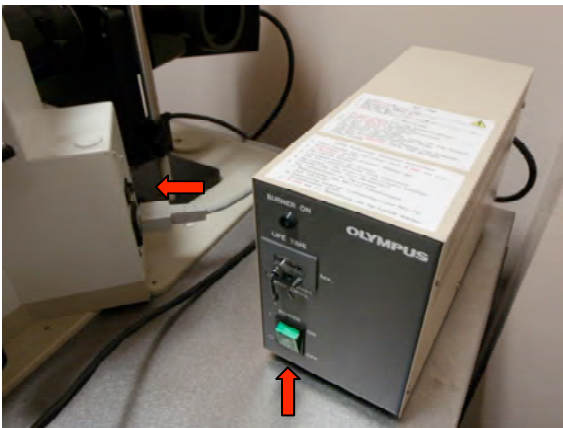


Instruction Manual for epifluorescence microscope system

Ver. 1.01 (06/26/08)

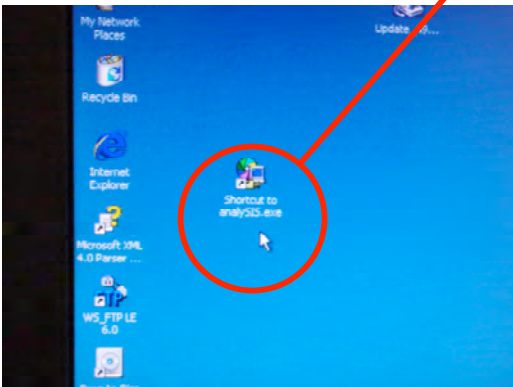
Start up procedures

1. Turn on the lamp, microscope, filter wheel controller (red arrows in below images).



2. Start computer (blue arrow in above image), log on Windows.

3. Start the program from the shortcut on Desktop (double click the icon).



How to control the filter wheels (filters & shutters)

You can control the filter wheels either from the program or from the console.

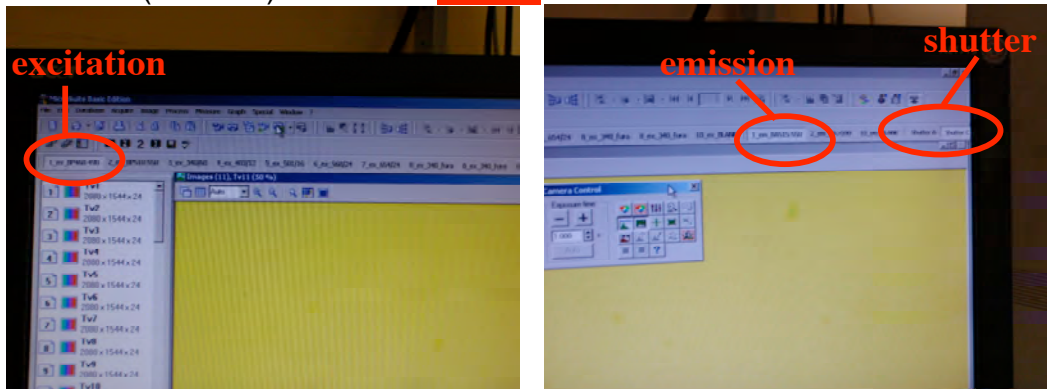
a) Controlling filter wheels from program

You can open/close the shutter of UV and/or regular illumination by switching ON/OFF the right upper buttons (“Shutter A” and “Shutter C”, respectively).

You can also switch the excitation/emission filters by pressing each buttons.

To observe **GFP** fluorescence use **#1** excitation (BP468-490) and **#1** emission (BA515-550) filters with **DM500** dichroic mirror.

To observe **Rhodamine** fluorescence use **#2** excitation (BP510-550) and **#2** emission (BA>590) filters with **DM570** dichroic mirror.



