

**Technical Specifications**

- Leica SP8 AOBS confocal laser scanning microscope attached to a Leica DM6000 upright epifluorescence microscope with multiphoton and confocal lasers, internal and external (non-descanned) detectors.
- Conventional scanner and resonant scanner enable a broad range of applications including imaging at up to 25 frames per second with resonant scanner.
- Internal detectors for CLSM: One standard PMTs plus two ‘hybrid’ GaAsP detectors, which offer much greater sensitivity, boosting of low signal and photon counting modes.
- External (non-descanned) detectors for MP: Two standard PMTs plus two ‘hybrid’ GaAsP detectors.
- Transmitted light detector (oil immersion condenser for maximised signal) – e.g. SHG imaging.
- Spectrophometers allow customised detection of emitted light, spectral scanning etc – *CLSM only*.
- MP laser: Spectra Physics DeepSee dual beam prechirped 680-1300nm + additional (fixed) 1040nm beam.
- Equipped with 65 mW Ar laser (458, 476, 488, 496, 514 nm lines), 20 mW solid state yellow laser (561 nm), 10 mW Red He/Ne (633 nm).
- AOTFs for visible laser lines – not MP laser.
- AOBS (Acousto-Optical Beam Splitter) automatically adjusts to selectively reflect each excitation line and allows optimisation of detection close to (and overlapping) excitation lines.
- Notch filters block reflection signal, enabling clearer imaging close to coverslips.
- Environmental chamber (Life Imaging Services) for temperature control.
- Scientifica IntraVital motorised stage for sample manipulation.

**Filters for visual inspection**

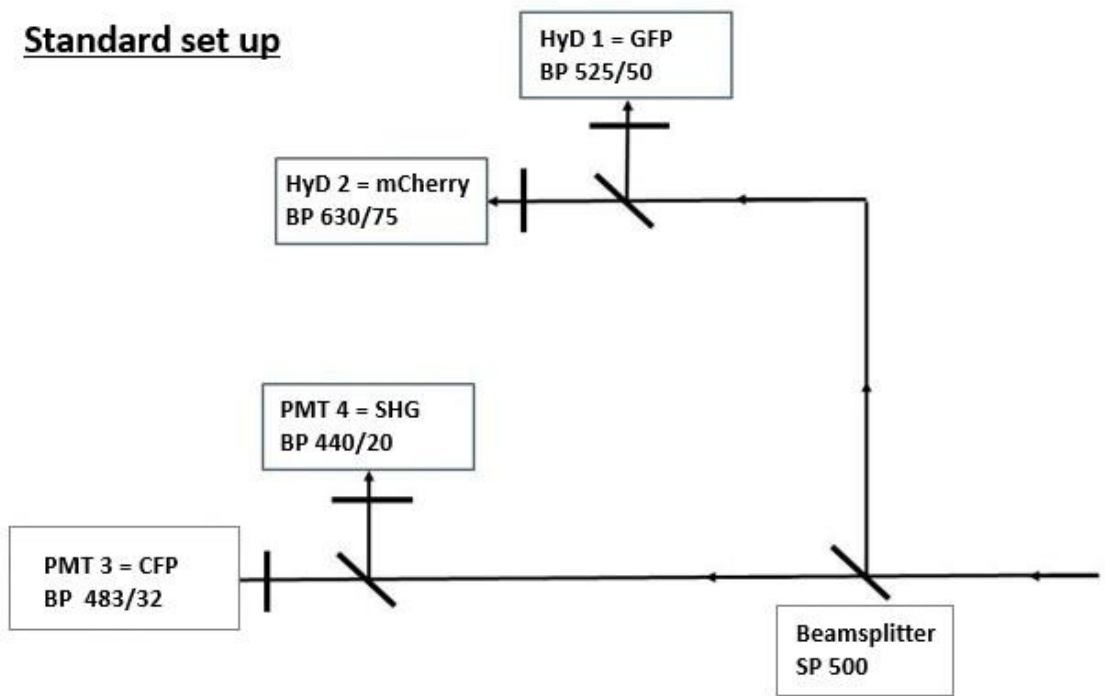
	<b>Excitation range</b>	<b>Fluorophore (examples)</b>	<b>Excitation filter</b>	<b>Dichroic mirror</b>	<b>Emission filter</b>
I3	Blue	FITC GFP	BP 450-490	RKP 510	LP 515
N2.1	Green	Rhodamine TRITC	BP 515-560	RKP 580	LP 590

**Lenses**

<b>Lens</b>	<b>Dry/Oil</b>	<b>Phase contrast</b>	<b>DIC</b>	<b>Working distance (mm)</b>	<b>Numerical aperture</b>	<b>Features</b>	<b>Serial number</b>	<b>Image size at 0.75x zoom in microns</b>
10x HCX APO	Water	No	No	3.6	0.3	Dipping	506142	1480
20x HC PL IRAPO *	Water	No	No	0.67	0.75		506344	738
25x HC Fluotar	Water	No	No	2.5	0.95	Dipping	506323	590
40x HC PL IRAPO	water	No	No	0.65	1.1	Coverglass thickness correction	506352	369

\* Lenses kept beside microscope

**Standard set up**



**Alternative set up**

