

Better together. For life.

Doctoral Researcher (f/m/d) in the field of Helminth-induced suppression of vaccine responses (Systems Vaccinology)

part-time| Location: Hamburg-Eppendorf| Zentrum für Innere Medizin – Institute for Infection Research and Vaccine Development

Salary grade 13 TVöD/VKA (internal); externally linked to the collective wage agreement

At the UKE, we are convinced that successful and fulfilling work should be harmonised with the personal needs and individual life plans of all employees.

Together we can make this possible.

Every day a little more. Every day a little better.

What to expect

We are the UKE – the University Medical Centre Hamburg-Eppendorf [Universitätsklinikum Hamburg-Eppendorf]. A pulsating centre of health in the heart of Hamburg. When you are surrounded by that much energy and when progress sets the pace, no two days are the same. More than 14,100 employees with very different responsibilities are united by the same goal: ensuring health and well-being.

The UKE offers the opportunity to perform cutting-edge research in an excellent research environment. The Institute for Infection Research and Vaccine Development (IIRVD, webpage: <https://www.uke.de/kliniken-institute/institute/infektionsforschung-und-impfstoffentwicklung/team/index.html>) (Director: Prof. Dr. Marylyn Addo) focuses on the development of novel vaccines against emerging viruses. Within the Institute, we use Systems Vaccinology approaches enabling a comprehensive insight into vaccine-induced immune responses and mechanisms leading to vaccine efficacy or failure. This approach combines multiple omics technologies to collect data on e.g. transcriptomic changes, changes of immune cells and signalling molecules before and after vaccination. Data sets are combined in a computational approach to understand the mechanisms of protective immunity and to identify markers of early innate immune responses that may predict the outcome of vaccination.

The overall goal of this DFG-funded project is to investigate the mechanisms involved in different vaccine responses using a systems vaccinology approach in a murine model. This project is based on a collaboration between the UKE and the Bernhard-Nocht-Institute of Tropical Medicine (BNITM, <https://www.bnitm.de/>) joining two expertises. The AG Helminth Immunology (BNITM) uses a murine model for human helminth infections. The aim of the proposed study is to better understand how helminth infections influence vaccine-induced responses and vaccine efficacy since extrinsic factors, like pre-existing helminth infections, can dampen the immune response and thereby impair vaccine efficacy.

This project aims to combine the expertise of both research groups at UKE and BNITM, applying Systems Vaccinology to the well-established mouse model of helminth-induced suppression of vaccine responses. A broader knowledge of mechanisms underlying vaccine efficacy and failure might contribute to future vaccine development strategies that reduce vaccine failure in the context of a helminth infection.

The position is to be filled initially by a fixed-term employment for three years and the salary will be according to 65% EG 13 TVöD. The starting date is the beginning of November 2022 or later.

What we look forward to

- Highly motivated candidate with a strong interest in basic immunology and vaccinology
- Master degree in molecular life sciences, biology, immunology or a relevant field
- Basic knowledge of multicolor flow cytometry
- Basic knowledge of RNA Sequencing
- Willingness to carry out infection experiments in the mouse system; FELASA B is an advantage but not mandatory
- Willingness to learn and develop new methods to evaluate innate immune responses on multiple level (RNA, DNA, protein) and with various techniques (PBMC isolation, cell culture, flow cytometry, sequencing approaches)
- Motivated to learn novel data analyses (R, flowjo, Prism)
- Independent, creative and self-reliant working style
- Very good knowledge of English (written and spoken) due to the international orientation of the working groups
- Excellent teamwork and communication skills

What we can offer

- Regular pay according to TVöD/VKA; attractive company pension plan and various employee discounts
- 30 days of vacation; possibility of special leave
- Central location: Our clinic is centrally located at the beautiful Eppendorfer Park
- Sustainable travel: subsidies for the HVV-ProfiTicket and Dr. Bike bicycle service; option to lease a service bike
- Crisis-proof workplace, meaningful activity, appreciative interaction and open exchange of knowledge within the team; structured induction training
- Opportunity to actively shape and develop the working environment within the framework of our employee program (UKE INside).
- Family-friendly working environment: cooperation on childcare, free vacation care, advice for employees with relatives in need of care
- Excellent health, prevention and sports offers
- Healthy and varied lunch break: In addition to our canteen, there is a rich selection of culinary offerings just a few steps away, for example the "Health Kitchen" cafés and bistros, as well as other snack bars, bakers, a supermarket, etc.

Contact:

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Please note that your application can only be considered if you are fully immunised against the SARS-CoV-2 virus (at the latest at the start of engagement), supported by valid official vaccination certificate(s). Please submit these with your application.

We offer a work environment providing equal opportunities regardless of age, gender, sexual identity, disability, origin or religion. This is confirmed by our accession to the Charter of Diversity. We explicitly aim to increase the proportion of women in management positions, especially among scientific personnel in research and teaching. Women with equal qualifications will be given priority. The same applies in the case of under-representation of one gender in the advertised area. Persons with severe disability with equal aptitude, competence and professional performance will be given priority.