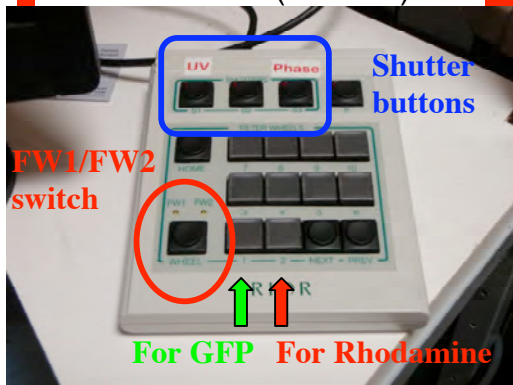
b) Controlling filter wheels from the console

You can open/close the shutter of UV and/or regular illumination by switching ON/OFF the buttons indicated as "UV" or "Phase" (“S1” or “S3”, respectively).

You can also switch the excitation/emission filters from the console. To change the excitation filter confirm that “FW1” lamp illuminated, then press the button for the corresponding filter number. You can switch between “FW1” and “FW2” by pressing “WHEEL” button. For the emission filter, go as the same way with “FW2” lamp illuminated.

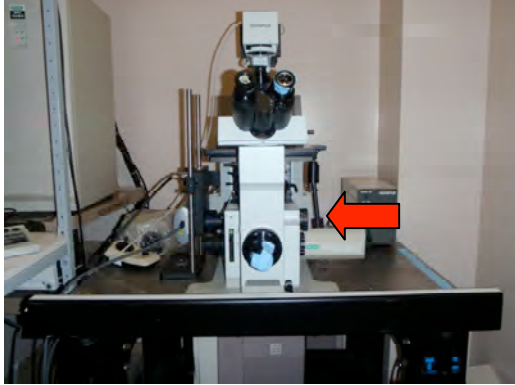
To observe **GFP** fluorescence press “1” button for FW1 (excitation, BP468-490) and “1” button for FW2 (emission, BA515-550) with **DM500** dichroic mirror.

To observe **Rhodamine** fluorescence press “2” button for FW1 (BP510-550) and “2” button for FW2 (BA>590) with **DM570** dichroic mirror.



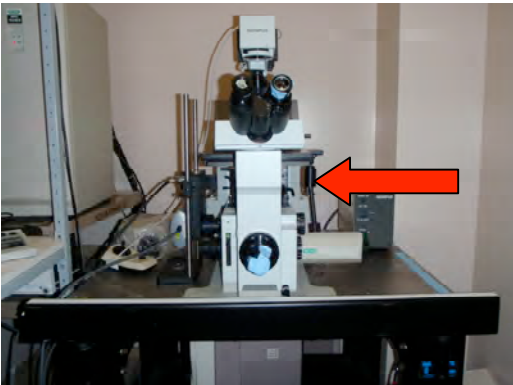
How to see the specimen from the eyepiece

1. Set the light path to the eyepiece (“an eye drawing”).



2. Set the appropriate excitation/emission filters. For details, see “How to control the filter wheel” section (previous page).

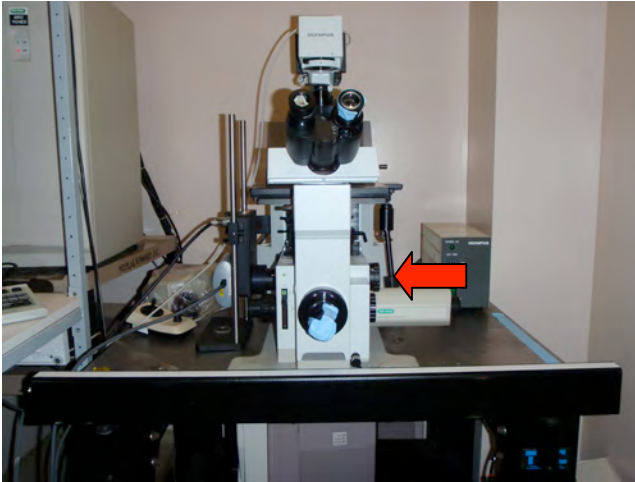
3. Set the appropriate dichroic mirror. For GFP observation use “WIBA” (DM500), for Rhodamine use “WG” (DM570).



