### Description of ACF Programme:

**Title:** Clinical Genetics/Genomic Medicine  
**Duration:** 3 years (ST 3-5)

### Lead NHS Hospital/Trust and contact details:

University Hospital Southampton NHS Foundation Trust  
Tremona Road  
Southampton SO16 6YD  
02380 777222

### Research Institution in which training will take place:

Faculty of Medicine  
University of Southampton  
University Road  
Southampton  
SO17 1BJ

### Arrangements for protected research time:

The ACF would rotate within the Wessex Genetics Service which will include 25% of time working on a research project based within the University Department of Human Genetics and Genomics Medicine, Faculty of Medicine. The research time is flexible and can be for example 6 months within the second and third years or 1 day a week etc…

### Research Objectives:

1. To undertake the equivalent of 2 years 3 months full time training in Clinical Genetics in accredited posts on the Wessex Rotation.  
2. To undertake generic research methods training through a programme run by the Faculty of Medicine’s Postgraduate School.  
3. To gain relevant training and experience in research design, methods and data analysis.  
4. To expose the trainee to laboratory based research within the Faculty of Medicine.  
5. To pilot a research project (clinical or laboratory-based) in order to generate preliminary data for development of a proposal for a research training fellowship.  
6. To submit a competitive application for a research training fellowship to the MRC or the Wellcome Trust.

### Description of research component of programme (up to 500 words):

Research interests of senior academic staff include genomics (Emma Baple, David Wilson).
bioinformatics (Sarah Ennis), genomic imprinting (Deborah Mackay), splicing in clinical practice (Diana Baralle), genomics and ethics (Anneke Lucassen), cancer genomics (Diana Eccles), genomic immunology (Tony Williams),

In Year 2, the ACF will have the opportunity to train and develop a research project with preliminary data for the fellowship activity.

The ACF would be affiliated to the research programme of senior clinical academic staff and expected to develop a programme of individual research activity within the Academic Unit, Faculty and University strategic objectives. There is considerable scope for research collaboration outside the Faculty of Medicine, principally with academic staff within the Institute for Life Sciences. The ACF will be supported in completing an application for a training fellowship, based on an assessment of the interests and competencies of the candidate and local opportunities.

The ACF will be expected to register for postgraduate study leading to a PhD within the University. Provisions will be made for allocation of suitably experienced research supervisors, to attend postgraduate courses based within the Faculty, and for any external training necessary to ensure progression through the period of postgraduate study. All ACF doctors in Southampton have access to a formal taught postgraduate research training programme which includes statistics, trial design, epidemiology, ethics, research governance, and project design. The ACF will be expected to attend Academic Unit joint academic meetings, and to make presentations of research findings at both this and the postgraduate conference, and other scientific meetings relevant to the area of investigation.

In recent years, members of the Clinical Genetics Service have been successful in winning a number of research fellowships, including one MRC and one Wellcome trust fellowship.

**Description of clinical component of programme (up to 500 words):**

The Wessex Regional Genetics Service is an integrated clinical and molecular service covering a population of 2.8 million in Hampshire, Dorset and Wiltshire. The clinical arm of the service is coordinated from the Princess Anne Hospital in Southampton and the Laboratory arm of the service is based at Salisbury District Hospital in Salisbury and at Southampton General Hospital. The service has recently been awarded one of eleven National Genomics Centres as part of the 100,000 Genomes project. The ACF will join the established Wessex Specialist Training Programme in Clinical Genetics, which is coordinated through the Deanery and has been running for over 10 years. Experience offered will cover the training needs of future consultants in all aspects of Clinical Genetics, as well as academic career development. The clinical time will be spent at Hospitals across the Wessex region, rotating through general, cancer and specialist genetic placements. Some very specialised areas can be covered by including short attachments to national centres of excellence where this is appropriate for a given trainee. The clinical arm of the service currently has twelve senior medical staff; eight of whom are NHS consultants in clinical genetics, and four have joint University/ NHS contracts. There are four established ST posts, ten specialist genetic nurse counselors, three family history coordinators and eight clerical officers. Two HEFCE senior medical staff have honorary NHS consultant contracts. One consultant and one specialist nurse act as joint administrative heads of the
Routine clinical work in Wessex includes outpatient clinics in 10 district hospitals covering all referrals to the service. In addition existing specialist clinics include neurogenetics, ophthalmic genetics, cardiac-genetics, endocrine-genetics, neuro-oncology clinics, developmental child health-genetics clinics, fetal medicine clinics, disorders of sexual development-genetic clinics and orthopaedic-genetic clinics. The clinical training will thus provide ample exposure to a number of sub-specialty fields.

The ACF would attend the local educational programme of Wednesday morning teaching and journal clubs and in addition attend regional South West Of Britain (SWOB) training days. ACF’s would also be given the opportunity to register for modules of the Southampton Genomics MSc as part of their formal training. ACF’s require the same number and range of work-place based assessments (case-based discussions, mini CEX, etc) as non-academic trainees which can be undertaken during clinical attachments. The ACF would be expected to attempt/pass the Clinical Genetics Certificate Examination during ST4/5. In addition, the ACF is expected to participate in undergraduate and postgraduate teaching, including lecture and small group based.

