Division of Health Sciences (HS) integrates work from societal, social, psychological, organisational and bio-medical perspectives. HS focuses on the design and evaluation of interventions (behavioural, medical, technological and organisational), plus how the application of knowledge in these areas change clinical practice and ultimately health outcomes. The division's work includes applied health services research, methodological development/application of health sciences, as well as relevant theoretical enquiry and discovery science. For further information, please visit our website at http://www2.warwick.ac.uk/fac/med/research/hscience/

Division of Mental Health and Wellbeing - Led by: Professor Swaran Singh
Research in the Division of Mental Health Science and Wellbeing (MHWB) ranges from serious mental disorders to mental wellbeing, and across the life span from neonates to the elderly. The Division brings together experts in psychiatry, public health, epidemiology, cognitive neuroscience, psychology, social sciences and community paediatrics with a shared academic agenda that focuses on robust methodologies and excellence in design and execution. For further information, please visit our website at http://www2.warwick.ac.uk/fac/med/research/mhwellbeing/

Division of Metabolic and Vascular Health - Led by: Professor Victor Zammit
The Division of Metabolic and Vascular Health focuses on the elucidation of mechanisms involved in the maintenance of health, and the aetiology of metabolic and cardiovascular diseases which account for the greatest incidence of morbidity globally. The Division integrates molecular/cell biological, physiological and pharmacological studies at several layers of biological organization leading to human studies, coupled with the development of diagnostics and preventive treatment strategies, and research into the delivery of patient care. For further information, please visit our website at http://www2.warwick.ac.uk/fac/med/research/mvhealth/

Division of Reproductive Health - Led by: Professor Jan Brosens
The Division of Reproductive Health focuses on improving reproductive outcome by conducting well-powered observational and interventional clinical studies underpinned by innovative basic and translational research. Our scope spans from pre-pregnancy fertility assessment, predicting and preventing implantation failure, early pregnancy loss and obstetrical complications to developing novel therapeutics for parturition-associated disorders. For further information, please visit our website at http://www2.warwick.ac.uk/fac/med/research/reproductive/
More than £395 million has been, invested in a new hospital for the people of Coventry and Warwickshire. The New Hospital one of the biggest UK Hospital complexes to be built includes state of the art medical technology coupled with modern, purpose built facilities for patients – all on a single site. It provides a long awaited replacement for both the Walsgrave and the Coventry and Warwickshire Hospitals and ensure that the local population continues to receive high quality services into the 21st century. The scheme has benefited from the views of local people, hundreds of whom responded to a written consultation exercise that took part in public debates hosted by BBC Radio Coventry and Warwickshire.

The Hospital complex has a state of the art Clinical Sciences Building which opened in November 2003 and houses the new Medical Education and Training Centre to include:

| Library areas | 2 syndicate rooms |
| Lecture Theatre | 8 Skills training rooms |
| 14 Seminar rooms | Research laboratories |
| 3 IT training rooms | IT, catering and office infrastructure |
| Clinical Skills room |

There are also a number of close-to-patient teaching areas in the main hospital (average 1 per ward or outpatient clinic) where students can be given practical training in proximity to patients.

The general hospital building was completed in 2006 and brought together services previously provided by Walsgrave and Coventry & Warwickshire Hospitals and represents the latest hi tech investigation, diagnostic and treatment equipment. This will speed up the diagnosis and treatment for patients, giving a fast and effective service.

**Facilities include**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Technical Specification</th>
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<tbody>
<tr>
<td>PET/CT</td>
<td>GE Discovery ST16 (16 slice CT)</td>
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<td>High resolution MRI</td>
<td>GE 3T HDx MRI</td>
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<td>Open MRI scanner</td>
<td>GE 0.35T Ovation</td>
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<td>fMRI</td>
<td>GE 3T HDx MRI</td>
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<td>Ultra fast CT</td>
<td>GE 64 slice VCT</td>
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This new state-of-the-art building will ensure that our patients receive care that measures up against not just the best in this country but the best in Europe and North America.

The Trust occupies 75 acres in the North East of Coventry, some four miles from the city centre and one mile from junction 2 of the M6 motorway. The catchment population is over 350,000 and in the sub-regional specialities the Trust serves a population of over 800,000.

**The Trust occupies**

- A superb location at the heart of the motorway network with direct motoring access to all regions of the UK.
- A city surrounded by many attractive towns and villages which offer pleasant places to live within commuting distance of Coventry.
- An Intercity rail line with excellent rail links throughout the country.
- An extensive network of bus services to all areas of the City and surrounding towns.
- Europe’s fastest growing international airport, Birmingham International, within 15 miles and easy reach.

Working in Coventry you will find a wide choice of modern and older homes at affordable prices in city centre, suburban, small town or rural locations and excellent education provision including two local universities, colleges of further education, community colleges, a wide range of secondary, independent and primary schools and several nursery facilities.

### 3.5 Leisure facilities comprise

- The largest centre for the performing arts, outside of London, based within the Arts Centre at the University of Warwick.
- The Belgrade Theatre with productions throughout the year and seasons of drama, comedy and musicals.
- The Ricoh Arena is situated in the Foleshill area of Coventry; it is a 32,000 capacity sports stadium and is home to Coventry City football Club. Other leisure facilities include an exhibition/events hall capable of holding 8,000 people for concerts, the largest column-free conference and banqueting space in the Midlands, a Hotel and restaurant with 70 bedrooms. Also located on the site are a fitness and leisure club and a casino.
- Birmingham International Arena, at the National Exhibition Centre, within 15 miles and easy reach, a popular venue for numerous events including music concerts and sports events.
- A number of restaurants, informal and formal, catering for all tastes.
- Extensive visiting attractions, including 2 cathedrals, both within the city and the surrounding areas, offering a variety of scenery as well as providing historical interest.
- Four city museums, the Herbert Art Gallery & Museum, the Museum of British Road Transport, the Midland Air Museum and the Toy Museum.
• The National Agricultural Centre at Stoneleigh, within five miles, where the Royal Agricultural Show is held every year.

The Trust has Private Finance Initiative status (PFI). More than £350 million has been invested to re-develop the existing Walsgrave site and the new state of the art hospital was commissioned in July 2006. The Trust is currently applying for Foundation Trust status. As one of the largest organisations of its type in the UK the Trust has 1,337 beds, around 6,500 staff with a budget of over £280 million a year.

3.6 The Trust is managerially divided into the four areas
• Medical, Women and Children’s Division
• Surgical Division
• Combined specialities services
• Acute care, Critical care and theatre

3.7 The Trust operates from three sites
• Walsgrave Hospital, Coventry
• The Hospital of St. Cross, Rugby
• Wayside House, Bedworth
University Hospitals Coventry and Warwickshire NHS Trust provides

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<thead>
<tr>
<th>Sub-regional Services</th>
<th>District Services</th>
<th>Diagnostic Services</th>
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<tr>
<td>Neurosurgery</td>
<td>General medicine</td>
<td>MRI and CT scanning</td>
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<td>Neuroimaging</td>
<td>Haematology</td>
<td>Ultrasound</td>
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<td>Neurology</td>
<td>Specialist rehabilitation</td>
<td>Endoscopy</td>
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<td>Neurophysiology</td>
<td>Rheumatology</td>
<td>Neurophysiology</td>
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<td>Assisted Conception</td>
<td>Dermatology</td>
<td>Respiratory function testing</td>
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<td>Cardiology</td>
<td>Respiratory medicine</td>
<td>Echo-cardiography</td>
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<td>Cardiothoracic Surgery</td>
<td>Gastroenterology</td>
<td>Haematology</td>
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<td>Renal Medicine</td>
<td>Infectious diseases</td>
<td>Biochemistry</td>
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<td>Histopathology</td>
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<td>Oncology Radiotherapy</td>
<td>Endocrinology</td>
<td>Microbiology</td>
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<td>Neonatal Intensive Care</td>
<td>Paediatrics</td>
<td>Vascular investigation</td>
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<td>Clinical Physics</td>
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<td>Trauma and orthopaedics</td>
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4. The University of Birmingham School of Medicine

www.medicine.bham.ac.uk

4.1 University of Birmingham College of Medical and Dental Sciences.

From 1900 to the present day, Birmingham has been leading the way in research and education, making ground-breaking progress in areas that span industries such as gene structure, medicine, space research and communications.

Birmingham ranks top in the West Midlands for research excellence; in the most recent Research Assessment Exercise in 2008, 89.9% of the University’s research had international impact. The main School of Medicine site is located just off the University campus adjacent to the Queen Elizabeth and Women’s Hospitals. Some Divisional buildings, including Public Health and General Practice, are located on the University campus.

The College is headed by Professor Paul Stewart, Dean of Medicine, and is the largest in the University with a turnover in excess of £87 million a year. The College of Medicine is made up of six Schools: Cancer Studies, Immunity and Infection, Medical Sciences, Neurosciences, Reproductive and Child Health and Primary Care, Public and Occupational Health.

The College has the advantage of being the major provider of medical education in the West Midlands, an area with a 5.5 million population, a diverse urban and rural mix and a rich variety of medical and social conditions, which together constitute an ideal base for training the doctors of the future.

The College has a strong research base, which provides the intellectual leadership in the discipline across the region. It has a research income of over £35 million a year and ambitions to increase that figure dramatically. Research is funded by a range of organisations including Research Councils, Charities, Industry and International Sources (including the US National Institutes of Health and the European Commission).

The College has a record of success in attracting major research facilities to the University, including the MRC Centre for Immune Regulation (1998), a new extension to the CRC Institute for Cancer Studies (1999), a Joint Infrastructure Fund (JIF) award of £18.7 million for the new Institute of Biomedical Sciences (2000) which opened in the summer of 2003, funding of £7 million for the National NMR Centre (2004) including contributions from a Joint Infrastructure Fund award and the Wellcome Trust and most recently funding of £20 million for the National Institute of Health Research (NIHR) Centre for Surgical Reconstruction and Microbiology (2011).

The translation of research outputs into improvements in patient care, innovative therapies and new drugs is paramount. Researchers currently work with a range of sponsors and collaborators to maximise the impact of research undertaken at the School and we are continuously seeking development partners in the pharmaceutical and healthcare sectors. The School can provide a range of services to the industrial sector including contract research, screening, and access to facilities, training and consultancy.
There are outstanding research strengths within the Schools of the College of Medical and Dental Sciences that provide important opportunities for collaborative interactions. The largest, and strategically most important, groupings are in the following areas:

- **Cancer Biology.** The CR-UK Institute of Cancer studies (Head Prof Paul Moss) is internationally renowned and combines basic science and clinical research teams with common interests in tumour pathogenesis and in the design and testing of novel cancer therapies. Nationally the Institute is one of CR-UK’s major research laboratories and the only one to be fully integrated into the academic structure of a University. The Institute has an international reputation for work in tumour virology/immunology (Professors Alan Rickinson, Martin Roe and Lawrence Young), haematological malignancy (Professor Paul Moss) genetic susceptibility to cancer (Professor Malcolm Taylor) and clinical trials (Prof Philip Johnson).

- **Immunology** is extremely strong in Birmingham and in 1999 the University of Birmingham Centre for Immune Regulation was established as an MRC Centre. Research interests include B cell development, B cell/T cell interactions and antibody responses (Profs. Ian MacLennan, John Gordon, Roy Jefferis, Peter Lane); T cell development (Profs. Eric Jenkinson, Graham Anderson). In addition a group with a common interest in adhesion molecules and chemokines addresses the pathogenesis of autoimmune and chronic inflammatory diseases (Prof. David Adams, Prof. Lorraine Harper, Prof. Michael Salmon, Prof Gerard Nash and Prof Chris Buckley).

- **Infection** is a potentially strong area with current interests in hepatitis virology (Prof McKeating and Dr Balfe) as outlined above; the host genetics and immunology of mycobacterial infection (Prof Del Besra and Dr. Tony Lammas); bacterial genomics (Prof Mark Pallen, Ian Henderson).

- **Molecular endocrinology.** There is a strong research group studying the role of tissue specific hormone metabolism in the pathogenesis of hypertension, obesity and osteoporosis (Prof Paul Stewart) and cancer. There is outstanding laboratory and clinical research into thyroid and pituitary disorders (Prof McCabe and Prof Franklyn) and a successful group studying the molecular genetics of type 1 and type 2 diabetes mellitus (Prof Barnett).

- **Neuroscience.** Research is multidisciplinary combining high level clinical trials of boron capture therapy for brain tumours (neurosurgery) with a strong theme of molecular and human genetics concerning motor neurone disease (Prok K Morrison, neurology), Parkinson’s disease and molecular psychiatry, involving studies of the genetics of mood disorders. Both neuropharmacology and the powerful neurophysiology groups have a particular focus on epilepsy.

- **Human molecular genetics.** In Cancer Studies the focus of research is on the Von Hippel Lindau tumour suppressor gene and the ataxia telangiectasia genes to determine their functions in the pathogenesis of...
common non-familial cancers (Prof Eamon Maher). Other groups study the immunogenetics of autoimmune disease and degenerentaive neurological diseases.

- **Hepatology** The liver research laboratories have long-standing interests in immunology and inflammation, expanding to molecular virology and mechanisms of liver injury (Professors Adams and Rote). Large patient cohorts with chronic viral hepatitis, hepatocellular carcinoma and a major liver transplant programme provide further integrated research opportunities spanning, laboratory, translational and clinical research.

- **Renal Medicine** The renal research laboratories have long standing interests in immunology and inflammation with a particular focus on ANCA-associated vasculitis. Research within the group is geared to better understanding mechanisms of disease and developing strategies for prevention and treatment. Large patient cohorts with chronic kidney disease and a major transplant programme provide further integrated research opportunities spanning laboratory, translational and clinical research.

- **Rheumatology** A characteristic feature of chronic inflammatory reactions is their persistence and predilection for certain sites. The rheumatology group investigates the role that tissue resident stromal cells (fibroblasts) play in determining both the switch to persistence as well as the site at which inflammation occurs. In chronic inflammation the resolution phase is prolonged and disordered leading to the persistent accumulation of the inflammatory infiltrate. Our work has allowed us to propose that a stromal area post code, predominantly defined by fibroblasts, exists within tissues.

4.1.1 **Birmingham University Academic Foundation Programmes**

Academic foundation trainees at trusts affiliated to the University of Birmingham attend three formal teaching programmes:

- Each of the 3 Birmingham teaching trusts (University Hospitals Birmingham, Heart of England and Sandwell and West Birmingham City) has a separate clinical teaching programme for each foundation year.
- In the academic foundation year 2 posts, trainees attend a specific 4 month Tuesday afternoon academic training programme at the Welcome Clinical Research Facility. The programme is illustrated below:
### 4.1.2 Taught programme for Academic F2 at the University of Birmingham

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Instructor/Department</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction&lt;br&gt;Critical Appraisal&lt;br&gt;Journal Club</td>
<td>Lorraine Harper&lt;br&gt;Renal Unit, QEH</td>
</tr>
<tr>
<td>2</td>
<td>Overview of research project&lt;br&gt;Journal Club</td>
<td>Professor Khan&lt;br&gt;Consultant Obstetrician and Gynaecologist&lt;br&gt;Birmingham Women’s Hospital&lt;br&gt;NHS Trust</td>
</tr>
<tr>
<td>3</td>
<td>Statistics for researchers</td>
<td>Dr Peter Nightingale&lt;br&gt;Wolfson Computer Laboratories&lt;br&gt;QEH</td>
</tr>
<tr>
<td>4</td>
<td>Clinical Research – The challenges&lt;br&gt;How to design a RCT</td>
<td>Dr Caroline Gordon&lt;br&gt;Department of Rheumatology&lt;br&gt;University of Birmingham</td>
</tr>
<tr>
<td>5</td>
<td>Basic Principle of Clinical Teaching</td>
<td>TBC</td>
</tr>
<tr>
<td>6</td>
<td>Ethics of research and clinical practice&lt;br&gt;Research Governance</td>
<td>Dr Karim Raza&lt;br&gt;Senior Lecturer&lt;br&gt;Department of Rheumatology&lt;br&gt;University of Birmingham</td>
</tr>
<tr>
<td>7</td>
<td>Statistics for researchers 2: A practical application</td>
<td>Dr Peter Nightingale&lt;br&gt;Wolfson Computer Laboratories&lt;br&gt;QEH</td>
</tr>
<tr>
<td>8</td>
<td>How to write an academic paper&lt;br&gt;What is evidence based medicine</td>
<td>Dr David Thickett&lt;br&gt;Respiratory Medicine&lt;br&gt;Lung Investigation Unit&lt;br&gt;QEH</td>
</tr>
<tr>
<td>9</td>
<td>Obtaining grant funding&lt;br&gt;Bioinformatics&lt;br&gt;Journal Club</td>
<td>Dr Mark Cooper&lt;br&gt;Dept of Medicine&lt;br&gt;University of Birmingham</td>
</tr>
<tr>
<td>10</td>
<td>Animal research – Is it still necessary&lt;br&gt;Ethics of animal research</td>
<td>Prof. Chris Buckley&lt;br&gt;Professor of Rheumatology&lt;br&gt;University of Birmingham</td>
</tr>
<tr>
<td>11</td>
<td>Designing genetics studies&lt;br&gt;Journal Club</td>
<td>Dr Lukas Foggensteiner&lt;br&gt;Consultant Physician&lt;br&gt;Renal Unit, QEH</td>
</tr>
<tr>
<td>12</td>
<td>Clinical immunology: an interface between clinical and laboratory medicine</td>
<td>Dr C Maclennan&lt;br&gt;MRC Centre for Immune Regulation&lt;br&gt;University of Birmingham</td>
</tr>
<tr>
<td>13-15</td>
<td>Project development&lt;br&gt;Private study</td>
<td>Dr Neil Gittoes&lt;br&gt;Department of Medicine&lt;br&gt;University of Birmingham</td>
</tr>
</tbody>
</table>

In short, the Medical School at the University of Birmingham is enjoying sustained growth in all of its core activities. It sees itself as among the top medical schools in the UK and aims to take advantage of its excellent position to grow further, to serve better the needs of the region through the provision...
of specialist patient care, its first class training of tomorrow's doctors and its internationally renowned research.

