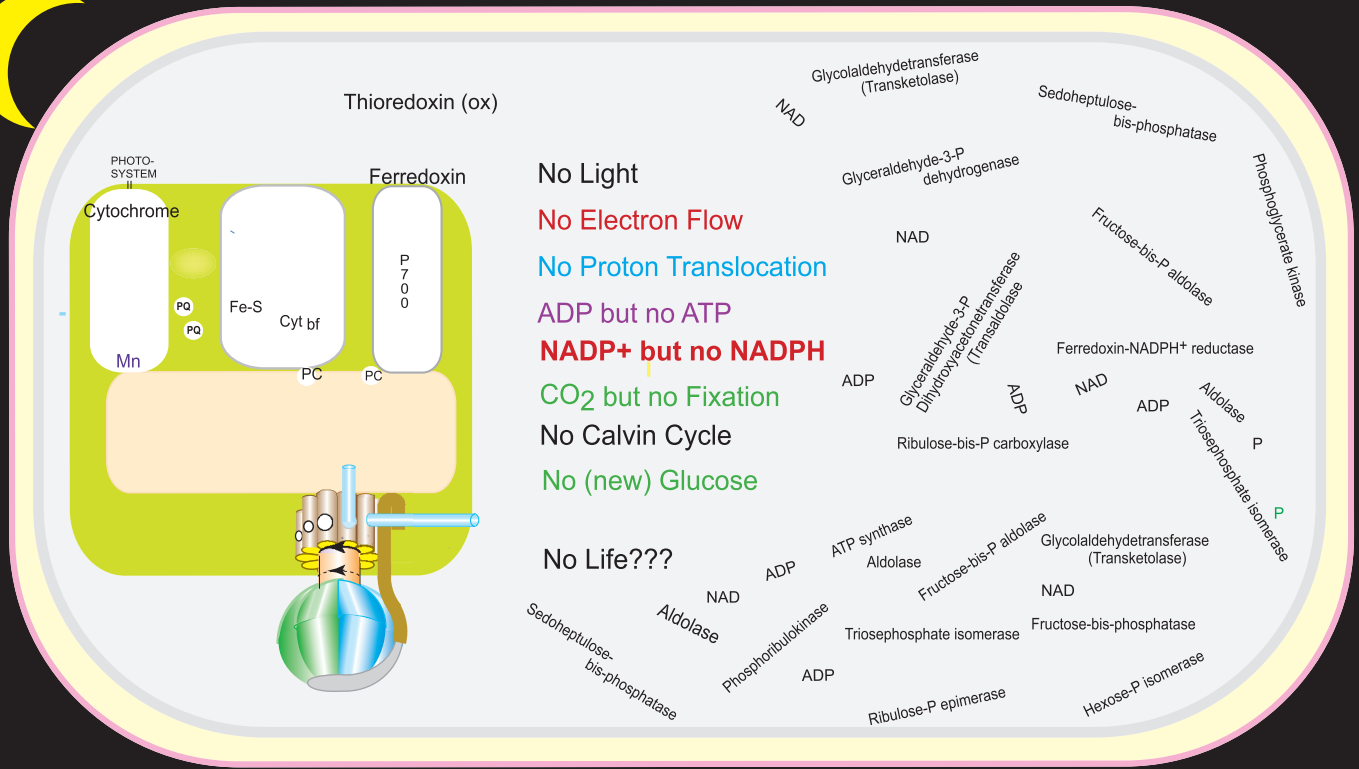


? NIGHT-LIFE IN THE CHLOROPLAST ?



No electron flow means no reduced thioredoxin and hence no **inhibition** of Phosphofruktokinase (PFK) and Glucose-6-phosphate dehydrogenase (G-6-PD). This unlocks the pathways to NADPH via the Pentose Phosphate Pathway and to ATP via Glycolysis and the TCA Cycle. The two major products of the Light Reactions can therefore be synthesised in the absence of light but only at the expense of Glucose - the product of Solar Energy.

At night thioredoxin exists in the **oxidised** state, which inactivates ATPase and thus prevents the hydrolysis of the ATP formed in the Light Reactions during the day

NIGHT-LIFE IN THE CHLOROPLAST !!

