Heidelberg University Hospital and the German Cancer Research Center invite applications for **Two Postdoctoral Positions**

**Desired qualifications:** We are looking for highly motivated, well qualified postdoctoral researchers with a background in (bio)statistics, (bio)informatics, mathematics, computer science, epidemiology, public health or (molecular) biology, ideally with practical experience in the analysis of high-dimensional omics data using SAS and/or R. The candidates should have excellent analytical and communication skills, be fluent in English and interested in working in an interdisciplinary team at the forefront of cancer research and biostatistics.

**Description of duties:** Gallbladder cancer (GBC) is a very aggressive disease. Early symptoms are unspecific and most patients are diagnosed too late. Precise estimates of the individual risk of developing GBC and biomarkers for early GBC detection are urgently needed. Within the EU-funded project **EULAT Eradicate GBC** a large amount of genetic-molecular data will be generated and integrated with clinical, demographic and lifestyle data to individualize GBC prevention and early detection. We are seeking for postdoctoral researchers to establish and refine current GBC prevention programs in two related areas:

- **Identification of plasma proteins causally linked to cancer development through integrated deep and machine learning (Project #AIH14):** We aim to apply deep neural networks for differential plasma proteome profiling based on mass spectrometry features, and advanced machine learning techniques (robust LASSO) to predict plasma protein levels based on individual single nucleotide polymorphism data.
  

- **Identification and Validation of Proteins for Gallbladder Cancer Risk Prediction (Project #138):** We aim to integrate proteomic, genotype and clinical data using standard and advanced biostatistical techniques (multiple logistic and robust regularized regression) to separate individuals who develop gallstone disease from GBC patients with high sensitivity and moderate specificity.

  ➔ Apply until 22.09.2022 through: [Inter-Institutional Postdoctoral Positions - Innovation Campus Heidelberg Mannheim Health & Life Sciences (health-life-sciences.de)](http://www.health-life-sciences.de)

Hands-on knowledge of bioinformatics and biostatistics is essential for a successful academic career, and many biotech companies are actively recruiting staff with appropriate training. The postdoctoral researchers will be strongly supported by three world-leading labs, with ample opportunity to be trained in the development and application of artificial intelligence and biostatistical techniques to genetic-molecular data, and excellent career prospects in both academia and industry.
The projects are led by Justo Lorenzo Bermejo (Heidelberg University Hospital), Stephanie Rössler (Heidelberg University Hospital) and Jeroen Krijgsveld (German Cancer Research Center). Descriptions of the three research groups are available at

biometrie.uni-heidelberg.de/StatisticalGenetics

klinikum.uni-heidelberg.de/pathologisches-institut/allgemeine-pathologie/forschung/arbeitsgruppen/ag-roessler-ag-roessler

dkfz.de/en/proteomik-stammzellen-krebs/index.php

We offer

- The possibility to conduct cutting-edge research at the interface of statistics, molecular medicine and artificial intelligence
- Extensive experience in the analysis of multi-omics data and the development of new statistical techniques
- Comprehensive professional and personal training activities

Interested candidates should submit their applications via the links indicated above. Selected candidates will be invited to a personal interview.