### Description of ACF Programme:

<table>
<thead>
<tr>
<th>Title:</th>
<th>Medical Oncology</th>
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<tbody>
<tr>
<td>Duration:</td>
<td>3 years</td>
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</tbody>
</table>

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

Southampton University NHS Trust  
Southampton General Hospital  
Southampton, SO16 6YD  

For more details of this post contact  
Dr Andrew Davies (Academic Lead)  
[a.davies@southampton.ac.uk](mailto:a.davies@southampton.ac.uk)  
023 8079 6184  

Or  

Dr Charlotte Rees (Programme Training Director)  
[charlotte.Rees@suht.swest.nhs.uk](mailto:charlotte.Rees@suht.swest.nhs.uk)

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

Cancer Sciences Division  
University of Southampton School of Medicine  
Somers Cancer Building  
Mailpoint 824  
Southampton General Hospital  
Southampton  
SO16 6YD

### Research Objectives:

The objectives of the training programme are for the trainee, over three years:

1. To undertake the equivalent of 27 months of full-time specialist training in medical oncology in accredited hospital posts and a total of 9 months within an appropriate Research Division in the University of Southampton Faculty of Medicine over a 3 year period.

2. To undertake generic research methods training through a programme run by the Faculty of Medicine’s Postgraduate School.

3. To develop a research proposal for an externally funded research training fellowship under the supervision of Dr Andrew Davies.

4. To obtain relevant training in research design, methods and systematic review.
5. To submit applications for research training fellowships in national competition such as MRC, Wellcome Trust, National Institute of Health Research & CRUK.

Arrangements for protected research time:

The post will cover 2 years and 3 months of clinical training, at the end of which 9 months of protected research time will be used to prepare for a Clinical Research Fellowship application and preparation for a higher degree. Clinical duties will be back-filled by a LAT. The job description will ensure protected research time for this individual who will be an addition to the existing middle grade team during the final 9 months.

Description of research component of programme:

The research component of this post will be conducted in the Cancer Sciences Division (CSD) of the University of Southampton, School of Medicine. The bulk of the CSD is housed in modern well equipped laboratories in the Somers Building and the Tenovus Cancer Building on the Southampton General Hospital Site. A new Clinical Trials Unit was established in 2006 with core funding from Cancer Research UK. Southampton is a Cancer Research UK Clinical Centre. Core funding to the division also comes from programme grants from the Leukaemia Research fund, Cancer Research UK, the Tenovus Cancer Charity, with major infrastructure support from the Department of Health via the Experimental Cancer Medicine Centre. The mission of the Division focuses on the synergy of excellence in clinical and basic research, delivering high quality translational programmes to improve cancer treatment. Current research strengths focus on cancer immunology and immunotherapy and the molecular mechanisms of malignancy. All groups within the division have strong collaborative links with basic medical scientist as well as to the well-organised multidisciplinary teams in clinical practice in the Southampton Cancer Centre.

The CSD has a has extensive experience of matching students to projects, both full-time and part-time, clinical and non-clinical. Career tracking is a priority of the Division’s Executive Group and the track record of Clinical Trainees passing through the Division is one of excellence.

The ACF will spend 9 months embedded within a group within CSD. It is anticipated that they will remain within this group and apply for a Clinical Research Fellowship, having acquired basic laboratory skills, critical evaluation and preliminary data. During the first 2 years, the ACF will have an opportunity to interact with Group Leaders in order to plan their period of research and to refine their interests. The trainee will work closely with their academic supervisor to assess and direct their learning needs. They will have the opportunity to attend a variety of courses to gain core research skills.

The ACF would be expected to integrate within one of the following groups

a) MOLECULAR MECHANISMS

This group is focussed on understanding the molecular events that contribute to inappropriate survival and proliferation of cancer cells. The long term goal is to identify key alterations in cancer cells, and to exploit this information to improve the diagnosis and treatment of cancers. The Apoptosis Research Group is led by Professor Graham Packham and focuses on understanding the mechanisms that drive the expression of survival proteins and the
development of novel chemical compounds to interfere with their function. The Stress-Response group is lead by Dr. Jeremy Blaydes and focuses on the roles of transcriptional responses to stress-signalling pathways in the causes and treatment of cancer. Mr. Alex Mirnezami leads a group investigating the molecular pathology of colorectal tumours, with an emphasis on microRNAs. Dr Andrew Davies is investigating the role of microRNAs in lymphoma biology. Dr Simon Crabb is interested in the development of new therapies for genitourinary malignancies.

