

CV Heribert Hirt

Research Interests

Prof. Hirt's research is focused on how plants can survive under abiotic or biotic stress conditions. The main interest lies in how protein kinases can reprogram gene expression. At KAUST, Prof. Hirt is establishing two research groups. One research group focuses on how MAP kinases target chromatin to prime stress tolerance at both the genetic and the epigenetic level. The other research group searches for rhizosphere microbes of desert plants and investigates their potential and mechanisms to induce stress tolerance in plants. Although the major part of these two projects is carried out in Arabidopsis, the generated knowledge will be applied to crop plants with the aim to provide sustainable solutions to reestablish agriculture in arid regions or under extreme environmental conditions.

Education

- 1987 Ph.D. Biochemistry, Univ. Vienna, Austria
- 1983 M.Sc. Biochemistry, Univ. of Vienna, Austria
- 1979 BSc. Chemistry and Biochemistry, Univ. Cape Town, Rep. South Africa

Professional and Research Experience

- 08-13 Director, URGV Plant Genomics, Evry, France
- 06-07 Head of Dept. of Plant Mol. Biology, Univ. Vienna, Austria
- 02-04 Vice-Director, Gregor Mendel Institute, Austrian Academy of Sciences, Vienna, Austria
- 01-03 Dean of graduate studies, Vienna Biocenter, Austria
- 91- Professor of Genetics, Univ. Vienna, Austria
- 89-09 Group leader, Univ. Vienna, Austria
- 1988 Post-doc, Univ. of Oxford, UK
- 1987 Post-doc, Med. Univ. Vienna, Austria

Scientific Publications (> 15690 citations, H-index 62)

- Montillet, J.-L., Leonhardt, N., Mondy, S., Tranchimand, S., Rumeau, D., Boudsocq, M., Garcia, A.V., Douki, T., Bigeard, J., Laurière, C., Chevalier, A., Castresana, C., Hirt, H. (2013) An ABA-independent oxylipin pathway controls stomatal closure and immune defense in Arabidopsis. *PLoS Biol.* 11(3):e1001513.
- Schikora A, Garcia AV, Hirt H.(2012) Plants as alternative hosts for Salmonella. *Trends Plant Sci.* 17:245-9.
- Berriri S, Garcia AV, Frei Dit Frey N, Rozhon W, Pateyron S, Leonhardt N, Montillet JL, Leung J, Hirt H, Colcombet J. (2012) Constitutively Active Mitogen-Activated Protein Kinase Versions Reveal Functions of Arabidopsis MPK4 in Pathogen Defense Signaling. *Plant Cell* 24:4281-93.
- Pitzschke A, Hirt H.(2010) New insights into an old story: Agrobacterium-induced tumour formation in plants by plant transformation. *EMBO J.* 29:1021-32.
- Pitzschke, A., Djamei, A., Teige, M., Hirt, H. (2009) VIP1 response elements mediate mitogen-activated protein kinase 3-induced stress gene expression. *Proc. Natl. Acad. Sci. USA*, 106:18414-9.

Other Merits

- 1988 EMBO Fellowship
- 1993 Biochem. Soc. Price
- 2001 Wittgenstein Price
- 2006 Elected Member of Pauli Institute
- 2008 Elected EMBO Member
- 2010 ISI Highly Cited Researcher (Plant & Animal Science)
- 2011 King Saud Distinguished Fellow