

BIOGRAPHY

13/04/2010



Title and name

Prof. Dr. CHRISTOPH TEBBE

Nationality

German

Panel

Genetically Modified Organisms (GMO)

Education

Professor (Microbiology), Habilitation 2001, Technical University of Braunschweig, Germany

Doctor (rer.nat., Biology), Dissertation 1989, University of Münster/Westfalia, Germany

Scientific and risk assessment experience

In my team we are conducting research in Soil Microbiology and Microbial Ecology. Major topics: Analyses of microbial diversity and their metabolic activities in soils, rhizospheres and gastrointestinal tracts of animals based on novel, cultivation independent nucleic acid techniques, including metagenomics

Investigations on the fate of genetically modified products (e.g. Bt-toxins) and microorganisms (bacteria, yeast) deliberately or accidentally released into the environment

Detection of gene transfer from genetically modified organisms to indigenous bacteria in soil and in the gut of soil invertebrates (collembola, earthworms) and insects (e.g., bees)

Effects of genetically modified organisms and other triggers (e.g., root metabolites, pH, salinity, organic pollutants) on soil microbial diversity, metabolic activity and soil ecosystem services

Detection of pathogenic bacteria in organic substrates from composting and biogas production)

Main scientific publications

Dohrmann, A.B, S. Baumert, L. Klingebiel, P. Weiland, and C.C. Tebbe. 2011. Bacterial community structure in experimental methanogenic bioreactors and search for pathogenic clostridia as community members. Appl. Microbiol. Biotechnol. 89: 1991-2004

Miethling-Graff, R., S. Dockhorn, C.C. Tebbe. 2010. Release of the recombinant Cry3Bb1 protein of Bt maize MON88017 into field soil and detection of effects on the diversity of rhizosphere bacteria. European Journal of Soil Biology, 46: 41-48

Schader, S., T. Münchenberg, S. Baumgarte, and C.C. Tebbe. 2008. Earthworms of different functional groups affect the fate of the Bt-toxin Cry1Ab from transgenic maize in soil. European Journal of Soil Biology 44:289-295

Brinkmann, N., and C.C. Tebbe. 2007. Leaf-feeding larvae of Manduca sexta (Insecta, Lepidoptera) drastically reduce copy numbers of aadA antibiotic resistance genes from transplastomic tobacco but maintain intact aadA genes in their feces. Environmental Biosafety Research 6:121-133

Mohr, K.I., C.C. Tebbe. 2007. Field study results on the probability and risk of a horizontal gene transfer from transgenic herbicide resistant oil-seed rape pollen to gut bacteria of bees. *Applied Microbiology and Biotechnology* 75: 572-583

Tebbe, C.C., and M. Schlöter. 2007. Discerning the diversity of soil prokaryotes (Bacteria and Archaea) and their impact on agriculture. In G. Benckiser and S. Schnell (eds.), *Biodiversity in agricultural production systems*. CRC Press, Taylor & Francis Group, Boca Raton, FL. pp. 81-100

Selbitschka, W., M. Keller, R. Miethling-Graff, A. Pühler, and C. C. Tebbe. 2006. Field release of *Sinorhizobium meliloti*. *Microbial Ecology* 52: 583-595

Baumgarte, S. and C. C. Tebbe. 2005. Field studies on the environmental fate of the Cry1Ab Bt toxin produced by transgenic maize (MON810) and its effect on bacterial communities in the maize rhizosphere. *Molecular Ecology* 14: 2539-2551

Czarnetzki, A. B. and C. C. Tebbe. 2004. Diversity of bacteria associated with Collembola – A cultivation independent survey based on PCR-amplified 16S rRNA genes. *FEMS Microbiology Ecology* 49:217-227

Schwieger, F. and C. C. Tebbe. 1998. A new approach to utilize PCR-single-strand conformation polymorphism for 16S rRNA gene-based microbial community analysis. *Applied and Environmental Microbiology* 64:4870-4876

Tebbe, C. C., and W. Vahjen. 1993. Interference of humic acids and DNA extracted directly from soil in detection and transformation of recombinant DNA from bacteria and a yeast. *Applied and Environmental Microbiology* 59: 2657-2665
