

The tetrapyrrole pathway and its regulation in *Synechocystis* 6803

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The tetrapyrrole pathway in cyanobacteria is responsible for the synthesis of chlorophyll and heme via a common branched pathway. It needs to be strictly regulated because of tetrapyrrole phototoxicity and different demand for individual end product levels in the cell. I have studied two proteins with a connection to the tetrapyrrole pathway. The BtpA protein, whose deletion leads to severe decrease of the tetrapyrroles, and the HemJ protein, recently discovered to function as protoporphyrinogen oxidase (the last enzyme common for heme and chlorophyll pathway) in the majority of cyanobacteria.