

SOUTHAMPTON CLINICAL RESEARCH INSTITUTE NEONATAL CLINICAL RESEARCH FELLOWSHIP

The University of Southampton Faculty of Medicine and Southampton University Hospitals NHS Trust partnership is pleased to announce a new NHS-funded joint clinical and research fellow post in neonatal medicine to complement the existing clinical academic training programme.

POST AVAILABLE:

Neonatal Clinical Research Fellowship (requires MRCPCH or equivalent)

This is a joint clinical and academic post designed to provide both clinical and research training. The post is designed to complement and strengthen research in neonatal neurology. Fifty percent of the Fellow's daytime activities - an average of 20 hours per week - will be spent on research and training in neonatal neurology. The remainder of the time – an average of 28 hours per week - will be dedicated to providing middle grade clinical service for the regional level 3 Neonatal Unit at the Princess Anne Hospital, Southampton.

The academic component of the Neonatal Research Fellow's activities will be supervised by Dr Brigitte Vollmer, Senior Lecturer in Paediatric Neurology. Overall academic supervision will be provided by Professor Howard Clark, Professor of Child Health. The Fellow will also have a clinical Educational Supervisor, who will be a consultant neonatologist. The Fellow will be encouraged to apply for a full-time formal research training fellowship (eg MRC, Wellcome Trust or NIHR RTF) and to register for study towards a higher degree (usually PhD).

The Fellow will also gain experience and training in clinical neonatology, based at the Neonatal Unit (NNU), Princess Anne Hospital, which is the regional referral unit for babies with neurological/neurosurgical problems and neuroimaging in Wessex. In addition, the Fellow will participate in the middle grade neonatal rota, which comprises seven trainees, supplemented by four Clinical and Research Fellows, two of whom are currently pursuing higher degrees. The neonatal neurology team is multidisciplinary and, in addition to the research component, training will be provided in all aspects of neonatal neurology including multispecialty neurodevelopmental follow up of high risk babies, neuroimaging, therapeutic hypothermia, cerebral function monitoring/EEG etc.

The appointment, in the first instance, will be for two years and is potentially renewable to allow for completion of a higher degree. Funding may be extended to a maximum of four years.

For further information regarding this post please contact:

Prof Howard Clark (h.w.clark@soton.ac.uk)

Dr Mike Hall (mike.hall@suht.swest.nhs.uk) (NB **not** Michael)

Dr Brigitte Vollmer (b.vollmer@soton.ac.uk)

For an application pack (job descriptions, person specifications and application form) please email: Jan Carroll (jc4@soton.ac.uk)

Summary of the post

Fifty percent of the post holder's daytime activities will be spent working with a University of Southampton senior clinical academic to work towards a higher degree in a clinical or laboratory research project based in the Academic Department of Child Health within the Faculty of Medicine.

In addition, training in acute neonatal neurology and neurodevelopmental follow-up will be provided by participation in neonatal neurology ward rounds (weekly), multidisciplinary neuroimaging meetings (weekly), fetal medicine meetings (weekly), multidisciplinary neurodevelopmental follow-up clinics (fortnightly), and paediatric neurology grand rounds (weekly).

The Fellow will also gain training and experience in tertiary-level clinical neonatology.

The Academic Department of Child Health

The Academic Department of Child Health is based within the University division of Infection, Inflammation and Immunity (III) though child health research within the department extends across all the divisions of the university school of medicine including Genetics, Developmental Origins of Health and Disease (DOHAD), Cancer Sciences and Neurosciences.

The University Department of Child Health has particular strengths in neonatal medicine (including neonatal neurology and neurodevelopment), respiratory paediatrics, growth and nutrition, paediatric neurosciences and paediatric infectious diseases. There is a strong translational research base in neonatal medicine (Prof H Clark), which focuses on applying our internationally recognised expertise in lung surfactant biology to optimise treatment strategies for premature infants with RDS (Prof H.Clark, Prof A.Postle) and a parallel programme of research to optimise neonatal nutrition in preterm infants (Dr A Leaf) and to improve growth, respiratory, and neurodevelopmental outcomes (Dr B.Vollmer).

