

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

**Name of Institution:** Diagnostic and Interventional Radiology, University Hospital Zurich

**City and Country of Institution:** Zurich, Switzerland

## **RESEARCH GROUP**

The Musculoskeletal Imaging Research Group is an interdisciplinary research group and forms a cohesive center for faculty members, postdoctoral fellows, research staff, and medical students to pursue teaching and research in musculoskeletal imaging. In close collaboration with industrial partners and the clinical musculoskeletal sections at the University Hospital of Zurich (Department of Trauma Surgery, Department of Rheumatology, Department of Geriatrics, Department of Neurology, Division of Plastic and Reconstructive Surgery) the Musculoskeletal Imaging Research Group aims to integrate research and build collaborations between basic scientists, clinical scientists, physicians, and radiologists establishing a strong resource for musculoskeletal imaging-based research at the University of Zurich. There is also close collaboration with the Institute for Biomedical Engineering, an institution of the Swiss Federal Institute of Technology (ETH Zurich), Department of Neuroradiology and the Orthopedic University Hospital Balgrist. Ongoing projects include studies on new developments in all imaging modalities with focus on CT and MR imaging, including systematic reviews and randomized controlled trials.

## **TITLE OF PROPOSED RESEARCH PROJECT**

- DIXON- and ZTE-technique MR-imaging of the hands in degenerative and rheumatic disease – do we really need additional T1 weighted-imaging?

## **OBJECTIVES**

- To determine whether in-phase images of DIXON MR sequences with PD-weighting and/or ZTE-images are equivalent to T1-weighted turbo spine-echo MR imaging
- To assess respective impact in image analysis, diagnosis and patient management
- To assess possible reduction in scan time

## **APPLICANT'S DUTIES**

- Retrospectively identify patients from our data-bank and PACS
- Develop readout-process based on existing literature in order to assess and quantify the study hypothesis
- Perform readout in a blinded fashion and co-reading with expert radiologist
- Participate in statistical data analysis and draft writing

## **APPLICANT'S BENEFITS**

- Based on activity and merit in the project, possible first or second authorship  
Applicant will be able to work in experienced research setting with possibility to learn and apply knowledge in study conceptualization and conduct.

Project Leader: Prof. Dr. med. univ. Roman Guggenberger, Head of MSK Group