Nostoc punctiforme Mutate of Hormogonia Reacts With Pilius Begin Removed.

Samuel Young

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1 Introduction

Nitrogen fixing is important for plants becuase it helps to promote growth and out produce they other plants. In which, when allied with a bacteria like *Nostoc puriforme* will produce,a certain sub-type of nitrogen-fixing increments called heteroctsy. While after the nirtogen-fixing cell either run out of producable nitrogen they began to then spilit into hormogonia, or if the plants produce Hormogonia-inducting factors(HIF). Both of which help promote the production of Hormogonia, and the creation of mobile strand of cyanobacteria. Normal homrogonia are linear and therefore, they have very little drag but in one of the previous experiments there were a few genes that cause hormogonia chemotaxis to move very little or nr non-mobile towards light or away from light any extreme a substance amount of movement when in the light shown throught a point to a similar feature that went all over the place 1. These gene were found by a mircoarray and then they were tested to see if the where upregulated or down-regulated at certain time intervales and where also compared to different bacteria that had similar chemotaxi on a genemoic level. When removing pili it does hamper movement, and also the pili have a functional help symobioies. These genes were compared to other bacterias and becasue they looked similarly and they then tryied to mutate these genes to try and figure out which genes cause what certain mutation for the pilis 2. While removing pilis does hamper symbioses also has a similar effect when there is too many pili. These genes are important to figure out weither or not hormogoina also have a somatic sensetive. In a unqie way of creating a subset of mutation that will allow for the growth of hyperpili to a smaller pili to trying to grow no pili with this genetic mutation for NpR::5639-Ω-npt(neomycin phosphotransferase gene). Hormogonia differetaited itself out into any s-shape. That could be becuase pilius have formed and are allowing them to touch eachother cause them to form the an s-shape.

2 Exiperiment

For dinitrogen-dependent growth of reconstituted Anthoceros-Nostoc, NH_4N0_3 was deleted from the basal medium.In experiments examining ammonium or nitrate-dependent growth, the NH_4N0_3 was replaced with 2.5-5.0 mM NH_4C1 or NO (equimolar Na+ and K+ salts of N03). The growth rates of Nostoc were calculated from changes in fresh weigh 3. They AA plate will have the majority of the the ammonium nitrate removed, so that the hormogonia will grow. A person than shall add Neomycin to make sure that only the mutates will survive the process of begin transferred and then in another round s/he is going to have to use streptomycin.
The active sceintist will need wild-type *Nostoc punctiforme*. From the wild-type, The sciencist will then begin to infect the Ω-npt of NpR::5639. Then we will infect the plates and let this one go to make a number of clones before infect the next several plates with the next level mutate. These mutation are going to be Ω-spt(sterptomycin phosphotransferase gene) to make mutates of each of these genes, NpR0117, NpF0676 ,NpF0069,NpR0118,NpF5005, NpF5007.

3 Disscussion

In the NpR0117 gene mutation, with the NpR::5639-Ω-ntp, it to be in a ball of it's self because these two mutataion together will cause it to be non-mobile, but have a hyperpili will cause issue in which the soma of cyanobacteria will pull into its self. A similar way of NpF0069, then little to no pili should allow it to differated its self back into a straight line but then it will be locked at that postion becuase the gene effects the mobility of the whole machine. If gene NpR0118 is begin created then it's homologue should also be begin produced but if NpR0118 isn't being produced then the other two with a realitive similar path but there will be little to no movement as well. There is a mutate wasn't able to be seprate from its an open-reading frame(orf),this happens to be NpF0676 it seems to me that this one need any earlier gene in order for it function properly. In which allows me to think about what if one of these chemorecptors was allocated toward touch over light. This is a repector touch and the fact that the mutation that was used had changed in of using that have no ideal on what they do.

4 references

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