

## Day 2 – Take Home Exercises

Do you have a gene or protein sequence of interest to you (for example, PTEN tumor suppressor, GeneID: 5728)? Use your own gene/protein sequence (or the PTEN example) to practice using BLAST to accomplish the following task:

1. Can you use BLAST to collect a list of FASTA formatted sequences which represent homologs for your gene of interest in six different species? (There are many ways to accomplish this task. You could start with the sequence for your gene/protein of interest, do a BLAST search, use taxonomy reports to sort your results, and then collect the sequences for the top scoring hit in each of your six chosen species.)
2. Please email yourself this sequence file and/or bring it with you so that we can use it as input for a multiple sequence alignment experiment in tomorrow's workshop session. Alternatively, you can bring a list of ANY 5-6 related protein sequences for which you would like to generate a multiple sequence alignment.
3. Do you have your own research tasks that you would like to accomplish using BLAST? Try your own questions ...

Write down any questions, comments, or problems that you encounter along the way so that we can discuss them in tomorrow's workshop session: