

Leica stellaris8 operation manual



- Please turn on the power in the following order: 1, 2, 3.



1. for the microscope and the computer.
2. for the laser and the scanning module.
3. for the cooling system.



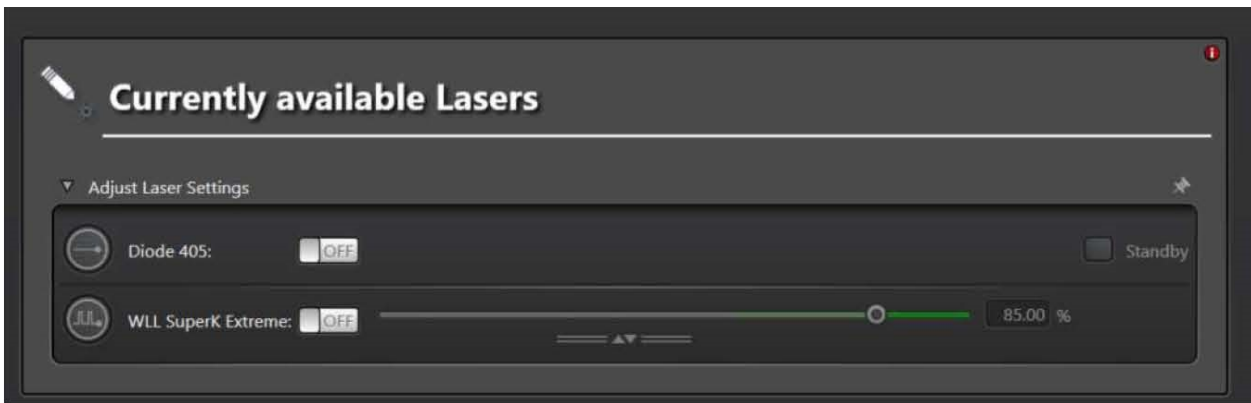
- Start the Las-X software.
Chose the appropriate configuration. For the time being this is "machine.xlhw".



- Got configuration and chose "Laser config" , turn on lasers :

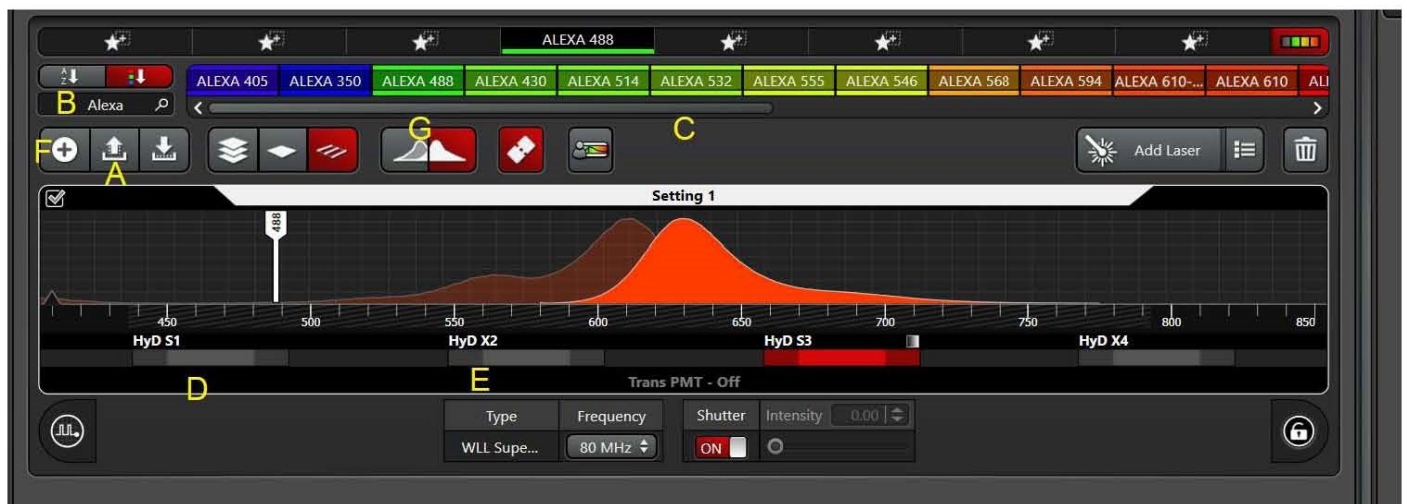


1. Diode Laser : 405 nm 50mW
2. White light laser system, pulsed laser 440nm-790nm.



If you have DAPI / Hoechst in your sample, turn on the Diode 405 laser. Then turn on the white light laser (WLL).

