

BRACCO FELLOWSHIPS EDUCATION IN RESEARCH ENROLMENT FORM

Name of Institution ___ King's College London, Guy's & St Thomas' Hospitals_

City and Country of Institution _____ London, UK _____

RESEARCH GROUP

Brief description of the research group and of its mission:

Department of Cancer Imaging, School of Biomedical Engineering & Imaging Sciences, St Thomas' Hospital, London:

Our innovative research programme is dedicated to improving cancer care through imaging technology. We currently host 7 PhD/MD(Res) students and 3 NIHR integrated academic training fellows/lecturers in Radiology. We work with national and international collaborators and industry partners to personalize patient care across a number of themes including:

- Biomarker development
- Disease phenotyping and response prediction, evaluation and prognosis
- Development and optimisation of hybrid imaging
- Image analysis, radiomics and artificial intelligence

We also support a portfolio of multicentre clinical trials with imaging facilities including 8 CTs (4 Dual Source), 15 MRIs (0.55T, 1.5T, 3T, 7T) 2 SPECT/CT, 3 PET/CTs and 1 PET/MRI. x

Webpage: www.kcl.ac.uk/bmeis

TITLE OF PROPOSED RESEARCH PROJECT

Improving the evaluation of patients with haematological cancers with advanced whole body imaging

OBJECTIVES

To investigate the role artificial intelligence in disease detection and biomarker extraction in patients with multiple myeloma

APPLICANT'S DUTIES

- To assist in whole body MR imaging data interpretation and analysis

- To assist in whole body MR disease localization and segmentation in relation to AI algorithm development and testing
- To correlate MRI findings with clinicopathological and imaging (Dual energy CT and 18F-FDG PET/CT) findings

APPLICANT'S BENEFITS

- Experience of working with imaging data including clinical trial data
 - Experience of research techniques including systematic review, data curation & annotation, data analysis, statistical & AI techniques
 - Experience of research presentation e.g. abstract writing & submission
 - Participation on scientific outcomes of the project i.e. presentations to congresses or publications of papers
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- Project Leader: Prof Vicky Goh
 - Project Members: Dr Michela Antonelli, Dr Piyalitt Ittichaiwong, Dr Olwen Westerland