## Using the Motic Camera

#### Important Points:

* Do not wipe/touch any of the lenses with anything except lens paper. Kimwipes are NOT lens paper!
* Turn the eyepiece head so the word “Nikon” is right side up, then remove the right eyepiece from the microscope and set it down on the table on the end that goes into the microscope, NOT the end you look into. This could scratch the lens.
* When removing the eyepiece, grip the polished black ring that is beneath the plastic cap.
* Put the camera in the eyepiece socket so that you can read the label “Moticam”. Fasten the camera with the set screw.
* Put all camera/eyepiece equipment BETWEEN the computer and the microscope, not near the edge of the table! You run the risk of knocking the eyepiece off the table if it is set near the edge!
* Turn the focusing knob (front side) up to move the microscope stage closer to the objective.
* Turn the focusing knob (front side) down to move microscope stage farther from the objective.

#### Focusing between your eyes and the camera display:

##### 4x Objective (RED):

When this is focused for your eyes, you need to turn the knob (front part) DOWN to focus the camera display

##### 10x Objective (YELLOW):

Same as for 4×.

##### 40x Objective (BLUE):

When focused for your eyes, it should be close to the correct focus for the camera display, make small adjustments.

#### Step-by-Step Guide to Taking a Photo:

1. Attach the camera to the RIGHT eyepiece and plug it into a USB port on the back of the Mac.
2. Click the Motic Images Plus icon on the desktop to open the program.
3. Go to File > New
4. Choose “Live Video” and click “Ok.” The window will open to show what the camera sees in the microscope.
5. Go to File > Video Settings to open up the camera adjustment controls.
   1. To adjust the exposure (lighting) for the camera, click “Auto Exposure” and wait about 5 seconds. If you want the computer to do this automatically from now on, check off “Full Auto.” “White balance” will correct for the yellowness of the light. If you want to adjust the settings manually, turn off “Full Auto” and move the sliders to tweak the various lighting/color functions.
   2. Set the size of the image to its maximum (probably 1280 x 1024). After you click OK, maximize the live video window with the green button in the upper left corner.
6. The image on the computer screen will probably not be in focus, because the camera and your eyes are at different “distances” from the slide.
7. To adjust the focus for the computer image, **SLOWLY** turn the focus knob on the microscope in the correct direction for the objective you are using (4×, 10×, or 40×). It is IMPORTANT to turn the knob **VERY SLOWLY**, because it takes time for the camera image on the computer to refresh. By focusing too quickly, you may go right past the point where the image is focused.
8. To make a photo, look at the top of the window at the three icons. Click the middle icon (it looks like a small digital camera with a clock next to it).
9. Change the ‘save’ location to the desktop.
10. To the right of where “File Name” appears in the dialog box, click the drop down box to save the image in the jpg format and NOT in the “.mix” format.
11. Leave the capture interval settings alone for now, but change the number of Total Images to “1” instead of “5.” You don’t need five copies of the same picture, right?
12. Click “OK” and the new file will appear on the desktop.