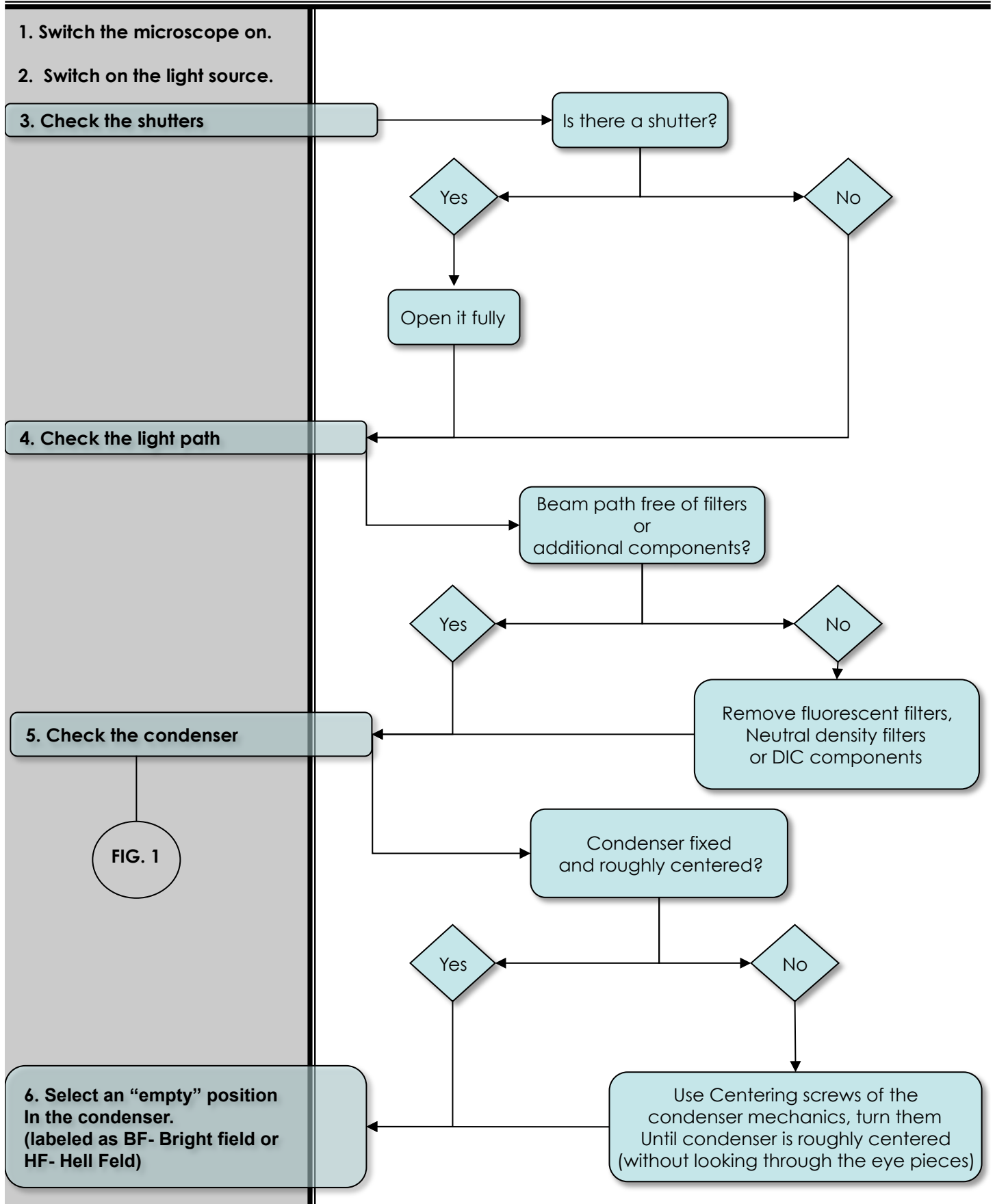


# HOW TO SET UP KÖHLER ILLUMINATION

by Humberto Ibarra Avila



7. Put the condenser top lens in position.  
(only for upright systems)

8. Secure your sample on the stage.

9. Choose low magnification objective - preferably 10X

10. Check the Field diaphragm (FD)



11. Check the condenser aperture. (CA)

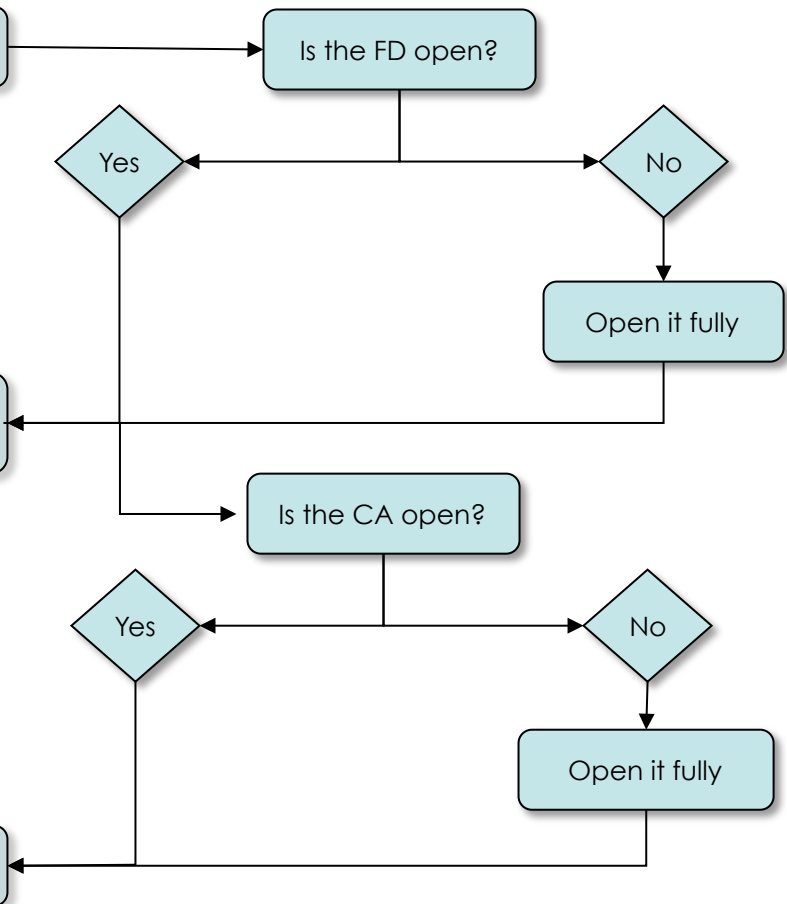


12. Bring the condenser close to sample.

13. Adjust light intensity to comfortable working levels.

14. Focus your sample

15. Fully close FD



16. Check the FD

FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6

Is the image of the edges of the FD (polygon) sharp?

Yes

No

Adjust the height of the condenser using the condenser focus knob

Is the image of the edges (polygon) of the FD in the center of the field?

