PART 9: Based on publication associated with this GEO study:

"Results indicated that the transcripts involved in photosynthesis, TCA, and Calvin cycles were down-regulated, whereas the upregulation of DNA repair mechanisms and an ABCB subfamily of eukaryotic type ABC transporter was observed at high salinity condition. Also, while key enzymes associated with glycolysis pathway and triacylglycerol (TAG) synthesis were determined to be upregulated from early growth phase, salinity stress seemed to reduce the carbohydrate content of harvested biomass from 45.6 dw% to 14.7 dw% and nearly triple the total lipid content from 26.0 dw% to 62.0 dw%. #These results suggest that the reallocation of storage carbon toward lipids played a significant role in conferring the viability of this alga under high salinity stress by remediating high level of #cellular stress partially resulted from ROS generated in oxygen-evolving thylakoids as observed in a direct measure of photosystem activities".