



Center for Medical Image Science and Visualization
(CMIV)

Announces
PhD Positions
In

Patient Specific Image Data Driven Organ Exploration and Simulation

(Biomedical engineering, Computer Science, Medicine, Physics or related fields)

The *Center for Medical Image Science and Visualization* (CMIV) is a Swedish multidisciplinary research center hosted by Linköping University and the County Council of Östergötland. CMIV conducts focused front-line research within multidisciplinary projects providing solutions to tomorrow's clinical issues. The mission is to develop future methods and tools for image analysis and visualization for applications within health care and medical research.

Within the newly funded interdisciplinary research project '*Seeing Organ Function - Patient Specific Image Data Driven Organ Exploration and Simulation*', CMIV is seeking expressions of interest for PhD positions funded by the project.

About the project: Since the origin of medical imaging, its major focus has been the understanding of anatomical structures. Only more recent medical imaging modalities support acquisition of patient-specific functional data embedded in a high-resolution spatial context. The project '*Seeing Organ Function*', funded by the *Knut and Alice Wallenberg Foundation*, aims at extending the impact of functional imaging deeply into the simulation domain. More specifically, methods will be developed for the creation of image-driven patient specific organ models for exploratory simulation of organ function that support medical research, and in the long-term clinical use of patient specific functional organ models in the diagnostic workflow.

Qualifications: The project is structured into three technical subareas **Data Acquisition, Simulation,** and **Visualization**, and two medical focus themes **Cardiology** and **Neuroscience**. Candidates must have a Master's degree or equivalent in a subject relevant to at least one of these areas. Note that candidates can have either a medical or technical background. The ability to solve problems and the will to conduct top-level PhD studies are key factors for the open positions. It is expected that the successful candidates closely cooperate with other PhD students and researchers at CMIV as well as external collaboration partners.

Starting date: September 2014 or at earliest convenience.

Information: Prof. Anders Ynnerman (anders.ynnerman@liu.se), Prof. Örjan Smedby (orjan.smedby@liu.se) or Prof. Timo Ropinski (timo.ropinski@liu.se)

Application procedure: The expression of interest should be sent electronically to anders.ynnerman@liu.se and must be submitted no later than 2014-05-31. It should include a cover letter in Swedish or English, CV, relevant degree certificates and diplomas. (All abovementioned documents should be sent as a single pdf-file).