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KING FAISAL UNIVERSITY
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INSTRUMENT STANDARD OPERATING PROCEDURE MANUAL

College of Medicine



SAFETY AND LABORATORY COOMMITTEE, C.O.M, K.F.U.

Prepared by

| Document Number | Name | Signature | Date |
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Document History

| Document Section | Details of Amendments | Date | Modified by (Initials) |
|-------------------------|---|-------------|-------------------------------|
| SOP | First Draft on SOP for the operation of EM Ultra Microtome UC6 (Leica) | | |
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1. OBJECTIVE

The document describes the operation of EM Ultra Microtome UC6 (Leica)

SCOPE

EM Ultra Microtome UC6 (Leica) :

- Fully automated software system. This is an ultra- sectioning microtome for TEM specimens embedded in plastic resin blocks ,specimen thickness ranges from 50 to 1000 nanometers , cutting speed 0.05 -100 mm./seconds ,
- thickness settings with ultrathin sectioning feed from 1nm. to 2.5 μm . and semithin sectioning from 2.5 μm . to 15 μm .
- The microtome is equipped with an antivibration table system.
- A stereo microscope with built-in camera with its software (Leica MZ 6 camera) to show sectioning.
- A sensitive touch panel to controle the speed of sectioning and the thickness of sections.
- A stage for mounting diamond Knives.
- Segmental arc to fix the the plastic embeded specimen blocks.
- Peristaltic pump.
- Control unit (electrical connection)

2. RESPONSIBILITIES

- It is the responsibility of designated personnel in the lab to train staff and students on this procedure and to ensure adherence to this procedure under supervision.
- It is the responsibility of designated personnel (staff or Student) to follow the instructions of this procedure under supervision.

3. REFERENCES

Leica EM UC6 operating manual.

4. DEFINITIONS

- mm Diamond knife for cutting 50-100 nm. thin specimen sections.
- Cupper Grides for mounting the ultra-thin sections before staining.



- Mount the plastic embedded specimen blocks.
- Mount the diamond knife and start the distilled water peristaltic pump.
- Adjust the knife- plastic embedded specimen block position.
- Start the motorized sectioning.

6.4. Turning off the Instrument

- Xx-Stop the motorised sectioning.
- Turn off the software.
- Turn off the control panel.
- Turn off the computer.
- Turn off the electric main power source.

6.5. Warning

Write any the warning in BOLD and RED FONT.

Safety and Laboratory Committee, COM, KFU