## Cologne Evolution Colloquium

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## Tracking signatures of polygenic adapation in the *Arabidopsis* genus

Phenotypic changes are inherently resulting from changes in the dynamics of genetic networks, many of which have only small effects. Small effect mutations are thus crucial for adaptation. Understanding their collective significance can help pinpoint the molecular systems underpinning the micro-evolutionary processes governing phenotypic evolution and genetic adaptation. Using various interspecific F1 hybrids, we drew the distribution of *allele-specific expression* changes (ASE) derived in *A. halleri* and *A. lyrata* in various environmental conditions reflecting the ecological differences between these species. We analyze their distribution throughout the functional landscape of the outgroup species *A. thaliana* and identify some molecular functions likely to have accumulated regulatory changes as a result of natural selection.

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**Aolecular Basis of** 

Wednesday, November 26, 2014, 17:10 University of Cologne, Institute for Genetics Lecture Hall 4<sup>th</sup> Floor