

Ortsverband Freiberg
Die Vorsitzende / Prof. Dr. Carla Vogt
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GDCh-Kolloquium am 14.6.2023

TU Bergakademie Freiberg, Clemens-Winkler-Bau, Leipziger Straße 29

16:15 Uhr, großer Hörsaal HS (WIN-1005)



Prof. Guido Grossmann

Heinrich-Heine-Universität Düsseldorf, Institut für Zell- und Interaktionsbiologie
Cluster of Excellence in Plant Sciences CEPLAS

Towards Soil-on-a-Chip Structured micro-environments for root science

Tailored devices for microscopy of biological samples have substantially expanded the technical possibilities of how we cultivate, observe and experimentally interact with our model systems. Microfluidics, structured microdevices, and advances in 3D printing have led to numerous creative approaches to live imaging of plant-environment interactions, providing deeper insights into mechanisms of acclimation, infection, and symbiosis. Yet we are only at the dawn of an era of synthetic microenvironments that will fundamentally change the way we study—and engineer—plant-environment interactions and inter-organismal networks. Using microstructured environments and *Bacillus* species and *Arabidopsis* as model systems, we investigate the dynamics and mechanisms of microbial colonization of plant roots. In a more general overview, I will review the last decade of microdevice technologies in plant science, highlight achievements and discuss technical challenges and future potential of microenvironmental engineering.

Interessenten sind herzlich willkommen!

Prof. Dr. C. Vogt
Ortsverbandsvorsitzende

Prof. Dr. J. Kortus
Fakultätsdekan



GESELLSCHAFT DEUTSCHER CHEMIKER

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