b) MOLECULAR AND CELLULAR IMMUNOLOGY

This group is concerned with the molecular mechanisms of antigen processing and presentation, led by Professor Tim Elliott, Dr. Anthony Williams and Dr. Edd James. It adopts a multidisciplinary approach to understanding the immunological significance of molecular mechanisms resolved at the atomic level. Linked programmes of research into T cell immunity led by Professor Sonia Quarantino, Dr. Andrew Bateman, and Dr. Edd James, focus on the role of regulatory immune networks in controlling both autoimmunity and anti-tumour immunity.

c) ANTIBODY AND VACCINE-BASED TREATMENT OF CANCER

This group encompasses research into the immunobiology of cancer and development of new treatments. A programme of research into the development and use of DNA vaccines in cancer therapy includes Professors Stevenson & Ottensmeier and Dr. Jason Rice. Professors Martin Glennie, Peter Johnson, Aymen Al-Shamkhani and Dr. Mark Cragg lead the group’s research into the use of monoclonal antibodies and soluble receptor fusion proteins to target cancer directly or to modulate anti-cancer immune responses. Linked research in lymphoma immunobiology includes Prof. Terry Hamblin and Drs Surinder Sahota, and Mark Cragg.

d) TRANSLATIONAL AND CLINICAL RESEARCH

Southampton hosts one of Cancer Research UK’s Clinical Centres, and one of the Cancer Research UK/Department of Health Experimental Cancer Medicine Centres. The Translational & Clinical Research Group has a significant presence in early phase and multi-centre clinical research in both oncology (Peter Johnson, Christian Ottensmeier, Peter Simmonds, Ben Mead, Tim Iveson and Andrew Davies) and surgery (John Primrose & Colin Johnson). Surgical research is primarily in upper GI disease, with leadership from Professor John Primrose & Mr. Alex Mirnezami in the fields of liver metastasis and Mr. Colin Johnson for the management of pancreatic disease.

e) MOLECULAR CANCER AND GENETICS

Dr. Jon Strefford leads The Cancer Genomics Group which focuses on the molecular causes of Chronic Lymphocytic Leukaemia. The Cancer Genetics Group led by Professor Diana Eccles and Professor Anneke Lucassen, links the Cancer Sciences Division with the Human Genetics Division and the Wessex Regional Genetics Laboratory.

Description of clinical component of programme:

The ACF will gain broad experience of non surgical cancer management during the first two years and 3 months. This will include experience in administration of both outpatient and
inpatient chemotherapy, including high dose treatments with haemopoietic progenitor cell rescue. Training will be provided in all aspects of chemotherapy administration and will include assessment of response to treatment, the management of toxicities of treatment and complications of malignant disease. In addition, the ACF will gain experience of both radiotherapy and palliative medicine. During the first two years the post will rotate in order to give a broad general experience. They will gain both inpatient and outpatient experience and will be expected to assist in the supervision of junior medical staff and be responsible for day to day management of inpatients. Skills already learned and practical procedures such as chest drains, lumbar puncture etc will be reinforced during this period. There are weekly multidisciplinary meetings for most tumour sites which trainees are expected to attend as part of their clinical attachment.

During their training they will have the opportunity to attend Clinical Oncology clinics and gain experience of the appropriate use of radiotherapy in the treatment of malignant disease, its effects and complications.

They will be required to attend the taught course in Oncology at The Institute of Cancer Research, a day-release modular programme leading to a Postgraduate Certificate, Postgraduate Diploma or MSc in Oncology. The overall aim of the course is to encourage proactive problem solving and reflective approaches to medical or clinical practice, producing graduates who are well equipped with the highly refined intellectual, scientific and clinical skills necessary for leadership careers in twenty-first century oncology. This course will fulfill many of the aims of the Medical Oncology Core Curriculum. At the end of the initial clinical training it is expected that they will have acquired a sound knowledge of basic cancer science, the aetiology and prevention of cancer, its clinical features and treatment and aspects of supportive care and palliative medicine.

Experience will be gained in the care of patients in phase I, II and III trials and it is anticipated that the ACF will be involved in the initial development of clinical trial protocols, and the coordination of trials, recording and reporting of results. A dedicated and fully-staffed Wellcome Trust Clinical Research Facility is also located in the hospital immediately adjacent to the Medical Oncology ward, for the conduct of early phase clinical trials work.

