

GATERSLEBEN LECTURE



Speaker: **Prof. Dr. Miltos Tsiantis**
(Director of Max Planck Institute for Plant Breeding Research (MPIZ), Department of Comparative Development and Genetics, Cologne)

Title: **Towards understanding development and diversity of leaf shape**

Time: **Tuesday, April 26, 2016, 11 am**

Abstract:

A key challenge in biology is to understand how diversity in organismal form is generated. Genetic analyses in model systems have identified key regulators that sculpt the body plans of Metazoa and seed plants. However, less is known about how the action of such regulators produces particular organ shapes, and how the balance of conservation versus divergence of fundamental developmental pathways generated the tremendous morphological diversity of multicellular eukaryotes. One impediment to answering these questions is the relative paucity of experimental platforms where genetics and developmental biology tools can be combined effectively to study causal links between genotypic variation and phenotypic evolution in a genome-wide, unbiased fashion, and at different evolutionary scales. To circumvent these problems we developed the *Arabidopsis thaliana* relative *Cardamine hirsuta* into a versatile system for studying morphological evolution. We are investigating the morphogenetic mechanisms through which morphology evolved in these species, resulting in simple, undivided leaves in *A. thaliana* and dissected leaves with distinct leaflets in *C. hirsuta*. This presentation will discuss our progress towards understanding the genetic pathways underlying morphological differences of these two species.

Place: **Lecture Hall, IPK Gatersleben**

Prof. Dr. Andreas Graner
(organizer)

Dr. Nils Stein
(host)

If you are interested in personal discussions with the speaker please contact the host (phone: 039482/5522) beforehand.