

**Katrin Volling**

## **Molecular study of apoptotic processes in *Aspergillus* ssp. and the influence of *Aspergillus fumigatus* on apoptosis in host immune effector cells**

Previous results suggest that some potent fungicidals induce a type of apoptosis in *A. nidulans* similar to the caspase-independent apoptosis observed in mammalian systems. Therefore, we aim at the molecular elucidation of such events in *Aspergillus* ssp. using most modern technologies like parallel Rapid PCR, chip/array approaches or MALDI-TOF/TOF and others. Furthermore, we plan to investigate molecular mechanisms of how *Aspergillus fumigatus* suppresses the human cellular immune response via apoptosis of immune effector cells.

### **Publications**

Volling K, Thywissen A, Brakhage AA, Saluz HP (2011) Phagocytosis of melanized *Aspergillus* conidia by macrophages exerts cytoprotective effects by sustained PI3K/Akt signalling. *Cell Microbiol* 13(8), 1130-1148. [Details](#) [PubMed](#)

Volling K, Brakhage AA, Saluz HP (2007) Apoptosis inhibition of alveolar macrophages upon interaction with conidia of *Aspergillus fumigatus*. *FEMS Microbiol Lett* 275(2), 250-254. [Details](#) [PubMed](#)

### **Supervisor**

[Hans Peter Saluz](#)

### **Start of PhD**

March 1, 2006

### **Doctoral Disputation**

May 1, 2011