

Description of Additional Supplementary Files

Supplementary Data 1: RNAseq data sets used in this study.

Supplementary Data 2: List of Transcription factors used in this study; Family info was adapted from refs 41 and 42.

Supplementary Data 3: Edge list representation of the consensus network with mean ranks resulting from Borda count election method (refs 48 and 52) as edge attributes.

Supplementary Data 4: Top 10 predicted regulators of qE genes in the consensus GRN.

Supplementary Data 5: Edge list representation of the PHOT-specific GRN with importance score from GENIE 3 (ref. 68) as edge attributes.

Supplementary Data 6: Top 10 predicted regulators of qE genes in the PHOT-specific GRN.

Supplementary Data 7: Supplementary Data 7: $k_{1/2}(Ci)$ and V_{max} values calculated from External Data Fig.12 and 14.

Supplementary Data 8: List of genes putatively involved in photoprotection used for regulator prediction.

Supplementary Data 9: List of genes putatively involved in CCM used for regulator prediction.

Supplementary Data 10: Global coregulators of photoprotection and CCM based on the consensus network.

Supplementary Data 11: Global coregulators of photoprotection and CCM based on the PHOT specific network.

Supplementary Data 12: PCR primers for CLiP mutant validation and complementation in this study.

Supplementary Data 13: RT-qPCR primers for all genes in this study.