

RESEARCH PROJECT

Name of Institution: University College London

City and Country of Institution: London, United Kingdom

RESEARCH GROUP

Brief description of the research group and of its mission:

The UCL Division of Surgery and Interventional Science is a collaborative and cross-disciplinary environment where clinicians, engineers, allied health professionals and researchers are constantly striving for innovative approaches to treatment.

As a world leader in medical and biomedical research we are able to see at first-hand the directions in which medicine and science are moving and where patient and industry needs are growing.

Our Prostate Cancer unit started 20 years ago and has carried out unprecedented work over the years, transforming our understanding of prostate cancer (e.g., the PROMIS study published in *The Lancet* and the PRECISION trial published in *The New England Journal of Medicine*).

Nurturing and training the next generation of talented prostate cancer researchers is just as much a priority for the unit, and for this reason we are delighted to host a talented and motivated fellow that will help us shape the future of prostate MR imaging, in particular in terms of image quality, active surveillance for low- and intermediate-risk prostate cancer and after focal ablation.

The initial data for this project have arisen from the results on active surveillance and image quality of prostate MRI obtained during the ESOR Bracco Fellowship (2019) and from the ESOR Nicholas Gourtsoyiannis teaching fellowship (2022), both awarded to Dr Francesco Giganti (the project leader for this initiative).

- Giganti F, et al. Eur Radiol (2020) 30(4):2082-2090 (PRECISE)
- Giganti F, et al. Magn Reson Imaging (2020) 67:50-58 (PRECISE)
- Giganti F, et al. Insights Imaging (2022) 13(1):111 (PRECISE)
- Giganti F, et al. Eur Radiol (2023) 33(1):461-471 (PI-QUAL)

This project will also include the newly published scoring system for assessing prostate MRI after focal ablation (PI-FAB score): <https://doi.org/10.1016/j.euo.2023.04.007>

The applicant will be based at the Prostate Research Group located in Charles Bell House, University College London and will work under the supervision of Associate Professor Francesco Giganti (Radiologist) and Professor Caroline M Moore (Urologist).

The applicant will also work closely with our members of the Prostate Cancer Team (Radiologists, Urologists and Pathologists) based at University College London Hospital (Westmoreland Street).

TITLE OF PROPOSED RESEARCH PROJECT

Prostate MRI: a journey from initial diagnosis to active surveillance and treatment

OBJECTIVES

- To learn the basics of prostate MRI including image quality acquisition.
- To learn how to use the PI-QUAL score for prostate MR image quality reporting.
- To learn how to use the PRECISE score for prostate MRI during active surveillance.
- To learn how to use the PI-FAB score for prostate MRI after focal therapy.
- To help improve and standardise the quality of the MRI-pathway of prostate cancer.

APPLICANT'S DUTIES

- The applicant will be asked to set up and run research in consultation with both Supervisors.
- The applicant will play an active role in the analysis and creation of a dedicated database to evaluate MR images in different settings (initial diagnosis, during active surveillance, after focal therapy).
- The applicant will be required to attend our weekly multidisciplinary meetings that include radiologists, urologists, pathologists and oncologists.
- There will be also opportunities for the applicant to learn directly from our national and international collaborators via remote and in-person methods.

APPLICANT'S BENEFITS

- The applicant will contribute to the drafting and submitting of abstracts to appropriate radiological and urological conferences and will be first author.

- The applicant will contribute to the drafting and submitting of papers to appropriate peer reviewed journals and will be first author.
- The applicant will be able to export their knowledge in their own Institution, and this in turn will lead to a stronger collaboration between their and our Institution.

Project Leader: Associate Professor Francesco Giganti, MD, PhD (Radiologist)

Members: Professor Caroline M Moore (Urologist), Dr Clare Allen (Radiologist)