

PROJECT TITLE

More Bang for the Buck: Are neo-tetraploids photosynthetically more efficient under salinity stress?

CONSORTIUM

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SUMMARY OF THE REPORT

The purpose of the project was to investigate photosynthetic parameters of *A. thaliana* mutants under control and sodium (Na) stress. The mutants were selected based on an RNAseq experiment. They showed higher expression in roots of neo-tetraploids, plants which had recently undergone whole genome duplication (WGD), and were annotated as ABA-signalling (Fischer et al., 2021). ABA is a plant hormone, which is responsible for the mediation of abiotic stress such as high salinity. Additionally we were interested in the performance of potassium transporter mutants under high salinity. A recent publication showed, both increased shoot K as well as higher fitness under Na-stress for neo-tetraploids (Chao et al., 2013). Uptake of K becomes more strenuous under high Na, linking the two phenotypes.