INBIOSIS EQUIPMENT RENTAL RATE AND SERVICE CHARGES (updated 30 January 2024)

No	Name of equipment/ Facility	Brand / Model	Analysis / Usage / Notes	Responsible Research Fellowand Officer	Location	Unit of measurement	Charges for INBIOSIS user (RM)	Charges for UKM user (RM)	Charges for non-UKM user (RM)
1	Nano Liquid Chromatography-Time of Flight-Mass Spectrometry (NanoLC-TOF-MS)	Bruker / MictoTOF QIII	Large Molecules (Proteins) identification based on accurate mass and true isotopic pattern inMS and MS/MS	Sarah Ibrahim	Chemical Analysis Laboratory	Per injection	440	467	550
2	Liquid Chromatography-Time of Flight-Mass Spectrometry (LC-TOF-MS)	Bruker / MictoTOF QIII	Small Molecules (Metabolites) identificationbased on accurate mass and true isotopic pattern in MS and MS/MS	Sarah Ibrahim		Per injection	per sample • MS:200 • MS/MS: 230 Bulk samples >50, per sample • MS: 180 • MS/MS: 216 Absolute quantification with 7 points standard curve RM1360/per compound	per sample • MS: 230 • MS/MS:250 Bulk samples >50, per sample • MS: 191 • MS/MS: 229 Absolute quantification with 7 points standard curve RM1445/per compound	per sample • MS: 250 • MS/MS: 300 Bulk samples >50, per sample • MS: 225 • MS/MS: 270 Absolute quantification with 7 points standard curve RM1700/per compound
3	High Performance Liquid Chromatography (HPLC)	Perkin-Elmer / Flexar	To separate, detect and identify potentialchemicals of particular compound	Hazim Syahmi Elias		Per sample	150	200	250
4	High Performance LiquidChromatography (HPLC) Recycling System	Japan Analytical Industry (JAI)/ R1-700-II	To isolate potential chemicals of particular compound in a sample	Hazim Syahmi Elias		Per day	160	170	200
5	Gas Chromatography-Mass Spectrometry (GC-MS)	Perkin-Elmer / Clarus600T	To analyze and quantify organic volatile andsemi-volatile compounds	Syahmi Afiq Mustaza		Per sample	200	250	300
6	Gas Chromatography-Flame Ionization Detector (GC-FID)	Perkin-Elmer / Clarus580	To provide quantitative analysis of volatile andsemi-volatile organic compounds found in a variety of matrices (gases, liquids and solids).			Per injection	150	200	250
7	Fourier Transform Infrared Spectroscopy (FTIR)	Perkin-Elmer / Frontier	To identify compound of sample mixtures of organic and inorganic compounds both in solid and liquid form	Rafidah Ahmad		Per sample	ATR & KBr: 50 2D-FTIR: 100	ATR & KBr: 75 2D-FTIR: 150	ATR & KBr: 100 2D-FTIR: 175
8	Rotary evaporator	Eyela / N-1100S-WD	To remove solvent from sample by evaporation	Hazim Syahmi Elias	Metabolomics Laboratory	Per run	0 (max.: 300ml)	42 (max.: 300ml)	50 (max.: 300ml)
9	Freeze dryer	Christ / RVC2-18/MZ2C	To dry sample using freeze dry technique			Per sample	32/sample (max.: 30ml)	34/sample (max.: 30ml)	40/sample (max.: 30ml)
10	Nitrogen evaporator	Sastec / ST-NES12	To dry and evaporate using nitrogen with heat(wet bath)			Per run	0	42	50
11	Flash chromatography self-packed column	Customized	Enable sample separation in a series of fractionsbased on solvent eluent			Per day	0	68	80
12	Radial chromatography	Chromatotron / 7924T/00081	To separate and isolate chemical mixtures			Per day	0	68	80

13	Hydro-distillation	Favorit	To obtain essential oil from plant/sample	Hazim Syahmi Elias	Metabolomics Laboratory	Per day	0	25	50
14	Soxhlet extractor	Favorit	To extract lipids from solid material			Per day	0	51	60
15	Microplate reader	BioRad / iMark13390	To detect biological, chemical or physical eventsof samples in microtiter plates			Per plate	0	42	50
16	UV-Vis spectrophotometer	Beckman Coulter /DU730	To quantitatively determine different analytes			Per hour	0	17	20
17	Vacuum concentrator	Christ / RVC2-18/MZ2C	To evaporate, dry, purify or concentrate sample by rotational vacuum concentrator			Per hour	0	10	20
18	Incubator shaker	Sastec / ST-H2Q-X500C	Provide agitation for optimal cell growth			Per day	0	102	120
19	High capacity incubator shaker	Infors / Multitron	Provide agitation for large volume cell culture			Per day	0	102	120
20	Biohazard Cabinet Class I & II	Bioair/ Top Safe 1.3	To provide safe workspace for researchers working with pathogens requiring a definedbiosafety level			Per day	0	127	150
21	Laminar Flow Cabinet	ESCO/ AVC-4A1	Enclosed bench designed to preventcontamination of biological samples			Per day	0	102	120
22	*Sewaan Perisian Komputer* -SIMCA-P+ 12.0 -Data Analysis -Profile Analysis	Umetrics (USA)/ SIMCA-P+ 12.0	To interpret complex chemical analysis dataset			Per day	0	51	60
23	Metabolomics Laboratory (including allequipment in the laboratory)					Per day	0	425	500
24	Isoelectric Focusing (IEF) Unit - 2 units	GE Healthcare / EttanIPGphor3	To separate proteins based on isoelectric points	Munirah Mahizan, Rohana Mahayadin	Proteomics Laboratory	Per day	0	25	50
25	Densitometer	BioRad / GS800	To scan and analyze 1D/2D			Per hour	0	12	25
26	Electrophoresis unit (1D)	BioRad / Mini Protean3 cell	To separate protein with moderate resolution			Per run	0	25	50
27	Electrophoresis unit (1D)	BioRad / Mini ProteanTetracell				Per run	0	25	50
28	Electrophoresis unit (1D)	Atto / AE-6500 DualMini Slab				Per run	0	25	50
29	Electrophoresis unit (2D)	Amersham Bioscience /SE600 Ruby (11 cm)	To separate protein based on isoelectric point and molecular weight			Per run	0	25	50
30	Electrophoresis unit (2D)	GE Healthcare / EttanDalt 6 (18cm)				Per run	0	25	50
31	Electrophoresis unit (2D)	BioRad / Protean II XLmulticell				Per run	0	25	50
32	Vacuum heated gel dryer	Cleaver Scientific /OMNI	To heat and dry gel at controlled temperatureand time			Per day	0	15	30
33	*Perisian untuk menganalisis 1D/2D gel*	Bio-rad/ QuantityOne/ PDQuest	To view the 1D or 2D gel			Per sample	0	25	30

34	Sonicator	Q-Sonica / Q500-220	To agitate particles in a sample by applying sound energy	Munirah Mahizan, Rohana Mahayadin	Proteomics Laboratory	Per hour	0	7	15
35	Ultrasonic bath	Elma / ElmaSonic S30H	To clean glassware			Per hour	0	5	10
36	Crystallization incubator (18-20 °C chiller)	HI-TEN / DEI/DEI625E	To incubate crystals obtained			Per plate	0	5	10
37	Stereo microscope (trinocular)	Olympus / SZ61	To analyze sample at low magnificent with light reflection on the surface of sample with a built-in c-mount optically matched to the zoom body			Per day	0	10	20
38	Handheld Homogenizer	Ika / Ultra-Turrax T25 digital	To homogenize sample			Per hour	0	5	10
