

## List of Sequencing and other Services Required

Sl. No.	Item Description	Quantity	Units	Basic Rate without Tax in rupees to be quoted in BOQ
1	2	4	5	6
1	<b>Sample Preparation Services</b>			
1.1	DNA isolation	1.00	Nos	
1.2	Total RNA extraction	1.00	Nos	
1.3	miRNA extraction	1.00	Nos	
2	<b>Sanger DNA Sequencing</b>			
2.1	Sanger DNA Sequencing (without cloning)	1.00	Nos	
2.2	Sanger DNA Sequencing (with cloning)	1.00	Nos	
3	High Throughput Sequencing Services for DNA/RNA (mRNA/miRNA) (exclusively for sequencing & data generation) Note: The prices quoted for above services should include isolation of DNA/RNA, DNA/RNA/small RNA, DNA Library preparation and validation, RNA Library preparation etc.			
3.1	1 X 200 bp 50 Mb to 1 GB	1.00	Nos	
3.2	2 × 150bp 3 GB/sample	1.00	Nos	
3.3	2 × 150bp 5 GB/sample	1.00	Nos	
3.4	1 X 75 bp 1.5 to 2.5 GB/sample	1.00	Nos	
3.5	2x100bp 40-45 Gb/lane	1.00	Nos	
3.6	2X150 bp 40-45 Gb/lane	1.00	Nos	
3.7	Whole genome Cattle/Sheep/Swine/Buffalo/Goat DNA sequencing (≥10X coverage) (Illumina 150 bp PE)	1.00	Nos	
3.8	Whole genome Cattle/Sheep/Swine/Buffalo/Goat DNA sequencing (≥10X coverage) (PacBio, Average Library Insert 8-10kb)	1.00	Nos	
3.9	10X Chromium Library and data generation up to 30GB	1.00	Nos	
3.10	Hi C library and data generation up to 30 GB	1.00	Nos	
3.11	Chip Sequencing 2x100bp PE 3-5 GB/sample	1.00	Nos	
4	<b>SNPs Genotyping (DNA Chip of Illumina/Affymatrix/GBS etc.)</b>			
4.1	BovineSNP50 BeadChip (Bovine) (48 sample)	1.00	Nos	
4.2	BovineSNP50 BeadChip (Bovine) (96 sample)	1.00	Nos	

4.3	BovineHD Genotyping BeadChip (777K Chip) (Bovine) (48 sample)	1.00	Nos	
4.4	BovineHD Genotyping BeadChip (777K Chip) (Bovine) (96 sample)	1.00	Nos	
4.5	PorcineSNP60 BeadChip (Porcine) (48 sample)	1.00	Nos	
4.6	PorcineSNP60 BeadChip (Porcine) (288 sample)	1.00	Nos	
4.7	OvineSNP50 BeadChip (Ovine) (48 sample)	1.00	Nos	
4.8	OvineSNP50 BeadChip (Ovine) (288 sample)	1.00	Nos	
4.9	Buffalo 90 K SNP array (Boffalo) (96 sample)	1.00	Nos	
4.10	Axiom Genome Wide BOS1 (96 sample)	1.00	Nos	
4.11	GBS/ddRAD Seq (any with known reference) (96 sample)	1.00	nos	
4.12	GBS/ddRAD Seq (denovo) (96 sample)	1.00	Nos	
5	<b>SNPs Validation</b>			
5.1	SNPs Validation-(24 SNPs) (48 Sample)	1.00	Nos	
5.2	SNPs Validation-(24 SNPs) (96 Sample)	1.00	Nos	
5.3	SNPs Validation-(48 SNPs) (48 Sample)	1.00	Nos	
5.4	SNPs Validation-(48 SNPs) (96 Sample)	1.00	Nos	
5.5	SNPs Validation-(48 SNPs) (384 Sample)	1.00	Nos	
5.6	SNPs Validation-(96 SNPs) (48 Sample)	1.00	Nos	
5.7	SNPs Validation-(96 SNPs) (96 Sample)	1.00	Nos	
6	<b>Automated Microsatellite sequencing Services</b>			
6.1	Microsatellite Genotyping Ready to Run (Per Well)	1.00	Nos	
6.2	Microsatellite Genotyping Ready to Run (Per 96 Well Plate)	1.00	Nos	
7	<b>Proteomics Services. Specification for Proteomics Services:</b>			
7.1	2D gel-based Quantitation analysis (sample perparation, running the 2D Gels and analysis of data to identify the protein/peptide spots)	1.00	Nos	
7.2	2D Gel Electrophoresis with western blot of 2D gel with antibodies provided by user	1.00	Nos	