One main research focus is neonatal and paediatric neurology. Research in neonatal neurology (Dr Brigitte Vollmer) is carried out in close collaboration with the neonatal team based at Princess Anne Hospital. This is the regional referral centre for babies with neurological problems and offers a full range of services including therapeutic hypothermia, neurosurgery, newborn brain imaging, and neurophysiology. Current research includes neurodevelopmental outcome following perinatal brain injury and neurological aspects of fetal medicine, the predictive value of imaging in babies that are premature or following birth asphyxia, and the role of systemic inflammation in neurological disorders of childhood. This research is carried out in collaboration with the Developmental Brain and Behaviour Laboratory in the School of Psychology with Dr Jana Kreppner and Dr Christine Cornforth (early life experiences and outcome); Dr Cathy Hill (sleep behaviour in preterm infants), Dr Alison Leaf (nutrition in preterm infants), Prof Hugh Perry (role of systemic inflammation in neurological disorders of childhood). There are strong links with fetal medicine, and paediatric neuroradiology (Dr. Mary Gawne-Caine, Dr. Harriet Joy), and collaborations with researchers on an international level.

Another main research focus of the Department of Child Health is in lung allergy and inflammation, especially lung innate immunity and the lung surfactant system. There are strong groups within the Faculty of Medicine devoted to immunology (Prof Stephan

Gadola), molecular microbiology (Prof Ian Clarke), paediatric respiratory disease and innate immunity (Prof H Clark, Prof A Postle), paediatric allergy and infection (Dr Graham Roberts, Dr Saul Faust, Dr Tony Williams, Dr Jane Lucas). Infrastructure is in place for translational medicine relating basic science research to clinical application within the Southampton Clinical Research Institute. There are particularly strong paediatric (and neonatal) components of the two recently awarded biomedical research units (BRUs)- in Respiratory Medicine and in Human Nutrition, Diet and Lifestyle.

The new Southampton NIHR Biomedical Research Units are an exciting new component of the Southampton Clinical Research Institute (SCRI). The SCRI is a strategic and facilitative unit, which co-ordinates strategic collaboration and effective resource management at the University of Southampton (UoS) and Southampton University Hospitals NHS Trust (SUHT) between the Southampton Wellcome Trust Clinical Research Facility (WTCRF), SUHT R&D, the Southampton R&D Support Unit (RDSU), the UoS Clinical Trials Unit (UoS CTU), and the new NIHR Respiratory and Nutrition Biomedical Research Units.

Academic Department of Child Health

Head of Department and Professor of Child Health, Professor Howard Clark.
Head of Surfactant Biology Group, Department of Child Health, Division of Infection, Inflammation and Immunity, University of Southampton School of Medicine

Professor A D Postle, Professor of Developmental Biochemistry
Dr Alan Hunt, Senior Scientist, (Surfactant Biochemistry)
Dr Jens Madsen, Research Lecturer in Child Health
Dr R A Mackay, Research Fellow, Child Health
Dr Kevin Goss, Clinical Research Fellow, Child Health
Dr Vicki Ledger, Postdoctoral Fellow
Dr Grielof Koster, Senior Scientist, (Mass Spectrometry)
Mr Paul Townsend, Biomedical Scientist Specialist (Surfactant Biochemistry)

Paediatric and Neonatal Neuroscience

Professor Colin Kennedy, Professor in Paediatric Neurology
Professor Fenella Kirkham, Professor in Paediatric Neurology
Dr CM Hill, Senior Lecturer in Community Paediatrics and Sleep Medicine
Dr Brigitte Vollmer, Senior Lecturer in Paediatric Neurology

Paediatric Respiratory

Dr Graham Roberts, Reader in Paediatric Respiratory Medicine
Dr Jane Lucas, Senior Lecturer in Paediatric Respiratory Medicine

