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# CyanoEXpress: An interactive web-tool for exploration and visualization of gene expression data from cyanobacteria

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Cyanobacteria are the only prokaryotic organisms that carry out oxygenic photosynthesis, and considered as the ancestors of higher plant chloroplasts. Synechocystis sp. PCC 6803 is one of the best-studied cyanobacteria and an important model organism for our understanding of photosynthesis. It was the first photosynthetic organism to be fully sequenced and is associated with a wealth of transcriptome profiles. To facilitate the study of the accumulated expression data, we have developed CyanoEXpress (http://cyanoexpress.sysbiolab.eu), a web database for interactive analysis and visualization of cyanobacterial expression data. CyanoEXpress integrates over 700 transcriptome profiles of Synechocystis making it the most comprehensive catalogue of Synechocystis gene expression data. It enables its users to explore and visualise the transcriptional response of Synechocystis to numerous experimental conditions and to characterize genes that are currently lacking annotation. We will highlight its recent extensions and enhancements, which will extend its functionality to a larger community of plant researchers.

References

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