

# **BRACCO FELLOWSHIPS EDUCATION IN RESEARCH ENROLMENT FORM**

**Name of Institution** Department of Radiology and Nuclearmedicine,  
University Hospital Frankfurt

**City and Country of Institution** Frankfurt, Germany

## **RESEARCH GROUP**

Brief description of the research group and of its mission:

The Division of Experimental Imaging (DEI) at the Goethe University Hospital in Frankfurt, Germany focuses on research mainly in the fields of spectral / dual-energy CT, PET-CT and MRI. Technical innovations and new approaches are evaluated in the radiology fields such as cardiovascular, musculoskeletal, oncological & thoracic imaging. Another focus of our research is the correlation of quantitative CT with other imaging modalities (MRI, PET) and clinical data. We are a division within the Clinic of Radiology and Nuclearmedicine (Head: Prof. Dr. Thomas J. Vogl) at the Goethe University Hospital and have already participated in the Bracco Fellowship programme. Through our national and international collaborations (Italy, Switzerland, and the USA) we are well-connected within the scientific community and are one of the most frequently publishing radiology research groups in Germany.

## **TITLE OF PROPOSED RESEARCH PROJECT**

**"Spectral CT imaging in oncologic and musculoskeletal radiology"**

## **OBJECTIVES**

- To learn how to use spectral CT imaging in clinical routine mainly in oncologic and musculoskeletal radiology
- To evaluate prospectively and retrospectively spectral CT algorithms in context of scientific studies
- To write and publish scientific papers on spectral CT approaches/models under supervision by our team

## **APPLICANT'S DUTIES**

- **Conducting Research:** Engage in designing, executing, and analyzing research studies. This includes formulating research hypotheses, designing experiments or studies, collecting and analyzing data, and interpreting results.
- **Literature Review:** Perform comprehensive reviews of relevant literature to inform research projects and ensure that studies are grounded in current knowledge.
- **Manuscript Preparation:** Write and submit manuscripts for publication in peer-reviewed journals. This involves drafting, revising, and responding to reviewers' comments.
- **Presentations:** Prepare and present research findings at local, national, or international conferences and meetings.
- **Collaboration:** Work closely with other researchers, clinicians, and departments to foster interdisciplinary research and collaboration.

## **APPLICANT'S BENEFITS**

- Participation on scientific outcomes of the project i.e. presentations to congresses or publications of papers
- Gaining insights and skills how to use spectral CT imaging in oncologic and musculoskeletal radiology
- Supervision by one of the most active and frequently publishing radiology research groups in Germany
  
- Project Leader: PD Dr. Christian Booz
- Members: Prof. Dr. Thomas J. Vogl, Dr. Ibrahim Yel, Dr. Leon D. Gruenewald, Dr. Leona S. Alizadeh, Dr. Christian Wolfram