Mutants affecting the nucleoside metabolism

Lack of the plasma membrane located equilibrative nucleoside transporter 3 (*At*ENT3) and the extracellular nucleoside hydrolase 3 (*At*NSH3) results in a disturbed extracellular nucleoside metabolism. This assumption is strengthened by growth experiments using cytotoxic substrate analoga (2-Chloro-Adenosine, Fluro-Uridine). Furthermore HPLC analysis reveal accumulations of uridine and adenosine in the apoplastic sap. Due to jasmonic acid depending expression of nsh3, pathogen analysis with nsh3/ent3 KO plants were performed. Interestingly the resulting lesions of the necrotrophic fungus *Botrytis cinerea* BMM were more than double as big in DKO plants in comparison to WT. We suggest that this could be a consequence of disturbed extracellular signaling processes and the respective plant response, or a nutrition effect improving fungal growth performance due to accumulated nucleosides. Whereas first analysis provided hints for a nutritional benefit, the plant response effect still remains elusive.