



## Schmid Karl

### Education

1985 Abitur, Humanistisches Gymnasium bei St. Stephan, Augsburg  
1985 - 1986 Military service (mandatory)  
1988 B.A. in Biology, University of Munich  
1990 - 1991 Visiting Graduate Student, Oxford University, UK  
1992 M.Sc., with highest honors, in Zoology, Genetics, Biochemistry; University of Munich  
1996 Ph.D., University of Munich; Thesis: 'Rapidly evolving genes in Drosophila'  
2007 Habilitation, University of Jena; Thesis: 'Population genomics of the model plant Arabidopsis thaliana'

### Professional Experience

01/1997 - 09/1997 Postdoc with Prof. Diethard Tautz, University of Munich  
10/1997 - 12/1999 Postdoc with Prof. Charles Aquadro, Cornell University, Ithaca, NY, USA  
01/2000 - 09/2006 Emmy-Noether Group Leader, Max-Planck-Institute of Chemical Ecology, Jena, Germany  
10/2006 - 04/2008 Group leader "Evolutionary Genetics", IPK Gatersleben  
05/2008 11/2008 Professor of Genetics, SLU Uppsala  
Since 12/2008 F. W. Schnell Endowed Professorship in Crop Plant Biodiversity and Breeding Informatics

### Awards

1989 - 1992 Student Scholarship, German National Scholarship Foundation (Studienstiftung des deutschen Volkes)  
1990 - 1991 Postgraduate Scholarship, German Academic Exchange Service (DAAD)  
1997 - 1998 Postdoc Fellowship, German Science Foundation (DFG)  
1997 Short Term Fellowship, Boehringer Ingelheim Fonds  
1998 - 1999 NATO-Scholarship, German Academic Exchange Service (DAAD)  
2000 - 2004 Emmy-Noether Fellowship, German Science Foundation (DFG)

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### Publications

#### A. Peer reviewed publications:

\_ Kilger C. and K. J. Schmid (1994) Rapid characterization of bacterial clones by microwave treatment and PCR, Trends Genet., 10: 149.  
\_ Schmid K. J. and D. Tautz (1997) A screen for fast evolving genes from Drosophila. Proc. Natl. Acad. Sci. USA, 94: 9746-9750.  
\_ Schmid K. J. and D. Tautz (1998) Sequence and expression of DmMKLP1, a homolog of the human MKLP1 kinesin-like protein from Drosophila melanogaster. Dev. Genes Evol., 208: 474-476.  
\_ Tautz D. and K. J. Schmid (1998) From genes to individuals - developmental genes and the generation of the phenotype, Phil. Trans. Roy. Soc. B, 353: 231-240.  
\_ Wang. Z.G., K. J. Schmid and S. Ackerman (1999) The Drosophila gene 2A5 complements the defect in mitochondrial F1-ATPase assembly in yeast lacking the molecular chaperone Atp11p. FEBS Lett. 452: 305-308  
\_ Schmid K. J. and D. Tautz (1999) Large differences in sequence length and trinucleotide repeat composition between homologous developmental genes from Drosophila melanogaster and Tribolium castaneum. J. Mol. Evol., 49: 558-566  
\_ Schmid K. J., L. Nigro, C. F. Aquadro and D. Tautz (1999) High number of replacement polymorphisms at three fast evolving genes in populations of Drosophila melanogaster and D. simulans: Implications for genome-wide surveys. Genetics, 153: 1717-1729  
\_ Schmid K. J. and C.F. Aquadro (2001) The evolutionary analysis of 'orphans' from the Drosophila genome identifies rapidly evolving and incorrectly annotated genes. Genetics, 159:

589-598

- \_ Schmid K. J., T. Rosle, S. Orensens, R. Stracke, O. Torjek, T. Altmann, T. Mitchell-Olds and B. Weisshaar (2003) Large-scale identification and analysis of genome-wide single nucleotide polymorphisms for mapping in *Arabidopsis thaliana*. *Genome Research*, 13:1250-1257.
- \_ Torjek, O., D. Berger, R. C. Meyer, C. Mussig, K. J. Schmid, T. Rosle, S. Orensens, B. Weisshaar, T. Mitchell-Olds and T. Altmann (2003) Establishment of a high-efficiency SNP-based framework marker set. *Plant J.*, 36:122-140.
- \_ Schein M., Z. Yang, T. Mitchell-Olds and K. J. Schmid (2004) Rapid evolution of a pollen-specific oleosin-like gene family from *Arabidopsis thaliana* and closely related species. *Mol. Biol. Evol.*, 21: 659-69.
- \_ Schmid, K. J., S. Ramos-Onsins, J. Ringys-Beckstein, B. Weisshaar, T. Mitchell-Olds (2005) A multilocus analysis of sequence variation in *Arabidopsis thaliana* reveals a genome-wide departure from the standard neutral model of sequence evolution. *Genetics*, 169: 1601-1615.
- \_ Schmid, K. J., O. Torjek, R. Meyer, H. Schmuths, M. Hofmann, T. Altmann (2006) Evidence for large scale population structure in *Arabidopsis thaliana* from genome-wide SNP markers. *Theor. Appl. Genet. Theoret. Appl. Genetics*, 112: 1104-1114.
- \_ Korves T.M., Schmid K. J., Caicedo, A. L., Mays, C., Stinchcombe, J. R., Purugganan, M. D., and J. Schmitt (2007) Fitness effects associated with the major flowering time gene *FRIGIDA* in *Arabidopsis thaliana* in the field. *American Naturalist*, 169: E141-157
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- \_ Spillane C., Schmid, K. J., Pien S., Laouelle-Duprat S., Page D. R., Baroux C., Escobar-Restrepo J.-M., Kohler C., Wolfe K., and U. Grossniklaus (2007) Positive darwinian selection at the imprinted *MEDEA* locus in plants. *Nature* 448: 349-352
- \_ Oyama, R., Formanova N., Clauss, M. J., Kroymann, J., Schmid, K. J., Vogel H., Weniger K., Windsor A., and T. Mitchell-Olds (2008) The shrunken genome of *Arabidopsis thaliana*. *Plant Systematics* 273:257271
- \_ Schmid K. J. and Z. Yang (2008) The trouble with sliding windows and the selective pressure in *BRCA1*. *PLoS ONE* 3(11): e3746
- \_ Song B.-H., Windsor A. J., Schmid, K. J., Ramos-Onsins S., Schranz M. E., Heide A. J., and T. Mitchell-Olds (2009) Multilocus patterns of nucleotide diversity, population structure and linkage disequilibrium in *Boechera stricta*, a wild relative of *Arabidopsis*. *Genetics* 181: 1021 - 1033
- \_ Hubner S., Haken M., Oren E., Haseneyer G., Stein N., Graner A., Schmid K.J. and E. Fridman (2009) Strong correlation of the population structure of wild barley (*Hordeum spontaneum*) across Israel with temperature and precipitation variation. *Molecular Ecology* 18: 1532-1536
- B. Review Articles:
- \_ Schmid, K. J. and D. Tautz (2000) Evolutionäre Genomforschung: Welche Rolle spielen schnell evolvierende Gene? *Biospektrum*, 6: 175-179
- \_ Schmid, K. J. (2003) SNPs deMASCIert. *GenomXpress* 2/03.
- \_ Wiehe, T., Schmid, K. J. and W. Stephan (2005) Sweeps in space. In: *Selective Sweeps*. Edited by D. Nurminsky, Landes Bioscience.