

PhD position in Research on Acceptance of Innovations in Agriculture

Department of Agricultural and Food Market Research

Faculty of Agriculture, University of Bonn

In the frame of an International Training Network (ITN) funded by the European Union's Horizon 2020 research and innovation program under Marie Skłodowska-Curie grant agreement the University of Bonn is offering a PhD position in Research on Acceptance of Innovations in Agriculture with expected commencement 1st June 2018 or as soon as possible thereafter.

Project title: ESR15: Multi-Stakeholder acceptance of using beneficial soil microbes for crop yield and pest suppression in tomato and potato cultivation in Europe

Project description

The aim of the project is twofold: (1) to assess consumers' awareness, attitudes and acceptance of the use of soil microbes for pest suppression and to identify whether and to what extent consumers are able to differentiate this type of biotechnology from others (e.g. GMOs). (2) to assess farmers' awareness with respect to soil microbes for pest suppression and to evaluate the impact of information on farmers' perception of main benefits and obstacles as well as their attitudes and willingness to make use of it. The results of the project will contribute to adjust theories and to develop methods to evaluate farmers' and consumers' acceptance regarding the use of resistance-inducing microbial products and methods in European agriculture. Moreover it will help to understand consumers' and farmer's acceptance and derive recommendations to support the dissemination of this new technology.

Project network MiRA

The PhD position is associated to a larger European training network, MiRA: www.miraitn.eu, with 14 other PhD positions at other participating institutions.

Overall research area of the MiRA Training Network

Plants are intimately associated with a diversity of beneficial microorganisms in their root zone, some of which can enhance the plant's resistance to insect pests. Thus, *the use of Microbe-induced Resistance (MiR) to reduce pest losses in agriculture has emerged as a promising possibility to improve crop resilience and reduce use of harmful pesticides*. European companies have therefore started to develop and market beneficial microbes. However, MiR appears to be strongly context dependent, with reduced benefits under certain biotic and abiotic conditions and in some crop varieties. Further, it is a challenge to deliver and ensure stable associations of beneficial microbes and plants, and avoid undesired effects on beneficial insects. Thus *we absolutely must improve our understanding of MiR mechanisms and context-dependency*, in order to improve context stability of MiR and promote the use of MiR for crop protection. The MiRA project will train early stage researchers in basic and applied research on context-dependency of MiR, mechanisms, and impacts on plant performance and other biocontrol organisms, and use this understanding to improve our ability to predict the effectiveness of MiR under different conditions, to select plant and microbial strains with improved context-stability, and to develop better methods for the formulation of microbial inoculants and their application in agriculture. Finally, we will analyse economic prospects and constraints for MiR development and use. We have assembled a consortium of academic institutions and companies, including microbial inoculant producers and agricultural advisors. Our ESRs will be trained within this multi-sectoral interdisciplinary network for a future career in research, product and service development in European horticulture and agriculture, pushing boundaries in European research and innovation.

Principal supervisors: Prof Monika Hartmann, monika.hartmann@ilr.uni-bonn.de, Phone: +49 228 733538 and Dr Johannes Simons +49 228 733549; Dept. of Agricultural and Food Market Research, University of Bonn

MiRA – PhD Fellowship

Planned secondments:

CASI (Cooperativa Agrícola San Isidro), Spain: Economy of tomato pest losses and management (2 months); SA (Scottish Agronomy), United Kingdom: Economy of potato pest losses and management (2 months); INOQ (Inoculation, Innovation, Quality), Germany: Economy of Micro induced Resistant-inoculants (2 months)

Job description

Your key tasks as a PhD student in MiRA are:

- Participate in the research environment at the Department of Agricultural and Food Market Research and the network activities of MiRA
- Manage and carry through your research project: Multi-Stakeholder acceptance of using beneficial soil microbes for crop yield and pest suppression in tomato and potato cultivation in Europe
- Take PhD courses
- Write scientific articles and your PhD thesis
- Participate in congresses
- Teach and disseminate your research

Key criteria for the assessment of candidates

- A master's degree related to the subject area of the project
- The grade point average achieved
- Professional qualifications relevant to the PhD program
 - **Primary skills: Experience in qualitative and quantitative research with respect to technology acceptance**
 - **Relevant skills: economics, behavioural economics**
- Previous research publications
- Other professional activities
- Language skills: English and German or willingness to learn German to the extent necessary to do interviews in Germany

Formal requirements and eligibility

At the time of commencement, it is required that the candidates have not been awarded a doctorate degree and are within the first 4 years (full-time equivalent) of their research careers. **Furthermore, the candidate must not have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the 3 years immediately prior to their recruitment.** Short stays, such as holidays, are not taken into account. The candidate is required to spend part of their project period at other institutions in the MiRA consortium on secondments.

Terms of employment

Terms of appointment and payment accord to Marie Skłodowska-Curie model employment contract for *Innovative Training Networks – ITN "Early-Stage-Researchers"* provided by the "German Nationale Kontaktstelle" and according to the rules and regulations laid down by European Union's Horizon 2020 Marie Curie Initial Training Networks.

Place of Employment

Department of Agricultural Chair of Food and Market Research, University Bonn

Please notice that this PhD fellowship entails secondments, see above.

Application Procedure

The application, in English, must be submitted electronically to mafo@ilr.uni-bonn.de.

MiRA – PhD Fellowship

Please include

- Cover Letter, stating your motivation and background for applying for the specific PhD project.
- Max 1-page proposal for research activities to pursue in the PhD study program
- CV
- Diploma and transcripts of records (BSc and MSc)
- 1-3 professional referees (Name, address, telephone & email)
- Documentation of English language qualifications
- Other information for consideration, e.g. list of publications (if any)

The University wishes our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of personal background.

By the end of May 2018 all applicants will have received information regarding the evaluation of their application.

The deadline for applications is 15.04.2018. Applications received later than this date will not be considered. After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Interview Committee.

Questions

General information about MiRA is available at miraitn.eu or by contacting Project Coordinator, Associate Professor Thure P Hauser, Dept. Plant and Environmental, University of Copenhagen, tpha@plen.ku.dk, Phone: +45 3533 2818

General information about PhD programs at the Agricultural Faculty is available in the [Faculty PhD regulations](#).