



FACULTY OF
MEDICINE
Lund University

Engineering/Physics Post-Doctoral Fellowships with the Lund Cardiac MR Group, Lund University, Sweden

The Lund Cardiac MR Group at Lund University in Sweden is seeking a Post-Doctoral Researchers for a period of 1-2 years. Candidates must be self-driven and strongly motivated to perform research in a multi-disciplinary group comprised of physicians, engineers, physiologists and computer scientists. The research group consists of approximately 30 individuals. Fluent English speaking is required for all positions, since all group meetings are held in English. In addition to research, the group has a specific focus on personal and professional development with accredited staff. The group has an active collaboration with Siemens for programming access to a 1.5 Tesla Magnetom Aera and a 3.0 Tesla Magnetom Prisma. Lund University is consistently ranked as one of the top 100 universities worldwide. For more information about the group:

https://www.med.lu.se/klinvetlund/klinisk_fysiologi/forskning/cardiac_mr_group

Post-doctoral fellowships are open in the following research areas:

Image post-processing (engineer, PhD)

Projects will focus on image processing of large cohorts (1 000-30 000 subjects). Image data will consist of both CT images and MR images. A PhD in Electrical / Biomedical Engineering, or related major is required. Experience in image processing, Matlab, machine learning, CUDA programming, cardiovascular MR/CT post processing is desirable.

Patient-specific cardiovascular modelling (engineer, PhD)

Project will focus on developing patient-specific cardiovascular modelling. A PhD in Electrical Engineering, Biomedical Engineering, or related major is required. Previous experience in physiological modelling is required, and experience in lump-parameter models or CFD modelling is desirable.

MR-physics / pulse programming (engineer, PhD)

Projects will focus on development of advanced cardiovascular imaging acquisition and/or post-processing techniques. The objective is to develop and eventually introduce new methodologies into clinical practice in one or more of the research lines of the group. PhD degree in Electrical / Biomedical Engineering, Medical Physics or related major is required. Prior experience in MR physics, MR pulse sequence programming, image reconstruction, Matlab, Siemens IDEA, and cardiovascular MRI are desirable.

Please send inquiries or applications to Professor Håkan Arheden, hakan.arheden@med.lu.se.