

**Table S2. Statistical analysis of channel diameter distribution.**

Strain	Channels counted	Average size (nm)		Kruskal-Wallis Analysis <sup>A</sup>			Pairwise Comparison <sup>B</sup>		
		Gaussian (sigma)	Median (25%/75%)	Wt	I-sjcF1	CSR27	Wt	I-sjcF1	CSR27
PCC 7120 (Wt)	524	19 (3.5)	18.5 (16/21)	-	<0.001	0.393	-	Yes	No
AFS-I-sjcF1	581	29 (8.2)	26.0 (21/32)	-	-	<0.001	-	-	Yes
CSR27	93	21 (2.1)	19.8 (13/22)	-	-	-	-	-	-

<sup>A</sup>P-value of median difference; <sup>B</sup>by Dunn's Method: P value for difference <0.05 (Yes, fulfilled, No, not fulfilled); all data calculated with One Way ANOVA tool of Sigma Plot 12.0