The German Cancer Research Center (DKFZ) is seeking for the partner site Freiburg of the German Cancer Consortium (DKTK) a

PhD Student to work on the advanced analysis of proteomic and genomic data in cancer research
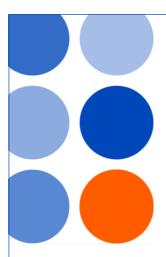
(Ref-No. 47/2017)

Description:

The Institute of Pathology at the University Medical Center Freiburg, as part of the German Consortium for Translational Cancer Research (DKTK) is soliciting applications for a PhD Student to work on the integrated analysis of proteomic and genomic data in cancer research.

Our research unit uses mass-spectrometry based proteomics to explore, understand, and distinguish cancer biology with the dual aim of improved stratification and identification of novel, druggable targets. To this end, we employ explorative, quantitative shotgun proteomics, targeted proteomics, and spatially resolved mass spectrometry. Our research addresses both quantitative proteome alterations as well as specific post-translational modifications. These multi-modal and multi-dimensional data sets may be complemented by genomic characterization and RNA-based expression analyses. You will be co-supervised by PD Dr. Oliver Schilling and Dr. Peter Bronsert.

Your profile:

Ideally, you are experienced with proteomic analysis, the integration of multi-omics data, and the deep analysis of high-dimensional expression data. Very good computer skills (especially using R and C++) are required. Very good knowledge about bio-statistical techniques, especially for omics-type data is a prerequisite. We also expect you to be familiar with regression models, approaches such as support vector machines and random forests as well as machine learning and neuronal network strategies. For the work on spatially-resolved mass spectrometry, you will benefit from an understanding of pattern recognition, image

analysis, and 3d image reconstruction. Experience with proteomic analysis software such as Skyline, OpenMS, TPP or MaxQuant is a bonus. You should have some knowledge about bio-medicine and cancer biology.

Very good scientific writing skills and fluency (both oral and written) in English are required. You should have a degree in bio-informatics or computer-science, but we are also interested in applicants with a background in life sciences. We expect you to have a great, pro-active and open-minded work attitude, a strong interest in translational research, and very good problem-solving skills.

Duration:

The position is limited to 3 years.

The Translation Centre is located in the premises of the University Medical Center Freiburg.

Contact:

PD Dr. Oliver Schilling, phone +49 761 203 9615.

Application Deadline:

March 31, 2017