# 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, United Kingdom_____

## 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 10 PhD/MD(Res) students and 3 NIHR integrated academic training fellows 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. The School of Biomedical Engineering hosts the London Medical Imaging AI Centre.

Webpage: www.kcl.ac.uk/bmeis

## TITLE OF PROPOSED RESEARCH PROJECT

Imaging assessment of plasma cell disorders with whole body CT & MRI

## OBJECTIVES

- To assist in the development & assessment of AI algorithms for disease detection and quantification

## APPLICANT'S DUTIES

- To assist in imaging data interpretation and curation

- To analyse and compare the performance of proposed AI algorithms versus clinicians for detecting disease

- o To experience being embedded in London Medical Imaging & AI Centre algorithm development teams


## APPLICANT'S BENEFITS

- o Experience of research techniques including systematic review, data curation & annotation, data analysis, statistical & AI techniques
- o Experience of research presentation e.g. abstract writing & submission
- o Participation on scientific outcomes of the project i.e. presentations to congresses or publications of papers


- Project Leader: Vicky Goh
- Project Members:  Michela Antonelli, Piyalitt Ittichaiwong, Olwen Westerland