Yes

No

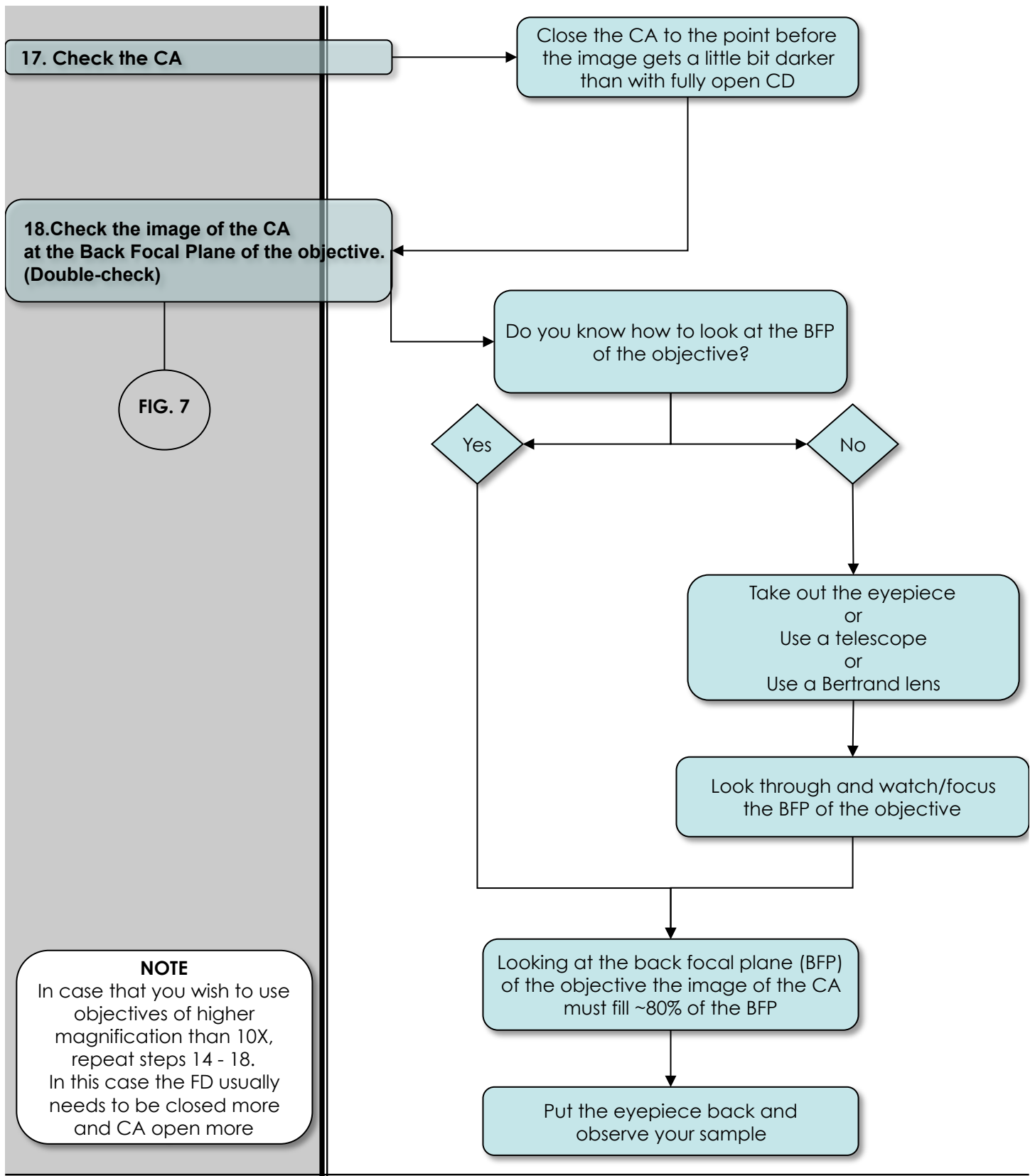
Looking through the eye pieces, turn the Centering screws of the condenser mechanics until image of FD (polygon) is centered

Open the FD until it's image is at the edge of the field of view

Re-center the FD.  
For fine re-centering of FD, all edges of The polygon must touch the borders of the filed of view

Open the FD until it's image is just out of the field of view.  
(Eyepiece or CCD chip)

