The following tools are required for Day 1:

- 1. A web browser (e.g. Firefox, Chrome)
- 2. The IMOD software package, a set of image processing and visualization tools for microscopic data.

A. For Windows:

i. Download the appropriate 'Cygwin Installer' from: http://bio3d.colorado.edu/imod/download.html#Cygwin

> Run the downloaded '.exe' file and follow installation directions that appear

Note: "When running Cygwin setup you MUST change the selection from "Default" to "Install" in the Select Packages dialog. A note about this will be displayed during installation as well.

ii. Download the appropriate IMOD 'clickable installer' from: http://bio3d.colorado.edu/imod/download.html#Latest-Windows

> Run the downloaded '.exe' file and choose to install IMOD with the default options.

Verify that you can open the IMOD GUI, 3dmod. Open Cygwin by double-clicking the desktop icon and, at the Cygwin command line, type '3dmod' (without the quotes) and hit enter. You should see the following pop up:

iii. 3dmod Startup _ 🗆 × -Start program as Sections C Megabytes Use cache, set to: 3dmod - open Info and image windows Cache images as tiles or strips C 3dmody - open Model View window only Image file(s): Image files form a pyramid at multiple resolutions Flip Y and Z sizes by rotating around X Piece file(s): Show RGB images as grayscale Load single-image files as separate times, not sections Piece file is a metadata autodoc (.mdoc) file Load montage as single frames Load model without scaling coordinates -Load image subset (numbered from 0) - - Open-Load FFT without mirroring data on left side XYZ window to: ☐ Show images as montage 1 🚊 in X by 1 🚊 in Y Model View Y from: to: Overlap pieces in X: 4 * in Y: 4 * Zap window Z from: to: -Model View windows Slicer Bin by 1 🚊 in X/Y, 1 🚊 in Z © Default size (512 x 512) C Full scree Scale image intensities: C Set to X: 512 ÷ Y: 512 ÷ ОК Cancel Help

B. For Mac:

- i. Download the appropriate installer from: http://bio3d.colorado.edu/imod/download.html#Latest-Mac
- ii. Follow the installation instructions at: http://bio3d.colorado.edu/imod/doc/guide.html#InstallingMac
- iii. Verify that you can open the IMOD GUI, 3dmod. Open the Terminal app, type '3dmod' (without the quotes) and hit enter. You should see a pop up similar to the above figure.

Instructions on how to open the Terminal app: http://www.wikihow.com/Open-a-Terminal-Window-in-Mac

C. For Linux:

- i. Download the appropriate installer from: http://bio3d.colorado.edu/imod/download.html#Latest-Linux
- ii. Follow the installation instructions at: http://bio3d.colorado.edu/imod/doc/guide.html#InstallingLinuxSGI
- iii. Verify that you can open the IMOD GUI, 3dmod. Open a terminal and at the command line, type '**3dmod**' (without the quotes) and hit enter. You should see a pop up similar to the above figure.

3. An SSH client

- A. For Windows: The Cygwin client that was installed with IMOD is sufficient.
- B. For Mac/Linux: The default Terminal app is sufficient.
- 4. A public SSH Key (If you haven't already generated one)
 - A. For Mac/Linux:
 - i. Open a terminal and at the command line type '**ssh-keygen**' (without the quotes). Follow instructions and enter a unique password.
 - ii. In the terminal type 'cd ~/.ssh' and 'ls' to see a listing of files.

The '*id_rsa*' file is your private key and should be kept safe. NEVER SHARE THIS FILE.

The '*id_rsa.pub*' file is the public key that we will be putting onto Rocce cluster to enable access.

B. For Windows:

- i. Open Cygwin by double-clicking the desktop icon and, at the Cygwin command line, type 'ssh-keygen -f ~/.ssh/id_rsa' (without the quotes) and hit enter. Follow instructions and enter a unique password.
- ii. In the same command line window type 'cd ~/.ssh' (without the quotes) to change to the .ssh directory where the key files should exist.

The '*id_rsa*' file is your private key and should be kept safe. NEVER SHARE THIS FILE.

The '*id_rsa.pub*' file is the public key that we will be putting onto Rocce cluster to enable access

iii. Type '**explorer**.' (without the quotes, but include the period) to see the files in a file browser.

The public key is circled in red below.

