



## Life Sciences Unit

Central Laboratory, College of Science, King Saud University

S. No	Type of Analysis and Services	Instruments	Last user	Number of lab.
1	Scanning, Screening, interpretation and photography of Biological and Nano sample	Transmission Electron Microscopy (TEM)	Dr. Mukhtar Ahmed	AB 93
2	Samples cutting both semi-thin and Ultracut	Ultra-microtome	Dr. Mukhtar Ahmed	AB 87/1
			Shaban Roshdy	
3	Samples orientation and trimming	TEM Tissue Trimer	Dr. Mukhtar Ahmed	AB 87/1
			Shaban Roshdy	
4	Making glass knives for both semi-thin and Ultracut	Glass knife maker	Dr. Mukhtar Ahmed	AB 87/1
			Shaban Roshdy	
5	High speed dispersion for Nano samples	Probe sonication	Dr. Mukhtar Ahmed	AB 87/5
			Shaban Roshdy	
6	Processed the samples before molding in capsules	TEM Tissue Processing	Dr. Mukhtar Ahmed	AB 98
			Shaban Roshdy	
7	Staining for Ultracut sections before screening by TEM	TEM Strainer	Dr. Mukhtar Ahmed	AB 98
			Shaban Roshdy	
8	Cutting ultra-sections for TEM (70 -80 nano meter)	Diamond Knife	Dr. Mukhtar Ahmed	AB 87/1
9	Produces images of a sample by scanning it with a focused beam of electrons	Scanning Electron Microscopy (SEM)	Dr. Omar AbdElkader	AB 87/4
10	Covering samples with Au and Pt To get good quality images	Gold, Carbon and platinum Spattering	Dr. Omar AbdElkader	AB 87/4

11	Analysis of fluorescent labelled samples of mammalian and bacterial cells	Confocal Spinning Disk Microscope	Dr. Salim Manoharadas	AA 63
12	Determine concentration of DNA, RNA and Proteins based on absorbance at 260/280 nm	Nano Drop	Dr. Salim Manoharadas	AA 63
13	Amplifying a single copy or few copies of a piece of DNA	PCR	Dr. Shaik Althaf Hussain	AA 60
14	Detection of biological or physical events of samples in microtiter plates	ELISA Reader	Dr. Shaik Althaf Hussain	AA 60
15	Provide Liquid Nitrogen	Liquid Nitrogen Generator	Dr. Shaik Althaf Hussain	AA 60
16	Centrifuge with Maximum rotating speed: 50,000 rpm (254,345xg)	Ultra-centrifuge	Dr. Shaik Althaf Hussain	AA 60
17	Preservation of samples at -80 °C	Freezer -80 C	Dr. Shaik Althaf Hussain	AA 60
18	Sterilize the laboratory glassware, microbial media, surgical instruments and medical waste	Autoclave	Dr. Shaik Althaf Hussain	AA 60
19	Provide ice cubes	Ice Maker	Dr. Shaik Althaf Hussain	AA 60
20	Analyses blood cell parameters like WBC count, RBC count and Platelet Count	Blood Cell Counter	Dr. Shaik Althaf Hussain	AA 60
21	Measurement of different chemicals and other characteristics in a number of biological samples	Chemistry Analyzer BS 200	Dr. Javid Dar	AA 60
22	Analyses immunoassays, complex genetic analysis, and enzymatic assays	Luminex	Dr. Javid Dar	AA 60
23	Quantitatively measure the amplification of DNA using fluorescent probes	Real Time PCR	Dr. Javid Dar	AA 60
24	Fluorescent western blotting, chemiluminescence detection, and general gel documentation applications	Gel Doc/Western blotting apparatus	Dr. Javid Dar	AA 60
25	Centrifuge for small tubes (0.2 ml - 2.0 ml) with up to 12000 RPM	Microcentrifuge	Dr. Javid Dar	AA 63

26	Resolve separate components of a protein mixture based on their size	PAGE System	Dr. Javid Dar	AA 60
27	For Cell lines and Tissue cultures experiments	Tissue culture cabinet and CO2 incubator	Dr. Shaik Althaf Hussain	AA 63
28	Measuring the pH for solutions	pH meter	Dr. Javid Dar	AA 63
29	Centrifuging around 5000 rpm at cooling temperature	Cooling Centrifuge (Thermo Sci.)	Dr. Javid Dar	AA 63
30	Electrophoresis of nucleic acids and proteins	Automated Electrophoresis System	Dr. Salim Manoharadas	AA60
31	Maintain optimal temperature for critical enzyme reactions	Water Bath	Dr. Salim Manoharadas	AA 63
32	Long time storage of bacterial/mammalian cells as glycerol stock	Big Freezer -80 C	Dr. Salim Manoharadas	AA 63
33	Generation of solid carbon dioxide	Dry Ice Maker	Dr. Salim Manoharadas	AA 63