Paediatric Infectious Disease

Dr Saul Faust, Senior Lecturer and Acting Director, Wellcome Trust Clinical Research Facility

Paediatric Gastroenterology and Nutrition

Professor Alan Jackson, Director of NIHR BRU for Nutrition, Diet and Lifestyle
Dr Mark Beattie, Hon Senior Lecturer in Paediatric Gastroenterology
Dr Steve Wootton, Senior Scientist
Dr Tony Wiskin, Clinical Research Fellow

NIHR Biomedical Research Unit for Respiratory Medicine

The paediatric component of translational research in respiratory medicine within the BRU is led by Professor H Clark and Prof Tony Postle (surfactant in neonatal lung disease and paediatric acute lung injury) with Dr J Pappachan, Dr Michael Marsh, Dr Peter Wilson and Dr Kim Sykes. Paediatric respiratory research is carried out within the BRU in cystic fibrosis and infection (Dr Gary Connett, Dr Julian Legg, Dr Saul Faust) and in inflammation, asthma and allergy (Dr Graham Roberts, Dr Jane Lucas)

The Institute of Human Nutrition and NIHR Biomedical Research Unit for Nutrition, Diet and Lifestyle

The Institute of Human Nutrition is one of few groups nationally, which carry out research and training in human nutrition at the level of basic science investigation, clinical investigation and population level enquiry in order to directly inform and improve service provision, in clinical and community practice and to maintain health and prevent disease. The Institute interacts directly with the Southampton Universities NHS Trust for Nutrition Support Services, both for adults and children, and has over the years worked with the Royal Colleges, through the Intercollegiate Group in Nutrition of the Academy of Medical Royal Colleges, to establish and run training courses in nutrition. The Institute offers learning and training in nutrition at undergraduate and graduate levels to doctors, nurses, public health nutritionists and other groups of health professionals. The research portfolio of the Institute has had a focus on the nutrient determinants of normal growth and development, and the mechanisms through which altered nutrition before and during pregnancy can determine risk of later ill-health, and the extent to which nutrient intake modifies the immune and inflammatory responses to environmental challenge. The NIHR Biomedical Research Unit for Nutrition, Diet and Lifestyle, builds on the strength and experience of the Institute of Human Nutrition, the MRC Epidemiology Resource Centre (Prof Cyrus Cooper), and the Institute of Developmental Sciences (Prof Mark Hanson) who in partnership with clinical researchers in Southampton University Hospitals NHS Trust (SUHT) and public health physicians will prosecute a programme of research with the specific objective of translating the products of earlier research for direct patient benefit in the short term, and determining how best to modify current nutritional exposures in order to decrease the risk of chronic non-communicable disease.

Neonatal and Paediatric Neurology Research

Neonatal neurology is part of paediatric neuroscience. In paediatric neuroscience there are the following main research streams: language development and the effect of early intervention in children with permanent hearing impairment (Prof Colin Kennedy), quality of survival following childhood brain tumours (CK), neonatal neurology and neurodevelopment following early acquired brain lesions (Dr Brigitte Vollmer), sleep medicine as applied to children (Dr Cathy Hill), and randomised controlled trials of respiratory support and nutritional interventions to prevent cognitive morbidity in sickle cell disease in East Africa as well as the UK (Prof Fenella Kirkham).

Professor of Child Health

Professor Howard Clark

Head of Child Health and Honorary Consultant Paediatrician (Neonatal Medicine)

