Lab 1

PubMed and NCBI Databases

Explore the NCBI website - the tools and databases.

Webinar: Pubmed for Scientists
https://www.youtube.com/watch?v=iTW9Gboters&list=PLBD13A2628C7A9965&index=6

NCBI Minute: Finding Genes in PubMed
https://www.youtube.com/watch?v=WtDTOeI9wB8&list=PLBD13A2628C7A9965&index=7

Read information in the following sites:
http://www.ncbi.nlm.nih.gov/genbank/
http://www.ncbi.nlm.nih.gov/genbank/samplerecord/

1) Using http://www.ncbi.nlm.nih.gov/pubmed
   to obtain related information for one of genes of your interest

If you do not have a specific gene in your mind, please use the examples given in the text book or TAO gene (http://proteomics.ysu.edu//courses/BIOL4800_6900/ExtraReadings/JackMin_TAO.pdf to get some Accession numbers for retrieving sequences from NCBI.)

   a. see how the literature and DNA/protein sequences are linked
   b. see how related literatures are linked

2) Read this paper – you may not have time to read it in class, please read it using extra time.
   http://proteomics.ysu.edu//courses/BIOL4800_6900/ExtraReadings/NCBI_database_2019.pdf

3) Searching related sequence database (protein or nucleotide) for the genes of your interest.

   - pay attention to the different formats of DNA/protein sequences
   - pay attention to the details of GenBank format
   - download cDNA and protein sequences in FASTA format for the genes of interests – these sequences will be used in other labs and in your project reports. Save DNA and Proteins in two separate TEXT file

Note: Lab report is needed, see BLACKBOARD for details.