

SingHealth Advanced Bioimaging Core					
Equipment	Brand / Model	Capabilites	Nature of Utilization of Equipment	Contact Details	Location
Super Resolution Light Microscopes	Zeiss ELYRA PS.1	SIM (Structured illumination microscopy) and PALM (photo-activation localisation microscopy) Configurable for d-STORM, TIRF, widefield Software: Zen 2012 Laser lines: 405nm, 488nm, 561nm, 642nm Objectives: 63x oil, 100x oil Definite focus system to keep sample in focus Resolution:- SIM xy: ~120nm, z: ~250nm PALM xy: 10-30nm, z: ~50nm	Staff-Assisted / Self-Operated	Enquiry Email: bioimaging@singhealth.com.sg http://research.singhealth.com.sg/Pages/advanced-bioimaging.aspx	Academia, Discovery Tower, Level 10, SingHealth Advanced Bioimaging Core
Super Resolution Light Microscopes	Nikon N-STORM with Andor CSU-W1 spinning disk	STORM (stochastic optical reconstruction microscopy) and spinning disk confocal configurable for d-STORM, TIRF, widefield, brightfield Software: NIS Elements Laser lines: 405/445nm, 488/515nm, 561nm, 640nm Objectives: 10x, 20x, 40x oil, 60x oil, 100x oil Perfect focus system (PFS) Stage top incubator, temperature and humidity controlled Resolution: STORM xy: 10-30nm, z: 50-70nm			
	Leica TCS SP8 STED 3X	STED (stimulated emission depletion) and scanning confocal Software: LAS X Laser lines: 405nm, 470-670nm (tunable up to 8 colors) Objectives: 20x, 40x oil, 100x oil Resolution: STED xy: 50-70nm, z: 70-130nm			
Laser capture microdissection microscope	Leica LMD 7	UV laser cutting/isolation of cells or tissues for further downstream analysis of DNA, RNA etc Software: Laser micro-dissection V8.0 Light source: LED and mercury lamp Objectives: 6.3x, 10x, 20x, 40x, 63x, 150x			
Ultra microtome	Leica ULTRACUT EM UC7	Sectioning machine for preparing EM semi- and ultrathin sections			
Transmission Electron Microscope	Jeol JEM 2100	Software: Gatan Digital Micrograph Voltage: 80-200 keV Single and quartet sample holder Piezo goniometer stage Point resolution: 0.23nm			
SingHealth Clinical Pharmacology Core					
Equipment	Brand / Model	Capabilites	Nature of Utilization of Equipment	Contact Details	Location
LC-MS/MS	Agilent LC with ABSCIEX 5500 QTRAP system	Separation, identification and quantification of drug compounds and metabolites	Staff-Assisted	Enquiry Email: clin.pharm@singhealth.com.sg Phone: 6576 7096 http://research.singhealth.com.sg/Pages/clinical-pharmacology.aspx	Academia, Discovery Tower, Level 8, SingHealth Clinical Pharmacology Core
HPLC	Shimadzu Prominence LC				
Pyrosequencer	Qiagen PyroMark Q24	Quantitative analysis of genetic or epigenetic DNA modifications			

SingHealth Flow Cytometry Core					
Equipment	Brand / Model	Capabilites	Nature of Utilization of Equipment	Contact Details	Location
Cell Analyzer	BD LSRFortessa SORP	5-laser flow cytometer, detects up to 18 colors. For cell analysis only	Staff-Assisted / Self-Operated	Ms Pearly Yong Enquiry Email: flow@singhealth.com.sg Tel: 6576 7178 http://research.singhealth.com.sg/Pages/flow-cytometry.aspx	Academia, Discovery Tower, Level 10, SingHealth Flow Cytometry Core
Cell Sorter	BD FACSAria III	5-laser flow cytometer with cell sorting ability. Detects up to 18 colors	Staff-Assisted		
SingHealth Experimental Medicine Centre					
Equipment	Brand / Model	Capabilites	Nature of Utilization of Equipment	Contact Details	Location
NanoPET/MRI	Mediso / NanoScan	PET subsystem - High resolution imaging of functional processes in small animals (mice and rats) with the use of radiotracers. MRI subsystem - Imaging of soft tissue morphology.	Staff-Assisted	Dr. Bryan Ogden Enquiry email: shs.semcc@singhealth.com.sg http://research.singhealth.com.sg/Pages/SingHealthExperimentalMedicineCentre.aspx	Academia, Discovery Tower, Basement 1, SingHealth Experimental Medicine Centre
NanoCT/SPECT	Mediso / NanoScan	CT subsystem - High resolution imaging of anatomical structures in small animals (mice and rats) using X-Ray SPECT subsystem - High resolution spatial imaging of anatomical structures in small animals (mice and rats) using gamma rays.			
NHP PET-CT	Mediso MultiScan LFER PET-CT	For high resolution of imaging of lying and awake macaques.			
C-Arm Fluoroscope	Siemens / Avantis	Real time x-ray imaging of large animals.			
Large Animal Ultrasound Machine	GE Logiq S7	For non-invasive image acquisition of large animals like pigs.			
Rodent Ultrasound Machine	S-Sharp Prospect	Real time and non-invasive image acquisition capabilities for in-vivo small animal studies. For visualisation of molecular events or quantification of tumour size.			
IVIS Spectrum	Caliper Lifesciences	In-vivo optical imaging for small animals.	Self-Operated		
Laparoscopic System	Karl Storz	For performing minimally invasive surgery (MIS) through small incisions on large animals.			
SingHealth Translational Immunology and Inflammation Centre (STIIC)					
Equipment	Brand / Model	Capabilites	Nature of Utilization of Equipment	Contact Details	Location
Mass Cytometry	Fluidigm Helios	Comprehensive functional and phenotypic characterization of complex systems at the single cell level in immunology, cancer research and stem cell biology	Collaboration only	Dr Lakshmi Ramakrishna Phone: 6576 7154 http://research.singhealth.com.sg/pages/stiic.aspx	Academia, Discovery Tower, Level 8, SingHealth Translational Immunology and Inflammation Centre (STIIC)
Cell Sorter	BD FACSAria III SORP	Flow Cytometry (4 lasers) and cell sorting			
Nanostring	NanoString Technologies nCounter	Pathway analysis, copy number variation, gene expression analysis			
Droplet Digital PCR	Biorad QX100	Absolute quantification of target DNA molecules			
Real Time PCR	Roche LightCycler 480	Real Time PCR analysis			
ELISA Plate Reader	Perkin Elmer EnSpire Multimode Plate Reader	Reads optical biosensor label-free, fluorescence intensity, absorbance, ultra sensitive luminescence			
Multiplex IHC	Perkin Elmer Vectra	Multiplexed immune-cell and expression profiling assays			
Multiplex ELISA	Millipore Luminex	Multiplex ELISA assay for biomarker screening and protein analysis			

SingHealth Tissue Repository / Advanced Molecular Pathology Laboratory					
Equipment	Brand / Model	Capabilites	Nature of Utilization of Equipment	Contact Details	Location
Stainer	Leica Bond-III	Fully Automated immunohistochemistry and in-situ hybridization stainer	Staff-Assisted	Ms Yue Lai Ling Phone: 6576 71165 http://research.singhealth.com.sg/pages/singhealthtissuerepository.aspx https://research.singhealth.com.sg/Pages/AMPL.aspx	Academia, Discovery Tower, Level 10, SingHealth Tissue Repository
Fluorescence Microscope	Zeiss Microscope with Imaging System	Fluorescence Imaging			