Job Advertisement FungiNet 01/2021

The Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (Leibniz-HKI, www.leibniz-hki.de) investigates the pathobiology of human-pathogenic fungi and identifies targets for the development of novel natural product-based antibiotics. The research group **Microbial Immunology** invites talented and highly gifted candidates to apply as a **Doctoral Researcher (f/div/m) Microbiology / Infection Immunology**

**Research Topic:**

The fungus *Candida albicans* is both a commensal that can be found on mucosal surfaces of the majority of healthy humans, but also an opportunistic pathogen causing a range of infections. Since the gut is the main reservoir for *C. albicans* strains causing infection, we’re investigating which mechanisms influence intestinal colonization and how colonization affects the immune system of the host. We recently identified dietary factors that have a significant impact on *C. albicans* gut colonization. Based on these findings, the successful candidate will elucidate the mechanisms by which diet influences intestinal colonization, and the consequences of colonization on host immune responses and defense against systemic infection. By using a combination of *C. albicans* mutants and gnotobiotic mouse models, the aim is to decipher the contributions of both fungal metabolism and diet-induced alterations of the microbiome to colonization resistance. Furthermore, the effects on Th17 and B cell responses as important mechanisms of defense against systemic fungal infections will be addressed.

The project is part of the DFG-funded Collaborative Research Centre/Transregio 124 – **FungiNet**: Pathogenic fungi and their human host: Networks of interaction

**Requirements:**

- a Master’s degree (or equivalent) in life sciences, ideally with a background in microbiology and immunology
- desirable methodological skills: standard microbiology and molecular biology techniques, flow cytometry; experience in working with laboratory mice is advantageous but not required
- the ability to work creatively and independently towards developing your own research project
- an integrative and cooperative personality with excellent English communication skills, both written and spoken

**We offer:**

- a modern workplace with state-of-the-art labs and equipment
- a highly dynamic young team in a thriving research environment in a Leibniz Institute with an energetic scientific network
- participation in the structured graduate program of the **Jena School of Microbial Communication**

The successful candidate will be hosted in the research group **Microbial Immunology**. The Leibniz-HKI is embedded in the outstanding scientific environment of the Beutenberg Campus providing state-of-the-art research facilities and a highly integrative network of life science groups. We offer a multifaceted scientific project with excellent technical facilities, as well as strong scientific collaborations.

Salary is paid according to German TV-L (salary agreement for public service employees). As an equal opportunity employer the Leibniz-HKI is committed to increasing the percentage of female scientists and therefore especially encourages them to apply.
Further information:
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Applications:
Complete applications in English should include a cover letter, a CV containing a complete list of publications, a brief statement of research experiences, the addresses of two possible referees, and should be submitted by 03. August 2021, via the JSMC Online Application Portal, under the vacancy ID FungiNet 01/2021

https://apply.jsmc.uni-jena.de/