



**University**  
**October University for**  
**Modern Sciences and Arts**



MSA UNIVERSITY   
CENTRAL LABORATORY FOR  
**RESEARCH**



# List of Services

## A - Molecular Services:

<b>1</b>	DNA Extraction	Per Sample
<b>2</b>	RNA Extraction	Per Sample
<b>3</b>	Convert RNA to cDNA	Per Sample
<b>4</b>	Protein Extraction	Per Sample
<b>5</b>	PCR Reaction (Minimum 4 Samples)	Per Sample
<b>6</b>	RT-PCR	Per Gene
<b>7</b>	DNA Gel Electrophoresis	Per Gel
<b>8</b>	Protein Gel Electrophoresis	Per Gel
<b>9</b>	The Cost of Using PCR Machine Only (The Researcher Brings Every Thing)	Per Run
<b>10</b>	The Cost of Using Real Time PCR Machine Only (The Researcher Brings Every Thing)	Per Run
<b>11</b>	PCR Cleanup	Per Sample
<b>12</b>	Incubate tissue culture growth in a growth chamber	Per Day
<b>13</b>	Millipore Water	Per liter
<b>14</b>	DNA typing 50x TAE	Per liter
<b>15</b>	ELISA Reader	per plate
<b>16</b>	Incubate cell culture growth in a CO2 incubator	per/day
<b>17</b>	Fluormeter (DNA-RNA-Protein)	Per Sample

## B - Bioinformatics Analysis Services:

<b>1</b>	Gel Documentation Analysis Plus Dendogram ( Note: The Analysis is Done Per Gel )	Per Gel
<b>2</b>	Insilco Primer Design for Real Time PCR	One Pair
<b>3</b>	Insilco PCR and Primer Design	One Pair
<b>4</b>	Degenerate Primers and Insilco analysis	One Pair
<b>5</b>	Check for Uniqueness, Specificity and Stability of Designed Primers and Melting Temperature of PCR Product	One Pair
<b>6</b>	Editing and Base Calling Correction of Chromatogram Curve, DNA Sequencing ABI format and seq format	One Pair
<b>7</b>	Building Phylogenetic Tree By Different Tree Construction Algorithms	Per Sequence
<b>8</b>	Gene Prediction	Per Sequence
<b>9</b>	Gene Annotation for Genbank Submission	Per Sequence
<b>10</b>	Protein Homology Modeling from Single peptide chain to 3D and 3D Viewers of PDB File	Per Amino Acid Chain
<b>11</b>	Detection Conserved Domain Sequence	Per Amino Acid Chain
<b>12</b>	Predict a Protein Motif and Pro-Scan 3D	Per Amino Acid Chain
<b>13</b>	EST Assembly and Building Unigen	Per Sequence
<b>14</b>	Advanced Strategies of Using Blast	Per Sequence or Amino Acid Chain
<b>15</b>	Bio statistical Analysis	Per /test

## C - Tissue Analysis Services:

<b>1</b>	Tissue Processing and embedding	Per /Specimen
<b>2</b>	Cutting Section	Per /Slide
<b>3</b>	Hematoxylin & Eosin staining	Per/ Slide
<b>4</b>	Decalcification, tissue processing & embedding	Per/ Specimen
<b>5</b>	Special stain	Per /Slide
<b>6</b>	immunostaining with antibody	Per /Slide
<b>7</b>	immunostaining without antibody	Per/ Slide
<b>8</b>	Diagnosis, Written report, Stained Slide and photomicrograph	Per /Specimen
<b>9</b>	Ordinary Light Microscopy	per /sample
<b>10</b>	Polarized light Microscopy	per /Photo
<b>11</b>	Stereomicroscopy	per /Photo
<b>12</b>	Image Analysis	per/ Image
<b>13</b>	IMAGE Analysis (PHOTO ONLY)	per /Photo
<b>14</b>	Positive Slide section (Paraffin)	Per/slide
<b>15</b>	tissue Processing and embedding and two slides - Hematoxylin & Eosin staining	per/ two slides
<b>16</b>	Micro tensile specimen, tooth 20 slice	per/20 slices
<b>17</b>	Micro tensile specimen, tooth 10 slice	per/10 slices
<b>18</b>	Thermocycler 500 cycle	per/500cycle
<b>19</b>	Thermocycler 1000 cycle	per/1000 cycle
<b>20</b>	Micro hardness 3 indentation	per/3 indentations
<b>21</b>	Slides save box- 25 slides	per/ box
<b>22</b>	Slides save box- 50 slides	per/box
<b>23</b>	Slides save box- 100 slides	per/box
<b>24</b>	Shear	per/rod
<b>25</b>	Tensile	per/rod
<b>26</b>	Student activity ( Tissue processing , Cutting and Staining ) Of Under graduate	Per /Slide

## D - General and Analytical Chemistry Services:

<b>1</b>	UP LC/MS-MS	Per Injection
<b>2</b>	HPLC	Per Injection
<b>3</b>	Dissolution profile of pharmaceutical dosage forms	Per/Day
<b>4</b>	Stability Cabinet	per/month
<b>5</b>	Spectrophotometer Only	Per/Sample
<b>6</b>	Freezer Dryer	Per/Day
<b>7</b>	Ultrasonic	Per/Sample
<b>8</b>	Anderson Cascade Impactor	Per/Run