39	Fast Performance Liquid Chromatography (FPLC) (2 units)	GE Healthcare/ Akta Pure and Akta Purifier	To purify and isolate desired protein						
	a) Own colum					Per analysis	0	25	30
	b) Prepacked column. HiLoad 16/600 Superdex 75pg / 200pg or TSKgel					Per run	0	127	150
	c) Empty column. XK16/26 × 20cm					Per run	0	25	50
	d) Empty column. XK16/26 × 40cm					Per run	0	50	100
	e) Empty column. XK16 × 100cm					Per run	0	75	150
	f) Empty column. XK26 × 70cm					Per run	0	75	150
	g) Column with resin. XK16/26 × 20cm					Per run	0	50	100
	h) Column with resin. XK16/26 × 40cm					Per run	0	100	200
	i) Column with resin. XK16 × 100cm					Per run	0	150	300
	j) Column with resin. XK26 × 70cm					Per run	0	150	300
40	Spectrophotometer	Dlab Scientific/ SP-V1000	To quantify micro-volumes of sample			Per Hour	0	25	30
41	UV-Vis 220v Nanodrop	Nanodrop/ ND-1000	To quantitatively determine different analytes			Per Hour	0	17	20
42	Trinocular microscope with camera system	Olympus/ SZ61				Per Hour	0	17	20
43	Proteomics Laboratory (including all equipment in the laboratory except FPLC)					Per day	0	425	500
44	Quantitative Real Time-PCR (RT-qPCR)	BioRad / 170-9780	To detect and quantify RNA expression	Faridda Hannim Ahmad@Hashim	Genomics Laboratory	Per hour	0	68	80
45	PCR thermal cycler gradient (2 units)	Applied Biosystems /Veriti	To amplify a particular DNA sequence withoption for thermal gradient technology			Per hour	0	10	20
46	PCR thermal cycler	BioRad / T100	To amplify a particular DNA sequence			Per hour	0	13	15
47	Spectrophotometer	NanoDrop / ND-1000	To quantify micro-volumes of sample			Per hour	0	10	20
48	Gel imaging system	UVP / BioDoc-It	To generate gel image for documentation			Per hour	0	10	20
49	Fume Cupboard	Laboff / GPF-1200	To limit exposure to hazardous or toxic fumes, vapors or dusts			Per day	0	50	100
50	Hybridization oven (2 units)	FinePCR / Combi-H12	To distribute evenly probes to identified gene /protein			Per day	0	25	50
51	Water bath 20L (4 units)	Thermo / Precision	To incubate samples in water at a constanttemperature over long period of time			Per day	0	10	20
52	Dry block heater	Labtech / Daihan	To heat samples in microcentrifuge tube with dry temperature control			Per day	0	10	20
53	Refrigerated benchtop centrifuge	Sartorius / Sigma 3-18K	To separate substance of different densities with temperature control (-20 - 40 °C)			Per day	0	75	150

54	Gel electrophoresis	Clever Scientific / Multisub Midi & Choice	For running gel electrophoresis at high numbersof samples	Faridda Hannim Ahmad@Hashim	Genomics Laboratory	Per day	0	20	40
55	Electroporator	Eppendorf / Eporator	For fast and controlled electroporation ofbacteria, yeasts and other microbes			Per day	0	20	40
56	UV Transilluminator	Vilber Lourmat / ETX-35M	To visualize ethidium bromide-stained nucleic acids / gene fragments			Per day	0	10	20
57	Ultraviolet crosslinkers	UVP / CLP-1000 Crosslinkers	To fix nucleic acid to membrane			Per day	0	10	20
58	Stereo microscope	Olympus / SZ51	To analyze sample at low magnificient with light reflection on the surface of sample			Per day	0	10	20
