



Research Associate in in Microbiome in Advanced Chronic Liver Disease

Job Description

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| Post title: | Research Associate |
| Salary range: | £27,906 – £34,527 (inclusive of LA) depending on experience |
| Contract: | 1 year initially with possibility of extension |
| Location: | The Institute of Hepatology, Foundation for Liver Research, 111 Coldharbour Lane, London, SE5 9NT |
| Responsible to: | Dr Vishal Patel, Principal Investigator, Microbiome in Advanced Chronic Liver Disease Group |
| Closing date: | Thursday 9th August, 4pm |

Summary of post

The post holder will participate in research projects that seek to investigate the role of the microbiome in contributing to patho-biological processes that drive advanced chronic liver disease (ACLD), including acute-on-chronic liver failure (ACLF). ACLF is a life-threatening condition that occurs in patients with cirrhosis. It is associated with a very high short-term mortality, and places a significant burden on critical care services and healthcare resources. The patho-biology of ACLF – in particular the role of the microbiome and ensuing dysbiosis - is not fully understood and there are currently no targeted therapies for this condition.

The post holder will have the opportunity to investigate the precise mechanisms around the role of the microbiome in driving the development of ACLD, and explore the potential targets for therapy and utility of novel therapeutics to manipulate the microbiome *via* clinical trials. Additional responsibilities of this role include processing, cryopreserving, storing & cataloguing human clinical samples as well as working on the substantial repository of samples already available. The post holder will be expected to perform data analysis using statistical and graphical interpretations, maintaining sufficient inventory of materials, supplies and equipment for performance of duties, provide general assistance with experiments within the group, research documentation, health and safety issues and equipment maintenance.

Foundation for Liver Research and the Institute of Hepatology, London

The Foundation for Liver Research was established in 1974 to develop and extend research into diseases of the human liver. For over 30 years the Foundation has supported ground-breaking research programmes into liver disease including much of the early pioneering work at King's College Hospital into liver transplantation and acute liver failure under the direction of Professor Roger Williams, CBE. Between 1997 and 2016 the research programme was carried out in the purpose-built Institute of Hepatology in central London. Major areas of research included viral hepatitis, hepatocellular carcinoma, and complications of cirrhosis, liver support devices, and the mechanisms underlying susceptibility to infection. In 2016 the Foundation and the Institute of Hepatology re-located to a new custom-built, three storey research facility on the King's College campus at Denmark Hill. The Institute is affiliated to Kings College London and Kings College Hospital and operates as an independent research centre, directly managed by the Foundation. The Institute has class II and class III containment laboratories and a number of specialist rooms and provides research space for up to 60 scientists and students.

Description of the role

The Foundation for Liver Research is seeking an enthusiastic, flexible and committed research assistant to work in laboratory and clinically based studies aimed at characterising and investigating the role of the microbiome in contributing to patho-biological processes that drive advanced chronic liver disease (ACLD).

The specific responsibilities/duties of the role are:-

- To design, set-up and run experiments in relation to the project after consultation with the Principal Investigator to effectively record, analyse, acquire and write-up results.
- To independently process human clinical samples in accordance with standard operating protocols
- To perform laboratory-based assays on biological samples from patients with chronic liver failure syndromes
- To keep detailed, accurate and comprehensible records of experimental plans and work and to communicate developments and results to colleagues on a regular basis
- To process, label and cryopreserve biological samples, including liver specimens, from patients with acute and chronic liver disease.
- To isolate and cryopreserve peripheral blood mononuclear cells by density grade centrifugation and complete clinical trial documentation.
- To liaise, assist and interact with group members to perform and optimise laboratory-based assays including setting up experiments and preparing reagents.
- Undertake GCP and HTA training to facilitate appropriate interaction with hospital staff and patient participants from who research samples are derived.
- To maintain and operate equipment and instruments used by the research group.

- To advise academic staff, research staff and students in the practical and safe operation of equipment and reagents, including preparation of risk assessments and operating procedures.
- To establish, organise and maintain accurate records of clinical samples, laboratory reagents, and equipment.
- To purchase laboratory reagents, equipment and maintain supply chains.
- To organise shipments and co-ordinate deliveries via external couriers to collaborators.
- To undertake specific safety responsibilities relevant to the groups work.
- Job descriptions cannot be exhaustive and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities commensurate with the grading of the post as required by the Principle Investigator, Chief Scientific Officer and Director.

Desirable skills:-

- RNA / DNA extraction techniques
- Multi-parametric flow cytometry
- Multi-plex cytokine analysis
- Transwell co-culture assays
- Previous exposure to microbiome interrogation and sequencing
- Experience of working to GCP and familiarity with the HTA would also be an advantage.

The post is offered for an initial term of one year, extendable for a further year. As part of the appointment with the Foundation for Liver Research the appointee will be put forward for an honorary appointment with King's College London.

Informal enquiries should be made by email to: **Dr Vishal Patel**, Principle Investigator - Microbiome in Advanced Chronic Liver Disease Group, Foundation for Liver Research. vishal.patel@researchinliver.org.uk

To apply for this post: please send a 1-page covering letter explaining your background and suitability for our team, together with a detailed CV describing your research experience to date and including names and contact details of two referees, one of whom is the current/most recent employer, to:

Natalie Day, Head of Administration
Institute of Hepatology, London
111 Coldharbour Lane, London SE5 9NT

n.day@researchinliver.org.uk

Please quote Job Ref: RS31

In the event that you are invited for interview we will contact you by email confirming the arrangements. At interview candidates will be expected to give a short presentation summarising their research achievements to date and outlining possible research directions.