Department of Child Health

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Description of the post

Summary of the academic duties and responsibilities of the postholder

- To interact and collaborate with study team personnel responsible for creating study protocols and related documents, including Local Research Ethics Committee documentation and R&D submissions relevant to the Fellows' research project
- To work with the Professor of Child Health and Clinical Lead (Dr Mike Hall) to facilitate critical interactions in the research teams of fellows and nurses, especially where relevant to the individual's research project
- To assist in the training and development of medical and nursing staff, including planning and provision of seminars and lectures for Undergraduate and Postgraduate (Academic Foundation and Academic Clinical Fellow Training Programmes) clinical research training programmes
- To maintain accurate and accessible research records and provide formal reports where required
- To participate in research meetings and internal seminars
- To take part in or conduct any other duties as may be deemed reasonable by the Professor of Child Health
- To comply with intellectual property rights and the Data Protection Act 2000
- To comply with COSHH Health and Safety Guidelines within the laboratories
- To comply with relevant University and Trust policies, including Financial Regulations, Equal Opportunities Policy, Promoting Race Equality Policy, Health and Safety Policy, Information Systems Security Policy and Intellectual Property Rights and Register of Interests Policies

Protected time for research training

The timetable will ensure 50% of daytime activity (on average over a 2 year period) is protected for the Fellow's personal research project under the direct supervision of the most appropriate Senior Clinical Academic to the Fellows' research project under the overall direction of Professor Howard Clark. Potential neonatal research projects are aligned to the BRU research programmes encompassing neonatal respiratory and neonatal nutrition research as well as neonatal neurology and neurodevelopmental follow up.

Mentoring arrangements

Mentorship will be provided through joint supervision by the academic clinicians and scientists. The mentoring needs of the Fellow in respect of his/her clinical academic training will be co-ordinated by Professor Howard Clark (Professor of Child Health) in association with Dr Mike Hall (Neonatal Clinical Director), and Dr Gary Connett, Programme Director of the Wessex Paediatric STC). Further mentorship and supervision

will be undertaken, as appropriate, through normal governance arrangements for postgraduate research at the Faculty of Medicine.

It is envisaged that a successful fellowship application will lead to a further three years in full-time clinical research, culminating in a PhD, and potential for natural progression to a lecturer position within the Faculty of Medicine. If the fellow fails to obtain his/her own three year clinical research fellowship that would culminate in a PhD, they may be able to complete the initial project and submit it as a PhD/DM thesis as part of a research programme funded by the supervisor(s).

Trainee centredness

The training will be centred on the trainee's own needs, identified early during the first year, and by dedicated supervisors during the post. The fellowship will be tailored towards achievement of successful external funding to initiate or extend a personal track record of funding to develop a successful career as a clinical academic in neonatal medicine.

Quality assurance of the programme

The research methods training will be provided through the Postgraduate School at the University of Southampton Faculty of Medicine and the accredited Masters level modules which are all quality assured through the QAA process. The academic supervisors have completed the postgraduate research supervision training provided by the University and the School is establishing training workshops for mentors for PhD and postdoctoral fellows.

PRINCESS ANNE HOSPITAL

The Obstetric and Neonatal Services of Southampton University Hospitals NHS Trust are located in the Princess Anne Hospital (PAH). The Obstetric and Midwifery services offer facilities to Southampton district and also act as a regional referral service for fetal and perinatal medicine, genetics, fetal cardiology and neonatal surgery. There are approximately 6000 in-house deliveries per year.

The Neonatal Unit is part of the Central South Coast Neonatal Network and is one of two units that act as referral centres for the Network.

The Neonatal Unit accommodates 46 cots of which 24 are designated as intensive care & high dependency care, 16 Special Care and 6 Transitional Care. A full range of neonatal intensive care facilities are available including high frequency oscillatory ventilation and nitric oxide. Certain surgical operations, including repair of congenital diaphragmatic hernia and ligation of arterial ducts, are carried out on the Unit. There is access to the tertiary paediatric services based at Southampton General Hospital, including cardiology, nephrology, neurology & neurosurgery, and genetics means; most complex neonatal problems can, therefore, be managed on-site.

The case mix includes, in addition to the usual more common neonatal problems, a significant throughput of premature infants including around 70 infants per annum of 28 weeks or less and a wide variety of surgical and cardiac problems. The Unit's activity has

incorporated 2.5 – 2.8 thousand Level 1 Intensive Care days/annum and a further 1000 Level 2 High Dependency days over the past two years.