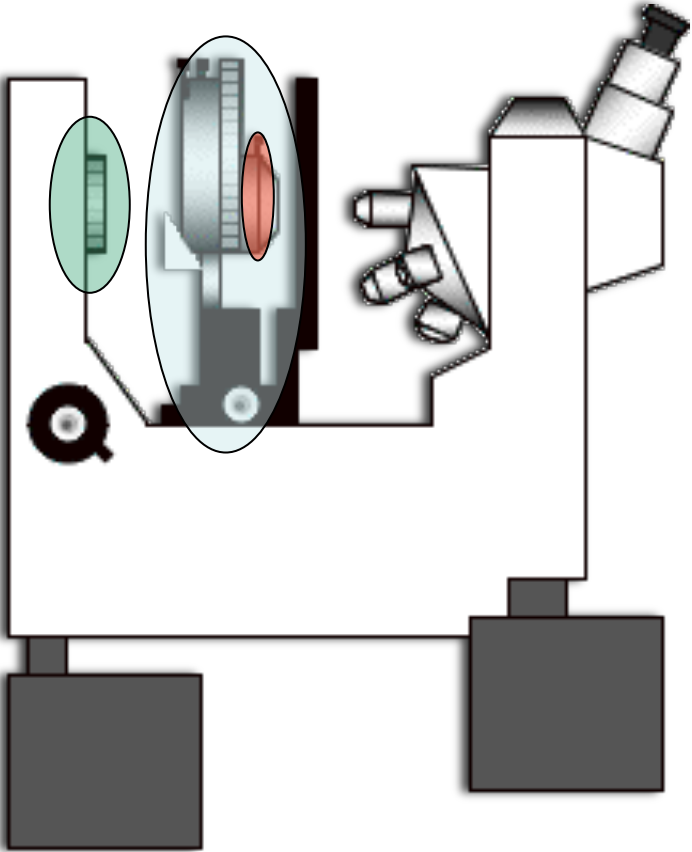
17. Check the CA



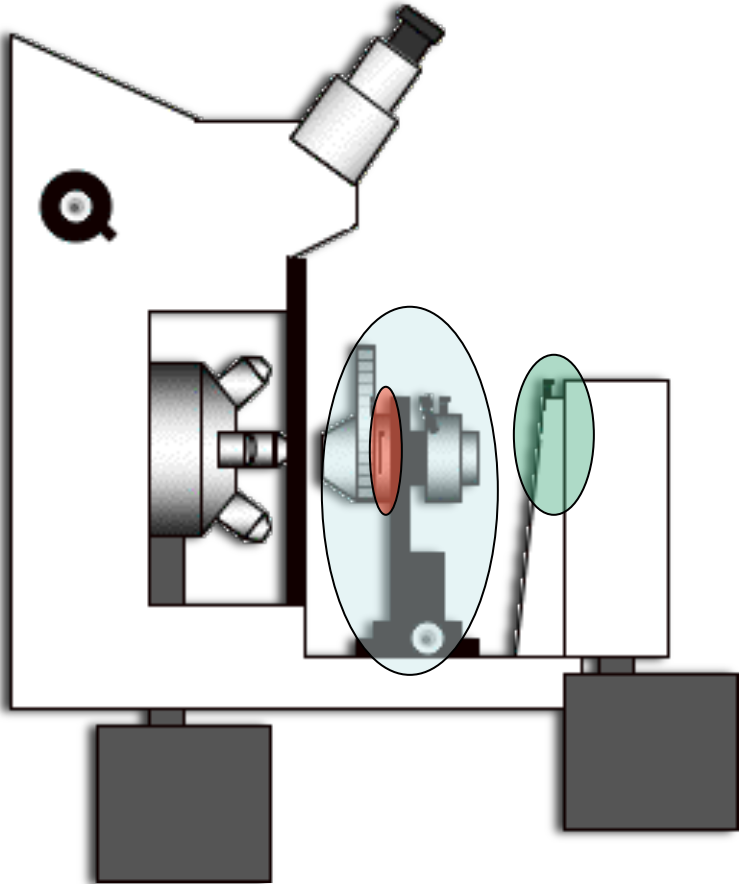
YOU'VE JUST SET KÖHLER ILLUMINATION  
HAPPY IMAGING