- Now get back to the Acquisition side to set up the excitation / detection paradigm.



If you have any saved settings, you can load them from the button (A).

If you need to make a new scheme you can add new sequences from the (F) button. Then type the colour you have in your sample in the search window (B) and use mouse cursor to drag the desired dye from the dye bar (C) to the location of the desired detector (D) or (E). Adjust detection ranges if necessary.

- Stellaris has two types of detectors, **HyD S** and **HyD X**.

HyD S Not quite as sensitive for FLIM or photon counting as HyD X, but tolerate more light. Use these for bright channels and when making a coverslip correction.

HyD X Use these detectors for dim channels / for photon counting applications / when doing FLIM. NEVER USE **HyD X** FOR COVERSIP CORRECTION.

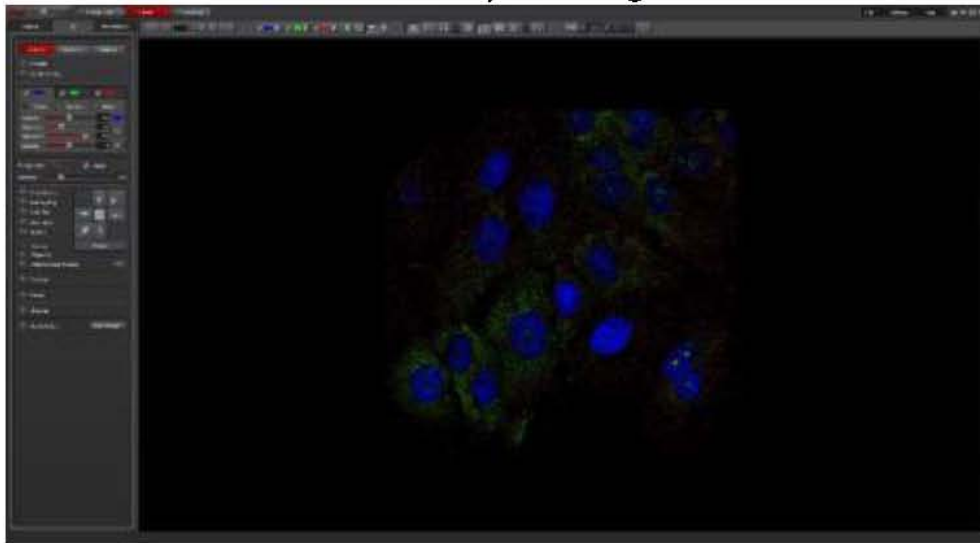
You can use widget (G) to visualize the excitation / emission spectrum of your chosen dyes to better design your excitation / detection paradigm.

Heating and CO₂

The environmental controller is on the floatation table, next to the microscope. To turn on the heating press the on/off button. Adjust the temperature to either 37 C (red) or 29C (orange) depending on your needs or the colour of the next booking with 24 hours. Do not turn on the CO2 unless you need it yourself. 5% CO2 should be sufficient for most samples.



- After completing the XYZ scan image, you can use the 3D module for stereoscopic image reconstruction.



- You can apply the saved image file settings parameters. Select the file, right-click, and choose "Apply image settings" to apply them.



- Export the image as a TIFF file.



Press "Close" when finished.



- The shutdown procedure is as follows:
If the experiment is completed, first take care to clean the used oil objective and glycerin lens 2-3 times. Then, turn off the laser and software, followed by shutting down the computer. Finally, proceed to turn off the switches in the order of 3, 2, 1.

