PhD and Software Engineer positions in the area of MR spectroscopy data analysis

The High-Field MR Center (MRC) at the Max Planck Institute for Biological Cybernetics in Tübingen, Germany invites applications for one software engineering position and one PhD position in the area of magnetic resonance spectroscopy (MRS) analysis software and algorithm development. The global aim is the development of clinical decision support system based on quantitative multi-modal MRI. The specific focus of the intended software engineering position is the development of a magnetic resonance spectroscopy data handling, reconstruction, processing, analysis and visualization software module. The specific aim of the PhD position is the development of novel spectral fitting algorithms for the quantification of in vivo magnetic resonance spectroscopic imaging, time resolved MRS and 2D COSY MRS data and may include a sequence implementation part for 2D resolved MRS as well. The project will partly build up on existing algorithms and implementations in MATLAB and IDL and is a collaborative project with 7 partners in 4 European countries funded by the European Union and will hence require cooperation with other software developers in Switzerland, Germany, the Netherlands and the UK.

The MRC Department is equipped with two human whole body Siemens MRI systems (3 T and 9.4 T) and one Bruker 14.1 T rodent MRI scanner, a computation cluster, a RF lab and a biochemical lab for MR contrast agent development. The MRC Department is also affiliated to the Department of Neuroimaging and MR-Physics at the University Hospital Tübingen, which allows implementation and application of new MR techniques within a clinical setting at the 3T whole body Siemens research systems.

Applicants for the software engineer position should have a computational science, electrical engineering, physics or applied mathematics background, experience in software development as well as image or signal processing and should have obtained a PhD possibly in the field of MRI or NMR methods development or image processing. Applicants for the PhD position should have an electrical engineering, computational science, physics or mathematics background and possibly experience in either image processing, signal processing, MRI or NMR methods development. Both candidates need good English language skills, be able to work independently, get acquainted with new methods and knowledge quickly and be able to work in a team with other software engineers, postdocs and PhD students.

The positions are available from September 1st 2015 on and intended for an initial period of 5 years with the possibility of a long-term option in a related spin-off company. Payment depends on the level of experience and relates to TV-L West. The positions are available until filled. The Max Planck Society is an equal opportunity employer: women, people from minority groups and handicapped individuals are strongly encouraged to apply.

Applications should include a letter of motivation, a curriculum vitae including a sufficiently detailed description of previous work experience especially in the field of software development and magnetic resonance imaging, a list of publications (peer-reviewed original articles; review articles; book chapters; conference contributions; other) and/or previous projects, PhD and Master certificates (including a list of classes taken during Bachelor and Master studies); three reference letters and related contact details of the referees.

All materials should be sent to anke.henning - at - tuebingen.mpg.de electronically or to

Dr. Anke Henning  
Research Group leader  
MRC Department  
Max-Planck Institute for Biological Cybernetics  
Spemannstrasse 41  
72076 Tübingen  
Germany

Further information on the Max Planck Institute for Biological Cybernetics and the positions on offer can be obtained at www.kyb.tuebingen.mpg.de and via anke.henning - at - tuebingen.mpg.de.