Zeiss Lightsheet Z.1

Building 8 | Lab 1.16

The Zeiss Lightsheet Z.1 is a lightsheet fluorescence microscope that enables fast volumetric imaging of large cleared samples (up to 1cm x 1cm x 2cm) or live transparent samples with low photobleaching and low phototoxicity.

LASER LINES

488 nm 50mW
561 nm 50mW
638 nm 75mW

OBJECTIVES | ILLUMINATION

5x/0.1
10x/0.2

OBJECTIVES | DETECTION

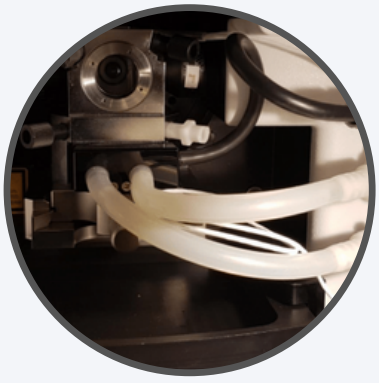
5x/0.16 EC Plan-NEOFLUAR
10x/0.5 W Plan-APO
20x/1.0 W Plan-APO DIC Corr UV-VIS-IR nd=1.33
20x/1.0 Clr Plan-APO Corr VIS-IR nd=1.38

FILTERS | CAMERA 1 & CAMERA 2

GFP | 505-545 nm & **Cy3** | 575-615nm
GFP | 505-545 nm & **mCherry** | 585nm
YFP | 525-565 nm & **Cy3** | 575-615nm
Cy3 | 575-615 nm & **DRAQ5** | LP 660 nm

CAMERAS

2 PCO.edge sCMOS Cameras | 30 fps | pixel 6.5 µm



CHAMBERS AND INCUBATION

Aqueous media (n=1.33)
Clearing media (n=1.38/20x, n=1.45/5x)
Incubation and temperature control options

ACQUISITION DESKTOP ZEN 2014

CPU 2x Intel XEON CPU E5-2623 @3.0GHz
RAM 64 GB
Storage 4x 2TB | 4TB RAID 10
GPU NIVIDIA Quadro K2000 4 GB
OS Windows 7

Zeiss Lightsheet Z.1 Workstation

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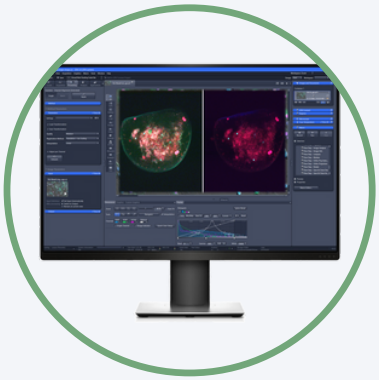
Handling, processing and visualisation of lighsheet microscopy data is extremely computer intensive and requires the use of a high performance computer. The Zeiss Lightsheet Z.1 Win 7 workstation is specifically configured for storing and handling large experimental dataset obtained with the Zeiss Lightsheet Z.1 microscope.



WORKSTATION

CPU Intel XEON CPU E5-2620 @2.4GHz
RAM 192GB
Storage 6x HDD 8TB | RAID 5 config 36TB
GPU NIVIDIA Quadro K2000 4 GB
OS Windows 7

SOFTWARE

Zeiss Zen 2014
Arivis vision4D
Fiji/ImageJ

WARNING

Save your data in D:\SWAP*your name* and not in the C:\ drive.