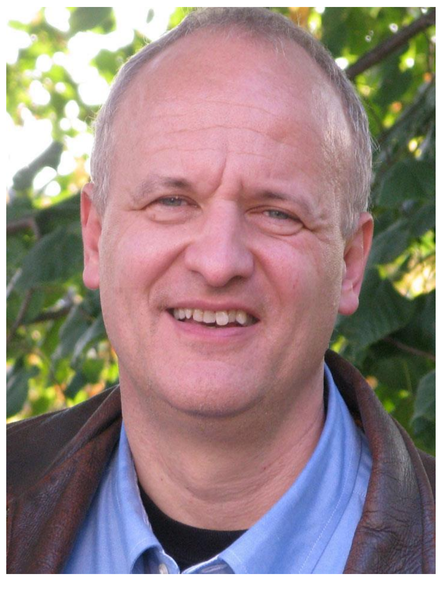
Universität für Bodenkultur Wien
University of Natural Resources and Life Sciences, Vienna

Department für Angewandte Genetik und Zellbiologie
Department of Applied Genetics and Cell Biology

Invitation to

BiRT Seminar Series

„die Welt der biologischen Interaktionen“



Prof. Dr. Gerhard H. Braus

Georg-August-University Göttingen,
Institute of Microbiology and Genetics

Aspergillus as model for coordinated development and secondary metabolism

04. April 2019
Uhr 9:30
Campus Tulln / UFT – Seminarraum 14

Fungal growth and differentiation and the concomitant secondary metabolism occur in response to internal and external signals that are sensed through receptors and transported by highly controlled signal transduction pathways. The resulting genetic transcriptional control includes interaction of different genetic networks, which are organized chronologically and hierarchically and contain several feedback functions. Transcription is coupled to posttranslational histone modifications as epigenetic control affected by additional signal transduction pathways. Fungal differentiation linked to specific secondary metabolites requires additional posttranslational control mechanisms including attachment and removal of ubiquitin family modifiers, which alter protein function or cellular localization, and initiate degradation through ubiquitin 26S proteasome and autophagy pathways. This leads to a choreography of changes in transcription, translation, posttranslational histone modifications and protein stability, followed by proteomic changes.

Hosts: Joseph Strauss