

Immunology DPhil for ‘SarcAblate’ Phase 1 Clinical Study - A pilot study in high intensity focused ultrasound ablation of soft tissue sarcoma and small symptomatic intra-abdominal desmoid tumours

Dr. Paul Lyon, Dr. Joanna Hester

Studentship reference: 21SURG01WEB

The Nuffield Department of Surgical Sciences require a talented post-graduate to complete a 3-year DPhil investigating immunological response in ablated soft tissue sarcoma as part of a Sarcoma-UK funded clinical trial. The Phase 1 trial (“Sarc-Ablate”) is anticipated to open Autumn 2021 and is a pilot study in high intensity focused ultrasound ablation of soft tissue sarcoma and small symptomatic intra-abdominal desmoid tumours. Tumour ablation will be achieved using a clinically approved extracorporeal High Intensity Focused Ultrasound (HIFU) device, without the use of ionising radiation. Tumour biopsy samples and blood samples before and after ablation will be available for immunological analysis. The DPhil will include *in vitro* and *in vivo* pre-clinical work involving focused ultrasound in close collaboration with the Institute of Biomedical Engineering (IBME) (Prof. Coussios and Prof. Carlisle).

Sample analysis will be performed using state of the art research facilities at the Nuffield Department of Surgery, under joint supervision from Dr. Paul Lyon (OUH) & Dr Joanna Hester (Nuffield Department of Surgical Sciences). Specifically, analysis is likely to involve NanoString high plex immunological analysis, GeoMX digital spatial profiling and other microscopic techniques, flow cytometry and possibly ELISA.

Available Funding:

The studentship will cover course fees at the UK/ROI level along with a stipend for three years of at least £15,285 per year.

The successful candidate is expected to start in October 2021.

Application Deadline:

The deadline for formal applications is **30th July 2021**.

Interested candidates are strongly encouraged to contact the supervisors (Paul.Lyon@nds.ox.ac.uk and Joanna.Hester@nds.ox.ac.uk) by **23rd July 2021** to discuss the project before submitting an application.

Essential background:

2.1 or 1st class BSc in biology, medicine or immunology

Background in immunology

Wet-lab laboratory experience

Desirable skills:

Master’s degree in immunology and/or bioinformatics

Academic publication and/or presentation record appropriate to career stage

Willingness to perform or experience of performing *in vivo* studies

Experience in ultrasound engineering

Experience in bioinformatics

High-level of computer literacy

How to apply:

To be considered for this studentship, please submit an application to the DPhil in Surgical Sciences. On the application form, in the section headed ‘Departmental Studentship Applications’, you must indicate that you are applying for a studentship and enter the reference code for this studentship “21SURG01WEB”.

You will need to apply for both the programme and this studentship via the main University online graduate application form and pay an application fee of £75. The application form, all supporting materials required for the programme (including references) and payment must be submitted by the appropriate studentship deadline. Please note that as this is a studentship project no research proposal is required. Please submit a statement of purpose/personal statement in its place. To access the application form and application guide please visit our website at www.graduate.ox.ac.uk/apply.

Interviews are expected to be held in the week commencing 9th August 2021, via Microsoft Teams.