

## **ABSTRACT**

The cell wall is a key compartment of the plant cell for elementary physiological processes such as cell growth, division, or differentiation, simultaneously protecting the cell from influences of the external environment. The mechanical support of the cell wall maintains the shape of the cell, and at the same time allows it to grow. Thus, the cell wall must not be limiting to cell expansion, but if it becomes too loose, the cell may rupture. Supervised adaptive reorganisation of the cell wall based on external and internal conditions is therefore essential for plant cell, as indicated by the presence of a complex signalling system. The Cell wall integrity (CWI) system represents the set of all mechanisms that together ensure the continuous compactness of the cell wall. My bachelor thesis will discuss the individual components of the CWI system, focusing on the *CrRLK1*Ls, receptors from the broader Receptor-like kinase (RLK) family.