**FIGURE 1.**

UPRIGHT MICROSCOPE



INVERTED MICROSCOPE

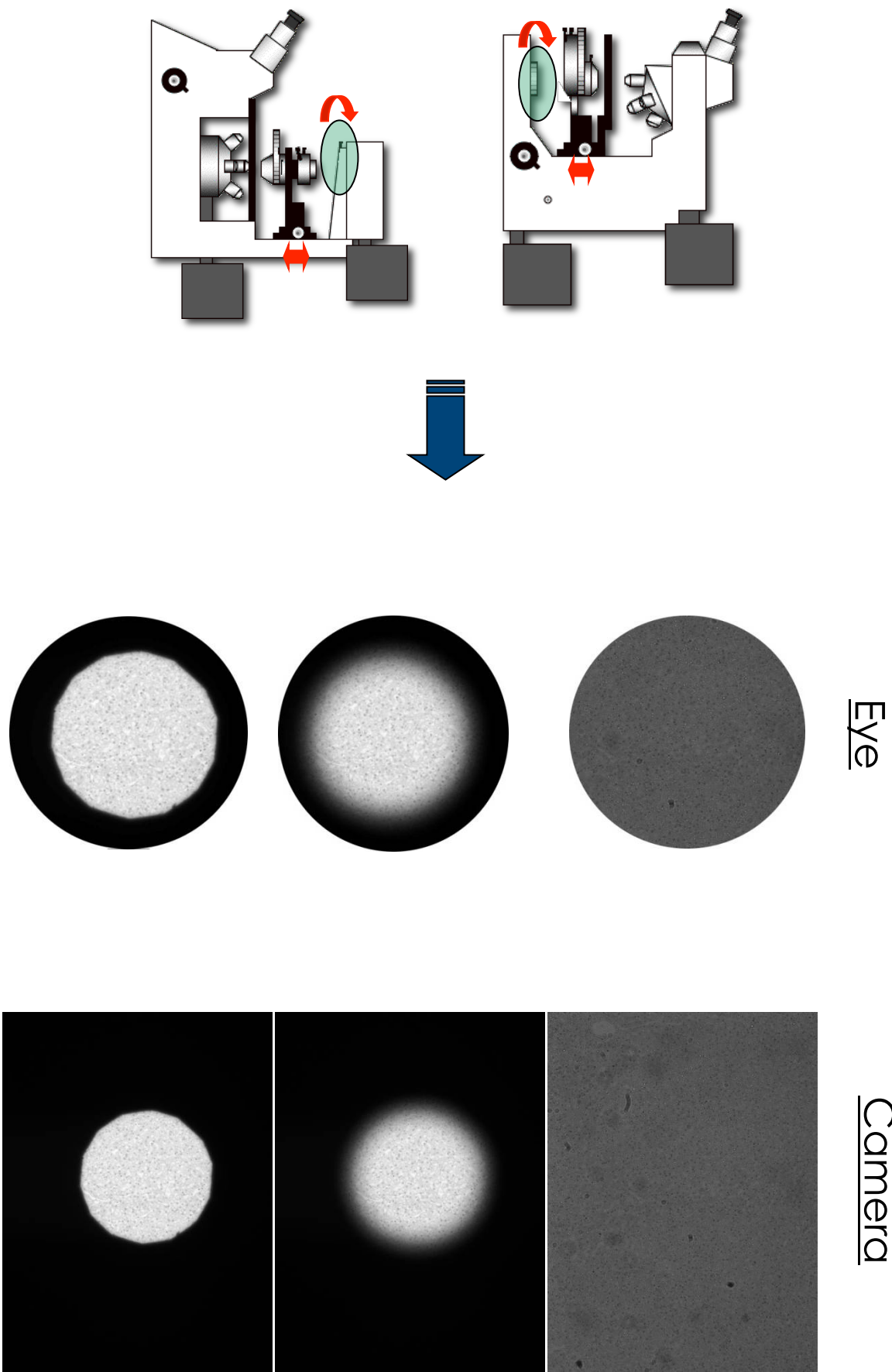


○ CONDENSER