4.2 University Hospitals Birmingham Foundation NHS Trust
www.uhb.nhs.uk

University Hospital Birmingham NHS Foundation Trust has over 6,500 employees and provides traditional district general services for the adult population of South Birmingham and specialist treatments for the people of West Midlands and beyond.

The Trust is now housed in its purpose built hospital providing state of the art diagnostic and treatment facilities. The new hospital provides an excellent clinical environment for both patients and staff. More than 553,000 patients attend the hospitals for treatment every year – ranging from a simple outpatient appointment to a heart transplant.

The Trust has the largest renal kidney programme in the UK, is a major specialist centre for burns and plastic surgery, neuroscience and specialist cancer centre. The Trust is the largest solid organ transplant centre in Europe, with large liver, heart and lung and kidney programmes.

The Royal Centre for Defence Medicine (RCDM) provides secondary and specialist care for members of the armed forces dedicated training for defence personnel and is a focus for medical research. There is a military-run ward but defence personnel are fully integrated throughout the Trust. The military staff wear their own uniforms and have their own base. They treat both military and civilian patients.

Currently, the Trust hosts 57 foundation year 1 posts, in 19 rotations (of which the academic rotation is one) plus 12 military foundation year 1 posts in 4 rotations. There are also 57 foundation year 2 posts in 19 rotations, including one academic rotation, plus 9 military foundation year 2 posts in 3 rotations. The rotations include placements at both the hospitals of the University Hospitals Birmingham Foundation NHS Trust, Birmingham Children’s Hospital NHS trust, Birmingham and Solihull Mental Health Trust, the Genitourinary Medicine Clinic in central Birmingham and teaching General Practices in the south Birmingham area. The foundation programme is lead by two Clinical Tutors with extra support from an Academic Consultant for the Academic rotations. All postgraduate education is under the responsibility of the Director of Medical Education.

The trust’s approach to the foundation programme is best illustrated by our trainees who comment:

“The opportunities and educational support afforded by the trust alongside the opportunity to be involved in the exciting new hospital project are just two strong reasons to apply to this programme.”

“The opportunity to work at an internationally renowned Hospital with a renowned academic, research and teaching profile.”

“It offers a unique range of experience across both a Tertiary and DGH setting within the West Midlands.”
“Great location, adjacent to the University and near to the City Centre with the opportunity to live close to the hospital and easy access to all the facilities a large city has to offer within a small radius.”

“The prospect of being involved in the development of a New Hospital with one of the largest solid organ transplantation units and eventually Europe’s largest Critical Care provisions.”

“It’s busy, exciting and yes hard work but the support, teaching and experience you get is excellent”

4.3 **Birmingham Children’s Hospital Foundation NHS Trust**

www.bch.nhs.uk

Birmingham Children’s Hospital Foundation NHS Trust provides a wide range of general and specialist health services to children and adolescents within the West Midlands and beyond. As Birmingham’s lead provider of health services for children, the hospital NHS Trust enjoys a national and international reputation in specialist areas including liver transplantation, cardiac surgery and neonatal surgery. The liver unit is the designated centre for small bowel transplantation, whilst the heart unit leads the field in congenital heart disease. The Trust also manages city-wide Child and Adolescent Mental Health Services (CAMHS).

The state-of-the-art radiology department houses CT and MRI scanners whilst a 22-bed Intensive Treatment Unit is the single largest paediatric facility in the UK, alongside the country’s largest oncology unit for children.

Pioneering developments include the first ever successful paediatric triple transplant, the world’s smallest successful pacemaker in a three day old baby and a neuro-navigation system which provides image-guided surgery for children with brain tumours and other neurosurgical conditions. Recent developments include the designation of the Eye Department as a national centre for treatment of cancer of the eye (Retinoblastoma) and funding for the Dermatology service to provide a national service (jointly with Great Ormond Street) for the care of patients with Epidermylosis Bullosa (EB). A dedicated unit to care for patients with sickle cell anaemia and thalassaemia opened in 2003, whilst the first Acute Admissions Unit outside London, for children and adolescents with mental health conditions will open at Parkview Clinic.

Our Academic Foundation Year 2 post is based in the Department of General Paediatric Medicine which provides secondary level paediatric services for the children, young people and families of South Birmingham in an integrated GP Referral Unit and short stay Observation Ward, a large Outpatient Department and three inpatient wards. The department works closely with the Department of Emergency Medicine. Approximately 4500 general paediatric patients are admitted to the three wards annually. These admissions are generated by referral both from general practitioners (approximately 6,000 referrals per year) and patients admitted after self referral to the Emergency Department (ED). Patients referred by their GPs are seen in the GP Referral Unit within ED and there is a large observation ward allowing for a shorter term assessment of children who may not need hospital admission.
All the laboratory, radiological and support services are available. A large and expanding Medical Day Unit provides an excellent facility for children from all medical specialities including general paediatric medicine enabling both investigations to be performed and treatment to be given.

As well as the University of Birmingham based academic departments, most Clinical Departments have research-active clinicians supporting a wide range of clinical trials. There is support from the Medicines For Children Research Network (MCRN) and the Wellcome Foundation who fund and support the Wellcome Clinical Research Facility which provides the most modern of locations for clinical research.

On site is an excellent library and Education Centre. The Trust hosts the education programmes of the regional specialty training programme in paediatrics. Medical educators in the trust have major interests in methods of mentoring, teaching and learning and assessment of clinical competence and are involved in research and development at national, regional and local level.
authority and was approved in July 2004 as a national priority scheme by the Department of Health. The programme includes investment of up to £750 million in new facilities in both the acute and primary care sectors, making it one of the largest investment programmes in the UK. The most likely option for acute services is the construction of a new single site acute unit which will create some of the largest clinical teams in the country. The Trust’s current strategy focuses on the period leading up to 2010 with an emphasis on driving clinical integration, strengthening key specialties and on service improvement.

The Birmingham Treatment Centre opened on the City Hospital site in November 2005. This £35m development provides state of the art facilities for one-stop diagnosis and treatment and completely replaced the previous Outpatient Department. It includes an Ambulatory Surgical Unit with six theatres, extensive imaging facilities, an integrated breast care centre and teaching accommodation.

A £18m Emergency Services Centre opened on the Sandwell site in April 2005. This facility replaced the old A&E department destroyed by fire. It incorporates a comprehensive A&E facility, Emergency Assessment Unit and Cardiac Care Unit.

Aside from being the largest provider of acute patient services in the Midlands, the Trust also has a substantial research agenda with portfolio status and hosts several academic departments including ophthalmology, cardiology and rheumatology.

4.5 Heart of England NHS Foundation Trust

www.heartofengland.nhs.uk

Heart of England NHS Foundation Trust provides services on four sites providing local hospital services for the East of Birmingham, the Metropolitan Borough of Solihull, as well as Sutton Coldfield in the north east of Birmingham. The Trust also provides Community Services across Solihull. The resident populations are around 250,000 and 180,000 and 150,000 respectively. The East Birmingham population consists mainly of lower income groups and ethnic minorities that contribute to a high perinatal and standardised mortality rate. The Solihull and Sutton Coldfield populations are mainly affluent middle class.

4.5.1 Heartlands Hospital

Birmingham Heartlands Hospital is three miles from the city centre and seven miles from Birmingham University Medical School. The hospital has over 900 beds and provides a full range of acute general and specialised care including several regional specialities.

The surgical block was opened in 1976 and contains five operating theatres; a Thoracic HDU, Surgical HDU, ITU, a Cardiac Catheterisation Suite and twelve wards. There is also a newly constructed (1996) Twin Theatre Suite used primarily for ENT surgery. The Obstetric Unit opened in a separate building in October 1992 and has been extended to become an integrated Women’s Unit that opened in October 1997. Accident & Emergency, adult Renal Dialysis and Endoscopy/Medical Investigation Units opened in 1994.
In addition to the surgical specialties the hospital has a busy cardiology unit performing advanced catheterisation techniques including stenting, angioplasty and balloon pumping. There is a large Chest Medicine Department within Respiratory Function Laboratory and Departments of Clinical Haematology and Regional Communicable and Tropical Diseases. The 11 bedded ITU/8 bedded HDU is highly active in clinical and translational research.

4.5.2 Solihull Hospital
At Solihull the nucleus-design hospital, opened in 1994, has 350 beds and is 6 miles from Heartlands. A large range of clinical services is provided including the main medical specialties, elective orthopaedic unit, a large obstetric and gynaecology and a 24-hour Accident & Emergency Department. There is a 3-bedded intensive care unit with adjoining, though separate, Coronary Care Unit. The Radiology Department has MRI and CT scanning facilities on site. A chronic renal dialysis unit was opened in 1997, as was an extended Day Procedures Unit with twin operating theatres and an endoscopy suite. A wide variety of day stay work is performed including ophthalmic surgery. The 4 main operating theatres undertake a wide variety of elective surgery.

4.5.3 Good Hope Hospital, Sutton Coldfield
Good Hope hospital is 7 miles from Heartlands hospital. It is a medium sized acute district general hospital with 550 beds serving North Birmingham and South Staffordshire including Burntwood, Lichfield and Tamworth. This site has 8 theatres as well as a day case unit, 2 obstetric theatres. There is a 12 bedded critical care area with 6 level 2 and 6 level 3 beds. There is a wide range of elective surgical activities including general surgery, orthopaedics, gynaecology, ophthalmology and a 24-hour CEPOD theatre. The hospital is supported by a full range of medical specialties and a well equipped radiology department with MRI and spiral CT scanning.

HEFT has a full range of pathology services available including Regional Virology, Immunology and Cytogenetics Laboratories together with the Public Health Laboratory Service.

Undergraduate and postgraduate teaching is a major feature of the Trust. There are excellent facilities including an Undergraduate Centre opened in 1986 and an Education Centre with tiered lecture theatre, opened in September 1995. This has been extended to include more seminar rooms, offices and a clinical skills laboratory. The Trust has teaching hospital status as increasing numbers of medical students are being taught here.

The Trust has been at the forefront of the implementation of information technology and has a modern computer network that covers all sites. All clinical staff have access to the Internet and the hospital intranet from workstations available in all work areas. Communication by e-mail is the norm. Participation in the Resource Management Initiative in the late 1980’s precipitated extensive organisational change that has resulted in the establishment of a system of Clinical Directorates. The hospital was the first in Birmingham to achieve Trust status (in 1992). There is now a well-tried management structure with substantial involvement of clinicians.

The hospitals have national and regional clinical services on site as well as secondary care, emergency and elective practice. The Trust has a turnover in
excess of £230m; is one of the top five employers in the area with over 6,000 staff; serves a population of 0.5 million; and cares for 84,000 inpatients, treats over 350,000 outpatients and approximately 140,000 emergency department attendees each year.

This makes the Trust one of the largest in England and has regional specialities in
- Allergy
- Bone Marrow Transplants
- Cystic Fibrosis
- HIV Aids
- Immunodeficiency
- Invasive Cardiology
- Neonatology
- Neurology
- Oncology
- Renal Dialysis
- Thoracic Surgery
- Regional Scientific Services such as Immunology and Endocrinology

The Trust has an excellent teaching record and always scores highly in inspection visits. Education is based at the two state-of-the-art Education Centres. For the Foundation Programme the Trust has one of the best e-portfolio systems for monitoring trainees in the country. The Clinical Tutor; Dr Phil Bright (Consultant Physician) is also Associate Dean West Midlands Workforce Deanery, Head of Core Medical Training West Midlands Workforce Deanery, Director Birmingham Foundation School.

Tutors are supported by an experienced postgraduate staff and work hard at ensuring trainees gain a rewarding experience from their time at the Trust. The academic foundation programme is led by Professor Gavin Perkins (Professor of Critical Care Medicine at Heart of England Foundation Trust (HEFT) and the University of Warwick). Research at HEFT is led by Professor Don Milligan (Director of Institute of Research and Development). The Trust have recently invested in a state of the art research facility called MIDRU (http://www.midru.com/) which provides a focal point for clinical academics to work together.

### 4.6 Royal Orthopaedic Hospital NHS Foundation Trust
[www.roh.nhs.uk](http://www.roh.nhs.uk)

The hospital is a continuation of the Orthopaedic Service established in Birmingham in 1817, the first in the country. It is now is one of the largest and busiest orthopaedic centres in Europe. Providing the highest clinical care in elective and specialised orthopaedic surgery, the hospital has been at the forefront of developments in orthopaedic surgery for many years.

Our principle area of activity is elective orthopaedic surgery. Our orthopaedic oncology, spinal and arthroplasty units are recognised throughout the world for their outstanding contributions in the field of orthopaedic surgery and research.
There are approximately 7,000 inpatient cases per year, which represents around 10% of all hip and knee replacements done in the country.

The hospital has an international reputation for advancing techniques in orthopaedic surgery and contributes regularly to the orthopaedic literature as well as presentations to national and international societies.

4.6.1 **Research and Teaching Centre**
The Research and Teaching Centre was opened in 1987 and built by public subscription through the ROH Orthopaedic Charity. Its primary purpose is to facilitate medical education, audit outcomes and research.

The Centre has excellent onsite teaching facilities, including a purpose built lecture theatre and seminar room. There is a well-stocked medical library with access to online databases, electronic journals and internet resources.

Within the centre we are carrying out anthropometric studies on children with spinal deformities. This involves measuring the surface profile of the back using a new technology which has been developed in the Research and Teaching Centre over the last five years.

The Centre’s Director gives support to the large number of ongoing projects and has a special interest in measuring outcomes with particular reference to hip and knee arthroplasty.

Academic staff employed within the Centre includes clinical scientists, lecturers, research nurses and postgraduate students.

4.6.2 **Musculoskeletal module for undergraduates**
Birmingham Medical School has always acknowledged the high standard of teaching and organisation provided by the Royal Orthopaedic Hospital. During the academic year approximately 500 medical students attend the Research and Teaching Centre for formal teaching sessions and tutorials. Clinical teaching takes place within the hospital’s outpatient department, operating theatres and on the wards.

In addition, small groups of students are given audit projects. The results are presented at the Medical School. Many projects go on to be presented at national meetings and some are published in learned journals. The audit projects form part of the overall assessment for the medical students.
5. KEELE

5.1 The University of Keele School of Medicine

http://www.keele.ac.uk/depts/ms/index.htm

Keele was the first higher education institution established after the Second World War in the United Kingdom, gaining degree-giving powers in 1949 as the University College of North Staffordshire. University status, as the University of Keele, followed in 1962. Its founders espoused radical educational principles and the University was founded to promote interdisciplinary and multi-disciplinary scholarship.

Building on its founding tradition, Keele’s distinctive mission is to be “The UK’s leading example of an open, integrated intellectual community.” At 7,500 FTE students, Keele is a relatively small University, but it has distinctive potential and ambitions for growth, and continues to make a unique contribution to higher education by emphasising the strength of broad education and innovative learning environments.

Located centrally within the UK, in North Staffordshire, Keele is a major contributor to its local economy. With a turnover in excess of £69m, and a total staff of some 1,700, the University generates around £40m of business in the region.

5.1.1 Research at Keele

Keele is a research-based university and has increased its profile in research in recent years. It is focussing its research profile further, building on areas of recognised national and international strength across its three faculties: Health, Natural Sciences, and Humanities and Social Sciences. Up to 600 funding applications are made each year, with up to £10 million new research grants and contract secured each year. Gross research income has risen from £2 million in the late 1980’s to £9 million in 2003-4, giving an average annual growth rate in the region of 10% per annum over the last 10 years.

The Research Assessment Exercise (RAE) is a national exercise which assesses the quality of research of all higher education institutions, by the UK’s higher education funding bodies.

The RAE 2008 found that 85% of the University's research is now classified as world leading and of international importance.

Keele has top rated departments in all of its three Faculties: Health, Humanities and Social Sciences and Natural Sciences, and the RAE results reveal the University's world class research activities across a wide spectrum of subject areas.

The results represent a step-up in Keele's performance from the very good results the University achieved in the last RAE in 2001. Then, 6% of
submitted research achieved the top grade. Now, some 11% is judged to be 4* or ‘world leading’, the highest available category score.

Subject areas where research at Keele has been rated world class in terms of originality, significance and rigour are Primary Care, Physics, Applied Mathematics, Business and Management, Law, Politics, Russian, English Language and Literature, Social Policy and Administration, History, Music and General Engineering (which includes BioMedical Engineering and Environmental Engineering). Keele has performed particularly well in Music, Applied Mathematics, Social Policy and Administration and History.