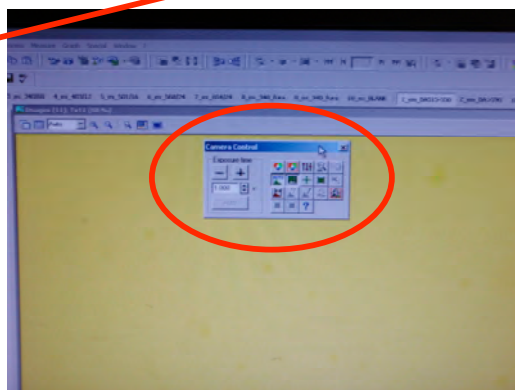
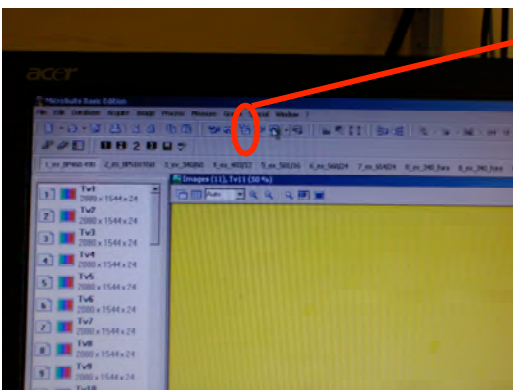
4. Open the shutter using either the program (“Shutter A” for fluorescence, “Shutter C” for regular illumination) or the console (“UV” for fluorescence, “Phase” for regular illumination).

How to take a picture

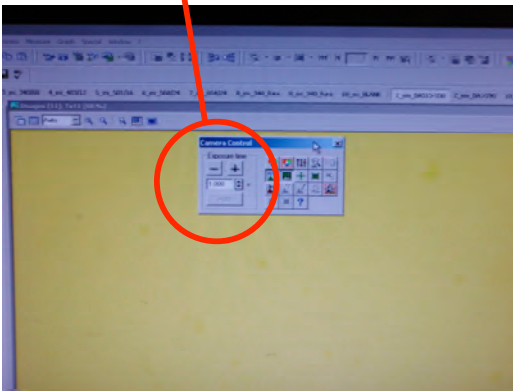
1. Switch the light path from the eyepiece ("an eye drawing") to the camera (SP).



2. Open the camera control window by clicking the "camera control" icon.

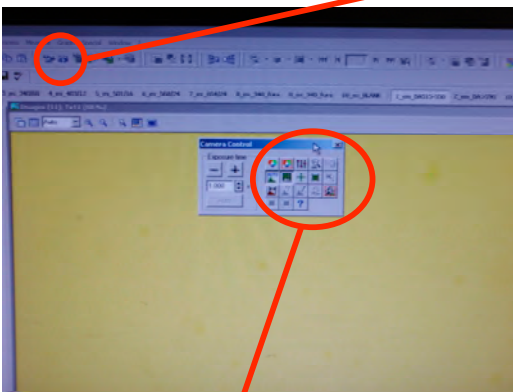


3. Adjust exposure time.



4. Open/close the shutter to obtain an appropriate illumination.

5. Take pictures by clicking the "snapshot" icon.



6. Adjust exposure time, dynamic range (by using histogram control) to obtain appropriate images.

7. You can save selected images from the menu of File->Save as.

Trouble shooting

Cannot see anything in images taken with the camera?

Confirm the light path goes to the camera (Can you see "SP" on the light path selector?).

Confirm the proper illumination (UV or Phase) is coming to the stage.

If not, set the appropriate filters (excitation/emission) and dichroic mirror.