GOALS:

• Transfer files with ftp
• Use some handy UNIX commands: grep, date, echo
• Login to remote computer
• Edit a file with vi editor

Homework assignment to demonstrate:

Directory structure from Fig. 1 of PLoS paper

Renamed yeast directory to human

Downloaded CHR_MT fasta file into human directory

Show number of lines in hs_alt_HuRef_chr21.fa

bash file completion
    hit tab key to auto-complete file and directory names

ls with –R
    the –R options means recursive
    work through all subdirectories and list everything

Overview of ftp, client server protocols:

Protocol are formal specification of how computers talk to each other over a network (like the Internet

Transfer files with ftp:

Walk through download of CHR_MT from NCBI.

ftp is a program, it is a client used to connect to another computer, a server.
Move arounbd with directory commands like the shell: cd, pwd, ls
Download a file with get command
Type ? to see all commands
Type ? <cmd> to get help on specific command:
   ? pwd

View files, search for text in files:

Use cat to send contents of file to screen.

Use less to look at contents of file.

Use / to find things with less

Find a few strings in fasta file with /

Use grep to find string in fasta file.

grep searches for "regular expressions" in a file
a regular expression is a pattern but can be just a
plain string:
grep AAAAAAA file.fasta
grep "James Vincent"   grades.txt

Need quotes around search term if it has spaces
otherwise shell thinks it's more than one argument

How many lines contain AAAAAAA?

Quite a few……

Read grep man page to determine how to get just a
count

grep –c AAAAAAAA file.fa

grep only counts matching lines, not every single
instance

Use / again in man page to find word 'count'

shell history:

   history command displays all of the last commands
you typed at the shell

   use up arrow key to scroll back through them

   hit enter on any of the command strings to run it
again

use left, right arrow keys to move through and edit a
command string

Login to remote computer:

ssh

Login to EC2 instance:

ec2-23-20-18-242.compute-1.amazonaws.com

recreate msms directory from PLoS paper

log out, log back in

Intro to vi:

vi vimtutor.txt

ESC :q to quit