5.1.2 School of Medicine, Keele University

The School of Medicine was created in September 2001 as a further development of the School of Postgraduate Medicine, which had been established in 1978. The School is part of the Faculty of Health which includes the School of Health and Rehabilitation, the School of Pharmacy and the School of Nursing & Midwifery. Other health-related academic units in the University include the Centre for Health Planning & Management, the Centre for Medical Statistics, the School of Life Sciences, Social Gerontology located in the School of Criminology, Education Sociology and Social Work, and the Centre for Professional Ethics.

Undergraduate medical education commenced in September 2002 (see below). Postgraduate medical education includes the organisation and delivery of professional, postgraduate award-bearing courses and continuing medical education. University award bearing courses have been established as the Master of Medical Science Degree, Diploma and Masters Degree in General Psychiatry and Masters Degrees in Geriatric Medicine, Biomedical Engineering, Cellular Engineering, Rheumatology Nursing and Adolescent Addiction.

Three Research Institutes were launched in January 2004 within the Health Faculty and are being developed further as part of the University wide programme of change, which will separate the management and funding of research and teaching. Health and medical research will be conducted in 3 Institutes:

- Institute of Primary Care Science and Health Sciences
- Institute of Life Course Studies
- Institute for Science and Technology in Medicine

These are multidisciplinary Institutes and include researchers from across the University. The responsibility for the management of all research and research-related enterprise activities within the Faculty of Health will rest with the Directors of the Research Institutes.
The Dean of Health will retain ultimate budgetary control of the Faculty, via the Heads of Schools and Directors of Research Institutes.

5.1.3 The development of the undergraduate school of medicine
In June 1999 the Department of Health and the Higher Education Funding Council for England (HEFCE) announced that Keele University, in collaboration with Manchester University and the University Hospital of North Staffordshire NHS Trust had been allocated clinical medical student places commencing in 2002. The first cohort of 50 students commenced their study at Manchester University and moved to Keele and North Staffordshire for their three clinical years on 9th September 2002.

Following this successful first bid, it was announced on 30th March 2001 that the second bid from Keele and Manchester Universities to establish a free-standing School of Medicine at Keele had been successful. Keele University and its NHS Partner Trusts will train 120 new doctors each year. When the new School of Medicine is fully operational, 650 (120 plus 10 international students in each year) medical students will be training in a five-year course on the Keele campus and in local Trusts. The first medical students trained exclusively at Keele University and graduated in 2008.

The University built a new, state of the art Medical School building on the University Campus which was ready for September 2003 and where the students spend their first two years. The Trust has built a new Medical School building and the Clinical Education Centre on the City General Hospital site to enhance its £200m rebuilding programme; the first phase was completed in 2002 and the second in September 2004.

Students spend approximately 20% of their time learning in the community and also have attachments to a range of local hospitals including the Robert Jones and Agnes Hunt Orthopaedic and District Hospital NHS Trust, Oswestry; Shrewsbury & Telford Hospital NHS Trust; Mid Cheshire Hospital NHS Trust Leighton; and Mid Staffs Hospital NHS Trust, Stafford.

5.1.4 Keele University Academic Foundation Programmes
These academic posts are designed to encourage the best and most motivated medical graduates to consider clinical academic careers from an early stage. They will provide excellent clinical experience and supervision, together with protected time and high level support to learn about different aspects of research and medical education.

All aspects of training in Research methodology including consent, ethics, protocol design and development and being part of a multi disciplinary research team will be taught during this time.

The academic trainees will have a mentor whilst based in the academic department, and will be given the opportunity to undertake their own project.
within a friendly multi-disciplinary academic environment. Core training in research methods will be provided and a range of project options can be offered, depending on the individual's interests and career aspirations.

Whilst configured to provide all the required experiences to achieve the clinical competencies, these academic programmes will ensure protected time to participate in specific research and/or educational programmes and personal supervision and support associated with this component.

All academic trainees on Keele University rotations will obtain core skills in research methods by attending a 5 day Masters level course that attracts 15 M level credits. This course is widely respected and covers pertinent aspects of study design, research ethics and statistical analysis.

5.2 University Hospital of North Staffordshire NHS Trust

www.uhns.nhs.uk

The Trust is one of the largest and busiest acute hospitals in the country, with an annual budget exceeding £290 million. The Trust serves almost 500,000 people in North Staffordshire and provides a range of speciality services for more than 3,000,000. It employs over 7,400 staff and has over 1,300 beds. The Trust met all of its targets this year. During the year it saw over 116,000 outpatients for the first time and more than 289,000 for follow up appointments. It treated over 17,000 planned inpatients and 42,000 day cases. More than 58,500 emergency inpatients were admitted and 121,489 attended it A & E, Medical and Surgical Assessment Units.

The Trust is based at Hartshill in the City of Stoke-on-Trent and from December 2012, the entire hospital will be on one site, based in very recently completed, state of the art, buildings.

The specialities delivered by the Trust include all the usual local services plus several regional and sub regional services including Cardiothoracic Surgery, Ophthalmology, Renal Medicine, Neurosciences, Cardiac Surgery, Critical Care and Radiotherapy. The Trust is also a designated Cancer Centre working in partnership with a network of West Midlands Cancer Units, and is designated Trauma Centre covering the local area extending out into North Wales.

The Trust is organised on a Divisional basis and has a Central Functions Division incorporating Executive functions and four clinical Divisions.

The Hospital's business is run by two Boards. The Trust Board determines the strategic direction of the Trust and fulfils statutory responsibilities. The Executive Board has responsibilities to translate strategy into policy and action. The Board comprises Executive Directors and Heads of Division.
5.2.1 Trust management arrangements

Incrementally, the University Hospital of North Staffordshire NHS Trust has streamlined its management arrangements based on the devolution of authority to Clinical Divisions and Directorates which have their own managerial support and budgetary responsibility. The philosophy has been to ensure clinicians are at the heart of the management process.

The Trust is in the process of implementing a revised Divisional and Management structure. The four new divisions are:

- Surgical Division
- Support Services Division
- Medical Division
- Treatment Centre & Children’s Services

Three of the Divisions are led by a management team comprising Head of Division, Divisional General Manager, Professional Head of Nursing, Directorate Managers, Financial Management, Human Resources Manager and Support Managers. The Support Services Division is led by the Director of Corporate Services/PFI Project Director.

5.3 Mid Staffordshire NHS Foundation Trust

Mid Staffordshire NHS Foundation Trust is the principal acute provider for the population of Stafford, Cannock, Rugeley and surrounding areas. The Trust has 350 in-patient beds and employs approximately 2,200 FTE staff and owns capital assets of £75 million. The Trust treated over 24,500 inpatients, over 27,250 day cases and nearly 178,000 outpatients last year. The Trust provides a broad range of medical and surgical specialties treating patients on both an elective and emergency basis, working principally with the Stafford and Surrounds and Cannock Chase Commissioning Consortia. There is ongoing work to develop integrated services with our commissioners.

The Trust delivers its services to a population of more than 320,000 people but the rheumatology services cover a wider geographical area that extends into South East Staffordshire. The Trust principally covers a geographical area of 325 square miles, and comprises two hospitals.

Stafford Hospital is located a short distance from Stafford town centre. It is a General Hospital, with a very pleasant modern infrastructure which was opened in 1983 and extended in 1996. It contains ~300 beds and houses the main outpatient department and the A & E department. There is a large x-ray department on site with state of the art CT scanning, a mobile MRI Scanner and a modern well equipped critical care unit with HDU.
Cannock Chase hospital is a modern purpose built hospital, which was completed in 1991. It is situated in the centre of Cannock, which is approximately ten miles south of Stafford. It houses musculoskeletal services including a regional rheumatology department and a dedicated day case and short stay orthopaedic unit.
6. THE POSTS
Applicants are asked to note that programme information is subject to change between now and the commencement of the post.

<table>
<thead>
<tr>
<th>Rotation</th>
<th>University</th>
<th>Employing Trusts</th>
<th>Clinical Post in Academic Unit</th>
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<tr>
<td>1</td>
<td>Warwick</td>
<td>University Hospitals of Coventry and Warwickshire (UHCW)</td>
<td>General “Internal” Medicine and Endocrinology &amp; Diabetes Mellitus (Prof Kumar/Dr Radneva)</td>
<td>General Surgery and Upper Gastrointestinal Surgery (Mr Khan)</td>
<td>Anaesthetics (Dr Dudkowsky)</td>
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<td>Warwick</td>
<td>University Hospitals of Coventry and Warwickshire (UHCW)</td>
<td>Trauma &amp; Orthopaedic Surgery (Prof Griffin)</td>
<td>Respiratory Medicine (Dr Parr)</td>
<td>General Surgery &amp; Transplant Surgery (Mr Tan)</td>
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<td>University Hospitals of Coventry and Warwickshire (UHCW)</td>
<td>General Psychiatry (Prof Weich)</td>
<td>General “Internal” Medicine and Endocrinology &amp; Diabetes Mellitus (Dr Radneva/Dr Sankar)</td>
<td>General Surgery &amp; Colorectal Surgery (Mr Baragwanath)</td>
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<td>Birmingham</td>
<td>Heart of England Foundation NHS Trust (HEFT)</td>
<td>Intensive Care Medicine Profs Perkins/Gao Heartlands</td>
<td>Vascular Surgery Mr Scriven/Adam Heartlands</td>
<td>Paediatrics Royal Orthopaedic Hospital (ROH) and HEFT</td>
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<td>University Hospital Birmingham (UHB)</td>
<td>Endocrinology &amp; Diabetes Mellitus (Dr Narendran)</td>
<td>General “Internal” Medicine, Respiratory Medicine (Dr Gompertz)</td>
<td>General Surgery and Upper Gastrointestinal Surgery (Prof Alderson)</td>
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<td>General Practice</td>
<td>General Medicine &amp; Rheumatology (Prof Buckley, Prof Gordon, Dr Raza)</td>
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<th>Rotation</th>
<th>University</th>
<th>Employing Trusts</th>
<th>Foundation Year 1 Posts</th>
<th>Employing Trusts</th>
<th>Foundation Year 2 Posts</th>
<th>Trainees in Rotation</th>
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<td>8</td>
<td>Birmingham</td>
<td>Sandwell and West Birmingham (SWBH) at City Hospital</td>
<td>Rheumatology (Prof Buckley, Prof Gordon, Dr Raza)</td>
<td>University Hospital Birmingham (UHB) &amp; Birmingham Children's Hospital</td>
<td>Renal Medicine (Research) (Dr Harper)</td>
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<td>Paediatrics (with some Medical Education) (Dr Diwakar)</td>
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<td>Gynaecological Oncology surgery (Prof D Luesley)</td>
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<td>Acute Internal Medicine with Endocrinology &amp; Diabetes Mellitus (Dr Narendran)</td>
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<td>General Surgery (Vascular) (Mr Adam, ) (Heartlands)</td>
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<td>Respiratory Medicine (Dr Turner) (Heartlands)</td>
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<td>Keele</td>
<td>University Hospital of North Staffordshire (UHNS)</td>
<td>Paediatrics</td>
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<td>*Endocrinology &amp; Diabetes Mellitus (academic - Prof Fryer)</td>
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<td>General Surgery – Upper GI</td>
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<td>*General Practice (academic – Prof Mallen, Dr Protheroe)</td>
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<td>General Medicine - AMU</td>
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<td>*Acute Internal Medicine (academic - Prof Davies)</td>
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<td>Keele</td>
<td>Mid Staffordshire NHS Foundation Trust</td>
<td>Rheumatology (Dr Baskar)</td>
<td>University Hospital of North Staffordshire (UHNS)</td>
<td>*Renal Medicine (academic - Prof Davies, Dr Lambie)</td>
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<td>Acute Medicine (Dr Hussein)</td>
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<td>*General Practice (academic - Prof Mallen, Dr Protheroe)</td>
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<td>General Surgery &amp; Upper Gastrointestinal Surgery (Mr Khan)</td>
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<td>*Obstetrics and Gynaecology (academic supervisor to be confirmed)</td>
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<td>12</td>
<td>Keele</td>
<td>University Hospital of North Staffordshire (UHNS)</td>
<td>General &quot;Internal&quot; Medicine – Gastroenterology</td>
<td>University Hospital of North Staffordshire (UHNS)</td>
<td>*Rheumatology (academic - Prof Hassell)</td>
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<td>Emergency Medicine</td>
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<td>*Geriatric Medicine (academic supervisor – Dr Rolfe)</td>
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*Please note the academic portion of rotations 10, 11 and 12 is based on the first post – see Job Description for further information*
7. THE POSTS (Rotations 1 to 12)

ROTATION 1

University of Warwick & University Hospitals of Coventry (UHCW) and Warwickshire NHS Trust

The new Medical School at Warwick takes graduates from a science background and hopes to foster a generation of doctors with the potential and enthusiasm to develop as Clinical Academics. These rotations are particularly suited to trainees who wish to gain some insight into academic medicine, while gaining a sound base of clinical experience. An academic teaching programme and system of mentoring runs throughout the 2 years in addition to the taught element of F1 and F2. Trainees are encouraged to take further modules in the Masters Programme relevant to academic training.

FOUNDATION YEAR ONE

1. General “Internal” Medicine and Endocrinology & Diabetes Mellitus (Academic Unit) (UHCW)
   Professor Sudhesh Kumar/Dr Harpel Radneva
   This post is based on the Academic Medicine clinical firm. Duties will include acute medical admissions, and management of patients with general medical and diabetic problems. The trainee will also be expected to participate in the academic activity of the Department; Professor Kumar will remain as academic mentor for the trainee throughout their F1 year.

2. General Surgery and Upper Gastrointestinal Surgery (UHCW)
   Mr S Khan

   Duties
   This post is based within the Department of Surgery at UHCW. The trainee will participate in the surgical on-call rota and be looking after general surgical patients, particularly with upper GI conditions. The firm is supported by 2 more senior trainees. There are opportunities for attending outpatients and theatre sessions.

   Education
   All F1 doctors participate in the teaching programme. In addition there is a Friday afternoon surgical teaching programme and a specialist MDM for upper GI surgery.

   Research opportunities
   Trainees will be encouraged to participate in ongoing research topics within the Department of Surgery, according to individual interests.
3. Anaesthetics (UHCW)
Dr B Dudkowsky

Duties
The F1 trainee will get exposure to anaesthetics and ITU along with the anaesthetic trainees. The F1 trainee will be supernumery on-call. Duties include theatre sessions, pre-operative visits and ITU ward rounds.

Education
The F1 trainee will participate in the anaesthetic teaching programme, as well as attending the generic F1 teaching programme

FOUNDATION YEAR TWO
For the Academic Medicine rotation trainees will gain clinical experience working in 3 medical specialities and pursue a research project/training in an area of their choice under academic supervision with protected time throughout the three rotations. Opportunities exist to engage in both basic science and clinical research.

1. Endocrinology & Diabetes Mellitus (academic–research)
Consultants: Educational Supervisors will be:
Professor Sudhesh Kumar, Professor of Medicine
Dr Paul O’Hare, Reader in Clinical Medicine
Dr Harpal Radneva, Associate Clinical Professor
Professor Donald Singer, Professor of Pharmacology.

Clinical Supervisor will be:
Dr Murthy, Consultant Physician and Diabetologist
Dr Sailesh Sankar, Consultant – Endocrinology
Dr Martin Weickert – Consultant Diabetes and Endocrinology

The posts will operate from the newly built and equipped state of the art research laboratories at the Clinical Sciences Building at the University Hospitals Coventry and Warwickshire NHS Trust on the Walsgrave site.

Research and Academic Experience
This 4 month period is for research/academic training and relevant outpatient experience will take up no more than 2 sessions with 8 for research. Trainees would be expected to work as part of a research team on existing projects or a selection of new projects, according to the particular interests of the trainee. Areas currently under investigation include molecular links between diabetes and obesity, adipocyte and subclinical inflammation and vitamin D metabolism, Diabetes and its complications (retinopathy, nephropathy, cardiovascular disease) and ethnic health. New chairs in metabolism, the biochemistry of diabetic complications (Prof Thornally) and the effects of post prandial hyperglycaemia on vascular function (Prof Cereillo) are creating a vibrant research environment with many opportunities.
It is envisaged that the trainee will undertake work that will lead to publication and/or presentation. Where appropriate, trainees will be encouraged to attend research training/education modules on the Warwick Diabetes Masters Programme.

**Education**
There are three research meetings per week, and a number of research seminars in the Department of Biological Sciences, Warwick University. There is a weekly academic training seminar for academic Foundation and ACF’s. There is a monthly academic endocrine/metabolism meeting on Friday afternoon. All Foundation SHOs will have a protected half day on Thursday afternoon to attend the Generic Skills teaching programme.

2. **Respiratory Medicine**
**Consultant:** Clinical and Educational Supervisor will be Dr David Parr

**Duties**
The trainee will be part of the Medical SHO workforce, and participate in the on-call rota. Duties will include the inpatient care of acute medical patients, particularly those with respiratory disease.

