

## **hqRECON: LOW-COUNT, HIGH-QUALITY PET/SPECT IMAGE RECONSTRUCTION**

**PhD position “Evaluation of low-count, high-quality image reconstruction techniques”**

**Duration:** 3 years starting October 2017

The Center for Medical Physics and Biomedical Engineering (CMPBME) at the Medical University of Vienna (MedUniWien) is looking for a PhD candidate with a serious interest in medical imaging and image analysis. He/She shall join a multi-disciplinary international research project between Austria and Russia on “*Low-count, high-quality reconstruction methods for PET and SPECT imaging*”. This project, hqRECON is funded by the Austrian Research Foundation (I3451-N32). Specifically, the candidate shall engage the setting and validation of a Monte Carlo simulation platform and the development and evaluation of new image reconstruction techniques, together with the Russian cooperation partners of this project.

The successful candidate will be offered a **3-years PhD position** at the Medical University of Vienna. He/she will benefit from the opportunity to join recently established Quantitative Imaging and Medical Physics Group (QIMP) at the CMPBME. This group engages in a number of multi-disciplinary imaging projects, with a particular focus on quantitative imaging in the realms of PET, PET/MRI, PET/CT and SPECT/CT, and is well integrated with several clinical departments, incl. the Dept. of Biomedical Imaging and Image-Guided Therapy, the Dept. of Radiation Oncology and the MR Centre of Excellence.

### **Qualifications**

- Successfully completed studies in Physics, Biomedical Engineering, Mathematics or Computer Science (MSc degree or equivalent).
- Strong programming skills e.g., C++, MATLAB, FORTRAN, Linux O.S.
- Solid mathematical background for the development of image reconstruction and analysis algorithms.
- Excellent communication skills.
- Very good command of the English language.
- Knowledge of Russian language will be an asset.
- Prior experience with medical imaging data will be of benefit.

### **About the Center of Medical Physics and Biomedical Engineering**

The CMPBME is a multi-disciplinary research center and service provider at the Medical University of Vienna. The center employs over 40 full staff members and about the same number of Master and Graduate students. The main objectives of the CMPBME include the development of advanced technology and physical methods for medical diagnosis and therapy, the support of multi-disciplinary translational research and teaching activities within the Curricula of the Medical University of Vienna. For further information: <http://www.zmpbmt.meduniwien.ac.at/>.

### **How to apply**

Interested candidates should send a **cover letter, CV** detailing education, skills and work experience, and the contact details of **two referees** to:

Jacobo Cal-Gonzalez, PhD

T: +43.1.40 400-19880

Email: [jacobo.calgonzalez@meduniwien.ac.at](mailto:jacobo.calgonzalez@meduniwien.ac.at)

**Deadline for applications:** 15 August 2017