59	UV-Vis 220v Nanodrop	Nanodrop/ ND-1000	To quantitatively determine different analytes			Per hour	0	17	20
60	Nanopore (MiniON)	Nanopore	To determine the sequence of DNA/RNA bases.						
	WGS Genome (10gb Output)					1 sample	9600	10200	12000
						2 samples	10000	10625	12500
						3 samples	10400	11050	13000
						4 samples	10800	11475	13500
						5 samples	11200	11900	14000
						6 samples	11680	12410	14600
						7 samples	12080	12835	15100
						8 samples	12480	13260	15600
	WGS Metagenomics					6 samples	11680	12410	14600
						12 samples	14160	15045	17700
						18 samples	16640	17680	20800
						24 samples	19120	20315	23900
61	Genomics Laboratory (including allequipment in the laboratory)					Per day	0	425	500
62	Biosafety cabinet class I & II	Bioair / Top Safe 1.3	To provide safe workspace for researchers working with pathogens requiring a definedbiosafety level	Faridda Hannim Ahmad@Hashim	Microbiology Lab	Per day	0	127	150
63	Laminar flow cabinet	Esco / AVC-4A1	Enclosed bench designed to preventcontamination of biological samples			Per day	0	102	120
64	Microbiology Laboratory (Biosafety cabinet, laminar flow cabinet, carbondioxide incubator, micropipette set, access to water purification system, benchtop microcentrifuge)					Per day	0	425	500
65	High Performance Linux Workstation	X299 Workstation/ X299 Workstation	To do variety of Bioinformatics analysis including Next Generation Sequencing analysis,Structural Bioinformatics analysis, Molecular modelling analysis	Intan Azlinda Ramlee	Bioinformatics Laboratory	Per day	48	51	60
66	Linux Workstation	Ideal Ryzen PC/ Ideal Ryzen PC				Per day	24	25	30

67	Stereo-imaging microscope	Carl Zeiss / Stemi DV4	To generate image at low magnificient withlight reflection on the surface of sample	Munirah Mahizan	Microscopy / Cell Culture Laboratory	Per day	0	15	25
68	Stereo-imaging microscope	Carl Zeiss / Stemi 2000C				Per day	0	15	25
69	Fluorescence microscope *RM35 surcharge per hour for fluorescence	Carl Zeiss / Carl ZE	To generate image using fluorescence source			Per day	0	15*	25*
70	Cell Culture Facilities @bench fees (Biosafety Class II Cabinet, CO2 Incubator, Inverted Microscope, Refrigerated centrifuge, waterbath)	• Airtech class II biosafety cabinet • Binder/CBS170 CO2 incubator • Olympus ckx53 inverted microscope • Beckman coulter/ allegra x30 refrigerated centrifuge • Taitse water bath				Per week	400/sem	425	500
71	Light Microscope	M-shot				Per hour	0	8	10
72	Microplate Spectrophotometer	LTEK Multimode Microplate Spectrophotometer (Absorbance +Luminescence +Fluorescence)/ Model INNO-S							
	Absorbance					Per plate	0	11	13
	Endpoint flourescent					Per plate	0	41	48
	Kinetic					Per plate	0	54	63
73	Growth chamber	Conviron/ A1000	Plant growth chamber with control oftemperature, light & humidity	Siti Fatimah Mohd Mokhtar	Ground level, INBIOSIS	Per day	0	6	10
74	PC2-Certified Greenhouse	-	Growth space for genetically modified plants tobe carried out within a secure and controlled environment		RTPC2	Per month	Bench: 200 GH1: 800 GH2: 500	Bench: 200 GH1: 800 GH2: 500	Bench: 250 GH1: 900 GH2: 600
75	Growth chamber	Conviron/ PG15	Plant growth chamber with control oftemperature, light & humidity	Mohd Fauzi Abd Razak	PBT	Per day	0	6	10
76	Laminar flow cabinet	Sastec	Enclosed bench designed to prevent contamination of biological samples			Per day	0	50	100
77	Incubator Shaker	INFORS	Provide agitation for optimal cell growth			Per day	0	25	50
78	Refrigerated Microcentrifuge	Sartorious-Sigma/1-15PK	To separate substance of different densities up to 14,000 rpm			Per day	0	35	75
79	Thermal Cycler	Eppendorf/ 5331000010	To amplify a particular DNA sequence			Per hour	0	7	15
80	Portable Electrical Conductivity meter	Eutech ECTestr 11	To measure the capacity of ions in an aqueoussolution to carry electrical current			Per day	0	25	50
81	PCR thermal cycler	BioRad / T100	To amplify a particular DNA sequence			Per hour	0	7	15
82	Molecular Imaging System	Fujifilm/LAS-3000	To generate gel image for documentation			Per hour	0	10	20
83	Spectrophotometer	NanoDrop / ND-1000	To quantify micro-volumes of sample			Per hour	0	10	20
84	Orbital shaker	Protech/722	For aeration of in vitro culture			Per day	0	25	50
85	Orbital shaker	Stuart/SSL1							

* Per day: 9am - 5pm