The trainee will also be expected to develop a clear understanding of the regulatory process of clinical trials and participate in the peer review of clinical trials. For multi-centre trials they will be expected to attend investigator meetings in order to discuss the trials with participants from other centres. The trainee will be expected to work closely with the clinical research team of research nurses and clinical trials associates. With increasing experience they will be expected to take full responsibility for conduct of the studies and planning new ones. In addition, they will be expected to present the results of clinical research projects both locally and at national and international meetings as appropriate. Publication of the results in peer reviewed journals is expected. The Cancer Research UK Clinical Centre includes a Clinical Trials Unit, a Data Office and a team of research nurses. These members of staff along with senior medical staff will provide appropriate support and supervision.

The ACF post holder will be encouraged to develop an area of site specialist interest. The Unit treats a large number of patients with most major tumour sub types and will therefore offer the opportunity to specialize in one of a number of tumours including breast cancer, lymphoma, urologic malignancy, germ cell tumours, gynaecological cancer, gastrointestinal cancer and lung
cancer. They will be able to sub specialise in one or more of these areas and will be given an active role in the development of Unit protocols and of the clinical trials activity.

The ACF will be expected to attend certain management courses during their year period of employment. These will provide education in various aspects of management, including hospital management, financial management and contracting, information technology, interviewing and selection, and dealing with litigation and other complaints.

They will be encouraged to attend Directorate meetings and will be required to participate in clinical governance procedures including audit and the development of clinical guidelines.

Many students spend their 5th year module attached to the Unit. The ACF will be required to undertake some ward teaching of medical students and training of junior medical staff in preparation for the MRCP examination. In addition, the Unit has responsibility for 4th year studies in depth, the scientific basis of medicine course and the 3rd year oncology module. They will be expected to assist in these teaching activities. A course in Oncology for qualified nurses is conducted two yearly and they will be involved in the programme of lectures for this course. Frequent postgraduate meetings and medical grand rounds take place to which the Unit regularly contributes and they will be expected to participate in these.

Throughout the period of clinical training there will be a commitment to out of hours cover. This will be voluntary during the research period.

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

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<th>Year 1</th>
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<tr>
<td>1</td>
<td>Clinical competencies in medical oncology</td>
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<tr>
<td>2</td>
<td>Academic competencies in understanding and applying the basic principles of research methodology; developing literature review skills; writing study proposals and protocols, patient information sheets and consent forms for pilot study in collaboration with existing studies.</td>
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<tr>
<td>3</td>
<td>Attendance at autumn introductory course provided by University of Southampton Postgraduate School of Medicine.</td>
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<tr>
<td>4</td>
<td>Identification of topic of interest for research project and initial literature review.</td>
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<tr>
<td>5</td>
<td>Identification of research questions to be addressed in pilot study.</td>
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<tr>
<td>6</td>
<td>Identification of specific learning needs for the project and appropriate courses.</td>
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<tr>
<td>1</td>
<td>Clinical competencies in medical oncology depending on individual training needs</td>
</tr>
<tr>
<td>2</td>
<td>Academic competencies in utilising current software for database building, statistical analyses and reference management; understanding principles of data handling, confidentiality and sharing for pilot study data collection; processing, cleaning &amp; analysis of data in collaboration with existing studies; submitting applications within the research governance framework.</td>
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<tr>
<td>3</td>
<td>Obtaining ethical committee and NHS Research &amp; Development proposals for exploratory project if required.</td>
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4 Attendance at relevant internal and external training courses.
5 Initial laboratory or clinical data collection for pilot study.

**Year 3**

1 Clinical competencies in medical oncology depending on individual training needs.
2 Academic competencies in writing up pilot work for presentation at meetings and publication in collaboration with existing studies; submission of a full research fellowship application to external funding agencies including response to reviewers’ comments and attending for interview.
3 Submission of Clinical Training Fellowship application to external funding agencies.

**How will ACF programme link to CL phase of IAT Pathway?**

It is envisaged that a successful fellowship application will lead to a further three years funding culminating in a PhD. Some of this time may be spent in clinical training. This would lead to eligibility to apply for a lecturer position within the Medical Faculty. In the unlikely event of failure to obtain a Clinical Training Fellowship trainee would continue in the specialist training programme within the Wessex rotation and either submit a DM dissertation or make further attempts to obtain substantive funding.

