



## PhD scholarship in the Manchot Graduate School “Molecules of Infection”

The Manchot Graduate School Molecules of Infection IV (MOI-IV) offers an innovative, structured training and research program in a both stimulating and interdisciplinary field of medicine and biology. Highly motivated and excellent candidates holding a MSc degree in biology, biochemistry or related subjects are strongly encouraged to apply.

The Heinrich-Heine-University with more than 34,000 students forms the core of the university town Düsseldorf. As a full university with its five faculties law, economics, humanities, medicine, and mathematics & natural sciences, the HHU promotes close interdisciplinary cooperation on the regional, national and international scale. The HHU has, already for the third time, been awarded with the certificate “TOTAL E-Quality”.

**We have one open PhD position assigned to the topic “Control of immune response to infection”:**

**Projekt 13: Analysis of host-pathogen interactions through single-cell RNA sequencing**

Supervising Investigator: Prof. Dr. Alexander Dilthey, Institut für Medizinische Mikrobiologie und Krankenhaushygiene, UKD

**Aim of the project:** To characterize host cell invasion and host-pathogen interactions of *Toxoplasma gondii* and *Chlamydia trachomatis* at high resolution using scRNA-seq; to better characterize the kinetics of host defense mechanisms and the strategies employed by the pathogens to overcome these; and to integrate scRNA-seq data with existing functional data on e.g. the GBP effector molecules.

For further information and detailed project descriptions please visit our website:

<https://www.moi.hhu.de/en/open-positions>.

### Qualification profile:

- Master’s degree in Biology, Biochemistry, medical Biology or comparable
- Knowledge in the field of infection research
- Good communication and presentation skills
- Good team spirit, motivation and an independence work organisation



### **We offer:**

The scholarship comprises inter alia a monthly allowance of 1,900 € over a period of 3.5 years as well as a budget for material expenses and financial support for the attendance of national and international conferences and for a temporary stay abroad.

The dissertation projects are cross-linked both in content and methodology. Within the scope of the **MOI-IV** qualification program, lectures, seminars and a lab rotation will provide the PhD students with thorough insight into the infection biology of the three big pathogen groups of viruses, bacteria and fungi/protozoa as well as into the host's immune response. In the course of the study program, the students will be enabled to acquire extensive professional key competences. A temporary stay abroad is an integral part of each dissertation project. Yearly MOI symposia offer a platform for presenting own research results and intensive scientific exchange. An international scientific advisory board accompanies **MOI-IV** and supports the PhD students during their projects.

### **Closing Date:**

**31.12.2020**

**IMPORTANT:** Please follow application instructions of our website and download and full fill the application form. Only complete applications will be accepted.

<https://www.moi.hhu.de/en/open-positions>

### **Contact:**

Please contact for further information:  
Dr. Stephanie Spelberg ([moi@hhu.de](mailto:moi@hhu.de)).