



# ZEISS LSM980 INSTRUMENT SPECIFICATION SHEET

|                                  |   |                   |   |   |                            |                                 |
|----------------------------------|---|-------------------|---|---|----------------------------|---------------------------------|
| <b>Location</b>                  | Room 8023, Department of Microbiology & Immunology, Doherty Institute, University of Melbourne      |                   |   |   |                            |                                 |
| <b>Stand</b>                     | Axio Observer 7 (Inverted Microscope)   |                   |   |   |                            |                                 |
| <b>Illumination</b>              | <b>Transmitted</b>  |                   |   | <b>Fluorescence</b>   |                            |                                 |
|                                  | HAL 100 (Halogen 12V 100W)  |                   |   | Colibri 7 (LED system for 385, 430, 475, 511, 555, 590 & 630nm) |                            |                                 |
| <b>Filters</b>                   | <b>Name</b>   | <b>Excitation</b> | <b>Dichroic</b>   | <b>Emission</b>   |                            |                                 |
|                                  | 49 DAPI   | G365              | FT395   | BP445/50  | 488049-9901-000            |                                 |
|                                  | 65 Alexa 488  | BP475/30          | FT495   | BP550/100   | 489065-0000-000            |                                 |
|                                  | 20 Rhodamine  | BP546/12          | FT560   | BP575-640   | 488020-9901-000            |                                 |
| <b>Lasers</b>                    | <b>Type</b>   |                   | <b>Wavelength</b>   |   | <b>Maximum output</b>      |                                 |
|                                  | Diode   |                   | 405nm   |   | 14mW                       |                                 |
|                                  | Diode   |                   | 445nm   |   | 7.5mW                      |                                 |
|                                  | Diode   |                   | 488nm   |   | 10mW                       |                                 |
|                                  | Diode   |                   | 515nm   |   | 10mW                       |                                 |
|                                  | Diode   |                   | 561nm   |   | 10mW                       |                                 |
|                                  | DPSS  |                   | 594nm   |   | 2.5mW                      |                                 |
|                                  | Diode   |                   | 639nm   |   | 7.3mW                      |                                 |
|                                  | Diode   |                   | 730nm   |   | 9.5mW                      |                                 |
| <b>Stage control</b>             | Motorised XY stage control with z-stack, tile scan and point visiting capability                    |                   |   |   |                            |                                 |
| <b>Objectives Specification</b>  | <b>Magnification</b>  | <b>Type</b>       | <b>NA</b>   | <b>Working distance</b>   | <b>Coverslip Thickness</b> | <b>Resolution at 550nm</b>      |
| EC Plan-Neofluar 420340-9901-000 | 10x   | Air               | 0.3   | 5.2mm   | 0.17 (#1.5)                | lateral: 733nm<br>axial: 2567nm |
| Plan-Apochromat 420650-9901-000  | 20x   | Air               | 0.8   | 0.55mm  | 0.17 (#1.5)                | lateral: 275nm<br>axial: 655nm  |
| Plan-Apochromat 421762-9900-799  | 40x   | Oil               | 1.3   | 0.22mm  | 0.17 (#1.5)                | lateral: 169nm<br>axial: 403nm  |
| Plan-Apochromat 421782-9900-799  | 63x   | Oil               | 1.4   | 0.14mm  | 0.17 (#1.5)                | lateral: 157nm<br>axial: 374nm  |
| <b>Detectors</b>                 | <b>#</b>  | <b>Type</b>       | <b>Details</b>  |   |                            |                                 |
|                                  | 1   | AiryScan 2        | 32 channel GaAsP (Gallium Arsenide Phosphide) array detector    |   |                            |                                 |
|                                  | 1   | NIR detector      | Near infrared GaAs detector for 660-705 and 755-900nm detection |   |                            |                                 |
|                                  | 1   | QUASAR            | 32 channel GaAsP spectral array detector                        |   |                            |                                 |
|                                  | 2   | MA-PMT            | Photo multiplier tube detector for fluorescence                 |   |                            |                                 |
|                                  | 1   | T-PMT             | Transmitted light detector                                      |   |                            |                                 |
| <b>Software</b>                  | Zen Blue 3.6  |                   |   |   |                            |                                 |
| <b>Holder</b>                    | Multiwell plates and slide holder   |                   |   |   |                            |                                 |
| <b>Applications</b>              | Fixed and Live cell imaging, Super-resolution imaging, Spectral Imaging, Near infrared imaging, DIC |                   |   |   |                            |                                 |
| <b>File Saving</b>               | .czi file save to computer hard drive, then upload via MediaFlux                                    |                   |   |   |                            |                                 |