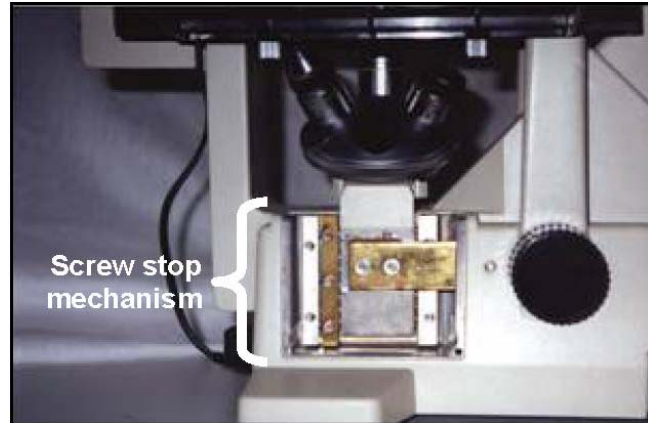


## VIEWING CELLS ON FLEXCELL'S CULTURE PLATES UNDER A MICROSCOPE

An inverted phase microscope or other cell culture microscope allows viewing of the cells from the underside of the membrane. The cell-growth surface of the BioFlex, UniFlex, Tissue Train and Flex I culture plates is slightly higher than other culture plates, and thus is more distant from the microscope objective. To view cells on the growth surface of these membranes, one can adjust the stop on the nosepiece carriage so that the objective lens can be focused on the membrane. Alternatively, a spacer ring can also be placed between the microscope objective nosepiece and the objective.

Therefore, viewing cells cultured on Flexcell's culture plates with an inverted microscope may require minor modifications to the microscope. Given this problem, here are two solutions:

1. Adjust the vertical travel stop mechanism from the focus adjustment on your microscope. Most microscopes have a screw mechanism to stop the vertical travel point relative to the stage (Fig. 22). A stop point prevents the objective from contacting the culture plate on the stage. If this stop mechanism is adjusted, the objective lens can travel further allowing the objective to focus on cells on the membranes. Different microscopes have different mechanisms for adjusting the distance for objective lens travel. If you are not sure of the location of your travel adjustment mechanism, contact your local microscope representative or the manufacturer for assistance.
2. Use a spacer or expansion ring to extend the focal length of the objective lens. A spacer or expansion ring is a screw-in ring located between the microscope nosepiece and objective lens. Addition of a spacer ring will increase the focal length of the objective lens. Contact the manufacturer if you wish to use one of these. Using a spacer may decrease parfocality and centration in viewing cells.



**Figure 22. Example of a screw stop mechanism.** Side view of an Olympus CK2 microscope. The screw stop mechanism will normally stop movement of the horizontal brass piece at its far right side.

**Before adjusting your microscope, contact the manufacturer. Flexcell® International Corporation will not be responsible for any damage caused to your microscope.**