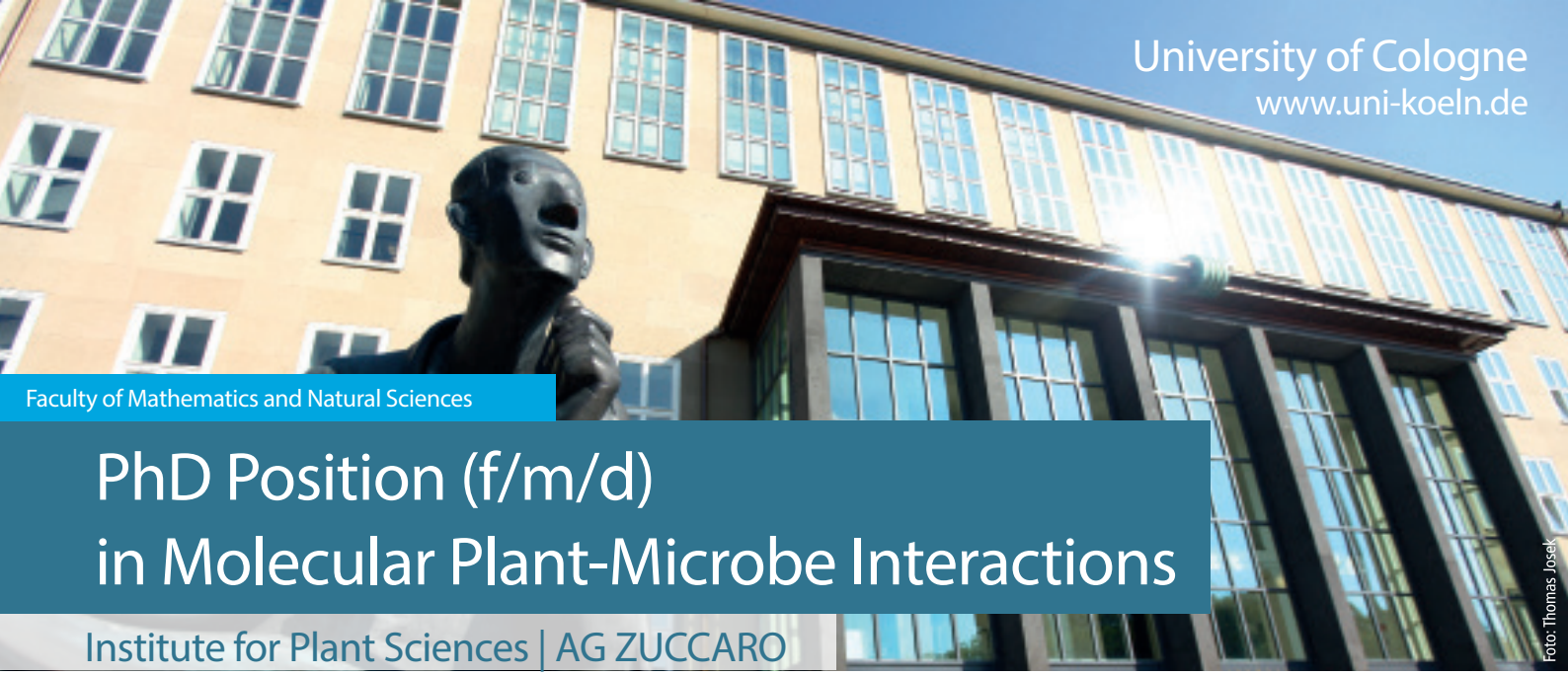

Faculty of Mathematics and Natural Sciences

PhD Position (f/m/d) in Molecular Plant-Microbe Interactions

Institute for Plant Sciences | AG ZUCCARO

The University of Cologne is one of the largest and most research-intensive universities in Germany, offering a wide range of subjects. With its six faculties and its interfaculty centres, it offers a broad spectrum of scientific disciplines and internationally outstanding profile areas, supported by the administration with its services.

This position is located in the group led by Professor Zuccaro (https://ag-zuccaro.botanik.uni-koeln.de/) at the Institute for Plant Sciences. The group's research focuses on the mechanisms which form the basis of plant-microbe interactions. The selected candidate will work on mechanisms which regulate cell death in plant-fungal symbiosis. Some fungi can trigger cell death in host plants. However, the molecular mechanisms triggering such responses have not yet been fully understood. Protein homeostasis (or proteostasis) is based on molecular pathways that support the correct folding and protein activity. When proteostasis collapses, protein aggregation occurs, causing cellular dysfunction, resulting in metabolic stress, enhanced ROS production and eventually cell death.

YOUR TASKS

- Explore the role of proteostasis mechanisms which regulate survival or suppress host defense upon colonization
- Use comparative genomics, transcriptomics and proteomics to identify proteostasis components involved in regulating cell death in plant root-fungal interactions
- Characterize selected candidate genes using in vitro and in vivo biochemical assays, imaging techniques and genetic screenings using the model plant *Arabidopsis thaliana*
- Take responsibility for the project, drive the research and contribute novel ideas
- Write and publish scientific articles
- Actively engage in group meetings and discussions

YOUR PROFILE

- A talented, highly motivated and enthusiastic researcher with a Master degree (or equivalent) in biology, biochemistry or a related discipline
- A genuine interest in plant-microbe interactions
- High degree of self-initiative and individual responsibility
- Excellent oral and written communication skills in English

WE OFFER YOU

- A highly motivated, international and committed team embedded in a highly interdisciplinary research environment
- A diverse and fair working environment
- Support in reconciling work and family life
- Flexible working time models
- Extensive advanced training opportunities
- Occupational health management offers
- Local transport ticket at a discount for UoC employees

The position (65%) is to be filled as soon as possible. It is initially for three years with the possibility of extension. If the applicant meets the relevant wage requirements and personal qualifications, the salary is based on remuneration group 13 TV-L of the pay scale for the German public sector.

The University of Cologne is committed to equal opportunities and diversity. Women are especially encouraged to apply and will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from people with disabilities / special needs or of equal status.

Please apply online at: https://jobportal.uni-koeln.de with proof of the required qualifications, including a CV, a one-page letter of interest and contact information for 2-3 academic references. The reference number is Wiss2102-12.
The application deadline is 05. 03. 2021.

University of Cologne