



## ***ABSTRACT***

*"The V-ATPase-an engine for transport and traffic"*

**Prof Dr Karin Schumacher**

**Heidelberg Institute for Plant Sciences (HIP)**

**University of Heidelberg**

**GERMANY**

Compartmentation allows the simultaneous occurrence of biochemical processes in different reaction spaces and necessitates the exchange of material via membrane transport or vesicular intermediates. In my presentation, I will focus on the V-ATPase, a proton pump found throughout the endomembrane system of all eukaryotes and will demonstrate that it is not only important for secondary active membrane transport but also for membrane trafficking. Specifically, I will discuss the importance of the Arabidopsis V-ATPase for the dynamics and identity of the trans-Golgi network/early endosome as well as the contribution of the V-ATPase at the tonoplast to vacuolar acidification and transport.