

Tissue Culture Facility

Key Instruments and Specifications

1. Autoclave (OBROMAX) Vertical

Specifications:

- **Brand:** OBROMAX
- **Type:** Vertical Autoclave
- **Capacity:** 50 L
- **Operating Temperature:** 121°C
- **Pressure:** 5-20 psi
- **Voltage :** 220/230 Volts
- **Material:** Stainless steel chamber
- **Control System:** Digital/Manual with safety mechanisms
- **Sterilization Cycle:** Automatic with adjustable settings

2. Remi Centrifuge (4400 rpm)

Specifications:

- **Brand:** Remi
- **Maximum Speed:** 4400 rpm
- **Capacity:** Varies (e.g., 10 × 10mL tubes)
- **Rotor Type:** Fixed-angle or swing-out
- **Timer:** Digital/Manual
- **Safety Features:** Lid-lock system and imbalance detection

3. Leica DFC450 C microscope

Specifications:

- **Brand:** Leica
- **Model:** DFC450 C
- **Camera Type:** Digital CCD camera
- **Resolution:** 5 Megapixels
- **Sensor Size:** 2/3 inch
- **Pixel Size:** 3.4 µm × 3.4 µm
- **Cooling System:** Peltier cooling for noise reduction
- **Interface:** USB 2.0 for easy connectivity
- **Software Compatibility:** Leica Application Suite (LAS)

4. Thermo CO₂ Incubator

Specifications:

- **Brand:** Thermo Scientific
- **Temperature Range:** Ambient +5°C to 50°C
- **CO₂ Concentration:** 0.1% to 20%
- **Humidity Control:** ≥95%
- **Capacity:** Typically ranges from 160L to 200L
- **Shelving:** Adjustable stainless steel racks
- **Decontamination:** HEPA filtration and UV sterilization options
- **Display:** Digital touchscreen for precise control

5. MSET Laminar Air Flow Hood

Specifications:

- **Brand:** MSET
- **Air Flow Type:** Horizontal/Vertical laminar flow
- **HEPA Filter Efficiency:** 99.99% at 0.3 microns
- **Work Surface Material:** Stainless steel
- **Illumination:** UV and fluorescent light options
- **Air Velocity:** 0.3 – 0.5 m/s
- **Safety Features:** Alarm system, airflow monitoring

6. LabTech CO₂ Incubator

Specifications:

- **Brand:** LabTech
- **Temperature Range:** Ambient +5°C to 50°C
- **CO₂ Range:** 0% to 20%
- **Humidity:** ≥95% with condensation control
- **Capacity:** 150L – 200L
- **Sterilization:** High-temperature decontamination cycles
- **Display Control:** Digital with programmable settings

7. LG Medium-Size Double Door Freezer

Specifications:

- **Brand:** LG
- **Type:** Double Door, Frost-Free
- **Capacity:** 250L

- **Cooling Technology:** Multi-Air Flow with Frost-Free Operation
- **Temperature Range:**
 - Refrigerator Section: 2°C to 8°C
 - Freezer Section: -18°C to -24°C
- **Compressor Type:** Inverter Linear Compressor for energy efficiency
- **Shelving:** Toughened glass shelves with adjustable height
- **Defrost System:** Automatic
- **Power Consumption:** Energy-efficient model with 3 star rating