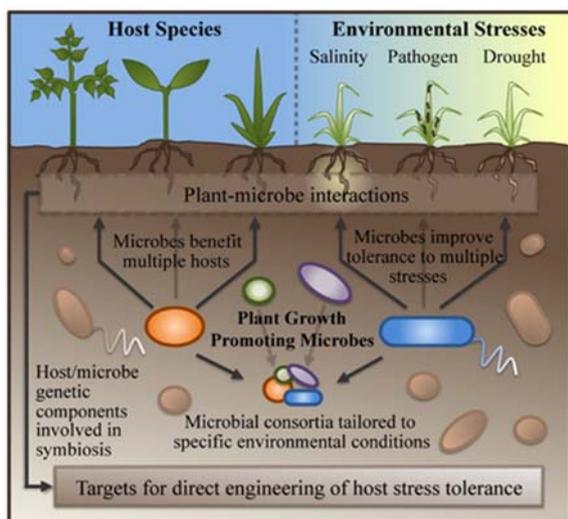


First announcement of the  
**Workshop on implementing plant –microbe interaction in plant breeding**  
 13:30h 25<sup>th</sup> June till 13:00h 26<sup>th</sup> June 2015  
**TUM Weihenstephan, close to Munich, Germany**  
 in order to establish a new  
**EUCARPIA Working Group on Plant-Microbe Interactions** in the  
**Section Organic and Low-Input Agriculture**

The workshop aims at creating a network among plant breeders and researchers of different disciplines to explore the potential of utilizing plant microbe interaction in plant breeding.

In recent years, plant-associated microbial communities have received considerable attention in research for their ability to improve crop productivity and stability. It is now well recognized that all plants, and nearly all tissues within the plant, are inhabited by a variety of microorganisms. Many of them offer benefits to the host, improving nutrient uptake, preventing pathogen attack, and increasing plant growth under adverse environmental conditions. In return these microorganisms receive shelter from the surrounding environment and access to a carbon-rich food supply. The interaction between plant and microorganism is quite complex. Best elucidated symbiotic systems are legumes and the nitrogen fixing rhizobium and host plants and mycorrhiza fungi. Influence of crop management, soil parameters and climatic effects are well documented. In addition, the knowledge about plant-endophyte, plant-epiphyte, and plant-rhizosphere flora is rapidly growing.



*“The fundamental change required is a broader recognition that plants do not exist as autonomous organisms governed entirely by their genetic blueprints, but rather serve as ecological niches for diverse communities of easily overlooked microbes, which work in concert with the plant to survive in a wide range of stressful environmental conditions.”*

Coleman-Derr D and Tringe SG (2014) Building the crops of tomorrow: advantages of symbiont-based approaches to improving abiotic stress tolerance. *Front. Microbiol.* 5:283. doi: 10.3389/fmicb.2014.00283

However, little research has been conducted to evaluate the potential to improve the plant microbe symbioses by plant breeding. First reports indicate that not only the host species but also the host genotype play a significant role in driving microbial community composition and activity, selecting for and against particular microbial partners, e.g. by certain root exudates. However, to what extent genetic factors are responsible for the specific associations with beneficial rhizosphere, epiphytic, or endophytic microorganisms is still poorly understood.

The topic is at the crossroads of plant breeding, genetics, plant physiology, nutrition, pathology, entomology, soil microbiology, metabolomics, co-evolution and adaptation.

During this workshop we want to elaborate on the possible implementations of the cutting edge research findings on plant microbe interaction into plant breeding.

We are very happy to have a key note speech from

***Prof. Dr. Lori A. Hoagland from Purdue University on "Breeding for beneficial belowground interaction"***

A large space will be devoted to discussions on potentials and limitation of implementing the vast growing knowledge on plant microbe interaction in plant breeding in order to improve stress resistance, plant nutrition, plant health and general adaptability, and links between upstream disciplines and breeding. This shall foster the dialogue between the different disciplines in order to develop efficient breeding strategies for the future.

Call for poster or paper presentations on this topic are open now.

#### **Location**

The first workshop is hosted by Dr. Jörg Peter Baresel from Technical University of Munich in Weihenstephan. The meeting is attached to the core-Organic II meeting: Coordinating organic plant breeding activities for diversity (COBRA, <http://www.cobra-div.eu/> and the meeting of the European Consortium for Organic Plant Breeding ECO-PB, [www.eco-pb.org](http://www.eco-pb.org))

#### **Important dates**

- 1 April 2015: second announcement and registration opening
- 15 April 2015: Deadline for Abstracts Submission
- 30 April 2015: Deadline for providing the information sheet of participants / research groups
- 10 May 2015: Confirmation of Registrations
- 30 May 2015: Publication of Final Program
- 25 - 26 June 2015: Workshop in Weihenstephan

Please see attached instructions for the preparation of abstracts for poster and paper presentations (max. 2 pages) which should be submitted till **15-April, 2015** to [monika.messmer@fibl.org](mailto:monika.messmer@fibl.org) topic **EUCARPIA**

Please provide information about your research topics and interest in the new EUCARPIA Working group on plant microbe interaction till **30<sup>th</sup> April 2015** to [monika.messmer@fibl.org](mailto:monika.messmer@fibl.org) topic **EUCARPIA** (see attached form)

Hotel list, travel descriptions and registration forms will be provided on 1<sup>st</sup> April 2015.

#### **On behalf of the Organizing Committee:**

Dr. Monika Messmer, Research Institute of Organic Agriculture (FiBL) Switzerland

Dr. Maria Finckh, University of Kassel (UK), Germany

Dr. Edith Lammerts van Bueren, University of Wageningen (WUR), The Netherlands

Dr. Jörg Peter Baresel, Technical University of Munich (TUM), Germany