

Zeiss LSM700 Point Scanning Confocal Microscopy

■ Imaging UV and VIS fluorophores

(eg DAPI, YFP, CFP, GFP, TxRed, Alexa 488/568/633...)

■ Colocalization studies

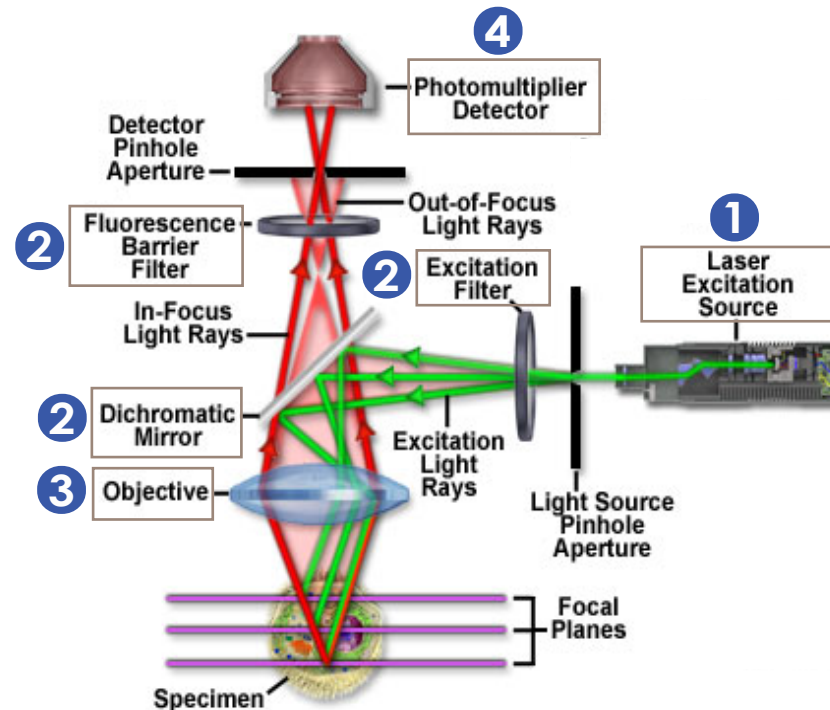
■ Ideal for fixed specimens

(oil objectives)

■ 3D Z-stacks



Bleaching	★★★★★	high
Resolution	★★★★☆	good
Speed acq.	★★★☆☆	medium
Multicolor	★★★★★	4-8
Depth (z)	★★★★☆	<30 um



Lasers 1

- 405 nm 5mW
- 488nm 10mW
- 555nm 10 mW
- 639 nm 5 mW

Mounted filters 2

- UV excitation (Filter set 49) : DAPI, Hoechst 33258, ...
G 365, FT 395, BP 445/50
- BLUE excitation (Filter set 10): FITC, GFP, YFP, CFP, ...
BP 450-490, FT 510, BP 515-565
- GREEN excitation (Filter set 15): TRITC, Texas-Red, DsRed1, ...
BP 546/12, FT 560, BP 575-640

Objectives 3

- "Plan-Neofluar" 10X / 0.30
- "Plan-Neofluar" 20X / 0.50
- "Plan-Neofluar" 40X / 1.3 Oil
- "Plan-Apochromat" 63x / 1.4 Oil

PhotoMultiplier Tubes (PMT detectors) 4

- 2 reflection/fluorescence detection channels, each with highly sensitive PMT detectors, prepared for lasers of wavelengths 405, 488, 555 and 639 nm

Microscope 5

- Zeiss Axio Imager.M2 microscope (upright)
- HXP120C fluorescence lamp for widefield eyepiece visualization

Software 6

- Windows 7 64bits
- Zen 2010b version service pack1

■ **Lateral** Resolution:
 $R(x,y) = 0.4\lambda/NA$

■ **Axial** Resolution:
 $R(x,z) = 1.4\lambda n/NA^2$