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Title: Isolation of light-responsive lipid regulators in microalgae

We have already observed in industrial strain *Nannochloropsis* that the efficacy of high light stress among other abiotic stress like nitrogen and phosphorus starvation to be the most dominant condition for lipid yield without compromising biomass. Surprisingly, Lipid accumulation post nitrogen starvation has been reported to be *not influenced* by the transcript abundance of lipid synthesis genes. Moreover overexpression of the same has produced mixed results in lipid yield. Therefore RNA-seq with high light stress was performed to identify the regulators (preferably trans-factors) of lipid/TAG accumulation that can ultimately diverge the carbon flux towards storage lipid and uncouple growth and stress at the same time.

Project: OPVVV; International mobility of researchers - MSCA-IF IV (Institute of Microbiology of the CAS, v. v. i.)