

ACF Platform Science and Bioinformatics Programme Details in conjunction with the University of Liverpool

Recruitment to posts starting in August 2021

Post availability

There is one post available in Clinical Pharmacology and Therapeutics. You can apply at ST1 or ST2 level in this round of recruitment.

Please note if you are appointed at ST1 or ST2 level, you will be placed in an appropriate Core Medical Training track until you reach ST3 level.

Overview

You can find generic information about Academic Clinical Fellowships in the North West plus links to the National Institute for Health Research's guidance via <https://www.nwpgmd.nhs.uk/nih-academic-clinical-fellowships-glance>

At the Department of Pharmacology and Therapeutics at the University of Liverpool, we have an extensive track record of training ACFs, many of whom have gone onto obtain clinical training fellowships and subsequently academic appointments.

Academic Training

A bespoke trainee centred programme will be developed for the ACF. Of course, flexibility will be key to the project area based on the expertise and interests of the successful candidate. The candidate will be based in the Department of Pharmacology and Therapeutics at the University of Liverpool during their academic block which is taken as a single 3-month block. The candidate will have access to the relevant facilities and expertise as detailed below. The candidate will be expected to undertake the mandatory aspects of the training as required by NIHR. The candidate will be encouraged to develop their skills by undertaking training course, for example in statistical methods, and areas of computing such as learning to programme in R.

Research Areas / Research Environment

The research component will embed clinical pharmacology principles with a focus on platform sciences.

We have access to large patient cohorts in drug safety, with accompanying multi-omics data. We are also accessing UK biobank, and 100K genome project (Pirmohamed is the lead for the pharmacogenomics sub-domain). The ACF will undertake work and be trained in using integrative approaches (clinical, pharmacological and -omics) to identify

biomarkers of drug safety. This will initially involve UK biobank data, and potential areas include the role of statins in causing diabetes, statin discontinuation, genetic polymorphisms and the risk of cardiovascular events. Findings in the UK biobank will be replicated in 100K genomes, or with international collaborators depending on the area. Associated with this, there will also be training in health informatics using CPRD.

Research Facilities

CPT is an internationally recognised research strength in Liverpool. Key areas of note include:

- MRC Centre for Drug Safety Science (£3.7m), now renewed from 2014 for 5 years (£3.2 million)
- Wolfson Centre for Personalised Medicine (£5m)
- MRC Clinical Pharmacology Training Programme: initial award of £3m in 2010; renewed in 2016 with another £3m – provides without walls training with 4 major pharma companies (Novartis, UCB, Roche, Lilly).
- 4 IMI awards including on drug induced liver injury, quantitative systems toxicology, electronic media for improving pharmacovigilance, immune effects of gene therapy (funding >£5m)
- Major H2020 award (ubiquitous pharmacogenomics) on pre-emptive genotyping (£15m)
- NIHR Global research programme improving anticoagulation in the Uganda and South Africa (£2.5m)

We have an extensive track record of training ACFs. The CPT portfolio is enhanced by the MHRA-accredited phase I clinical research unit in the Royal Liverpool University Hospital (Director: Fitzgerald). This provides training for the ACFs in experimental medicine studies, and interaction with Industry and recently received £1.3m from NIHR.

We have access to state-of-the-art laboratories, and access to equipment in the University including in core resources such as the Centre for Genomic Research.

We Host the UK Pharmacogenetics and Stratified Medicine Network which allows ACFs to network with 1200 members. Our work is very much inter-disciplinary in nature. We have extensive expertise within the Department in relation to the omics and platform sciences work. However we also collaborate extensively outside the Department, Institute and Faculty – for example, we have grants with Falciani in relation to multi-omics work, and are also working with Maskell (Faculty of Science and Engineering) in big data approaches and Coenen (Faculty of Science and Engineering) in AI approaches in multimorbidity. We also have extensive network of collaborators nationally including in General Practice (Mallon; Keele), frailty (Clegg; Leeds); informatics (van Staa, Peek, Ashcroft; Manchester), genomics (Morris; Manchester) and Mendelian Randomisation (Hingorani; UCL). The extensive network provides the ACFs with a programme of

training locally, and access to expertise nationally and internationally to help with their development.

Clinical Training

You can find out more about the clinical training programmes in the North West via the following link - <https://www.nwpgmd.nhs.uk/specialty-schools>

Clinical person specifications can be found via the following link - <https://specialtytraining.hee.nhs.uk/Recruitment/Person-specifications>.

Useful Links

<https://www.oriel.nhs.uk/Web/Vacancies>

<https://www.nwpgmd.nhs.uk/nih-academic-clinical-fellowships-glance>

<https://specialtytraining.hee.nhs.uk/Recruitment/Person-specifications>

<https://www.nwpgmd.nhs.uk/specialty-schools>

<https://www.liverpool.ac.uk/health-and-life-sciences/>

<https://www.liverpool.ac.uk/systems-molecular-and-integrative-biology/>

<https://www.liverpool.ac.uk/mrc-centre-for-drug-safety-science/>

<https://www.liverpool.ac.uk/north-west-england-mrc-fellowship-cpt/>

<https://www.clinicalresearchliverpool.nihr.ac.uk/>

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