STAFF

Consultants in Neonatal Medicine:

Dr VJ Baral
Prof Howard Clark
Dr Helen Fielder
Dr S Francis (Locum)
Dr M. Hall
Dr R. Ironton
Dr Alison Leaf
Dr A. O'Donnell
Dr Freya Pearson
Dr Victoria Puddy

Paediatric Surgeons:

Mr David Burge – Paediatric Surgeon and Lead Neonatal Surgeon
Mr Mervyn Griffiths – Paediatric and Neonatal Surgeon
Ms Lara Kitteringham – Paediatric and Neonatal Surgeon
Mr Pat Malone – Paediatric Urologist
Mr Henrik Steinbrecher – Paediatric Urologist
Mr Robert Wheeler – Paediatric and Neonatal Surgeon

Consultants in Fetal Maternal Medicine:

Miss Karen Brackley
Mr Matthew Coleman
Mr David Howe

High Risk Obstetrics:

Jillian Connor
Miss Jo Mountfield
Rajeswari Parasuraman (Locum)
Miss Pippa White

Neonatal SpRs:

At any one time there are seven WTE SpRs training either in neonatology or paediatrics based on the Unit. All of them have had tertiary level neonatal experience. An experienced Neonatal SpR or Consultant Neonatologist is always available within the Princess Anne Hospital for advice and support of ST1-ST3 trainees. When working or covering the neonatal service the SpR has no other clinical commitments.

Clinical duties

The successful applicant will act as registrar for the neonatal service at PAH. Neonatal Unit clinical and on-call duties will average 28 hours per week; the post is banded at 1A and the post-holder will participate in the full-shift system which applies to out-of-hours cover.

The post does not have formal training accreditation but the appointee will be allocated educational supervisors and will be expected to participate in educational and training activities appropriate to their level of training. Funds will be made available for the appointees to attend appropriate courses and/or conferences.

All new employees receive a comprehensive induction programme to familiarise themselves with the functioning of the hospital, the Trust's procedures and issues of clinical governance. In addition, there is a specific induction to the PAH Neonatal Unit and the relevant areas of perinatology. The induction covers aspects of basic neonatal care and resuscitation techniques. Consultant supervision and advice is available at all times.

There is a comprehensive Medical Library available on the Southampton General Site, which forms part of a dynamic Postgraduate Medical Education Centre. A Clinical Skills training facility is available to all grades of Medical and Nursing Staff and there is a range of Neonatal and Paediatric manikins for procedure training.

Within the Neonatal Unit there is a library of Neonatal texts. The SpRs share an office. There is Internet access to facilitate literature searches and to access on-line educational resources. When on-call, there is a study/bedroom available in a quiet area of the hospital but with ready access to Labour Ward and the Neonatal Unit.

All Neonatal SpRs and Clinical Fellows are allocated a clinical Educational Supervisor who will be one of the Neonatal Consultants. A personal training plan will be developed at the beginning of the post to suit the individual's training needs. Progress will be monitored by regular appraisal. It is expected that the post holder will use the Neonatal CSAC syllabus as a guide to their requirements.

It is expected that the post holder will partake in Audit activity during the course of the post and be involved in the development and updating of the Unit's Clinical Guidelines.

The range of educational opportunities available within the department includes a weekly Labour Ward meeting discussing perinatal management of specific cases, a weekly fetal maternal medicine meeting, a weekly educational "grand round", followed by a neonatal case presentation or topic discussion session, a weekly Journal Club meeting and a weekly neonatal surgical education meeting; in addition, there are weekly neonatal neurology ward rounds, weekly multidisciplinary neuroimaging meetings.

Once per month there is an antenatal diagnosis discussion group and a perinatal audit and morbidity/mortality meeting. The Central South Coast Neonatal Network holds a series of educational meetings aimed primarily at SpR educational requirements. Long term outpatient follow-up of developmentally 'at-risk' children is considered an important part of the neonatal service and SpRs will have the opportunity to be involved in this.

