PhD positions in Integrative Membrane Structural Biology in the Hunte laboratory
University of Freiburg, Germany

Two PhD positions are open to study the assembly and biogenesis of membrane protein complexes with crucial roles in the aerobic energy metabolism. The projects are part of the Collaborative Research Center 1381 (SFB 1381) - Dynamic Organization of Cellular Protein Machineries: From Biogenesis and Modular Assembly to Function.

Cellular respiration is essential for life. It is accomplished by a sophisticated machinery of membrane-bound, multi-protein and cofactor-bearing respiratory complexes that can form higher-order structures called supercomplexes. The assembly of these machineries must take place in a tightly regulated and dynamic manner to meet changing energetic demands of the cell. Gene defects that impair the assembly are often linked to diseases. The projects aim to provide in-depth structural and mechanistic insights into the coordinated and regulated assembly and biogenesis with a focus on mitochondrial complex III and its related supercomplexes. We will address fundamental open questions with a broad spectrum of genetic, biochemical and biophysical methods including X-ray crystallography and cryogenic electron microscopy (recent work e.g. on cryo-EM structure Kao et al., Nature Communications 2022; on protein-protein interaction Liang et al., Faseb Journal 2020).

We are located at the University of Freiburg (Germany) and are offering a dedicated research environment with state of the art equipment for membrane protein research. The group is member of the excellence cluster CIBSS – Centre for Integrative Biological Signalling studies. We are seeking highly motivated and qualified individuals with a keen interest in molecular biomedical research. Candidates should hold a university degree (Master or equivalent) in biochemistry, chemistry, biology or a related topic. The positions are available from now until filled.

For further information, please contact Carola Hunte. The position is associated with the Spemann Graduate School of Biology and Medicine, which offers a structured PhD program to prepare doctoral researchers for future scientific challenges. Applications should be directed to Carola Hunte (Email carola.hunte(at)biochemie.uni-freiburg.de).

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