

End of term assignment:

Select a gene annotated as a “conserved hypothetical protein” from a recently completed microbial genome and use web-based tools such as BLAST, PRINTS, and GenTHREADER to characterize the coded protein.

Some suggestions on finding a gene:

- 1) go to the NCBI website (<http://www.ncbi.nlm.nih.gov>)
- 2) click on: Entrez home, then genome, then microbial.
- 3) select an organism from the left column.
- 4) select protein data from genbank
- 5) sort based on release date and pick a recently deposited genome
- 6) go down the list until you find a “conserved hypothetical protein”
- 7) click on the NC number and confirm that the protein is 100-300 amino acids
- 8) Copy the amino acid sequence (in one letter format) and save it for future reference.

Paste the above sequence into some of the web search tools you have used during the semester to get some ideas about possible function (annotate the gene).

Be prepared to discuss problems you encounter. In the final few weeks of the semester you will be presenting your results to the group and writing a short (2-4 page) summary of your findings. This will be the primary basis of your grade for the semester.