Bioimaging Center
Biomedical Core Facility
Ruth & Bruce Rappaport Faculty of Medicine
Technion - Israel Institute of Technology

BCF
Biomedical Core Facility

מרכז דימות ומיקרוסקופיה
מרכז תשתיות ביורפואי
הפקולטה לרפואה ע"ש רות וברוך רפפורט
הטכניון - מכון טכנולוגי לישראל

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Instruction SHORT TL2 2018-05-30 Eng.docx

Zeiss Upright Operation Instructions
Do not operate this system before receiving proper training by BCF Staff

Power up (in this order)

1. Put microscope cover away from microscope and any electric component
   Switch on metal halide lamp (1)
   Lamp brightness can be changed manually by a dial on the lamp holder.
   Do not move the metal halide lamp!
2. Turn on computer (2) if off
3. Switch on the microscope power supply (3)
4. Switch on the stage power supply (4)
5. Switch on the Hamamatsu Power supply if needed (long press from orange to green)(5)

Log into the computer:
username: **Multilabs**
password: **123456**

Software and aquisition

Log into **BookItLab** and activate your reservation to start **Zen 2.3**

1. **Sample mounting**
   - Lower stage
   - Move stage away from nosepiece
   - Mount slide
   - Move stage under nosepiece
   - Raise stage

2. **Viewing by eyepiece**
   - Push beam path rod (eyepiece shutter) in
   - In the Touch pad: Light- light path 100% to Tube

   Transmitted light
   - Click the **transmitted light** lamp icon, click ON and set desired brightness
   - Set the filter turret position to TL DIC
   - Set the condenser below the stage to suit the objective lens (see objective lens info on touchpad)
   - If you intend to acquire transmitted image set up Kohler illumination

   Reflected light (fluorescence)
   - Open fluorescence shutter
   - Set the filter turret to the desired position

3. **Image Acquisition**
   - For acquisition with the color camera pull beam path rod out
   - For acquisition with the Hamamatsu camera change the Light path – 100% Side port

bcf.technion.ac.il
Tel. +972-4-8295347/61 | **Fax.** +972-4-8295363 | **Email:** ediths@technion.ac.il
1, Efron St., Bat Galim, POB 9649, MS9, Haifa 3109601, Israel | 3109601 ת.ד. 9649, בת גלים, חיפה

- In Zen, **Acquisition** tab:
- Load a saved configuration from the **Experiment Manager** or open an image and below the image click **Reuse**
- Select **Show all tools** and open:
  - Channels

  In Live mode, optimize each channel separately by checking **Range Indicator**; check all channels and set acquisition parameters

  Check the Auto save tab, fill the prefix and choose a directory.

  Save image as CZI type file in **D:\ USERS DATA\USER DATA\PI name\user name\mm-yyyy**

  Press **Snap** to acquire image
- For multidimensional images check the desired dimension (Z, time, tile) and after setting the relevant parameters click **Start Experiment**

See instructions booklet for more details

4. **Data backup**

Data are copied automatically every night, if computer is on and connected to the internet.

Do not use any type of USB flash drive to retrieve your data.

There are computers with active anti-virus software at the Computerized Analysis Room, connected to the servers.

Ending session

Before you finish please enquire whether the next user is coming.

If yes:

1. Close the ZEN software
2. **Log off your reservation at BookItLab**
3. Lower the stage, clean oil immersion objectives with lens tissue wetted with petroleum ether, twice
4. Leave nosepiece at 10x objective lens
5. Center and raise the stage
6. Leave surfaces clean

If no user is coming in the next two hours, also, **in this order**:

7. Switch off the Hamamatsu Power supply (long press to switch from green to orange)(5)
8. Switch off the stage power supply (4)
9. Switch off the microscope power supply (3)
10. Switch off metal halide lamp (1)
11. Cover microscope

Do not turn off computer unless you are the last user before the weekend.(2)

Do not use any type of USB drive to copy your data.