7.3	2-D Gel Electrophoresis / western blot of 2D gels with antibodies provided by user/ LCMS-MS data of selected spots	1.00	Nos	
7.4	LC/MS/MS analysis (Gel free approach) with Labelled Approach	1.00	Nos	
7.5	LC/MS/MS analysis (Gel free approach) with Labelled-free Approach	1.00	Nos	
7.6	Identification of post-translational modifications on purified proteins	1.00	Nos	
7.7	Global post-translational modifications on proteins in complex mixtures	1.00	Nos	
7.8	MALDI-TOF/ TOF MS Peptide Mass Fingerprint for Pure proteins in solution/ or in gel plug	1.00	Nos	
7.9	N-Terminal Sequencing of Protein	1.00	Nos	
7.10	LC-MS/MS Orbitrap Total Proteome Analysis of Complex Protein in Gel Plug/Solution	1.00	Nos	
7.11	Total proteome Data Acquisition and Analysis of Complex Proteome	1.00	Nos	
7.12	LC-MS/MS QTOF (Offline) or online	1.00	Nos	
8	<b>Specification for Other Services</b>			
8.1	X-ray crystallography Full spectrum	1.00	Nos	
8.2	High Pressure Liquid Chromatography Amino acid analysis	1.00	Nos	
8.3	(HPLC) Size exclusion	1.00	Nos	
8.4	(HPLC) Reverse phase separation and purification	1.00	Nos	
8.5	Gas Chromatography-Mass Spectroscopy only run	1.00	Nos	
8.6	Gas Chromatography-Mass Spectroscopy Amino acid analysis	1.00	Nos	
8.7	Gas Chromatography-Mass Spectroscopy Carbohydrate analysis	1.00	Nos	
8.8	Gas Chromatography-Mass Spectroscopy Fatty acid analysis	1.00	Nos	
8.9	Gas Chromatography-Mass Spectroscopy Organic acid analysis	1.00	Nos	
9	<b>Methylation Services:</b>			
9.1	Methylation / Bisulphite Sequencing Hiseq 100x Coverage	1.00	Nos	
9.2	Methylation / Bisulphite Sequencing Hiseq 50x Coverage	1.00	Nos	
10	<b>Nucleic acid Micro Array services</b>			
10.1	Nucleic acid Micro Array services (Up to 8 sample and 15000 probes per sample)	1.00	Nos	
10.2	Nucleic acid Micro Array services (Up to 8 sample and 60000 probes per sample)	1.00	Nos	

11	<b>Peptide Services</b>			
11.1	<b>Custom Peptide Microarray Service</b> (Synthesis of microscale peptides in high density array comprising upto 5000 peptides per array)	1.00	Nos	
11.2	<b>Reactivity of peptide array</b> (comprising upto 5000 peptides) with sera and conjugate provided by the user	1.00	Nos	
11.3	<b>Standard Peptide Microarray Service (for up to 5000 peptides)</b>	1.00	Nos	
12	<b>Advanced micro-imaging services (like SEM/TEM/AFM/Invivo imaging etc)</b>			
12.1	Micro imaging samples on <b>Scanning Electron Microscope</b> Including sample preparation and viewing at different magnifications. Atleast five high resolution images per sample are to be provided	1.00	Nos	
12.2	Micro imaging samples on <b>Transmission Electron Microscope</b> Including sample preparation and viewing at different magnifications. Atleast five high resolution images per sample are to be provided	1.00	Nos	
12.3	Micro imaging samples on <b>In-vivo Imager</b> Including cell sample/lab animal anaesthesia and viewing at different magnifications for different fluorophores. Atleast five high resolution images per sample are to be provided. The user shall provide the cell samples, lab animals and fluorophores used for the study.	1.00	Nos	
12.4	<b>Flow cytometric analysis of samples</b> The price must be quoted for using the instrument <b>on per hour basis</b> . The samples will be provided by the user and firm must provide instrument support on hourly basis and shall provide the analysed data	1.00	Nos	
12.5	<b>Isothermal titration Microcalorimetry (ITC)</b> of samples for determining the thermodynamic parameters and interaction studies	1.00	Nos	