**Trainee centredness:**

The training will be centred on the trainee’s own needs, identified early during the first year, and there will be 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 Medical Faculty, and through accredited Masters level modules which are all quality assured through the QAA process. The academic supervisor has completed the postgraduate research supervision training provided by the University and the School is establishing training mentors for PhD and postdoctoral fellows.

**Mentoring arrangements:**

Mentorship will be provided by the academic and clinical supervisors to the fellow. This will be co-ordinated by Dr Andrew Davies (academic lead). Further mentorship and supervision can be undertaken through the normal governance arrangements for postgraduate research at the University of Southampton’s Faculty of Medicine. This will include mentorship through supervision of emerging PhD programmes, and senior authorship of research fellowship applications to major funding agencies.

**Research and Clinical Interests:**

Professor Peter Johnson has research interests in tumour immunology, antibody therapy and lymphocyte biology. His clinical research is in lymphoma.
Dr Clare Green is an NHS Consultant. Her clinical research interests are in ovarian and lung cancer clinical trials.

Dr Tim Iveson is an NHS Consultant. His clinical research interests are in clinical trials in oesophago-gastric, pancreatic and colorectal cancer.

Dr Ben Mead is an NHS Consultant. His clinical research interests are in testicular cancer and lymphoma, particularly Burkitt's lymphoma and Primary Central Nervous System lymphoma.

Professor Christian Ottensmeier is a CR UK Senior Clinical Research Fellow and Honorary Consultant in Medical Oncology. He is developing a laboratory research programme investigating DNA vaccination strategies for active immunisation of patients against a range of tumour types. His clinical research is in melanoma and lung cancer.

Dr Charlotte Rees is an NHS Consultant. Her clinical research interests are in gastrointestinal cancer.

Dr Peter Simmonds is an NHS Consultant. He has interests in clinical trials in breast cancer, in particular the characteristics of early onset tumours.

Dr Andrew Davies is Cancer Research UK Senior Lecturer in Medical Oncology. His interests are in novel therapies for malignant lymphoma and translational lymphoma research.

Dr Simon Crabb is Cancer Research UK Senior Lecturer in Medical Oncology. He is interested in new therapeutic approaches in genitourinary malignancies.

Dr Copson is a specialist in the management of breast cancer and is interested in cancer genetics.

Dr Cave manages lung and GI malignancies and has clinical research interests in both tumour areas and with research interest in medical education.

**Academic Lead (University) for the IAT Programme:**

Professor Eugene Healy  
Professor of Dermatology  
University of Southampton  
Southampton General Hospital  
Southampton SO16 6YD  
Tel 023 8077 7222  
E.Healy@soton.ac.uk

**Academic Supervisor (University) Details:**

Dr Andrew Davies  
Cancer Research UK Senior Lecturer in Medical Oncology  
Cancer Sciences Division  
University of Southampton, School of Medicine
Clinical Supervisor(s) Details:

Clinical supervision will be provided by the Consultant Medical Oncologists through which the ACF will rotate through during clinical training. Exposure to a broad range of tumour types will be provided during their 2 year 3 month rotation.

Consultants in Medical Oncology:

- Dr J Cave MD MRCP, NHS Consultant
- Dr S Crabb MB BS PhD, Cancer Research UK Senior Lecturer
- Dr E Copson, MB BS PhD, NHS Consultant
- Dr A Davies MRCP, PhD, Cancer Research UK Senior Lecturer
- Dr C Green BSc MB BS MRCP, NHS Consultant
- Professor P W M Johnson MA MD FRCP, Professor of Medical Oncology
- Dr T Iveson MD FRCP, MacMillan NHS Consultant, Honorary Senior Lecturer
- Dr G Mead DM FRCP, NHS Consultant, Honorary Senior Lecturer
- Professor C Ottensmeier PhD, FRCP, CR UK Professor of Experimental Oncology
- Dr C Rees MD MRCP, NHS Consultant
- Dr P Simmonds MB BS FRACP, NHS Consultant, Honorary Senior Lecturer

Deanery Programme Training Director Details:

- Dr Charlotte Rees
- Consultant Medical Oncologist and Wessex Medical Oncology Programme Director
- Department of Medical Oncology
- Southampton University Hospital Trust
- Level D, East Wing
- Mailpoint 307
- Southampton General Hospital
- Southampton
- SO16 6YD
- charlotte.Rees@suht.swest.nhs.uk

Deanery Programme Manager Details:
Confirmation that ACF posts attract an NTN(a):

This post will attract a NTN.