# CONFOCAL LASER SCANNING MICROSCOPE ZEISS LSM 700:



4 Laser lines	Laser line 405 nm (5mW fiber output)
	<ul> <li>Laser line 488 nm (10mW fiber output)</li> </ul>
	<ul> <li>Laser line 555 nm (10mW fiber output)</li> </ul>
	<ul> <li>Laser line 639 nm (5mW fiber output)</li> </ul>
	W N-Achroplan 10x/0,3 M27 objective (dt=2,6 mm)
	<ul> <li>Plan-Apochromat 20x/0.8 Ph2 M27 objective</li> </ul>
Objectives	(dt=0.55mm)
	<ul> <li>W Plan-Apochromat 40x/1,0 Ph3 M27 objective</li> </ul>
	(dt=2,5mm), VIS-IR
	<ul> <li>Plan-Apochromat 40x/1,3 Oil DIC M27 objective</li> </ul>
	(dt=0,2 mm), (UV)VIS-IR
	<ul> <li>Plan-Apochromat 63x/1,40 Oil DIC M27 objective</li> </ul>
	(dt=0,19 mm)
Maximum lateral resolution	- 200 nm
	Two confocal fluorescence detectors
Detection system	(High sensitivity photomultipliers)
Detection system	Software ZEN
	3D Image
Applications	<ul> <li>Multiple fluorescence and colocalization analysis</li> </ul>
	In vivo image acquisition (time-lapse)

## OPTICAL EPIFLUORESCENCE MICROSCOPE NIKON ECLIPSE 90i:



Illumination	<ul> <li>Visible DC lamp 12V, 100W</li> </ul>
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	Mercury lamp 100W
Objectives	Objective Plan Apo 2x/0.1
	<ul> <li>Objective Plan Fluor 10x/0.30 DIC L/N1</li> </ul>
	<ul> <li>Objective Plan Apo 20x/0.75 DIC M/N2</li> </ul>
	<ul> <li>Objective Plan Apo 40x/0.95 DIC M/N2</li> </ul>
	Objective Plan Apo 60x/1.4
	Objective Plan Apo 100x/1.4
Magnification	• 16-2000x
Fluorescence filters	DAP I: Ex 340-380 / DM 400 / BA 435-485
	• FITC: Ex 465-495 / DM 505 / BA 515-555
	• G-2A: Ex 510-560 / DM 575 / BA 590
Detection system	Nikon Camera DXM1200F (Software ACT-1)
Observation methods	Brightfield
	Epifluorescence
	DIC or Nomarski
	Polarized light

## OPTICAL EPIFLUORESCENCE MICROSCOPE NIKON ECLIPSE 80i:



Illumination	<ul><li>Visible DC lamp 12V, 100W</li><li>Mercury lamp 100W</li></ul>
Objectives	Objective Plan UW 2x/0.06
	<ul> <li>Objective Plan Fluor 4x/0.13</li> </ul>
	<ul> <li>Objective Plan Fluor 10x/0.30 DIC L/N1</li> </ul>
	<ul> <li>Objective Plan Apo 20x/0.50 DIC M</li> </ul>
	<ul> <li>Objective Plan Apo 40x/0,95 DIC M/N2</li> </ul>
	<ul> <li>Objective Plan Apo 100x/1.4 Oil DIC H</li> </ul>
Magnification	• 20-1000X
Fluorescence filters	<ul> <li>UV-2A: Ex 330-380 / DM 400 / BA 420</li> </ul>
	<ul> <li>B-2A: Ex 450-490 / DM 505 / BA 520</li> </ul>
	• G-2A: Ex 510-560 / DM 575 / BA 590
Detection system	Nikon Camera DXM1200F (Software ACT-1)
Observation methods	Brightfield
	Epifluorescence

## OPTICAL EPIFLUORESCENCE MICROSCOPE NIKON ECLIPSE TE2000-E:



	<u> </u>
Illumination	<ul> <li>Visible DC lamp 12V, 100W</li> </ul>
	Mercury lamp 100W
Objectives	Objective Plan Fluor 10x/0.30 Ph1 DLL
	<ul> <li>Objective Plan Apo 20x/0.45 DIC Ph1 DM</li> </ul>
	<ul> <li>Objective Plan Apo 40x/0.60 DIC M</li> </ul>
	Objective S Fluor 40x/1.3 Oil
	<ul> <li>Objective Plan Apo 100x/1.3 Oil Ph3 DLL</li> </ul>
Magnification	• 100-1500X
Fluorescence filters	<ul> <li>DAPI: Ex 340-380 / DM 400 / BA 435-485</li> </ul>
	• FITC: Ex 465-495 / DM 505 / BA 515-555
	• G-2A: Ex 528-553 / DM 565 / BA 578-633
Detection system	Nikon Color Camera DS-2Mv (Software NIS-
	Elements)
	<ul> <li>Hamamatsu Monochromatic Camera ORCA-ER</li> </ul>
	(Software Metamorph)
	Brightfield
	Epifluorescence
Observation methods	<ul> <li>Phase contrast (10x and 20x)</li> </ul>
and applications	<ul> <li>Fixed or in vivo samples, with temperature</li> </ul>
	controller for RT 50℃
	• Stacks in z and time-lapse (motorized stage)

## OPTICAL EPIFLUORESCENCE MICROSCOPE NIKON ECLIPSE TE2000-U:



Illumination	Visible DC lamp 12V / 100W
	Cairns monochromator with Xenon lamp 150W,
	wavelengths between 300-700 nm
Objectives	Objective Plan Fluor 10x/0.30 Ph1 DLL
	Objective Plan Apo 20x/0.45 DIC Ph1 DM
	Objective Plan Apo 40x/0.60 DIC M
	Objective S Fluor 40x/1.3 Oil
	Objective S Fluor 100x/0.5-1.3 Oil
Magnification	• 100-1500X
Fluorescence filters	• D535/25 (400-600 nm)
	• D605/55M (500-700 nm)
	• D510/40M (320-620 nm)
	• HQ530/50 (300-750 nm)
Detection system	Hamamatsu Camera ORCA-ER (Software
	MetaFluor)
	Brightfield
	Epifluorescence
Observation methods	<ul> <li>Phase Contrast (10x and 20x)</li> </ul>
and applications	<ul> <li>In vivo, with temperature controller for RT 50°C</li> </ul>
	Time-lapse: intracellular calcium, pH, membrane potential