



Press Release

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Fight against life-threatening fungal infections continues

German Research Foundation (DFG) positively re-evaluates the Collaborative Research Centre/Transregio "FungiNet" of the University of Jena and provides 9,5 million Euros for the second funding period

Jena / Würzburg. The only Collaborative Research Centre on pathogenic fungi can continue its work. With the second funding period, the DFG acknowledges the societal and medical importance of this topic and FungiNet's achievements so far.

It is hardly known that fungal infections present a major threat – especially for older or immunocompromised patients, for instance with leukemia or following organ transplantation. Such infections are deceitful because we often recognize them too late and hardly understand the underlying disease mechanisms. In addition, there are only few, partially ineffective therapeutic measures and resistance to drugs is increasing. "Annually, two million people worldwide contract life-threatening fungal infections. An increasing problem, which causes approximately as many deaths every year as malaria or tuberculosis" warns Axel Brakhage, the spokesperson of the Collaborative Research Centre.

Therefore, the ambitious goal of the scientists of the Collaborative Research Centre/Transregio (CRC/TR) 124 "*Pathogenic fungi and their human host: Networks of Interaction*" – short "FungiNet" – is to better understand life-threatening fungal infections and to develop new, urgently needed antiinfective therapies.

Since October 2013, the researchers of the Friedrich Schiller University Jena, the Jena University Hospital and the Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI) – successfully collaborate with colleagues from the University of Würzburg and its University Hospital in 18 subprojects: "The participating colleagues published 112 papers since the beginning of the project – amongst others, in the prestigious scientific magazine *Nature*. In addition, they identified the first fungal toxin in *Candida albicans*, one of the most common causes of serious fungal infections. With this, we took an important step towards understanding disease mechanisms of infectious fungi and deriving improved therapies in the future" reflects Axel Brakhage, Chair of Microbiology and Molecular Biology at the University of Jena and Director of the HKI, in view of the past four years of research.

With almost 9,5 million Euros in total, the CRC expands by one subproject to 19 research projects in the second funding period, which are led by approximately 30 scientists. Almost 30 doctoral and postdoctoral positions are created, of which 19 are in Jena. The microbiologists, immunologists, clinicians, bioinformaticians and chemists of the network extend their research interests to additional pathogenic fungi in the coming years. They also want to develop novel immunotherapy options. "The experimental research is complemented by bioinformatic analyses and the development of virtual infection models. With this unique collaborative project, we will continue to concentrate on the widely underestimated danger of fungal diseases" Brakhage emphasizes.

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