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🌐 Fluorescence microscope (Zeiss)

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Behavioural Genomics

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We use this protocol and it's working

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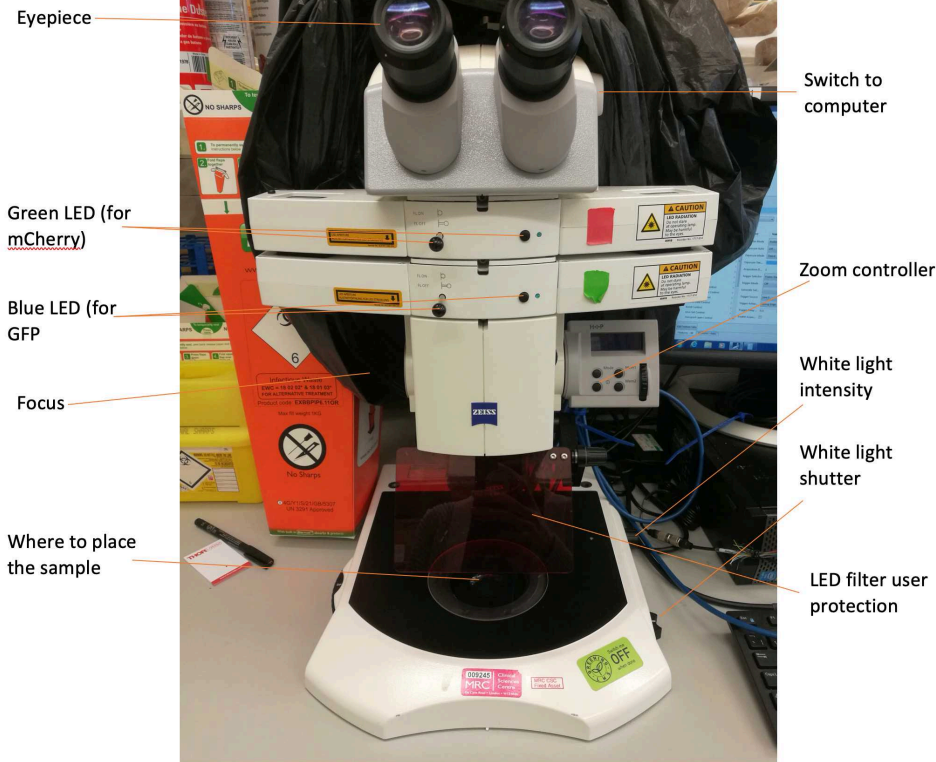
Abstract

How to operate the fluorescence microscope in the lab. Beware of safety hazards: This instrument uses led radiation. Do not stare at the operating lamp for a prolonged period of time in fluorescence mode.

Troubleshooting

Microscope layout

1

Schematics of microscope

Operating microscope

2   Turn on the white light intensity and shutter

3   Turn on the zoom controller

4   Turn on the LED, if using fluorescent mode

5   Turn on the software on the computer: Pylon viewer

6   Place sample in the microscope and adjust the eyepiece

7   Focus the sample using the wheel on the left-hand side whilst observing through the eyepiece

8   Using the white light shutter on the right to block out the white light, only fluorescence from the sample reaches the eyepiece.

9   To capture an image, switch to computer mode using the switch on the upper right-hand side.

10   Press the camera symbol in the software to capture an image. Parameters such as acquisition time can be set in the software.

11   The best results are obtained when the plastic cover is on and the background light in the room is kept at a minimum.

12   Turn off the white light, LED, and zoom controller when finished using the microscope.

13   Enclose with plastic cover.

Trouble-shooting

14   The software does not connect to the camera:
     Make sure the USB cable is plugged in to a USB 3.0 port on the computer. Check that the camera is on. Make sure the correct driver is installed.

15   The zoom controller, white light or LED don't turn on:
     Make sure that the microscope is plugged in.

16   Nothing can be seen through the eyepiece:
     Make sure nothing is blocking the path between the sample and the objective lens. Make sure that the microscope is not switched to camera view.