

**NIKON C2 PLUS**  
Confocal Laser Scanning Microscope

**Start-Up Procedure:**

1. FOR LIVE cell and tissue imaging with incubation:
  - a. Turn on and prepare incubator, ensure the appropriate stage insert is present. If changing the insert use only the small green screw driver in top drawer. **DO NOT change** the nylon breakaway screws that attach the stage insert
  - b. Turn on gases at the valves, and the InVivo controller (power switch rear rt),. Fill humidifier with fresh milliQ water from LSE452. Attach tubing from humidifying coil to chamber. Note: place humidifier towards back of incubator.
  - c. In Vivo lists CO<sub>2</sub>%, airflow and Chamber Temp; wait until desired presets are achieved before loading your specimen.
  - d. Note the transmitted light arm tips back allowing greater access to the stage area.
2. FOR ALL IMAGING
  - a. Turn on the PC and monitor
  - b. Turn on the power strip ( shelf under the air table at right). This provides the power for the microscope and accessories
  - c. Power on the laser sled (rocker switch at back left)
  - d. Key on emission on the front of the laser sled.
  - e. Turn off any lines not in use by pressing the illuminated button (405nm 488nm 561nm 640 nm)
  - f. Power on scan head (large button on box next to microscope)
  - g. Log in to your lab's account and launch Nikon Elements
3. During imaging make sure
  - a. Switch light path with 'eye port' button
  - b. When switching from observation of fluorescence with the oculars and scanning with the confocal, you **must** make sure that the empty filter (first position on the TIPAD) is in the light path.
  - a. You use the correct immersion media on the lens (60x OIL lens has green hair tie on the barrel)
  - b. The 1.5x optic is matches the position in the software

**Shutdown Procedure:**

1. Clean lenses and switch to 10x
2. Remove 1.5x optic if used
3. Quit out of the Elements program
4. Shut-down Computer
5. Key off the laser sled emission
6. Power off laser sled at rear
7. Power off scan head
8. Shut off the CO<sub>2</sub> tank and the incubator controller
9. Clean the stage, sample chamber, lenses etc.
10. Turn off lights