# Job posting

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**Title**  
PhD scholarship in the MOI-IV Manchot Graduate School

**Institution**  
The research program of the MOI-IV Manchot Graduate School focuses on the characterization and functional dissection of selected host-pathogen interactions at the molecular level and the mechanism that control immunological responses to infectious diseases. In doing so, it follows the highly successful approach adopted in the previous funding periods for MOI-I, MOI-II and MOI-III. The projects are located at the HHU Düsseldorf, Uniklinikum Düsseldorf and Forschungszentrum Jülich.

**Position**  
We have one open PhD position assigned to the following topics:

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.

**Responsibilities**  
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 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.

If you are interested to apply for the scholarships, please download the application documents on our website: https://www.moi.hhu.de/en/open-positions. Here you also find a detailed project description.

Deadline: 31st December 2020

MOI IV Scientific Coordinator
Dr. Stephanie Spelberg
moi@hhu.de