Hormogonia Mutation of Touch Sensetive With the Removal of Pili in Cyanobacteria

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Propasal Presentation, Fall 2017



Table of Contents

Introduction cont.

Experiment

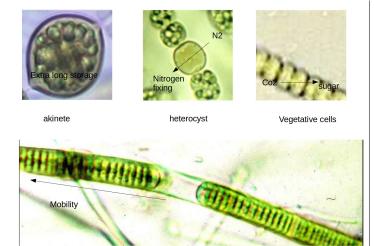
Experiment 1 cont Experiment 2 cont

Discussion

Reference

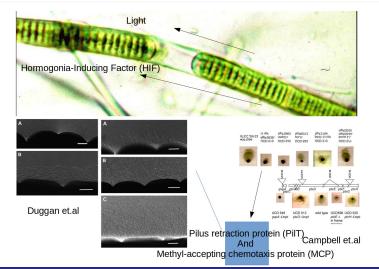


differentiated of cyanobacteria.



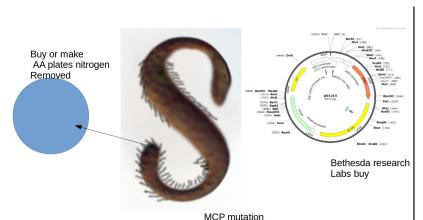


understanding





Materials





Experiment



Experiment Cont.

- ▶ We begin by seeing whiether or not the mutation has caused a conformational shift towards back to normal
- ▶ we try and analyize weither or not if the Nostoc has moved by taking pictures of it for at least 24 hours
- ► A northern blot check



Discussion

- ▶ What would the result look like to be
- ▶ It's possible to be another factors
- movement
- ▶ if no change and no movement
- ▶ question?

Reference I



Campbell. EL, Hagen KD, Chen R, Risser DD, Ferreira DP, Meeks JC. 2015.

Genetic Analysis Reveals the Identity of the Photoreceptor for Phototaxis in Hormogonium Filaments of Nostoc punctiforme

Journal of Bacteriology, 196:782-791.



Cohen CF, Wallis JG, Campbell EL, Meeks JC. 1994. Transposon mutagenesis of Nostoc sp. strain ATCC 29133, a filamentous cyanobacterium with multiple cellular differentiation alternatives

Mircobiology140:3233-3240.

Reference II



Duggan PS, Gottardello P, Adams DG. 2007.

Molecular Analysis of Genes in Nostoc Punctiforme Involed in pilus Biogenesis and Plant Infection Journal of Bacteriology 189:4547-4551.



Schneegurt MA. 2012.

Anabaena sp. - (Unidentified) No speculations upon the species. 400x

Cyanosite http://www-

cyanosite.bio.purdue.edu/images/lgimages/ANAB3.JPG

Baker, A.L. et al. 2012.

Phycokey – an image based key to Algae (PS Protista), Cyanobacteria, and other aquatic objects.



Reference III

University of New Hampshire Center for Freshwater Biology.

http://cfb.unh.edu/phycokey/phycokey.htm 21 Nov 2017. artist rendition