

BRACCO FELLOWSHIPS EDUCATION IN RESEARCH ENROLMENT FORM

Name of Institution:

King's College Hospital, London (Clinical institution) and King's College London (Academic institution)

City and Country of Institution:

London, United Kingdom

RESEARCH GROUP

Brief description of the research group and of its mission:

To develop translational research on clinically-relevant applications of advanced ultrasound imaging technique of contrast-enhanced ultrasound (CEUS), with utilization of both existing commercially available analysis software (VueBox, Bracco™), as well as innovative computer programmes tailor-made in King's College London, for advanced computer-assisted quantitative and qualitative analysis of the vascular architectures enhancement dynamics of a spectrum of histopathological conditions.

TITLE OF PROPOSED RESEARCH PROJECT

Qualitative and Quantitative Analysis of Contrast-Enhanced Ultrasound (CEUS)

OBJECTIVES

- Investigate the renal perfusional changes in a variety of pathophysiological conditions through CEUS
- Evaluate change in renal vascular architecture as demonstrated on CEUS in a variety of pathophysiological conditions

APPLICANT'S DUTIES

- Attending specialist CEUS lists with clinical supervisors at King's College Hospital, London
- Review and curation and performing qualitative and quantitative analysis on CEUS dataset under supervision of clinical and academic supervisors

- Preparation for scientific presentation or publication on the outcome of the research project

APPLICANT'S BENEFITS

- Participation on scientific outcomes of the project i.e. presentations to congresses or publications of papers
 - Direct bedside instruction on the technical aspects of performing contrast – enhanced ultrasound examination, with exposure to CEUS application in a wide range of spectrum of pathology in a tertiary academic hospital
 - Hands-on training at a prestigious institution (King's College London is ranked the top university in Europe and third globally for top universities for radiology, nuclear medicine and medical imaging by U.S. News: <https://www.usnews.com/education/best-global-universities/radiology-nuclear-medicine-medical-imaging>) on advanced ultrasound imaging qualitative analysis tools including VueBox™ and use of clinical imaging systems to provide data suited to research quantitative and qualitative assessment.
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- Project Leader: Dr. Dean Huang FRCR EBIR MD(Res)
 - Members: Dr. Dean Huang (King's College Hospital, London), Dr. Kirsten Christenson-Jeffries (Department of Imaging Science and Biomedical Engineering, King's College London)