**Education**
There is a formal programme of clinical teaching for medical SHOs which the post holder will be encouraged to attend. All Foundation SHOs have a protected half-day on Thursday to participate in the Generic Skills Education Programme. Foundation SHOs will be released for this programme apart from the occasional day when the rota makes this impossible. Academic F2’s will be encouraged to have an additional protected half-day worked flexibly to continue/prepare for research project/publications.

There is an active research programme within the Department which the F2 trainee will be encouraged to participate in.

3. **Gastroenterology**
**Consultant:** Clinical and Educational Supervisor will be Professor C Nwokolo

**Duties**
The trainee will be part of the medical SHO workforce, and participate in the medical on-call. Duties will include the care of acute medical inpatients, and patients with a variety of gastroenterological pathology.

**Education**
There is a formal programme of clinical teaching for medical SHOs which the post holder will be encouraged to attend. All Foundation SHOs have a protected half-day on Thursday to participate in the Generic Skills Education Programme. Foundation SHOs will be released for this programme apart from the occasional day when the rota makes this impossible and need
to demonstrate achieved competences and have the opportunities to join Postgraduate Award in Professional Skills. Academic F2’s will be encouraged to have an additional half-day worked flexibly to continue or prepare for their research project/publications.
ROTATION 2

University of Warwick & University Hospitals of Coventry and Warwickshire NHS Trust (UHCW)

FOUNDATION YEAR ONE

1. Trauma and Orthopaedic Surgery (Academic Unit) (UHCW)
   Professor D Griffin and Professor Matthew Costa
   This post is based on the Academic Orthopaedics clinical firm at Rugby Hospital. Duties will include elective admissions, and management of patients with hip and knee problems. The trainee will also be expected to participate in the academic activity of the Department and to attend the Academic Training Programme at the CSRI on Wednesday at 12.00h; Professor Griffin or Professor Costa will remain as academic mentor for the trainee throughout their F1 year.

2. Respiratory Medicine (UHCW)
   Consultant: Dr Parr

   Duties
   The trainee will be part of the acute medical rota and look after patients primarily with cardiac disease. In addition to ward duties, there will be opportunities to attend outpatient clinics.

   Education
   All F1 trainees attend the F1 teaching programme on Wednesday. In addition there is a medical Grand Round on Thursday

   Research Opportunities
   The F1 trainee will be encouraged to continue or prepare research activity within the orthopaedic department.

3. General Surgery and Transplant Surgery (UHCW)
   Consultant: Mr L Tan

   Duties
   Care of general surgical and transplant patients. The F1 trainee will be part of the general surgical on-call rota. There will be opportunity to attend out patient clinics and theatre sessions.

   Education
   All F1 doctors participate in the teaching programme. In addition there is a Friday afternoon surgical teaching programme and a specialist MDM for transplant surgery.
Research Opportunities
The department of surgery has an active audit programme and opportunities for research and publications within transplant surgery.

FOUNDATION YEAR TWO

1. Trauma and Orthopaedic Surgery (Academic Unit) (UHCW)
   Consultant: Educational Supervisor will be:
   Professor Damian Griffin, Professor of Trauma and Orthopaedics or Professor Matthew Costa, Senior Clinical Lecturer in T&O.
   
   Duties
   Joining a team of 12 Foundation Doctors, the trainee will cover the wards, attend regular clinics (elective and fracture), and have the opportunity to attend theatre at UHCW.
   
   Training
   The acute and elective management of trauma and orthopaedics. Experience in the rehabilitation of orthopaedic patients by interaction with physiotherapists and OT’s in a multidisciplinary environment.
   
   Education
   The Foundation Academic Training Programme takes place at the CSRI every Wednesday between 12-13h. On alternate Wednesday pm this meeting is followed by the Multidisciplinary Orthopaedic Professional Development Session between 14-17h.
   All Foundation Doctors have a protected half-day on Thursday to participate in the Generic Skills Education Programme, and Trainees in orthopaedics will be expected to attend all sessions except in the rare circumstance when the on-call rota makes this impossible.

2. Intensive Care Medicine (Walsgrave)
   Consultant: Clinical and Educational Supervisor will be Dr Bernice Dudkowsky.
   
   Duties
   The trainee will:
   - Be a member of the workforce, supported by SpR and Consultant staff.
   - Participate in clinical work in the general ITU on the Walsgrave site
   
   Training
   Experience in intensive care management, invasive monitoring and the pre and post-operative care of patients undergoing major surgery.
   
   Education
   There is a formal clinical teaching programme for all ITU F2’s
All Foundation trainees have a protected half-day on Thursday to participate in the Generic Skills Education Programme. ITU Foundation trainees will be released for this programme apart from the occasional day when the rota makes this impossible.

3. Research Post (Warwick Medical School) Trauma and Orthopaedic Surgery
Consultant: The Educational Supervisor will be Professor Damian Griffin or Professor Matthew Costa

Trainees would be expected to work as part of a research team on existing projects or a selection of new projects, according to the particular interests of the trainee within the field of orthopaedics. It is envisaged that the trainee will undertake work that will lead to publication and presentations.

Projects (example)
All of the projects in the Trauma and Orthopaedic research post involve investigations which directly affect patient care. For example, a current Foundation Academic Doctor has devised and gained approvals for a randomised controlled pilot trial of retransfusion drains versus ‘standard care’ for patients undergoing knee replacement surgery. These drains are designed to allow any blood that drains from the knee after the surgery to be given back to the patient via a drip. This will hopefully reduce the need for blood transfusions in this important group of patients.

Education
In addition to the Academic Training Programme on Wednesday lunchtimes, there are a number of research seminars in the Department of Biological Sciences, Warwick University.
The trainee will be expected to register and work for a Post Graduate Award in ‘research methodology and critical appraisal’ at Warwick University. This is part of the MSc course in Evidence-Based Musculo-skeletal Care. Selected trainees will be encouraged to complete the whole MSc.
All Foundation SHOs will have a protected half day on Thursday afternoon to attend the Generic Skills teaching programme.
ROTATION 3

FOUNDATION YEAR ONE
(University Hospitals of Coventry and Warwickshire & University of Warwick)

1. General Psychiatry (Academic Unit)
   Professor S Weich
   Trainees will work in an acute psychiatric day unit, delivering structured therapeutic day care for patients with acute episodes of severe mental illness. There will also be opportunities for education and training through the Health Services Research Institute at Warwick University. Professor Weich will remain as academic mentor for the trainee throughout their F1 year.

2. General “Internal” Medicine and Endocrinology & Diabetes Mellitus – UHCW
   Consultant: Dr H Radneva and Dr S Sankar

   Duties
   The trainee will be part of the F1 medical workforce and participate in the acute medical on-call rota. There will be ward responsibilities for acute medical and diabetic/endocrine patients.

   Education
   All F1 trainees attend the F1 teaching programme on Wednesday. In addition there is a medical grand round on Thursday

3. General Surgery and Colorectal Surgery - UHCW
   Consultant: Mr P Baragwanath

   Duties
   The ward care of general surgical patients, particularly those with colorectal disease. The F1 doctor will participate in the on-call rota for general surgery.

   Education
   All F1 doctors participate in the teaching programme. In addition there is a Friday afternoon surgical teaching programme and a specialist MDM for transplant surgery.

FOUNDATION YEAR TWO
(Heart of England Foundation NHS Trust and University of Warwick)

1. Public Health Medicine (University of Warwick)
   The aim of this post is to build on FY1 and to help trainees discover the exciting prospects of understanding research better and the importance of academic population-based medicine and the wider public health.
Academic Competencies
In this four month rotation we ensure that each trainee is able to:

- Undertake critical appraisal and literature review
- Become involved in practical population-based research
- Understand research study design and planning
- Understand data interpretation and presentation of results
- Understand the importance of research governance, good research practice and ethics

Training to achieve academic competencies
In posts in the University of Warwick academic public health trainees will:

- Attend one of a number of Master in Public Health course leading to a Postgraduate Diploma including: Understanding Research and Critical Appraisal, Epidemiology and Statistics, Issues in Public Health, Practise of Public Health
- Attend the local Health Protection Unit for a practical two weeks of “Epidemiology and Communicable Disease Control in action”
- Attend the local Primary Care Trust to understand practical public health and the role of research in informing this.
- Participate in a systematic review
- Participate in one or more additional research projects depending on interest. All senior members of the Health Sciences Research Institute have excellent publication records allowing provision of high quality supervision and the opportunity to achieve this aim.
- Improve and practice presentation skills
- Attend Wednesday afternoon postgraduate generic skills sessions provided by University of Birmingham Postgraduate School

Academic Supervision
During the academic module, trainees will receive academic and clinical mentorship through:

- A single senior clinical/educational supervisor who will also act as an academic tutor and mentor (consistent throughout the placement) who will guide the trainee’s programme.
- Professor Aileen Clarke is the senior clinical academic and experienced postgraduate teacher in charge of the programme. Aileen is a fellow of the Faculty of Public Health and also of the Higher Education Academy. She has more than 10 years of experience in teaching postgraduate public health and in public health research. Her main interests are in health services research particularly in decision making, e-health and decision support, and in the use of evidence in health policy.

Projects (examples)
- How effective are referral guidelines?
- Does the “Slimming World” programme work for young people?
- What proportion of published research is public health research?
• What are the issues involved in well-being for elderly people attending day hospitals?
• How can self-care be best supported in diabetes?
• Designing decision support for clinicians involved in head and neck cancer treatment.
• Developing referral guidelines: is there a role for patient preference
• How effective are parenting programmes and what are the issues in scaling up programmes?
• Early discharge in COPD care - what are the best outcomes measures?
• Can we measure the contribution of research to policy making in Europe?

Management and Mentoring
Each trainee will work closely with the clinical academic mentor. The Health Sciences Research Institute includes people training in academic public health at all levels including Clinical and non-clinical training fellows, Clinician Scientists and Senior Clinical Research Fellows. There are currently two lecturer posts and a number of senior lecturer posts. There is a clear structure for peer support, collaboration and liaison across the Institute.

Milestones Quality Assessment and Governance of the Programme
Milestones and assessment and appraisal are conducted in the normal way using the standard deanery electronic system. We believe in an empathetic, supportive and enabling environment in which self management of time in the achievement of competencies is encouraged. The programme is reviewed internally annually, and adapted in relation to feedback given after each set of placements.

Support Location and Infrastructure
The posts will be based at The Medical School in the University of Warwick. The infrastructure (offices and environment) and library and computing support facilities are excellent, friendly and welcoming.

2. General Practice – Heartlands area, Birmingham.

3. Emergency Medicine
Professor M Cooke – Heartlands, Birmingham
Consultant Educational Supervisors will be:
• Professor Matthew Cooke, Professor of Emergency Medicine
• Dr Ellen Jones, Consultant/ Senior Lecturer in Emergency Medicine

The posts will operate from the Emergency Department of Heartlands Hospital as well as from the Health Services Research Institute of Warwick Medical School on the Gibbett Hill Campus of Warwick University.
Duties
BHH has a purpose-built Emergency Department and sees approximately 90,000 patients per annum. The department has resuscitation facility of 5 beds, one of which is a paediatric facility. The department is separated into 2 areas, one for major injury and illness and the other for walking wounded and children, with 18 cubicles in total. There are trained Emergency Nurse Practitioners in the Department who can see, treat and discharge their own case load. The Department also benefits from Cardiac Triage nurses and a team of qualified children's nurses. In addition we have an 8 bedded clinical decision unit. There are 10 Emergency Medicine consultants in the department and a large middle grade tier including 5 registrars.

As an F2 in the emergency department you will work on a full shift system with the rest of the Emergency team to provide high quality care to patients arriving at our department. We see patients with a wide variety of clinical conditions including major and minor injury and illness, paediatrics and psychiatry. Most acute specialties are available on site and we work closely with them. You will work in all areas of the department, including the resuscitation room. Each day will bring different challenges and there will be ample opportunity to achieve competencies required for F2.

Your clinical learning will be supported by your educational supervisor. 24 hour middle grade cover on the shop floor and extended hours consultant presence provide excellent shop floor supervision, direct observation and case discussion. Your post will begin with clinical induction and continue with a programme of Emergency Medicine teaching to help you provide good patient care and maximise learning from the job. You will also attend the local foundation programme teaching.

Research Opportunities
Trainees would be expected to work as part of a research team on existing projects or a selection of new projects, according to the particular interests of the trainee. It is envisaged that the trainee will undertake work that will lead to publication and presentations. There is a wide range of research being undertaken and the candidate could access the areas most applicable to their interests. These include pre-hospital emergency care, emergency critical care, resuscitation, soft tissue injury, organisation of emergency care and serious gaming in healthcare. The research is linked to both the Warwick clinical trials unit and the Centre for clinical systems improvement (a joint initiative of the NHS institute for Innovation and Improvement and Warwick University). Full details of the programme are available at www.warwick.ac.uk/go/emergencycare

Education
The trainees will have tailored education in emergency care research as well as having access to relevant modules of the Masters in Applied Health
sciences. The trainee will be expected to register and work for a Post Graduate Award in 'research methodology and critical appraisal' at Warwick University. Research meetings at the hospital are held regularly in both critical care and emergency medicine.

All Foundation trainees will have a protected half day on Thursday afternoon to attend the Generic Skills teaching programme.
FOUNDATION YEAR ONE
(Heart of England Foundation NHS Trust)

1. Intensive Care Medicine
   (Birmingham Heartlands Hospital)

You will work within an established and productive research group led by Professors Gavin Perkins and Fang Gao. The Academic Department of Anaesthesia, Critical Care, Pain and Resuscitation, based at Heart of England NHS Foundation Trust, is the largest in the region currently supervising 11 PhD fellows involving in 3 laboratories, 6 observational or 18 randomised Phase I to III clinical trials. The group have strong links with the Emergency Medicine Group led by Professor Matthew Cooke. Alongside your clinical training you will work with other senior members of the department for mentoring and support.

The Academic Department is based in the MIDRU Building which is purpose built for clinical trial phase I-III activity with dedicated pharmacy and laboratory sample handling areas, enabling convenient access to these key services for both staff and patients participating in clinical trial activity. The group support a range of clinical and translational studies into critical illness, peri-operative care.

Teaching
There are a range of tutorials covering a wide range of topics including airway management, blood transfusion, care of the critically ill, sepsis, ARDS, organ support, ethics and organ donation, thus ensuring that the students’ learning needs are met during their attachment. You will have to support and comply with the University and Departmental teaching quality assurance standards and procedures including the provision of such information as may be required by WMS or the University. The new Simulator Centre provides state-of-the-art peri-operative care, critical care and resuscitation training.

Clinical
You will join the multi-professional team comprising of consultants, critical care practitioners, speciality trainees (two tiers), critical care outreach, nursing staff, dieticians, pharmacists and physiotherapists who deliver care to patients that develop a critical illness. You will play a full part in the assessment, resuscitation and on-going care of these patients with direct supervision / support from senior staff. You will be assigned a clinical supervisor from the consultant pool to support your clinical training during this post.

2. Vascular Surgery
   Consultants: Mr Scriven/Mr Adam

The University Department of Vascular Surgery is at the vanguard of endovascular surgery in the region. The post holder will be provided with the opportunity to undertake one of a number of novel as well as on-going audit projects addressing topical issues in vascular and endovascular surgery. The
post-holder will be given guidance in the preparation and writing of case reports, original articles and review articles.

3. Paediatrics
   Consultant: To be confirmed

FOUNDATION YEAR TWO
(Royal Orthopaedic Hospital and University of Birmingham)

1. Academic Post (University of Birmingham, Medical School)

   The academic foundation year 2 trainees will be attached to the Orthopaedic Oncology unit which is a supra-regional centre (one of the largest in Europe). There will be ample opportunity to gain experience in all aspects of audit and research whilst working on this unit. The unit houses a large database from which data can be retrieved to aid further studies.

   Current areas of research include:

   Outcomes of lower limb arthroplasty.

   Various aspects of bone and soft tissue oncology

   As well as other aspects of orthopaedic surgery

   Audit

   The Trust actively participates in audit and we have a regular audit programme. A meeting will be set up with the audit lead and potential projects will be discussed. The academic trainee will have the opportunity to carry out and present at least one audit during their attachment.
**Individual placement**

**The department**
Clinical - Orthopaedic Oncology  
Academic – Research and Teaching Centre.

**The type of work to expect and learning opportunities**
Ward work, theatres, clinics  
Audit and research methodology.

**Where the placement is based**
Research and Teaching Centre.

**Supervisors for the placement**
Prof. P. Pynsent PhD  
Mr. L. Jeys FRCS Orth.  
Mr. K. Baloch, FRCS Orth (Director of Postgraduate Medical Education)

**Main duties of the placement**
Ward work, on-call duties, clinics and theatre lists.  
Completion of at least one audit project resulting in publications and presentations.

**Typical weekly working pattern**
60% clinical duties – ward work, clinics, theatre.  
40% Protected academic duties.

2. **Emergency Medicine (Birmingham Heartlands Hospital)**  
   **Consultant:** Dr E Jones

3. **Acute Medicine (Birmingham Heartlands Hospital)**  
   **Consultant:** To be confirmed
ROTATION 7

FOUNDATION YEAR ONE
(University Hospitals Birmingham Foundation NHS Trust)

This rotation will consist of:
1. 4 months general “internal” medicine/ respiratory medicine under the supervision of Dr Gompertz,
2. 4 months academic endocrinology and diabetes mellitus under the supervision of Dr Parth Narendran and Prof Wiebke Arlt.
3. 4 months academic surgery (upper gastrointestinal surgery and general surgery) under the supervision of Professor Derek Alderson.

