Comprehensive quantification and visualization of heart anatomy and function with MRI

Reference   ESR6

Closing Date   30th April 2015

Employer   Philips Healthcare Best, The Netherlands

Department   MR Clinical Science

Gross salary   In accordance with the EC Marie Curie financial guidelines for this scheme

More info   www.healthcare.philips.com and www.musica2020.eu

Role and duties

The successful candidate will be supported by the highly prestigious and competitive Marie Curie ITN fellowship and will be employed by Philips Healthcare Best, The Netherlands. The project will provide high quality network-wide scientific training courses and complementary skills training. The candidate will also have the opportunity to register for a PhD in the Medical Image Analysis department of the faculty of Biomedical Engineering of the Eindhoven University of Technology, under the supervision of Prof. dr. Marcel Breeuwer (in the case that the candidate's scientific output is in accordance with the requirements of this university).

The candidate will be mainly based in the Magnetic Resonance (MR) Clinical Science group of Philips Healthcare Best, The Netherlands, but also work for extended secondments at the Eindhoven University of Technology (www.tue.nl), the Maastricht University Medical Center (www.mumc.nl), and the Catharina Hospital Eindhoven (www.catharinaziekenhuis.nl).

Based on the general expertise of the MR Clinical Science department, her/his general mission will cover the following aspects:

- Co-development of methods to dynamically visualize the anatomy and function of the complete heart and surrounding vasculature with Magnetic Resonance Imaging (MRI).
- Conception, development, verification and validation of software applications for the comprehensive quantification and visualization of heart anatomy and function from 4D Functional MRI, especially for patients with heart valve disease and heart failure.
- Close interaction and cooperation with researchers from Cardiovascular Biomechanics department of the Faculty of Biomedical Engineering of the Eindhoven University of Technology, who will model treatment of heart disease

  (https://www.tue.nl/en/university/departments/biomedical-engineering/research/research-groups/cardiovascular-biomechanics/).
- Publication of results at scientific conferences and in peer-reviewed scientific journals.
- Active participating in the life of the MR Clinical Science department.

Requirements

Applicants should have a Master's degree in Electrical Engineering, Computer Science, Applied Physics, Applied Mathematics or Biomedical Engineering. Applicants with prior experience in MRI and medical image analysis will be given highest preference. Ample experience in programming C# or C++ using Visual Studio is a must – persons without this experience are requested to refrain from applying.

Candidates will be required to meet the Marie Curie Early Stage Researcher eligibility criteria. In particular, at the time of recruitment by the host organisation, candidates must be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree. This is measured from the date when they obtained the degree which would formally entitle them to embark on a doctorate. They are required to undertake trans-national mobility (i.e. move from one country to another) when taking up their appointment. At the time of recruitment by the host organisation, researchers must not have resided or carried out their main activity (work, studies, etc.) in The Netherlands for more than 12 months in the 3 years immediately prior to the start date. Short stays such as holidays and/or compulsory national service are not taken into account.

This post is available from 1st June 2015 or as soon as possible thereafter and will be offered on a full time fixed-term contract for a period of 12 months, renewable up to a total of 36 months.

Recruitment process
The application must be accompanied by an updated **Curriculum Vitae** (in the European format), **academic credentials** (mark sheets and degree statements) and at least **2 letters of reference** from previous academic supervisors. Submissions will be not considered eligible without these documents. The candidate is asked to clearly state his/her motivations in an accompanying letter.

Send your application by 30 April 2015 by email to Marcel.Breeuwer [AT] philips.com

Informal inquiries can be made by contacting prof. dr. Marcel Breeuwer – Marcel.Breeuwer [AT] philips.com

Please quote reference ESR6 on your application and in any correspondence about this vacancy.