

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

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

Zurich, University of Zurich

**City and Country of Institution**    Zurich, Switzerland\_\_\_\_\_

## **RESEARCH GROUP**

The fellow will have the opportunity to join an innovative, well-established, successful and interdisciplinary research team specialized in cardiovascular imaging including most recent imaging technology (photon-counting detector CT). The inherent spectral capabilities of this CT scanner allow for various data processing options, including reconstruction of virtual noncontrast images and virtual noncalcium images. Also, late enhancement CT will profit from spectral acquisition including iodine calculations. In addition, the ultra-high resolution mode enables imaging of high quality images of the coronary arteries and coronary plaques. The applicant is given the chance to collaborate on research projects to create evidence for the implementation of these techniques into routine clinical practice. Ethics committee approval is available. The ultimate goal of this fellowship is a participation in an original research article as coauthor.

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## **TITLE OF PROPOSED RESEARCH PROJECT**

**Cardiac Imaging with Photon-Counting Detector CT**

## **OBJECTIVES**

- Evaluate images reconstructed with advanced data processing techniques and assess their incremental benefit
  - Optimize contrast material administration and reduce radiation dose of cardiovascular scans
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## **APPLICANT'S DUTIES**

- Data acquisition with photon-counting detector CT
- Image reconstruction and analysis
- Clinical correlation
- Data interpretation
- Help in preparing and writing manuscript

### **APPLICANT'S BENEFITS**

- Participation on scientific outcomes of the project i.e. presentations to congresses or publications of papers.
  - Collaboration in research projects with photon-counting detector CT
  - Joining a well-established research group
  - Structured daily clinical teaching in our institute
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- Project Leader: Prof. Dr. med. H. Alkadhi, MPH, EBCR, FESER
  - Members: PD Dr. med. M. Eberhard, Dr. med. V. Mergen