Aims
The aim of this post is to introduce the candidate to academic medicine to help them decide if this is a suitable longer-term career choice. This will be done by taking on a small and well-supervised project (either clinical or laboratory based) in the field of diabetes and endocrinology. Dr Narendran is normally fairly flexible and if F1s have projects already under way in other specialities there is opportunity to continue these. The usual arrangement is for 1 academic day, no ward duty, once a week.

Location
The laboratories of the departments of diabetes and endocrinology are located within the Institute of Biomedical Research in the Medical School at the University of Birmingham.

Research Background
The laboratory of Dr Narendran is focused on the immunology and immunogenetics of type 1 diabetes, autoimmune thyroid disease and mechanisms of autoimmunity in general. The laboratories of Professors Stewart and Arlt, are focused on mechanisms of steroid action. The laboratories of Professor Franklyn are focused on thyroid hormones and function. There are an ample number of well-supervised projects available to suit the interests and needs of the post holder, and the department has a strong track record in fostering and supporting young academic clinicians.

Furthermore, there are a significant number of clinical studies within all the fields outlined above which may also interest the post-holder. Within the field of diabetes, there are ongoing studies on exercise, immunology, psychology, as well as new insulin analogues. Within the field of endocrinology, there are studies on the effect of steroids on hypertension, cardiovascular disease and osteoporosis, as well as the management and long-term consequences of thyroid disease.

It is envisaged that the post holder will divide the 4-month block so as to optimise their clinical training and research exposure. The post holder will be
allocated a mentor over their time in this rotation to ensure they gain maximum benefit from their time with us.

**Acute and general medicine**

The Foundation Year 1 trainee will:
- Provide care to general medical inpatients alongside a SpR/ST4-5 Trust Grade/ST1 trainee and a F2 trainee. Regular SpR/ST and consultant led ward rounds will be held.
- Learn how to assess and manage adults with undifferentiated illness presenting to the Medical Assessment Unit.
- Be encouraged to attend general medical and chest outpatient clinics.
- Have opportunities to teach final year medical students.

**Academic Surgery**

In the academic surgery (upper gastrointestinal surgery and general surgery) post, the post holder will gain an insight into academic surgery in a unit with a major interest in oesophageal and gastric disease as well as a commitment to emergency general surgery. In parallel with the programme offered in diabetes and endocrinology, the post holder will receive first specific instruction in:
- Critical appraisal of the surgical literature.
- The development of writing skills.
- Participation in an ongoing audit project using the above skills

The general medicine and surgery components of this rotation will cover the GMC requirements for F1 training and the foundation programme curriculum.

**FOUNDATION YEAR 2**

(Sandwell and West Birmingham Hospitals NHS Trust at City Hospital and University of Birmingham)

This rotation will consist of:
1. 4 months Academic Rheumatology (Prof Chris Buckley/ Prof Caroline Gordon /Dr Karim Raza)
2. 4 months general practice (Dr Nick Harding, Handsworth Medical Practice)
3. 4 months general medicine/Cardiology (Prof Greg Lip)

1. **Academic Rheumatology**

The aim of this post is to build on the developments and strengths in the Y1 post and help trainees make a firm decision to commit to a career in a clinical academic field.

**Academic Competencies**

Formal assessment of the well-defined competencies has been one of the fundamental developments of the Foundation Programme. Four key academic competencies are taught in all Birmingham academic F2 rotations.
• Critical appraisal and literature review
• Research governance, good clinical practice and ethics
• Research study design and planning
• Data interpretation and presentation of results

**Training to achieve academic competencies**

In posts in Birmingham trainees will have the opportunity

• Attend postgraduate research generic skills training provided by University of Birmingham Postgraduate School
• Attend Evidence Based Medicine training within Wellcome Trust Clinical Research Facility (CRF) at University Hospital Birmingham Foundation Trust
• Complete a clinical audit
• Either [1] develop a research project: either clinical or laboratory or [2] complete a written review article
• Improve their presentation skills

**Clinical Competencies**

The expectation is that most of the main F2 clinical competencies would be achieved in the two “non-academic” placements. However, there is ample opportunity to gain competencies in this 4 month rotation with both out-patient and in-patient work in Rheumatology.

**Academic Supervision**

During the academic module, trainees will receive academic and clinical mentorship from one of the academic team (Professor Buckley, Professor Gordon, Dr Raza).

**The People**

• Chris Buckley: Arthritis Research UK, Professor of Rheumatology
• Caroline Gordon: Professor in Rheumatology
• Karim Raza: Reader in Clinical Rheumatology
• Paola de Pablo: Clinical Lecturer
• Deva Situnayake: Consultant Rheumatologist
• David Carruthers: Consultant Rheumatologist
• Rao Elamanchi: Consultant Rheumatologist
• Karl Grindulis: Consultant Rheumatologist
• Fazal Kattak: Consultant Rheumatologist

**Background**

**Academic environment**

Academic Rheumatology in Birmingham is ideally placed to act as a focus for translational clinical research, where a clear understanding of how immune cells behave in inflamed microenvironments is likely to be of critical importance for future translational medicine.
The academic Department of Rheumatology has focused on collaborative interactions along lines of common interests. Such collaborations between Rheumatology and Cardiology at SWBH Trust and Endocrinology at the UHB Trust have been at both a basic science level as well as sharing in the joint supervision of clinical fellows. This has provided a clear focus on important biological questions that cross traditional disciplines and often require long-term commitment and investment. Our collaborative, cross-speciality based approach has provided a model for “themed” research within the MRC Centre for Immune Regulation. We have a longstanding commitment to designing clinically relevant questions that can be addressed scientifically and then applied therapeutically. This academic programme is only one of a very few fully integrated academic training programmes in the West Midlands and offers the potential for seamless transition between academic Foundation Y1 and Y2 posts, an academic clinical training fellowship (ACF) in Rheumatology (based at UHB and SWBH Trust) and two Clinical Lecturerships in Rheumatology

**Academic environment**

We run a substantial research group comprising over 30 research scientists and clinicians. Our research focuses on why inflammation persists and this model has become an internationally accepted paradigm for rheumatoid pathology. Our basic science studies have proved critically important in driving the clinical models that we investigate. Whilst clinical research has historically been focussed on vasculitis and SLE, more recently we have developed clinical intervention studies in patients with very early rheumatoid arthritis. This work also provides an axis for collaborative interaction between the basic scientists of the MRC Centre for Immune regulation and more clinically-based researchers at City Hospital (SWBH trust) and the Wellcome Trust Clinical Research Centre. Our current research funding totals over £5.0 million of which the arc and MRC provide for for two, five year, core funding programmes. This research portfolio has both independent and interdependent strands allowing for focussed and consistent research output that is central to a strong and vibrant academic environment. We have a good track record of industrial collaborations addressing key clinical scientific questions. A key attraction of Birmingham is its co-ordinated approach to studying how cells behave within stromal microenvironments and a clear link from science to well validated clinically relevant targets.

**Clinical environment**

Rheumatologists in Birmingham have an outstanding opportunity to develop a unique platform for clinical research. A tradition and culture of collaboration exists, sharing both clinical experiences and participating in ongoing audit and education within the West Midlands (see Rheumatology (2002) 41:1021 and 2003 42:856). There are excellent links between the West Midlands Rheumatology Services and Training Committee (WMRSTC), Post Graduate Deanery, and the University. The patient base in the West Midlands provides enormous opportunity, but requires a co-ordinated academic forum to achieve
its potential. The Academic Clinical Unit is based at Sandwell and West Birmingham Hospital Trust but Dr Andrew Filer and Ben Fisher have been appointed as Senior Lecturers in Rheumatology at UHB NHS Foundation Trust. The main portfolio of Clinical Research at City Hospital is in early Inflammatory arthritis, SLE and vasculitis.

**Management and Mentoring**

Each trainee will be assigned an academic mentor (from among Buckley, Gordon, Raza). The Rheumatology academic mentor will also act as the trainee’s clinical supervisor during the Rheumatology placement. The Educational Supervisor will either be the Rheumatology academic mentor or a clinical supervisor from Cardiology/General practice (depending on which placement the trainee starts in). The academic department of Rheumatology has consistently attracted Arthritis Research UK, MRC, BHF and Wellcome trust funding for Clinical Training, Clinician Scientist and Senior Clinical Fellows in the last decade. The posts will join two other posts (standard SpR and ST1 post) (and an academic F1 post) based at City Hospital so there will be peer support and critical mass. There is explicit support from NHS, University and Post Graduate Deanery for this post and its future development. We have successfully used this approach to guide and develop SpRs who rotate through our unit to obtain training fellowships leading to PhDs or MDs. We are very keen to encourage trainees to develop an understanding of the bottlenecks in translational medicine (see "Lost in Translation"J Exp Med Nov 2005).

**Support, Location and Infrastructure**

The Y1 and Y2 posts will be based at City Hospital (SWBH Trust) and the trainee employed by the Trust. There is an excellent teaching programme (Gordon and Carruthers run programmes in Undergraduate and post graduate teaching) and innovative approaches to NHS/academic partnerships through strong links with GPs and PCTs for research in our early arthritis and SLE. Trainees will therefore be exposed to a wide variety of international quality basic science, clinical and educational environments.

We have a very strong track record in academic FY1 and FY2 trainees producing work which has been presented at local, national and international meetings and which has resulted in publications in high quality peer reviewed journals.

**Timetable**

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<tr>
<td>AM</td>
<td>MDT meeting (M8) and Ward Round</td>
<td>Early Arthritis clinic Dr Raza</td>
<td>Research</td>
<td>SLE Clinic Prof Gordon</td>
<td>Research</td>
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<td></td>
<td>Lunchtime weekly grand round (City)</td>
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2. **General Practice**

The practice (HWMC) provides a GP service to patients in the area of Handsworth Wood, Handsworth, and parts of Perry Barr, Great Barr, Aston, and other areas. We also provide a service to the students at the University of Central England, with branch surgeries at Perry Barr, Edgbaston, Gosta Green and in the City Centre near the Repertory Theatre. These two groups of patients could not be more diverse.

Inner City General Practice is a distinct speciality within the sphere of Family Practice as a whole. Many inner city practices have one or two areas that can be defined as almost suburban, for example, parts of Handsworth Wood, but generally speaking the problems encountered are quite specific. For example, relatively fewer ‘nuclear families’ exist, the unmarried or single parent being more commonly found.

A wide variety of ethnicities and religious beliefs exist in relative harmony, but bring their own problems too. Many patients from the Indian subcontinent speak little or no English, and require interpreter services. More recently, large numbers of political asylum seekers from Eastern Europe, Asia and Africa have placed additional demands on the typical inner city practitioner. Our practice currently reflects a population of approximately 30% Indo-Asian, 30% Afro-Caribbean, 30% Caucasian, and 10% other, including 5% constituting asylum seekers of various nationalities.

The inner city sees more drug-associated problems, and the demands on Social Services are also higher. Large numbers of patients with Afro-Caribbean and Asian backgrounds lead to a greater incidence of diabetes and associated complications such as ischaemic heart disease, stroke, blindness and kidney problems.

The four months spent in General Practice as an F2 as part of the academic rotation will expose you to the variety of medicine and our aim is to give you a solid grounding in all aspects of medicine, in order to complement the academic speciality of the rotation. Through the daily practice of seeing patients in consultations, home visits and the variety of clinics offered in the practice educational opportunities will occur.

You will be part of a team of a large inner city teaching practice that is involved in training of medical students, GP registrars, nurses and other healthcare workers. A daily supervision schedule is used so that F2 doctors can learn on the job.
Educational Supervisor in Handsworth Wood is Dr Simon Butler.

**Educational Opportunities**

- F2 teaching
- Consultations
- Sitting in with practice nurse, pharmacist, practice manager, admin staff
- Case discussion with other clinicians at Practice
- Video consultation and discussion
- Time management of patient consultations
- Practice-based audit

**Additional Specific Conditions**

- Identifying emergencies and responding appropriately after discussion with trainer
- Health promotional issues and notifiable diseases
- Meningitis pack and protocols
- Ethical and medico-legal issues including consent, under 16 contraception, child protection issues etc.
- Prescribing issues in Practice

**Additional Procedures**

- Minor surgical procedures - observing and assisting
- Diabetic clinics
- Emergency drugs and instrument handling
- Infection control including understanding of autoclave of instruments
- Prof Buckley, Prof Gordon and Dr Raza run a community based Rheumatology clinic at HWMC on Tuesday afternoon. The Academic F2 doctor based in General Practice will attend that clinic whenever possible.

**Notes**

- Importance of team working and probity

3. **General “Internal” Medicine and Cardiology**

The Cardiology Departments at City and Sandwell Hospitals are fully integrated and serve a 500,000 population - an area with a high SMR for cardiovascular disease, in which uptake of health care is less than optimal.

We perform a large range of outpatient cardiac investigations as well as providing a full range of elective and emergency cardiac care on both sites (with the exception of cardiac surgery and advanced electrophysiology).

This post is based on the City Hospital site where there are 5 consultat cardiologists, one Cardiology SpR, one clinical lecturer, one clinical fellow, four F2/CT’s and one F1.
F2 Work Patterns
You will work with us for four calendar month blocks. The General Medical Rota commitments of your three ST1-2 colleagues mean that one of them may be absent for all or part of at least one day a week doing general medical on-take’ duties etc. As the F2 you will have two weeks of 11-7 shifts on MAU, for your acute medicine experience. There are four ‘jobs’ – three split and one job as cardiology Cover junior see below (NB the F1 post is supernumerary). There is no outpatient commitment although you are encouraged to attend when possible for educational purposes. You will spend approximately one month doing each job, but his depends on annual leave and on call commitments of your other team members.

ST1-2 and F2 Work Patterns
You will work with us for four months in four calendar month blocks. The General Medical Rota commitments of your three ST1-2 colleagues mean that one of them may be absent for all or part of at least one day a week doing general medical ‘on-take’ duties etc. There are four ‘jobs’ – three split geographically and one job as cardiology Cover SHO – see below (NB a new F1 post is supernumary). There is no outpatient commitment although you are encouraged to attend when possible for educational purposes.

Job 1 and 2 ACS Female and ACS Male
Start Time: 08:30am. This post is responsible for the day to day care of all patients on ACS Female or ACS Male. An important part of your job is to ensure rapid patient turnover, as there is great pressure on these beds. You should work closely with the clinical fellows who will do a full ward round with you each day – calling for advice when needed.

A consultant ward round occurs every morning starting at 8.30am on ACS Female – we run a ‘consultant of the week’ system. Once the ACS Female ward round is complete the ACS male round will start. The consultant will see all monitored patients and any patient that have arrived on the ward after the last ward round (except for elective admissions for procedures – these patients will be reviewed by the operating consultant). That consultant will be available 8.30 – 5pm if you have any problems during the day and a registrar is also available for advice. You will lead the 8.30am round and should handover to the 11-7 junior before 4.30pm (if on duty).

There are no outpatient commitments.
You should leave the hospital by 4.30pm each day.

Job 3 – Post 11am – 7pm
Start time 11.00 am. This post is to ensure adequate cover for the patients going to the cath lab later in the day, and to provide an opportunity for relative consultation during evening visiting. This post will also be responsible for the paperwork on the daycase unit in the afternoon. Handover of the relevant patients/jobs on ACS should occur at 4pm allowing the early team to go on time.

There are no outpatient commitments.
You should leave the hospital by 7pm each day.
**Job 4- Duties COVER** This post is the first cover for anyone who is away (including the haematology Core Trainee) – be it on leave, or on general medical take, pre and post nights etc. Start and finish times will then be as for that post. If you take annual leave during this part of the job it is your responsibility to work out the F2/CT’s timetable for the period of your leave and discuss it with Dr Millane in advance.

When you are in the hospital and there are 3 F2/CT’s you should help your colleagues on ACS starting at 8.30am. You should take any opportunity you can to attend Cardiology Outpatients where you will be supernumary – each patient you see should be discussed with the consultant – i.e. this is Teaching Clinic for you. You should leave the hospital by 4.30pm each day

**PROTECTED TIME TO ATTEND F2 TEACHING**
The F2 will be expected to attend the F2 teaching afternoon at either Sandwell and West Birmingham Hospitals or Queen Elizabeth Hospital.

