



# CoAGE

Join us as a PhD student!

You are thinking of doing your PhD in the Life Sciences and are interested in research topics like healthy ageing and age-associated diseases? The Cohorts for Healthy Ageing (CoAGE) is offering **talented scientists** the chance to work on **cutting edge research projects in the field of ageing research and epidemiological studies**.

You will be part of the CoAGE graduate programme. This programme focuses on investigating the causes of age-related diseases, such as cardiovascular diseases, diabetes and cancer, and why they often occur together. CoAGE brings together experts who are studying healthy ageing and age-related diseases to address current issues in an interdisciplinary manner. Each of these experts leads one of the major German ageing studies and will supervise a CoAGE PhD student where the study is located.

## PhD position on 'Biomarkers for heart failure: Improving personalised risk prediction in the ageing population' in Hamburg, Germany

Cardiovascular diseases (CVD) represent the leading non-communicable diseases (NCD) associated with the highest NCD death rates globally. Heart failure (HF), a major CVD, is the most common cause of hospitalization and in-hospital death throughout Germany. The high incidence shows a rising trend as the population ages, and the disease is not only related to high mortality and morbidity, but also to lower quality of life and extensive health expenditures, making it a major public health issue. Due to the growing HF burden, there is a need for improved risk assessment, early detection, and prognostication of HF to facilitate disease management. Existing risk prediction models are usually limited to traditional CVD risk factors. However, those often fail to accurately estimate an individual's full risk to develop HF, and at granting prognostic utility.

Improving these models by adding impactful risk markers is crucial to inform personalised approaches for precision prevention in those at highest risk for developing HF. By exposing the activity of multiple HF-associated pathways and structural changes, circulating and imaging-based biomarkers have the potential to better estimate risk and prognosis in the ageing population, and to out-perform existing risk prediction models by adding valuable information and taking into account a comprehensive and differentiated personal profile. The improved personalised risk prediction may lead to a better identification of high-risk individuals, subsequently inform patients in short- and long-term prognosis, therapy and care. Ultimately, this will result in a reduction of HF disease burden and support healthy ageing.

Hamburg offers a large-scale dataset from a population-based cohort study including a wide range of deep phenotype variables, also covering lab-based biomarkers, imaging and genetic data, which can be used to address this research topic.

Supervision: Stefan Blankenberg (Medical Centre Hamburg-Eppendorf, UKE); [The HCHS Study](#)

### Requirements

Are you an ambitious scientist looking to push the boundaries of research while interacting with colleagues from multiple disciplines and cultures? Would you like to employ bioinformatics and cutting-edge computational biology to advance translational research? Then joining CoAGE is your opportunity to give your scientific career a flying start!

### Further requirements:

- Master or equivalent
- Interactive personality & good command of English
- 2 letters of reference
- background in bioinformatics, biostatistics or data science is a plus

### What else you need to know

- **Starting Date:** 01.10.2024
- **Duration:** 3 years
- **Deadline:** 31.08.2024

### Have we sparked your interest?

To apply, please send a **single PDF file** containing your cover letter, CV, certificates and at least two professional references to [coage-recruiting@imb.de](mailto:coage-recruiting@imb.de). In your email, **please specify the project for which you are applying**. IMB is an equal opportunity employer.

### Declaration of Consent and Data Protection

By sending us your application, you are consenting to us saving your personal data in order to carry out the selection process. You can find more information on data protection and retention periods at <https://www.imb.de/jobs/data-protection>.