

20 points

BIO 415

Spring 2019

Bioinformatics Project

1. At EupathDB web site register, create an account and login.
2. Click on "Education and Tutorials" (left side of screen)
3. Click on "EupathDB Workshops"
4. Select "2018-University of Georgia, Athens GA"
5. Click on "Schedule" (Top of screen)
6. Scroll down to "Tuesday June 19, 2018"
7. Click on "Sequence Exercises: Motifs, Domain and Colocation". For this exercise we will be using different sites within EupathDB such as GiardiaDB, TritrypDB, FungiDB etc. as indicated in the instructions (Printed instructions will be handed out in lab). Students will apply the methods from this exercise to the *Plasmodium falciparum* orthologues of the assigned *P. yoelii* gene at the conclusion of the exercise and after we have discussed the exercise in class.
8. Click on "Introduction: Regular expressions" and "Quick-Start: Regex Cheat Sheet" to read the information provided in the slides.
9. Prepare a summary (1-2 pages) of the exercise. Include; a) the ease or challenge of navigating the sites in the exercise, b) your understanding of how the exercise can be applied to identify motifs, domains and colocation in genes from other eukaryotes such as *Plasmodium* and c) presence of patterns in the protein sequence encoded by the P. falciparum ortholog of your assigned *P. yoelii* gene ID.
10. Post your summary on Blackboard at 11:59 pm 4/9/19.