**MENTORING – CLINICAL SUPERVISORS**
The F2 post is mentored by Professor Lip whilst in Cardiology.

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<th>DAY</th>
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<th>MEETING</th>
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<tr>
<td>Monday</td>
<td>13.00 – 14.00</td>
<td>Grand Round</td>
<td>Post Grad Centre</td>
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<tr>
<td>Tuesday</td>
<td>13.00 -13.45</td>
<td>ECHO meeting</td>
<td>Echo room, D2</td>
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<tr>
<td>Wednesday (except 1st Wed – closed academic meeting)</td>
<td>13.00 – 14.00</td>
<td>Department Meeting Clinical and Research Lunch provided</td>
<td>Conference Room, Ascot Building</td>
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<tr>
<td>1st Wednesday</td>
<td>13.00 – 14.00</td>
<td>Clinical Meeting for juniors (Dr Varma)</td>
<td>Post graduate Centre</td>
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<td>Thursday</td>
<td>12.30 – 13.15</td>
<td>Angio Meeting</td>
<td>D2 Cath lab Conference Room</td>
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<td>Second Thursday</td>
<td>08.00 – 09.15</td>
<td>Cardiac Surgical Meeting</td>
<td>Conference Room D2</td>
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<td>Friday</td>
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<td>Registrar</td>
<td>Junior teaching (D5)</td>
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<td>Third Friday</td>
<td>08.15 – 09.30</td>
<td>Angioplasty meeting</td>
<td>Conference Room D2</td>
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<tr>
<td>Fourth Friday</td>
<td>13.00 – 14.00</td>
<td>Nuclear Cardiology</td>
<td>Nuclear Med Conf Room in Xray (Cardiology SpR)</td>
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**ACADEMIC F2 GENERAL MEDICAL ON CALL ROTA**
Whilst in cardiology, you will spend 2 periods of 1 week each covering acute admissions to the MAU. Here you will take part in consultant led ward rounds, clerk acute admissions and formulate action plans.

This post is currently unbanded.
This rotation will consist of:
1. 4 months academic rheumatology (Prof Buckley/Prof C Gordon /Dr Raza)
2. 4 months acute medicine and cardiology (Dr J Khan)
3. 4 months Gynaecological Oncology surgery (Prof D Luesley)

1. Rheumatology
The aim is to give the post holder a taste for academic rheumatology to see if academic medicine and/or rheumatology would be a career possibility for the future. The rheumatology unit has a long track record and interest in successfully training medical students and junior doctors at all levels. In addition, the academic team includes a Lecturer, Senior Clinical Lecturers, Clinical Professor and Arthritis Research UK Professor. The academic unit is recognised nationally and internationally for its clinical and laboratory based research interests in inflammatory arthritis, lupus and vasculitis.

A key focus of the Rheumatology Research Group is to define those factors involved in the triggering and perpetuation of chronic inflammatory rheumatic diseases such as rheumatoid arthritis. The aim is to understand the aetiology of these diseases with the goal of identifying targets for more effective therapy. There is also considerable interest in the related systemic connective tissue diseases, particularly systemic lupus erythematosus, where particular strengths are in epidemiology and the management of complex disease. The research in Rheumatology combines clinical and non clinical scientists in an integrated programme. We particularly encourage clinicians in training to pursue research in depth leading to a PhD, taking advantage of the extensive links with the basic sciences departments within the Medical School and the wider University.

A holistic approach to patient management and training doctors in rheumatology and medicine is taken, as patients with inflammatory arthritis often present with, and are at risk of developing, co-morbid conditions, often related to their underlying inflammatory disease. In particular, the post-holder will be encouraged to assess the evidence base for medical practice, taught how to critically evaluate papers and introduced to the concepts involved in designing good clinical studies (outcome studies and trials). The trainee will develop a research project/ audit or review article and presentation skills. They will also be involved in clinical work including in-patients and out-patients, with particular emphasis on patients with inflammatory rheumatic diseases and the research into these diseases that the unit undertakes.

The general medicine and surgery components of this rotation will cover the GMC requirements for F1 training and the foundation programme curriculum.
All F1s at City Hospital take part in the management of acute medical and surgical admissions. Please see details in Rotation 7 for more information on the Academic Department of Rheumatology.

**Timetable**

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<tr>
<td>MDT meeting (M8) and Ward Round</td>
<td>Ward work or cover for Y2 Early Arthritis clinic Dr Raza</td>
<td>Ward work or cover for Y2 Ultrasound biopsy clinic (M8) with Dr Filer</td>
<td>Ward Round with Registrar cover for Y2 in SLE clinic Prof Gordon</td>
<td>Ward work or Research</td>
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<td>Lunchtime weekly grand round (City)</td>
<td>Generic Y1 Teaching</td>
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<td>PM</td>
<td>Ward work Alternate weeks X-Ray meeting</td>
<td>Ward work</td>
<td>Guest Speaker meeting, Lectures, Audit, Governance: University/City/ Selly Oak</td>
<td>Ward work or Research</td>
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2. **Cardiology and Acute Medicine**

The Cardiology Departments at City and Sandwell Hospitals are fully integrated and serve a 500,000 population - an area with a high SMR for cardiovascular disease, in which uptake of health care is less than optimal.

We perform a large range of outpatient cardiac investigations as well as providing a full range of elective and emergency cardiac care on both sites (with the exception of cardiac surgery and advanced electrophysiology).

This post is based on the City Hospital site where there are 5 consultant cardiologists, one Cardiology SpR, one clinical lecturer, one clinical fellow, three ST1-2, 1 F2 and this F1 post.

There is a general medical commitment details of which are given below.

**F1 Work Patterns**

You will work with us for four months in two blocks of 2 months. You will do a 2 month period on CCU and 2 months on D7, the general cardiology ward. During this time, you will be allocated to Acute Medicine Duties in the Medical Admissions Unit, and will also be allocated some general medical ward cover. There will be opportunities to experience cardiac care in its widest sense by allocations to our specialist services (echo, pacing, angiography) including our heart failure and rehabilitation services.

All duties will be Monday to Friday, rostered at times between 7am and 7pm. Total hours to be worked as per national guidelines.
Job 1 - Duties D7
You will be responsible for the day to day care of all Cardiology patients on D7 in conjunction with the Cardiology F2 or ST1-2. Registrar cover is provided on a daily basis by a cardiology Clinical Lecturer.

Job 2 - Duties CCU
There is a consultant CCU ward round every morning at 8.30am and a registrar available for advice at all times. Together with the F2/ST1-2, you are responsible for the hour to hour care of all patients on CCU. There is a 24 hour Primary Angioplasty service for patients with acute myocardial infarction – and you may be called to A&E to assist in processing these patients. You will also be called to A&E to see high risk coronary patients with dynamic ECG changes. You should take an active interest in cardiac patients in the Critical Care Unit. You should take any opportunity you can to attend Cardiology Outpatients where you will be supernumary – each patient you see should be discussed with the consultant – i.e. this is the Teaching Clinic for you.

Duties in Acute Medicine
You will be allocated to the Medical Admissions Unit (Dr Clare/ Dr Lee – Acute medicine physicians) for approximately one day a week to experience the care of unselected acute medical admissions. Additionally, general medical conditions are very common in cardiac patients, and you will learn to appreciate the particular challenges involved in managing these complex patients. You will be required from time to time, to provide ward cover to other general medical wards under supervision.

Teaching
There will be a one hour consultant-lead teaching session each week for F1/F2/ST1-2 in addition to the Trust F1 programme.

Mentoring – Clinical Supervisor
The F1 post is mentored by Dr Jawad Khan whilst in Cardiology.

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<td>13.00 – 14.00</td>
<td>Grand Round</td>
<td>Post Grad Centre</td>
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<td>Fourth Monday</td>
<td>16.30</td>
<td>Mr Dimitri (Surgeon)</td>
<td>Conference Room D2</td>
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<td>Tuesday</td>
<td>12.30-13.30</td>
<td>ECHO meeting</td>
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<td>Lunch provided</td>
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<td>Wednesday</td>
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<td>Lunch provided</td>
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<td>Second Thursday</td>
<td>08.00 – 09.15</td>
<td>Cardiac Surgical Meeting</td>
<td>Conference Room D2</td>
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<tr>
<td>Third Friday</td>
<td>08.15 – 09.30</td>
<td>Angioplasty meeting</td>
<td>Conference Room D2</td>
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### 3. General Surgery (Gynaecological Oncology)

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<th>Clinical Supervisor</th>
<th>Professor D Luesley</th>
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**Educational Opportunities (e.g. Ward Rounds, Clinics)**

- Weekly F1 Teaching (Tuesday lunchtime)
- Daily gynaecology ward rounds
- Pre/Post Op management of patients undergoing major surgery
- Participation in general surgical on call rota

Gained Experience in:

- Scrubbing and assisting in theatre
- Management of post-operative patients
- Routine ward care

Gained experience in the following additional procedures:

- Hysteroscopy
- Laparoscopy
- Basic surgical skills

**Main duties of the placement**

- Involves looking after all gynaecology inpatients (elective and emergency, taking referrals, and sometimes assisting in theatre)
- Participation in general surgical on call rota
- Gynaecology theatre – involving scrubbing in, assisting with minor and major procedures
- Gynaec outpatient clinic – to review new patients and present to the consultant

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**FOUNDATION YEAR TWO**

*(University Hospitals Birmingham Foundation NHS Trust & Birmingham Children’s Hospital Foundation NHS Trust)*

- This rotation will consist of:
  1. 4 months academic post (Dr Harper)
  2. 4 months acute internal medicine with endocrinology and diabetes mellitus (Dr Gittoes)
  3. 4 months general paediatrics (Dr Diwakar)

1. **Academic Post Consultant: Dr Harper**

   **Duties**

   It is envisaged that most clinical competencies will be obtained on the two “non-academic” posts. However, trainees will spend approximately 1 of the 4 months undertaking clinical duties on the renal ward. The approach to this is flexible and will be adapted to the research project(s) being undertaken. Trainees will have the opportunity to play an integral part in the research vasculitis clinic at the Wellcome Trust CRF.
Education

Academic Competencies

Formal assessment of the well-defined competencies has been one of the fundamental developments of the Foundation Programme. Four key academic competencies are taught in all Birmingham academic F2 rotations.

- Critical appraisal and literature review
- Research governance, good clinical practice and ethics
- Research study design and planning
- Data interpretation and presentation of results

Training to achieve academic competencies

In posts in Birmingham trainees will have the opportunity to

- Attend postgraduate research generic skills lectures provided by University of Birmingham Postgraduate School
- Attend Evidence Based Medicine training within Wellcome Trust Clinical Research Facility (CRF) at University Hospital Birmingham Foundation Trust
- Complete a clinical audit
- Develop a clinical or laboratory based research project. All three academic units have excellent publication records allowing provision of high quality supervision and opportunity to achieve this aim.
- Complete a written review article
- Improve their presentation skills

Research Opportunities

Nephrology is considered among the most academic of medical specialties and the academic renal unit at UHB/University of Birmingham engages in a wide range of clinical and laboratory-based research interests. The emphasis is on direct translation of scientific discoveries from laboratory to the clinic:

- Prof Lorraine Harper leads a laboratory that has international prestige in the arena of ANCA-associated vasculitis. Work in this laboratory ranges from in vitro studies examining the effect of ANCA on neutrophils, through flow chamber studies mimicking the state of physiological flow experienced in blood vessels, to in vivo studies investigating the role of ANCA in animal models of vasculitis. The latter make use of the powerful technique of intravital microscopy, which enable visualisation of microvascular events in real time. The laboratory is based in the 5* Division of Immunity and Infection and is part of the MRC centre for immune regulation based at the Institute of Biomedical Research. It has explicit translational medicine links with the Wellcome Trust CRF, where a number of interventional therapeutic studies are being undertaken.

- The work in Prof Harper’s laboratory complements that in the laboratories of Dr Paul Cockwell and Dr Simon Ball in the School of Immunity and Infection at University of Birmingham. Trainees would thus have the opportunity to become involved in innovative work investigating:
  - The role of immunoglobulin light chains in chronic kidney disease
  - The therapeutic benefit of light chain removal in myeloma renal disease
The impact of macrophage infiltration on progression of chronic kidney disease
The role of Natural Killer cell KIR-ligand receptors in renal transplantation and vasculitis
The impact of anti-HLA antibodies in renal transplantation

- All of the consultants in the renal unit are involved in co-ordinating clinical studies in patients with various renal diseases. These are either investigator-driven local studies or part of multi-centre industry-led studies, and most take place under the auspices of the Wellcome Trust CRF. Trainees will thus have the opportunity to become involved with one or more of the following studies:
  - Tolvaptan to slow progression of renal disease in adult polycystic kidney disease
  - Anti-TGFβ antibody therapy in focal segmental glomerulosclerosis
  - IV versus Oral Ganciclovir in treatment of CMV disease post renal transplantation
  - Spironolactone in chronic kidney disease
  - Mycophenolate mofetil and Abatacept therapy in ANCA-associated vasculitis
  - Calcineurin inhibitor minimisation in renal transplantation
  - Myfortic therapy in proteinuric renal disease

The 4-month attachment is designed to give the trainee the chance to begin a research project with a view to developing this into a full fellowship. In addition to this primary research project, the explicit aim of this attachment is to involve the trainee in a range of clinical research projects designed to provide direct exposure to ethics applications, database design and execution and raw data interpretation and presentation. At the beginning of the rotation, the trainee will engage in a “training needs analysis” with Dr Harper to ensure that the 4 months are employed as flexibly and usefully as possible.

2. Endocrinology and diabetes Mellitus
Consultant: Dr Narendran, research opportunities available in endocrinology

Duties
The Foundation Year 2 trainee will:
- Provide care to general medical inpatients alongside a SpR/ST4-5, Trust Grade/ST1 trainee and a F1 trainee. Regular SpR/ST and consultant led ward rounds will be held.
- Learn how to assess and manage adults with undifferentiated illness presenting to the Medical Assessment Unit.
- Be encouraged to attend general medical and endocrine outpatient clinics.
- Have opportunities to teach final year medical students.
3. **Paediatrics (Birmingham Children's Hospital)**

**Consultant:** Dr Diwakar, Consultant Paediatrician

**Consultants**
- Dr Geoff Debelle, Community Paediatrics/General Paediatrics/ Child Protection
- Dr Amanda Goldstein, General Paediatrics/Regional Advisor
- Dr Neil McLellan, General Paediatrics
- Dr Robert Sunderland, General Paediatrics/Epidemiology
- Dr Ian Wacogne, General Paediatrics/ Head of Department
- Dr Phil Debenham, General Paediatrics/ Allergy and Immunology
- Dr Deepthi Jhyothish, General Paediatrics / Child Protection
- Sister Gaynor Pettit, Advanced Nurse Practitioner

**Specialist Registrars**
- One Specialist Registrar in Paediatrics and Medical Education
- One Year 5 Specialist Registrar in Paediatrics
- Two Year 3 Specialist Registrar in Paediatrics

**Trainees**
- Seven (three GP trainees, two paediatric trainees, one Foundation Two trainee, two Foundation One trainees)

**Duties**
The Foundation Year 2 trainee will:
- Provide care to general paediatric inpatients alongside general practice and paediatric ST1 and 2 trainees and the other foundation doctors under the supervision of ST4-8 trainees and consultants
- Learn how to assess and manage children with undifferentiated illness presenting to the GP referral unit or referred from the emergency management
- Have opportunities to teach final year medical students under the supervision of the SpR in Medical Education and the Clinical Teaching Fellow
- Contribute to the Hospital at Night roster for the assessment of acute admissions to General Paediatrics at The Children’s Hospital

**Training**
Experience in assessment and management of children with undifferentiated illness and management of chronic multisystem disease.

**Education**
There is a formal clinical teaching programme for all General Paediatric doctors on 4 out of 5 weekdays. All our foundation doctors are funded to undertake the one day Paediatric Life Support (PLS) course at the start of their post. All Foundation SHOs have a protected half-day on Tuesdays to participate in the Generic Skills Education Programme.
FOUNDATION YEAR ONE
(Heart of England Foundation NHS Trust)

1. **Academic General Surgery (Vascular) Consultant: Mr Donald Adam**
The University Department of Vascular Surgery is at the vanguard of endovascular surgery in the region. The post holder will be provided with the opportunity to undertake one of a number of novel as well as on-going audit projects addressing topical issues in vascular and endovascular surgery. The post-holder will be given guidance in the preparation and writing of case reports, original articles and review articles.

2. **General Medicine/ Gastroenterology**
Consultant: Dr Chesner

3. **General Psychiatry**
Consultant: Professor Oyebode

FOUNDATION YEAR TWO
(Heart of England Foundation NHS Trust)

1. **Academic Respiratory Medicine**
   Consultant: Dr Alice Turner and Adele Mansur
   Largest respiratory department in the country which includes a specialist cystic fibrosis unit, sleep related conditions and occupational lung disease service. There will be opportunities to undertake a range of projects in any one of the varied departments, which includes possible projects with thoracic surgery.

2. **Emergency Medicine (Professor Cooke)**
   Consultant Educational Supervisors will be:
   - Professor Matthew Cooke, Professor of Emergency Medicine
   - Dr Ellen Jones, Consultant/ Senior Lecturer in Emergency Medicine

   **Duties**
The posts will operate from the Emergency Department of Heartlands Hospital as well as from the Health Services Research Institute of Warwick Medical School on the Gibbett Hill Campus of Warwick University.

   BHH has a purpose-built Emergency Department and sees approximately 90,000 patients per annum. The department has resuscitation facility of 5 beds, one of which is a paediatric facility. The department is separated into 2 areas, one for major injury and illness and the other for walking wounded and children, with 18 cubicles in total. There are trained Emergency Nurse Practitioners in the Department who can see, treat and discharge their own case load. The Department also benefits from Cardiac Triage nurses and a team of qualified children's nurses. In addition we have an 8 bedded clinical
decision unit. There are 10 Emergency Medicine consultants in the department and a large middle grade tier including 5 registrars.

