



At the **Institute of Functional Microbial Genomics (Prof. Johannes H. Hegemann)** and the **Institute of Physical Biology (Jun.-Prof. Wolfgang Hoyer)**, a

PhD position (f/m/d)

is to be filled by January 2021.

Project ***Chlamydia* and Alzheimer: Protofibrillar oligomers of *Chlamydia* adhesins and human amyloid- β**

Chlamydia pneumoniae is an intracellular bacterial pathogen. Apart from its role in respiratory infections of the lung/respiratory system and the nasal mucosa, it is linked to a number of chronic diseases, in particular Alzheimer's disease (AD). Infectious *C. pneumoniae* cells have been isolated from AD brain samples. Interestingly, adhesive membrane proteins on the *C. pneumoniae* cell surface seem to share structural characteristics with protofibrillar oligomers of human amyloid- β , which are considered the prime toxic species in AD. This PhD project aims at establishing potential links between *C. pneumoniae* adhesins and amyloid- β by comparatively analyzing these species with methods from the fields of biochemistry, biophysics, and cell biology.

The successful candidate should have a master degree in biology, biochemistry, biophysics, cell biology or a related field and should be highly motivated.

The candidate will be working in a creative and international environment embedded in an interdisciplinary team of scientists ranging from microbiologists, biochemists, cell biologists, biophysicists to structural biologists. The 3-year PhD position is available from January 2021 on. Payment of the PhD fellow will be based on salary grade EG 13 (50%) Collective Agreement for the Civil Service (TVöD).

The project will be embedded in the iGRADbio Graduate Program, facilitating interactions with PhD students in all fields of Biology (<https://www.biologie.hhu.de/startseite-biologie/igradbio-graduate-program.html>). At Heinrich-Heine-University Düsseldorf around 36,000 students study on a modern compact campus under conditions ideally suited to academic life.

Contact:

Please send your application including a CV, the name and email addresses of two references, and a motivation letter as a single pdf document (<5 MB) to Jun.-Prof. Wolfgang Hoyer (wolfgang.hoyer@hhu.de) and Prof. Johannes Hegemann (johannes.hegemann@hhu.de).