

Post-doctoral Research Associate in Cancer Immunology at King's College London

Reference: THW/18/059639/000039

Salary Details: Grade 6, £33,518 per annum

Allowances: plus £2,923 London Allowance

Contract Type: Temporary/Fixed term

Contract Term: Full time



A 3-year World Wide Cancer Research-funded Research Associate position is available in the laboratory of Pierre Guermonprez in the Peter Gorer Department of Immunobiology, at King's College London.

Checkpoint blockade immunotherapies successfully unleash the potential of pre-existing T cell responses against tumor antigens. However, the very development of such T cell responses is constrained by the paucity and functional impairment of conventional dendritic cells (cDCs) the tumor micro-environment. In this context, adoptive transfer of antigen-loaded cDCs might prove synergistic with immune checkpoint blockade. However, this prospect is limited by the current cDCs culture system which are poorly amenable to immunotherapy.

The project aims at developing a new method to generate human dendritic cells amenable to cancer immunotherapy.

Human induced Pluripotent Stem Cells (iPSCs) represent an inexhaustible source of immunologically compatible cells opening novel opportunities for innovating cellular therapies and personalized medicine. The over-arching goal of this project are: i) to generate a proof-of-concept for the generation of cDCs from iPSCs amenable to cellular therapy in cancer patients (ipDCs) using humanized immuno-deficient mice models of anti-tumor immune response, ii) to silence immune checkpoints in iPSCs using CRISPR-Cas9 to increase the immunogenicity of DCs generated from iPSCs.

The successful candidate is expected to possess:

- 1) A strong background in one or several of the following fields: mononuclear phagocytes and dendritic cell biology, T lymphocyte biology, genetic engineering, iPSCs, developmental immunology and hematopoietic differentiation, CRISPR-Cas9, in vivo imaging in mice models, human immunology.
- 2) A strong motivation and enthusiasm for translational human immunology involving in vitro studies of antigen presentation and humanized immuno-deficient mice models.

The Guermonprez laboratory is located within the Centre for Inflammation Biology and Tumor immunology at Guy's Hospital Campus. This environment provides excellent training for researchers in a multi-disciplinary environment and is equipped with state-of-the-art facilities.

The selection process will include a presentation and a panel interview.

Closing date: 08 February 2018

Contact: pierre.guermonprez@kcl.ac.uk

To apply: https://www.hirewire.co.uk/HE/1061247/MS_JobDetails.aspx?JobID=78450