As an F2 in the emergency department you will work on a full shift system with the rest of the Emergency team to provide high quality care to patients arriving at our department. We see patients with a wide variety of clinical conditions including major & minor injury & illness, paediatrics and psychiatry. Most acute specialties are available on site and we work closely with them. You will work in all areas of the department, including the resuscitation room. Each day will bring different challenges and there will be ample opportunity to achieve competencies required for F2.

Your clinical learning will be supported by your educational supervisor. 24 hour middle grade cover on the shop floor & extended hours consultant presence provide excellent shop floor supervision, direct observation and case discussion. Your post will begin with clinical induction and continue with a programme of Emergency Medicine teaching to help you provide good patient care and maximise learning from the job. You will also attend the local foundation programme teaching.

Research Opportunities
Trainees would be expected to work as part of a research team on existing projects or a selection of new projects, according to the particular interests of the trainee. It is envisaged that the trainee will undertake work that will lead to publication and presentations. There is a wide range of research being undertaken and candidates can access the areas most applicable to their interests. These include prehospital emergency care, emergency critical care, resuscitation, soft tissue injury, organisation of emergency care and serious gaming in healthcare. The research is linked to both the Warwick clinical trials unit and the Centre for clinical systems improvement (a joint initiative of the NHS institute for Innovation and Improvement and Warwick University). Full details of the programme are available at www.warwick.ac.uk/go/emergencycare

Education
The trainees will have tailored education in emergency care research as well as having access to relevant modules of the Masters in Applied Health sciences. The trainee will be expected to register and work for a Post Graduate Award in 'research methodology and critical appraisal' at Warwick University. Research meetings at the hospital are held regularly in both critical care and emergency medicine.

All Foundation trainees will have a protected half day on Thursday afternoon to attend the Generic Skills teaching programme.

3 General Practice
ROTATION 10

FOUNDATION YEAR ONE
(University Hospital of North Staffordshire NHS Trust)

This rotation will consist of:

<table>
<thead>
<tr>
<th>Post 1</th>
<th>Post 2</th>
<th>Post 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paediatrics</td>
<td>General Surgery – Upper GI</td>
<td>General Medicine - AMU</td>
</tr>
</tbody>
</table>

The Keele Academic F1 posts are all designed to provide extremely good general clinical experience, particularly focusing on ensuring robust acute medical exposure. This is to allow the candidate to focus almost exclusively on the academic post in the F2 rotation, creating the opportunity to produce academic outputs prior to job applications for further posts. During these posts, it is expected that the trainee will liaise with their subsequent academic supervisor to start preparations for the subsequent project.

All academic trainees on Keele University rotations (rotation 10, 11 and 12) will obtain core skills in research methods by attending a 5 day Masters level course that attracts 15 M level credits. This course is widely respected and covers pertinent aspects of study design, research ethics and statistical analysis.

Both General Surgery (Upper GI) and the Medical Admissions (AMU) at UHNS are widely recognised as providing exceptional breadth of experience within a supportive environment. The Paediatric Department is one of the largest in the country with a number of sub specialty areas receiving tertiary care referrals, and is one of the most popular training locations on the paediatric training rotations.

FOUNDATION YEAR TWO

<table>
<thead>
<tr>
<th>Trainee 1</th>
<th>First post</th>
<th>Second post</th>
<th>Third post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic Diabetes and Endocrinology</td>
<td>General Practice</td>
<td>Acute Internal Medicine</td>
</tr>
<tr>
<td>Trainee 2</td>
<td>Academic General Practice</td>
<td>Acute Internal Medicine</td>
<td>Diabetes and Endocrinology</td>
</tr>
<tr>
<td>Trainee 3</td>
<td>Academic Acute Internal Medicine</td>
<td>Diabetes and Endocrinology</td>
<td>General Practice</td>
</tr>
</tbody>
</table>

The academic portion of this rotation is based on the first post, and the majority of the candidates’ time during this post would be expected to be dedicated to academic work. All of these posts have a dedicated academic supervisor, who will help the post holder develop a project that suits their interests.
Post holders will have academic appraisals based on academic competencies for academic foundation trainees, covering

Generic and applied research skills
Research Governance
Communication/Presentation skills and Education

Specific competencies within these areas will be agreed based on the nature of the project with the academic supervisor, and formal assessment will occur throughout the rotation.

1. **Academic Diabetes and Endocrinology**

The academic trainee will be jointly supervised by one of the clinicians within the department, and on the academic side, by the Professor of Clinical Biochemistry, Anthony Fryer. In the course of producing 158 authored papers, Professor Fryer’s research has covered subjects including

- The impact of maternal folate supplementation during pregnancy on fetal epigenome..
- Genetic and environmental risk factors for skin cancer in renal transplant recipients: use of statistical modelling approaches to predict risk

The interaction with the diabetes team includes an NIHR funded project examining the use of diabetes testing as a model to examine drivers of, and methods of reducing, inappropriate use of pathology testing, the use of breath analysis in diabetes control and how to predict dysglycaemia in acute coronary syndromes.

2. **Academic General Practice**

Our internationally renowned research programme in pain and musculoskeletal disorders in primary care is underpinned by high-quality cohorts and randomised clinical trials (with linkage to medical records) and supported by qualitative research.

Our overall aim is to deliver high quality multidisciplinary research designed to improve the content, delivery and configuration of primary care for the benefit of patients with musculoskeletal conditions.

The programme in academic general practice is led by Professor Christian Mallen and Dr Joanne Protheroe.
The objectives of our research are:

- To provide reliable estimates of the occurrence and distribution of pain and musculoskeletal disorders in the population, and their long-term impact on population health and working life [population epidemiology]
- To describe the long-term course of pain and musculoskeletal disorders and identify risk factors for their onset, persistence and progression as potential targets for intervention [population and clinical epidemiology]
- To characterise the patterns of primary care consultation, diagnosis, episodes and outcomes of care for pain and musculoskeletal disorders using routinely collected information from medical records [consultation epidemiology]
- To provide evidence and develop practical tools to inform clinical decision making and assist in the assessment, diagnosis, prognosis, and monitoring of individual patients with pain and musculoskeletal disorders in primary care [clinical epidemiology]
- To evaluate the clinical and cost-effectiveness of existing and new interventions and models of care for pain and musculoskeletal disorders, with special emphasis on individualising care and optimising the role of the multidisciplinary primary care team [trials]
- To provide up-to-date syntheses of research evidence on pain and musculoskeletal disorders for stakeholders (researchers, service managers, practitioners, public/patients, funders, and policy-makers) [systematic reviews and meta analysis]
- To explore the personal experience and impact of pain and musculoskeletal disorders and people’s expectations and experiences of primary health care [qualitative research and social science]
- To explore and evaluate ways of involving patients in formulating research questions and designing appropriate, credible interventions [patient and public involvement]
- To develop, test and apply innovative methodology in primary care research [methodology]
- To test the feasibility of incorporating interventions shown to be effective in research projects, into clinical practice [Clinical effectiveness and implementation]
- To improve awareness and knowledge of pain and musculoskeletal disorders and their management among the general public and primary health care practitioners

For those contemplating a career in academic general practice, this post would strengthen an application for the Keele University academic GP training programme, an innovative 4 year programme that leads to a Masters in Medical Science degree, integrated with the clinical programme. Recent graduates from this programme have already become established locally in joint clinical/academic careers and five have the distinction of being awarded Arthritis Research UK or NIHR Primary Care Fellowships to do a PhD.

The centre combines current strengths in clinical health research at Keele University and our NHS partners in North Staffordshire, related to primary
care, the interface between primary and secondary care, and in education research. A close relationship exists between Academic Rheumatology Haywood at the Hospital and the Arthritis Research Campaign National Primary Care Centre at Keele University - the Keele Haywood Arthritis Partnership (KHAP). The post will have access to research projects from within the KHAP partnership. Academic and clinical mentors will usually have formal links to one or both research units.

The university has strongly supported primary care musculoskeletal research. A £3,000,000 funding initiative for purpose-built offices to house our group was completed in 2004 and has been integrated with development of academic capacity by investment in early-experience researchers. Since 2001, the University has promoted 10 post-doctoral staff in the group to University Lectureships and Senior Lectureships.

3. Academic Acute Internal Medicine

The Acute Medical Unit within University Hospital of North Staffordshire is one of the busiest in the region, serving a population that has one of the highest levels of multimorbidity in the country. The academic trainee will be jointly supervised by one of the clinicians within the department, and on the academic side, by the Professor of Nephrology and Dialysis Medicine, Simon Davies. Professor Davies is currently the clinical director of the Institute of Science and Technology in Medicine, is developing the Health Sciences Research Unit, and along with a member of the highly successful primary care centre co-leads the study of multimorbidity.

This provides a wide breadth of subjects in which the trainee could develop their project, in combination with advice and support from the supervisors.
ROTATION 11

FOUNDATION YEAR ONE
(Mid-Staffordshire NHS Foundation Trust)

This rotation will consist of:

<table>
<thead>
<tr>
<th>Post 1</th>
<th>Post 2</th>
<th>Post 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rheumatology (Dr S Baskar)</td>
<td>Medicine (General &amp; EAU) (Dr S Hussein)</td>
<td>General Surgery &amp; Upper Gastrointestinal Surgery (Mr Khan)</td>
</tr>
</tbody>
</table>

The Keele Academic F1 posts are all designed to provide extremely good general clinical experience, particularly focusing on ensuring robust acute medical exposure. This is to allow the candidate to focus almost exclusively on the academic post in the F2 rotation, creating the opportunity to produce academic outputs prior to job applications for further posts. During these posts, it is expected that the trainee will liaise with their subsequent academic supervisor to start preparations for the subsequent project.

All academic trainees on Keele University rotations (rotation 10, 11 and 12) will obtain core skills in research methods by attending a 5 day Masters level course that attracts 15 M level credits. This course is widely respected and covers pertinent aspects of study design, research ethics and statistical analysis.

The rheumatology job is based at the department in Cannock Chase Hospital, which is a regional centre for musculo-skeletal and locomotive problems with an integrated rheumatology and elective orthopaedic unit. Dr Baskar works within a team which has a long-standing pedigree of producing multidisciplinary clinical rheumatological research and presenting at National and International Rheumatology meetings.

The F1 will be expected to participate in an on call rota during all posts to enable them to obtain the competences required for satisfactory completion of the F1 year and for GMC registration.

FOUNDATION YEAR TWO
(University Hospital of North Staffordshire NHS Trust)

This rotation will consist of:

<table>
<thead>
<tr>
<th>Trainee 1</th>
<th>First post</th>
<th>Second post</th>
<th>Third post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic Nephrology (Renal Medicine)</td>
<td>General Practice</td>
<td>Obstetrics and Gynaecology</td>
</tr>
<tr>
<td>Trainee 2</td>
<td>Academic General Practice</td>
<td>Obstetrics and Gynaecology</td>
<td>Nephrology (Renal Medicine)</td>
</tr>
<tr>
<td>Trainee 3</td>
<td>Obstetrics and Gynaecology</td>
<td>Nephrology (Renal Medicine)</td>
<td>General Practice</td>
</tr>
</tbody>
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Post holders will have academic appraisals based on academic competencies for Academic foundation trainees, covering

Generic and applied research skills
Research Governance
Communication/Presentation skills and Education

Specific competencies within these areas will be agreed based on the nature of the project with the academic supervisor, and formal assessment will occur throughout the rotation.

1. Academic Nephrology

**Academic Supervisors**
Prof Simon Davies  
Dr. Mark Lambie

**Clinical Supervisors**
Dr. Dominic De Takats  
Dr. Kerry Tomlinson  
Dr. Chris Thompson  
Dr. Madhu Menon  
Dr. Sat Reddy  
Dr. Julie Wessels

**Background**

The research within nephrology is undertaken as part of the Institute of Science and Technology in Medicine, but also as a major part of the speciality cross-cutting Health Services Research Unit. This provides a unique opportunity to engage in either translational research through the strong engineering background of ISTM, or to utilise the analytical strengths of the HSRU with clinically based research.

**Research**

The renal department has an international reputation for its research on peritoneal dialysis patients, which includes the pathophysiology of the peritoneal membrane and accrual of damage over time, inflammation within the peritoneum and systemically, dialysate composition, epidemiology, multimorbidity, body composition, assessment of fluid balance and breath
analysis including flowing afterglow mass spectrometry. A significant portion of this work is developing and leading large international multicenter studies. The research focus is primarily clinical although opportunities for more laboratory based research do exist through established collaborations with colleagues both within Keele and elsewhere.

Most consultants co-ordinate clinical trials within the unit, providing further opportunities for work on trials in Autosomal Dominant Polycystic Kidney Disease, Myfortic acid in glomerulonephritis, use of intravenous iron in CKD, and numerous others.

2. Academic General Practice

Our internationally renowned research programme in pain and musculoskeletal disorders in primary care is underpinned by high-quality cohorts and randomised clinical trials (with linkage to medical records) and supported by qualitative research.

Our overall aim is to deliver high quality multidisciplinary research designed to improve the content, delivery and configuration of primary care for the benefit of patients with musculoskeletal conditions.

The programme in academic general practice is led by Professor Christian Mallen and Dr Joanne Protheroe.

The objectives of our research are:

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- To describe the long-term course of pain and musculoskeletal disorders and identify risk factors for their onset, persistence and progression as potential targets for intervention [population and clinical epidemiology]
- To characterise the patterns of primary care consultation, diagnosis, episodes and outcomes of care for pain and musculoskeletal disorders using routinely collected information from medical records [consultation epidemiology]
- To provide evidence and develop practical tools to inform clinical decision making and assist in the assessment, diagnosis, prognosis, and monitoring of individual patients with pain and musculoskeletal disorders in primary care [clinical epidemiology]
- To evaluate the clinical and cost-effectiveness of existing and new interventions and models of care for pain and musculoskeletal disorders, with special emphasis on individualising care and optimising the role of the multidisciplinary primary care team [trials]
- To provide up-to-date syntheses of research evidence on pain and musculoskeletal disorders for stakeholders (researchers, service managers,
practitioners, public/patients, funders, and policy-makers) [systematic reviews and meta analysis]

- To explore the personal experience and impact of pain and musculoskeletal disorders and people’s expectations and experiences of primary health care [qualitative research and social science]
- To explore and evaluate ways of involving patients in formulating research questions and designing appropriate, credible interventions [patient and public involvement]
- To develop, test and apply innovative methodology in primary care research [methodology]
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For those contemplating a career in academic general practice, this post would strengthen an application for the Keele University academic GP training programme, an innovative 4 year programme that leads to a Masters in Medical Science degree, integrated with the clinical programme. Recent graduates from this programme have already become established locally in joint clinical/academic careers and five have the distinction of being awarded Arthritis Research UK or NIHR Primary Care Fellowships to do a PhD.

A 2-year academic F1 through F2 post designed to encourage the best and most highly motivated medical graduates to consider clinical academic careers from this early stage. They provide excellent clinical experience and supervision, together with protected time and high-level support to learn about different aspects of research and medical education.

The centre combines current strengths in clinical health research at Keele University and our NHS partners in North Staffordshire, related to primary care, the interface between primary and secondary care, and in education research. A close relationship exists between Academic Rheumatology Haywood at the Hospital and the Arthritis Research Campaign National Primary Care Centre at Keele University - the Keele Haywood Arthritis Partnership (KHAP). The post will have access to research projects from within the KHAP partnership. Academic and clinical mentors will usually have formal links to one or both research units.

The university has strongly supported primary care musculoskeletal research. A £3,000,000 funding initiative for purpose-built offices to house our group was completed in 2004 and has been integrated with development of academic capacity by investment in early-experience researchers. Since 2001, the University has promoted 10 post-doctoral staff in the group to University Lectureships and Senior Lectureships.
3. Academic Obstetrics and Gynaecology

The academic obstetrics and gynaecology department is led by Prof Shaughn O’Brien, who is being joined by a recently appointed professor, strengthening further one of the most productive academic departments at University Hospital North Staffordshire.

Obstetrics research areas include pre-eclampsia, fetal monitoring by computerised ECG and Near Infra-Red Spectoscopy, labour ward management including instrumental delivery and perineal trauma.

Prof O’Brien’s gynaecological research and writing has covered gynaecological endocrinology, menopause with his most notable output in the field of medical and diagnostic gynaecology, disorders of the menstrual cycle, particularly disorders of the menstrual cycle and premenstrual syndrome.

ROTATION 12

FOUNDATION YEAR ONE
(University Hospital of North Staffordshire NHS Trust)

This rotation consists of:

<table>
<thead>
<tr>
<th>Post 1</th>
<th>Post 2</th>
<th>Post 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>General “Internal” Medicine (Gastroenterology)</td>
<td>Trauma Orthopaedic Surgery &amp; Emergency Medicine</td>
<td></td>
</tr>
</tbody>
</table>

The Keele Academic F1 posts are all designed to provide extremely good general clinical experience, particularly focusing on ensuring robust acute medical exposure. This is to allow the candidate to focus almost exclusively on the academic post in the F2 rotation, creating the opportunity to produce academic outputs prior to job applications for further posts. During these posts, it is expected that the trainee will liaise with their subsequent academic supervisor to start preparations for the subsequent project.

