

UF | ICBR Cytometry

University of Florida, Interdisciplinary Center for Biotechnology Research

<https://biotech.ufl.edu>

CTAC ICBR SOP: Viewing a Sample Using the Leica TCS SP5 Confocal Microscope

Materials Required:

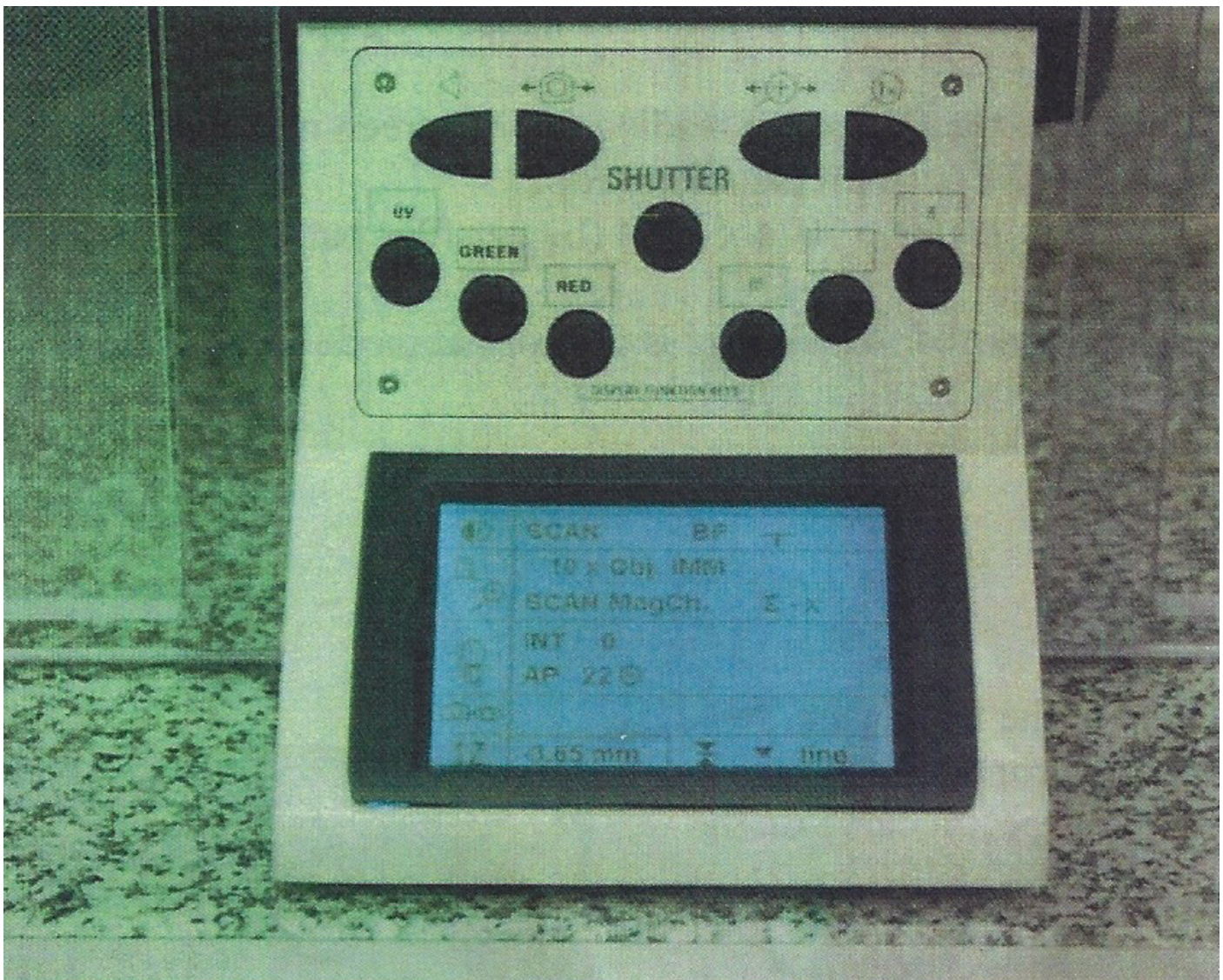
LCS software
Computer
Leica TCS SP5 Confocal Microscope

Purpose:

