

# UltraMicroscope II (Physiology)

## INSTRUMENT SPECIFICATION SHEET



BIOLOGICAL  
OPTICAL  
MICROSCOPY  
PLATFORM

<b>Location</b>	TBC, Medical Building				
<b>Stand</b>	Olympus MVX-10 Zoom body (0.63 – 6.3x)				
<b>Lasers</b>	<b>Type</b>	<b>Wavelength</b>			<b>Maximum output</b>
	LASOS Diode Laser	405nm			100 mW
	LASOS Diode Laser	488 nm			85 mW
	LASOS DPSS	561 nm			100 mW
	LASOS Diode Laser	639 nm			70 mW
LASOS Diode Laser	785 nm			75 mW	
<b>Emission filters</b>	<b>Name</b>	<b>Emission</b>			<b>Range</b>
	DAPI	460/40nm			440 - 480 nm
	GFP	525/50 nm			500 - 550 nm
	TRITC	620/60 nm			590 – 650 nm
	CY5	680/30 nm			665 – 695 nm
IR	845/55 nm			818 – 873 nm	
<b>Stage control</b>	xyz controller (1cm x 1cm xy travel limitation)				
<b>Objectives Specification</b>	<b>Magnification</b>	<b>Type</b>	<b>NA</b>	<b>Working distance</b>	<b>FOV</b>
LaVision (LVMI-Fluor)	1.3x	Dipping	0.1	9.0 mm	12.0 x 12.0 mm
Olympus MVPLAPO	2x	Dipping	0.5	20 mm (w/o dipping cap)	1.2 x 1.2mm (0.63x zoom) 12.4x 12.4 mm (6.3x zoom)
LaVision (LVMI-Fluor)	4x	Dipping	0.3	5.6 – 6.0 mm	3.9 x 3.9 mm
LaVision (LVMI PLAN)	12x	Dipping (RI = 1.3, 1.45, 1.56)	0.53	8.5 – 10.5 mm	1.3 x 1.3 mm
Other	The system can also accommodate any infinity corrected lens.				
<b>Camera</b>	<b>#</b>	<b>Type</b>	<b>Details</b>		
	1	Andor	Andor Neo sCMOS (2560 x 2160 pixels), QE = 57%		
<b>Software</b>	Biotec Inspector				
<b>Holder</b>	Quartz cuvette (140 mls capacity), with multiple sample holders				
<b>Applications</b>	Lightsheet microscopy of cleared tissue & organisms				
<b>File Saving</b>	.tiff or .ims (Imaris file)				
<b>Extra features</b>	Image tiling via TeraStitcher				