All academic trainees on Keele University rotations (rotation 10, 11 and 12) will obtain core skills in research methods by attending a 5 day Masters level course that attracts 15 M level credits. This course is widely respected and covers pertinent aspects of study design, research ethics and statistical analysis.

FOUNDATION YEAR TWO
(University Hospital of North Staffordshire NHS Trust)

This rotation will consist of:
<table>
<thead>
<tr>
<th>Trainee 1</th>
<th>First post</th>
<th>Second post</th>
<th>Third post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic Rheumatology</td>
<td>General Practice</td>
<td>Geriatric Medicine</td>
</tr>
<tr>
<td>Trainee 2</td>
<td>Academic General Practice</td>
<td>Geriatric Medicine</td>
<td>Rheumatology</td>
</tr>
<tr>
<td>Trainee 3</td>
<td>Academic Geriatric Medicine</td>
<td>Rheumatology</td>
<td>General Practice</td>
</tr>
</tbody>
</table>

The academic portion of this rotation is based on the first post, and the majority of the candidates’ time during this post would be expected to be dedicated to academic work.

Academic competencies covered are based on those described for Academic Clinical Fellows and Clinical Lecturers, covering:

- Generic and applied research skills
- Research Governance
- Communication/Presentation skills and Education

Specific competencies within these areas will be agreed based on the nature of the project with the academic supervisor, and formal assessment will occur throughout the rotation.

1. Academic Rheumatology / Musculoskeletal Research

The Musculoskeletal Research Centre incorporates distinct research groups as follows:

**The Arthritis Research UK Primary Care Centre (ARUKPCC)** forms a strong collaboration between academics from primary care, clinical rheumatology, epidemiology, physiotherapy, psychology, pharmacy, ageing research and health services research, and its clinical partner the **North Staffordshire Primary Care Research Consortium**.

The main areas of research interest are:

(i) research into musculoskeletal conditions and chronic pain, focused on joint pain and osteoarthritis, back pain and widespread and regional pain

(ii) primary care and public health research in these areas, embracing allied health care professions and general practice

(iii) a strong track record in epidemiological research, trials and mixed methods involving qualitative research

(iv) a strong commitment to ensuring that research findings contribute to evidence-based practice, health policy and guidelines, and development of enhanced scope practitioners and related training

**Our main NHS research partners are**

(i) The local Primary Care Research Consortium, whose research programme is coterminous to that of the ARUKPCC
(ii) The North Staffordshire NHS Hospital Trusts Research Consortium, who support rheumatology and pain research across the primary / secondary interface.

**The Academic Rheumatology Research Group** from the Haywood Hospital, Staffordshire Rheumatology Centre, who have:

(i) a strong 20-year track record of clinical research and trials in rheumatology  
(ii) a research agenda focused on the interface between primary and secondary care into the management of musculoskeletal conditions and chronic pain  
(iii) a nationally renowned programme of medical education research and evaluation of practice  
(iv) a close relationship with laboratory based research with a true ‘bench to bedside’ ethos, combining clinical epidemiology with genetics and cytokine analysis, producing novel and internationally recognised research.

**The Medical and Inter-professional Education Research Group** includes a developing programme of evaluation research led by Professor Richard Hays and Prof Andrew Hassell linked to the establishment of the new Medical School. A programme of educational research on the acquisition of clinical skills. This includes an Arthritis Research Campaign (arc) funded randomised controlled trial of innovative educational methods in musculoskeletal disease for medical undergraduates and an arc Educational Fellowship on development of communication skills in the Rheumatology consultation.

**Main and developing research themes:**

**The occurrence, impact, treatment and outcome of pain and arthritis.**  
**Primary care and public health.**

A multi-disciplinary programme and innovative partnerships with clinicians and the NHS Primary Care Research Consortium underpins a series of linked epidemiological and qualitative research studies, and a continuing programme of randomised controlled trials to investigate assessment, management and early prevention of pain and disability in primary care.

a. **Research at the interface between primary and secondary care.** This includes a programme of trials in arthritis care at the Haywood Hospital, funded by the MRC, ARC, NHS Executive, various pharmaceutical companies and charitable foundations, and the Haywood Rheumatism Research and Development Foundation (HRRDF). New Clinical Academic posts in Rheumatology are developing a programme that is specifically concerned with research into referral from primary care and care pathways and outcomes for patients suffering from joint pain, osteoarthritis and chronic pain, and early rehabilitation of patients.

b. **Occupational studies.** A multi-disciplinary programme, which aims to explore the influence of painful conditions on sickness absence, and on performance in the workplace among those who are not absent from work.
Arthritis Research UK Primary Care Centre team
- Elaine Hay: Professor of Community Rheumatology, Director ARUK PCC
- Christian Mallen, Professor of General Practice
- Jon Packham: Honorary Senior Lecturer/Consultant Rheumatologist
- Ed Roddy: Senior Lecturer in Rheumatology
- Sam Hider: Senior Lecturer in General Practice

Rheumatology team
- Elaine Hay: Community Professor of Rheumatology
- Andrew Hassell: Senior Lecturer/Consultant Rheumatologist
- Jon Packham: Honorary Senior Lecturer/Consultant Rheumatologist
- Ed Roddy: Senior Lecturer in Rheumatology
- Sam Hider: Senior Lecturer in Rheumatology
- Michael Shadforth: Consultant Rheumatologist
- Peter Dawes: Consultant Rheumatologist
- Caitlyn Dowson: Consultant Rheumatologist
- Sanjeet Kamath: Consultant Rheumatologist
- Shyra Price: Consultant Rheumatologist

Research resources
Expertise groups: include the trials unit, the bio-statistics team, clinical epidemiology, surveys and cohort management, qualitative research, health economics (in collaboration with Birmingham University), health informatics, systematic reviewing, and research governance and management.

The Keele GP Research Network: 29 general practices, who receive training, support and feedback on the quality of their consultation data recording. The high quality data provides the basis for the Unit’s epidemiological studies of consultations related to musculoskeletal illness, and supports patient recruitment to trials and other studies.

The North Staffordshire Primary Care Research Consortium: led by one of the local PCTs, and representing a joint venture between the Unit and the local primary care community, the Consortium facilitates, coordinates and funds Primary Care support for the musculoskeletal research programme, and secures health professionals’ direct involvement in all aspects of research design, development and conduct.

The Haywood Hospital which in addition to being the base for Academic Rheumatology, provides the clinical research facility for clinical studies.

Many other academics within the centre may also act as supervisors for academic trainees. For more information on the arcNPCC research team and the research programme developed by the team, visit the Centre website on www.keele.ac.uk/research/pchs/pcmrc/Academic

This academic programme is only one of a handful of integrated academic training programmes in rheumatology in the UK and offers the potential for seamless transition between academic Foundation Y1 and Y2 posts, Walport academic clinical training fellowships and Walport Clinical Lecturerships in
both Rheumatology and General Practice (with a specialism in musculoskeletal medicine).

During the Musculoskeletal / Rheumatology post (the “lead academic post”), two days per week will be spent on project work, this will continue for one day per week during the other posts.

The rotation provides experience in primary care and this will be in a general practice that participates in the North Staffordshire GP Research Consortium and can provide an appropriate environment and effective support for an academic post.

The emergency medicine post will provide the necessary acute medical care component of clinical experience.

**The Projects (Examples):**

- Exercise for knee pain - attitudes and behaviours of general practitioners
- Systemic review of the impact of urate levels on cardiovascular risk in the general population.
- The impact of socioeconomic status on ankylosing spondylitis severity across the UK.
- Is satisfaction with hand appearance associated with self reported hand deformity and pain in the community?
- Pain beliefs and coping in middle and old age: a descriptive study in community dwelling adults with knee pain.
- Does the time taken from the onset of joint pain in the community to specialist rheumatology treatment influence outcome in patients with rheumatoid arthritis?

**Management and Mentoring**

During the academic module, trainees will receive academic and clinical mentorship through both academic and clinical tutors (usually Professor Hay, Drs Packham, Roddy, Hassell or Hider).

The post will join three other clinical posts (standard registrar and Year 2 posts) based at Haywood Hospital, Stoke-on-Trent providing peer support and critical mass. In addition, there will be 3 academic F2 posts and an academic clinical fellow post each year in rheumatology. Many doctors and other health professionals working in the rheumatology unit have been successfully guided and developed to obtain training fellowships leading to PhDs or MDs.

These are foundation level posts will provide a firm foundation of knowledge and understanding on which to build formal research training and academic practice at a later stage.
2. **Academic General Practice**

Our internationally renowned research programme in pain and musculoskeletal disorders in primary care is underpinned by high-quality cohorts and randomised clinical trials (with linkage to medical records) and supported by qualitative research.

Our overall aim is to deliver high quality multidisciplinary research designed to improve the content, delivery and configuration of primary care for the benefit of patients with musculoskeletal conditions.

The programme in academic general practice is led by Professor Christian Mallen and Dr Joanne Protheroe.

**The objectives of our research are:**

- To provide reliable estimates of the occurrence and distribution of pain and musculoskeletal disorders in the population, and their long-term impact on population health and working life [population epidemiology]
- To describe the long-term course of pain and musculoskeletal disorders and identify risk factors for their onset, persistence and progression as potential targets for intervention [population and clinical epidemiology]
- To characterise the patterns of primary care consultation, diagnosis, episodes and outcomes of care for pain and musculoskeletal disorders using routinely collected information from medical records [consultation epidemiology]
- To provide evidence and develop practical tools to inform clinical decision making and assist in the assessment, diagnosis, prognosis, and monitoring of individual patients with pain and musculoskeletal disorders in primary care [clinical epidemiology]
- To evaluate the clinical and cost-effectiveness of existing and new interventions and models of care for pain and musculoskeletal disorders, with special emphasis on individualising care and optimising the role of the multidisciplinary primary care team [trials]
- To provide up-to-date syntheses of research evidence on pain and musculoskeletal disorders for stakeholders (researchers, service managers, practitioners, public/patients, funders, and policy-makers) [systematic reviews and meta analysis]
- To explore the personal experience and impact of pain and musculoskeletal disorders and people’s expectations and experiences of primary health care [qualitative research and social science]
- To explore and evaluate ways of involving patients in formulating research questions and designing appropriate, credible interventions [patient and public involvement]
- To develop, test and apply innovative methodology in primary care research [methodology]
- To test the feasibility of incorporating interventions shown to be effective in research projects, into clinical practice [Clinical effectiveness and implementation]
To improve awareness and knowledge of pain and musculoskeletal disorders and their management among the general public and primary health care practitioners

For those contemplating a career in academic general practice, this post would strengthen an application for the Keele University academic GP training programme, an innovative 4-year programme that leads to a Masters in Medical Science degree, integrated with the clinical programme. Recent graduates from this programme have already become established locally in joint clinical/academic careers and five have the distinction of being awarded Arthritis Research UK or NIHR Primary Care Fellowships to do a PhD.

The centre combines current strengths in clinical health research at Keele University and our NHS partners in North Staffordshire, related to primary care, the interface between primary and secondary care, and in education research. A close relationship exists between Academic Rheumatology Haywood at the Hospital and the Arthritis Research Campaign National Primary Care Centre at Keele University - the Keele Haywood Arthritis Partnership (KHAP). The post will have access to research projects from within the KHAP partnership. Academic and clinical mentors will usually have formal links to one or both research units.

The university has strongly supported primary care musculoskeletal research. A £3,000,000 funding initiative for purpose-built offices to house our group was completed in 2004 and has been integrated with development of academic capacity by investment in early-experience researchers. Since 2001, the University has promoted 10 post-doctoral staff in the group to University Lectureships and Senior Lectureships

3. Academic Geriatric Medicine

Background and Research Interests:

Christine Roffe took up her post as consultant/senior lecturer in October 1996. She has shaped the development of the acute and rehabilitation stroke services in North Staffordshire. Her research interests are acute stroke, stroke rehabilitation and ethics. Ongoing projects include the Stroke Oxygen Study, a clinical trial of oxygen supplementation after acute stroke, a study of the effect of thickeners in drinks on oxygen saturation in dysphagic stroke patients, a questionnaire survey of consumer views of artificial feeding after stroke, and, in collaboration with researchers from the School of Health and Rehabilitation, studies of Botulinum toxin and electrical stimulation early after stroke. She is the Clinical Lead for the West Midlands Stroke Local Research Network.

Research grants held at Keele:

Leadership of the West Midlands Local Stroke Research. C. Roffe, RJ McManus, GW Humphries, C Sackley, I. Shannon, S Herron-Marx, P Mayer, S Lamb, F Cappuccio. NIHR Network £3,000,000 (£400,000 per annum, 3 year rolling contract, last renewed in 2009).

A study of the effect swallowing different consistencies of water (plain water or water with thickener) on oxygen saturation in the blood. Investigators: Natarajan I, Roffe C.  

End of posts
8 ISSUES COMMON TO CLINICAL POSTS IN WEST MIDLANDS FOUNDATION ROTATIONS

8.1 Clinical and Educational Supervision
All foundation trainees will have a clinical supervisor for each of their 4 month clinical attachments and, an educational supervisor who will have oversight of their training for each post. Academic trainees will have an academic mentor. The mentor will meet with the trainee at regular intervals to develop a personalised programme and monitor progress through the academic curriculum. Post holders must always be aware of their nominated Educational supervisor. This will usually be one of the consultants they are currently working with. It will be this person who will undertake appraisal.

In each Trust, the Clinical Tutor and / or his nominated deputies will act as a further tier in educational supervision to which the Foundation Programme doctors will have full and open access. It will be the Clinical Tutor’s office that will maintain central records, undertake the validation (sign off) process including multisource feedback and formal review of portfolios in order to maintain a general overview of Foundation Programme post holders as they move through various specialties.

At regional level, West Midlands Deanery is composed of five foundation schools, each led by an Associate Dean. An Associate Dean is responsible for the academic foundation trainees across the deanery.

8.2 Study & Training
All foundation training programmes have a structured programme in which priority will be given to essential training and key skills. All the necessary training will take place within programme

The expected attendance at the modular day release teaching and at half day release programmes will be >70%. In order to achieve this, post holders must forward plan their timetables with individual specialties to resolve any conflict with rotas.

8.3 Induction, appraisal and assessment
The post holders will complete general induction into their base acute Trusts and will have induction into the individual specialties as they rotate through the programme.

It is obligatory for post holders to ensure that they complete their appraisal schedule and maintain their electronic portfolio.

Post holders will be responsible to complete various assessments to include mini CEX, DOPs and case note review as well as MSF. The procedures for these assessments will be explained as part of the programme.
8.4 Audit and evidence based medicine
It is vital that post holders are involved in clinical audit activity and can evidence this at the end of the programme. Other involvement in EBM and Clinical Governance is to be encouraged including literature review, case presentations, evaluations of clinical incidents and clinical risk management.

8.5 Portfolio Management
Post holders are expected to maintain the national portfolio of evidence to demonstrate progress in the programme to include Multi-Source Feedback, and other documented assessments, audit, other EBM activity and various other professional certifications.

Portfolios may be reviewed twice a year by the local Clinical Tutors and other programme managers to ensure satisfactory progress. This will include review of portfolio evidence of appraisal and assessment documentation including the outcome of MSF. Attendance at teaching will be monitored as will progress in completing audit.

8.6 Trainee Representation
West Midlands Deanery encourages foundation trainees to participate in the operational, strategic and educational management of foundation programmes, Trainee representatives are elected to all foundation school committees.

8.7 Main conditions of Services
Contracts of employment will be held by trusts and will be for a fixed term of 12 months with subsequent progress to Foundation Year 2 subject to satisfactory progress. Contracts are governed by the Terms and Conditions of Service, Hospital & Dental staff in England and Wales, an up to date copy of which may be seen upon request in the Human Resources department for each Trust.

8.8 Banding
Some posts will attract banding but the details can only be clarified at a later date by the trusts. There is no banding in the General Practice attachments or in the 4 month academic placements. NHS West Midlands Workforce Deanery cannot provide information to applicants about out-of-hours duties or banding.
9. THE APPLICATION PROCESS

All candidates must enroll and complete the national application form via UKFPO Foundation Programme Application System.

Number of academic training opportunities: 30

Applications open: 8 October 2012
Applications close: 19 October 2012
Interview date: Thursday, 10 January 2013
USEFUL LINKS AND FURTHER READING

The following links may be useful:

a. Academic Foundation Programme 2013 (AFP) Recruitment Process
   http://www.foundationprogramme.nhs.uk/pages/academic-programmes/how-to-apply

b. National Institute for Health Research
   http://www.nihrtcc.nhs.uk/intetacatrain/

c. Information on West Midlands Deanery’s Foundation Programmes
   http://www.westmidlandsdeanery.nhs.uk/FoundationProgramme.aspx


e. The International Campaign to revitalise academic medicine (ICRAM)
   http://www.bmj.com/academicmedicine/

f. Warwick Medical School http://www2.warwick.ac.uk/fac/med/

g. University of Birmingham School of Medicine and the Welcome Trust
   Clinical Research Facility http://www.crf.bham.ac.uk/ and
   http://www.medicine.bham.ac.uk/

h. University of Keele School of Medicine http://www.keele.ac.uk/depts/ms/