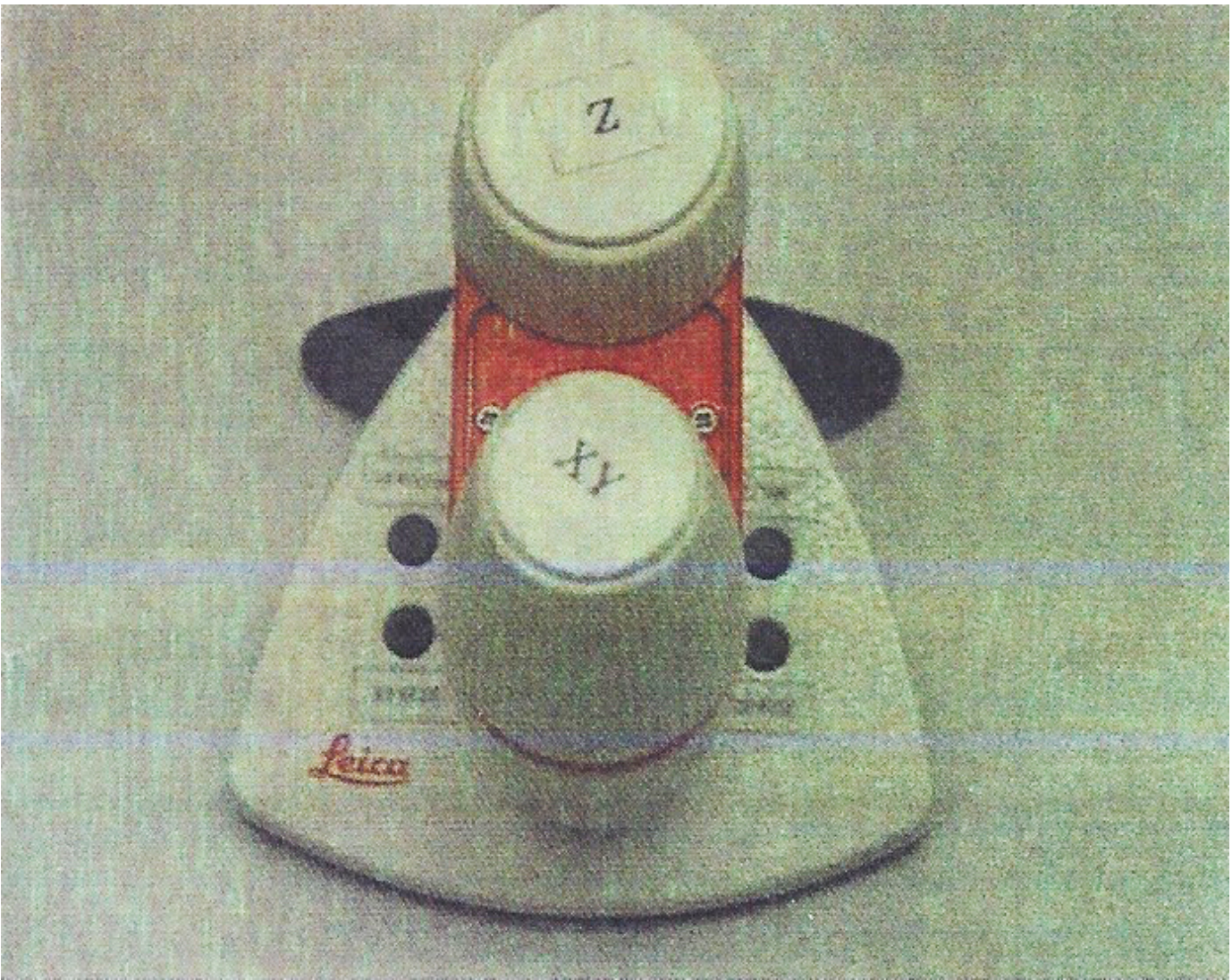
To facilitate operation of the Leica TCS SP5 Confocal Microscope in viewing a sample.

To view a sample through the microscope

1. Tilt the condenser back to access the stage
2. Place slide with the coverslip side down, or a culture dish with a glass coverslip bottom on the stage, and return the condenser to the normal position.



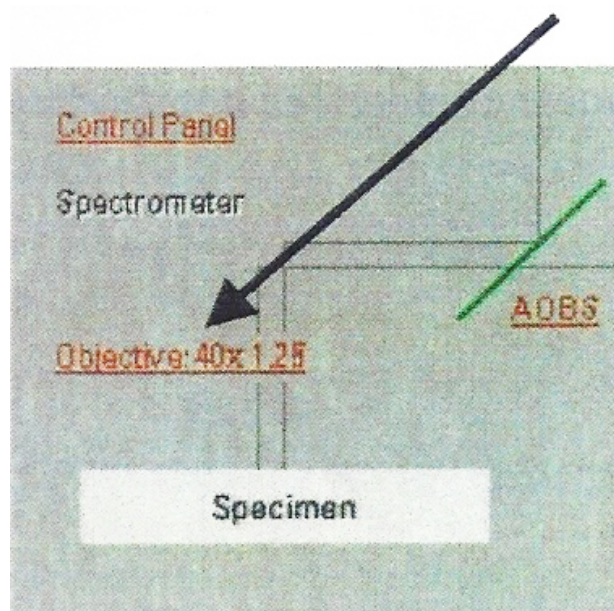
3. Push the appropriate button for your photofluor located on the front of the microscope, labeled "UV", "GREEN" or "RED".
4. Push the "**Shutter**" button in the center of the microscope. You should see light visible through the objective.



5. The controls for the stage and focus are all controlled by the remote located to the right of the microscope. The X and Y knobs located on the front of the remote control the movement of the stage. This movement can be adjusted from fine to coarse with the two small buttons on the right side of the remote. A read out of the focus setting is also located on the lower right-hand side of the microscope control panel window.

Objectives:

The SP5 has five objectives. They may be rotated by hand (manually), but the preferred method is by clicking on the word “**objective**” in the middle area of the left monitor screen. Choose the objective by clicking on it and it will automatically rotate into place.



The available objectives are:

Objective Type	Objectives available
Dry	10x, 20x
Glycerol	63x (there is glycerol for 20° & 37°C applications)
Oil	40x, 100x

NOTE: The 63x is periodically switched to a 63x oil. Please check with CTAC lab personnel to confirm.

IMPORTANT: When you are finished clean the objectives used with clean lens tissue paper.