Appraisals are provided by an educational supervisor at induction, three and six monthly with the trainee to form an educational agreement and ensure the trainee is meeting their learning objectives.

### Specific support provided to trainee

Particular research support and opportunities will be provided, depending upon the interests and training needs of the ACF.

### Milestones and timing of achievement of academic and clinical competencies

The following milestones will be applied:

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<tr>
<th>Year 1</th>
<th>1</th>
<th>Initial training in General Genetics and Cancer Genetics</th>
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<td>2</td>
<td>Attendance at autumn introductory course provided by University of Southampton Postgraduate School of Medicine</td>
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<td>3</td>
<td>Identification of topic/s of interest for research project and initial literature review</td>
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<td>4</td>
<td>Identification of research questions to be addressed in pilot study through an iterative process of discussion and planning with the academic supervisors</td>
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<td>5</td>
<td>Identification of specific learning needs for the project and appropriate courses</td>
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<th>Year 2</th>
<th>1</th>
<th>Continuing clinical training in General and Cancer genetics with additional attachments in sub-specialist areas</th>
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<td></td>
<td>2</td>
<td>Obtaining ethical committee and NHS Research &amp; Development approval for exploratory project as appropriate</td>
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<td>3</td>
<td>Attendance at relevant internal and external training courses and attendance at annual national/international conferences of relevance to the project</td>
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<td>Initial data collection for pilot study</td>
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Year 3

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<tr>
<td>1</td>
<td>Continuation of training in sub-specialist areas of genetics</td>
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<td>2</td>
<td>Completion of data collection and writing up of pilot research project and presentation at national/international conference(s)</td>
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<td>3</td>
<td>Submission of clinical research fellowship application to external funding agencies</td>
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How post links in to the NIHR approved Research Training Programme at your locality:

It is envisaged that a successful fellowship application will lead to a further three years in full-time clinical research, culminating in a PhD. There would then be a natural progression to a Lecturer position within the Faculty of Medicine. In the event of failure to obtain clinical research fellowship funding for the full-time three year research period culminating in a PhD, the research fellow could return to the Clinical Genetics specialist training programme within the Wessex rotation.

Trainee centredness:

The training will be centered on the trainees’ own needs, identified early during the first year, and by dedicated supervision during the post. The fellowship will be tailored towards achievement of successful external funding.

Quality assurance of the programme:

The research methods training will be provided through the established Postgraduate School at the University of Southampton Faculty of Medicine. Academic supervisors have completed the postgraduate research supervision training provided by the University.

Mentoring Arrangements:

Mentorship will be provided by the academic and clinical supervisors to the fellow. This will be co-ordinated by Professor Eugene Healy (academic lead). Further mentorship and supervision can be undertaken through the normal governance arrangements for postgraduate research at the University of Southampton Faculty of Medicine. This will include mentorship through supervision of the emerging PhD programme and senior authorship of research fellowship applications to major funding agencies. In addition the Faculty of Medicine has a mentoring scheme that allows staff to select a mentor from a web-based list according to the criteria they feel would best address their mentoring needs.

Academic Lead (University) for the IAT Programme:

Professor Eugene Healy  
Professor of Dermatology  
University of Southampton  
Southampton General Hospital  
Southampton SO16 6YD
Academic Supervisor (University) Details:

There are four potential Academic supervisors in the Wessex Regional Genetics Service
Professor Diana Eccles, Professor of Cancer Genetics and Head of Cancer Sciences
Academic Unit (for ACFs interested in specialising in Cancer Genetics)
Dr Diana Baralle, Associate Professor of Clinical Genetics in the Human Development and
Health Academic Unit (general genetics, special interest splicing)
Professor Karen Temple, Professor of Clinical Genetics and Head of HDH Academic Unit,
special interest in imprinting anomalies and genetic disease
Professor Anneke Lucassen, Professor of Clinical Genetics (special interest ethical aspects of genetic medicine)
Wessex Regional Genetics Service
Princess Anne Hospital,
Coxford Road,
Southampton SO16 6YA

First point of contact d.m.eccles@soton.ac.uk

Education Supervisor (Trust) Details:

The educational supervisor and clinical supervisor will be dependent on the clinical rotation to
which the ACF is allocated.

Clinical Supervisor(s) Details:

The educational supervisor and clinical supervisor will be dependent on the clinical rotation the
ACF is allocated to.

Deanery Programme Training Director Details:

Dr Nicola Foulds
Consultant Clinical Geneticist and honorary senior lecturer
Wessex Clinical Genetics Services,
Princess Anne Hospital,
Coxford Road,
Southampton,
SO16 5YA
Nicola.foulds@uhs.nhs.uk
02381205235

Deanery Programme Manager Details:

Miss Lisa McChrystal
Programme Manager
Wessex Deanery
Confirmation that ACF posts attract an NTN(a):

This post will attract a NTN (A)