



# PhD student Image analysis and algorithm development (f/m/d)



The Werner Siemens Imaging Center (Department of Preclinical Imaging and Radiopharmacy) is a world-leading imaging center recognized for its scientific excellence and unique state-of-the-art imaging. In tumor diseases the heterogeneity of a tumor is an important parameter with clear links to outcome and prognosis. It can often be observed with imaging (e.g., PET, MRI) or detected through image analysis methods, but always requires confirmation with histology. Supervised machine learning methods would strongly benefit from a one-on-one alignment of histology with imaging. Therefore, the Werner Siemens Imaging Center is looking for an enthusiastic and highly motivated

## PhD student for image analysis and algorithm development

and the automatic analysis of histopathological data. The position (100 %) is initially limited to 2 years with the plan for further extension. The objective is the development of algorithms to analyze histopathological images, in particular to quantify heterogeneity and detect distinct regions within the tumor.

The successful candidate in this position should hold a MSc in computer or data science, mathematics, engineering, biomedical science or related field. The candidate should have a strong interest in machine learning, image analysis, medical imaging and deep learning. Excellent communication skills and proficiency in English, both spoken and written as well as experience in software development is required, preferably in Python or MATLAB. Experience with neural network software packages (e.g., Theano, TensorFlow, Keras) is a plus.

The offered position is part of an International Training Network (ITN) funded by the European Union's Horizon 2020 Innovation program. As general eligibility criteria the new fellow may not have resided in the country where the research training activities take place for more than 12 months in the 3 years immediately prior to the recruitment date (and not have carried out their main activity (work, studies, etc.) in that country). The fellow must be—at the date of recruitment—an 'early stage researcher' (i.e. in the first four years (full-time equivalent) of his/her research career and not have a doctoral degree).

Interested candidates should apply with a complete Europass CV

(<https://europass.cedefop.europa.eu/documents/curriculum-vitae>), a motivation letter, copies of your relevant certificates and contact details of at least two referees (former professor/advisor/mentor).

The remuneration follows the rates determined by the EU for ITN research projects.

For questions regarding the application process please contact Andreas Dieterich, Tel: 0049 7071 29-83459, E-Mail: [Andreas.Dieterich@med.uni-tuebingen.de](mailto:Andreas.Dieterich@med.uni-tuebingen.de)

Severely handicapped persons with equal qualifications are given preferential consideration. The University of Tübingen is anxious to increase its quota of female scientific staff, and therefore emphatically requests women to apply for this position. The Administration of the University Hospital is responsible for all employment matters. Personnel appointments will be made pursuant to the fundamental stipulations of the legal statutes for universities in Germany. Interview expenses are not covered.

Application deadline: **21.06.2019**

Please send your application documents exclusively as PDF attachments by e-mail **quoting the reference number 9741**

**Universitätsklinikum Tübingen**  
**Radiologische Klinik**  
**Präklinische Bildgebung und Radiopharmazie**  
**Office WSIC**  
**Röntgenweg 13**  
**72076 Tübingen**

E-Mail: [Office.WSIC@med.uni-tuebingen.de](mailto:Office.WSIC@med.uni-tuebingen.de)

Website: <http://www.isct.uni-tuebingen.de/wsic/career/>



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