Peer-graded Assignment: Bioinformatics Application Challenge

Submit by April 16, 11:59 PM PDT

Important Information
It is especially important to submit this assignment before the deadline, April 16, 11:59 PM PDT, because it must be graded by others. If you submit late, there may not be enough classmates around to review your work. This makes it difficult - and in some cases, impossible - to produce a grade. Submit on time to avoid these risks.

Instructions

My submission

Discussions

Instructions

Note 1: *you should attempt this Bioinformatics Application Challenge only after reading both chapters of the interactive text and completing the quizzes.*

Note 2: *this assignment is subject to the Coursera honor code. As such, your answers should be your own and should not be taken from other students or from the rubric in previous sessions. Violations of the honor code will be taken seriously.*

Mycobacterium tuberculosis (MTB) can persist in a latent state in humans for many years before causing disease. Latency has been found to be linked to **hypoxia** (lack of oxygen) in the host. You suspect that genes that are activated in hypoxia are regulated by a common transcription factor, so you collect the upstream sequences for all of the MTB genes that are upregulated in hypoxia, looking for the motif that corresponds to the binding site for the transcription factor regulating these genes. Your biologist colleague tells you that you should look at the 250 bp upstream region of each gene (which have been conveniently

compiled for you in a FASTA file named upstream250.txt -- right click and download this file). Your colleague also tells you that the motif is probably about 20 bp long.

Review criteria less

Everyone enrolled in the course must review at least five other submissions to ensure everyone receives a grade; however, many learners complete more to help their peers who are still waiting.

Copying answers from the rubric is a violation of the Coursera honor code. Please assign 0 points to any question whose text significantly matches the rubric text. If significant matches with the rubric are found for multiple questions, then please assign the entire assignment a 0 and notify the course staff.



Help Center