

Press Release

Appointment of Silke Robatzek

The Sainsbury Laboratory is pleased to announce the appointment of Dr Silke Robatzek as a new Group Leader from 1st September 2009.

Silke has a wealth of research experience in the field of plant defense and, in 2006, discovered endocytosis of the *Arabidopsis* pattern recognition receptor FLS2 following activation by the bacterial molecule flagellin. Endocytosis is a process by which cells take up molecules from outside the cell, by engulfing them with their cell membrane. This allows them to respond to their extracellular environment. Silke's most recent achievement is the implementation of high throughput methods to genetically dissect endocytosis. She will thus strengthen existing research on plant immune response signalling, and expand the lab expertise to include cell biology and intercellular trafficking.

Silke began her career in Goettingen, Germany, where she studied Biology, focussing on gibberellin biosynthesis. She then did her PhD at the Max Planck Institute for Plant Breeding Research (MPIZ), Cologne, in the group of Imre Somssich, where she worked on the role of WRKY transcription factors in plant defense and senescence. Silke's postdoctoral research has focussed primarily on flagellin sensing and FLS2, with positions at the Friedrich Miescher Institute for Biomedical Research (Novartis) in Basel, Switzerland and the Botanical Institute, University of Basel, in the group of Prof. Thomas Boller. Since September 2005 she has led her own group at the MPIZ.

Research interests of the Robatzek group include the recognition by plants of pathogen-associated molecular patterns (PAMPs), in particular the recognition of the bacterial flagellin epitope flg22 by the *Arabidopsis* receptor-like kinase, FLS2. Following the discovery that flg22 induces endocytosis of FLS2, the role of membrane-bound intracellular compartments known as endosomes in defense signalling has emerged as an exciting area of plant biology.

The group of Silke Robatzek has recently developed quantitative imaging tools for high throughput genetic screening *in planta* using a multi-titre-plate compatible semi-automated confocal laser microscope. A novel set of plant mutants with altered endosome levels has been identified and their characterisation will provide a better understanding of how receptor endocytosis and membrane trafficking contribute to plant immunity. As Silke commented; "We need to study the molecular basis of subcellular changes, if we are to understand plant-microbe interactions."

Cyril Zipfel, Group Leader at the Sainsbury Laboratory said: "I have known Silke for many years, as I had the chance to work with her while a PhD student in the lab of Thomas Boller in Basel, where she did her postdoc. I am really excited by the prospect of working alongside her again; she will bring a cell biology dimension to work on plant innate immunity at TSL"

With the appointment of Silke and the recent expansion of the lab mission to encompass translational research, The Sainsbury Laboratory will continue to be at the forefront of basic and applied research on plant-pathogen interactions. We look forward to welcoming Silke to the lab in September.