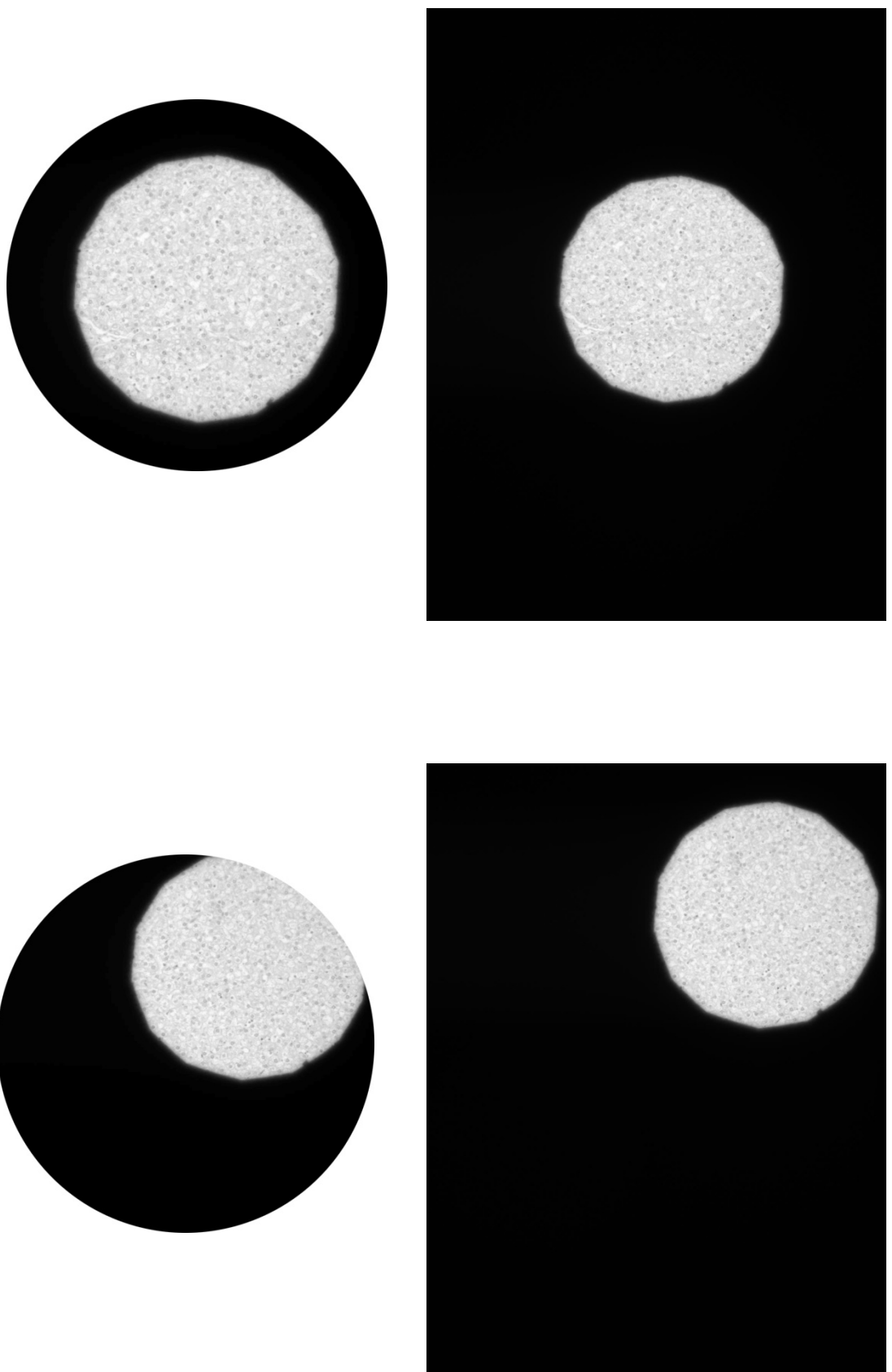
○ Field diaphragm (FD)

○ Condenser aperture (CA)

**FIGURE 2**



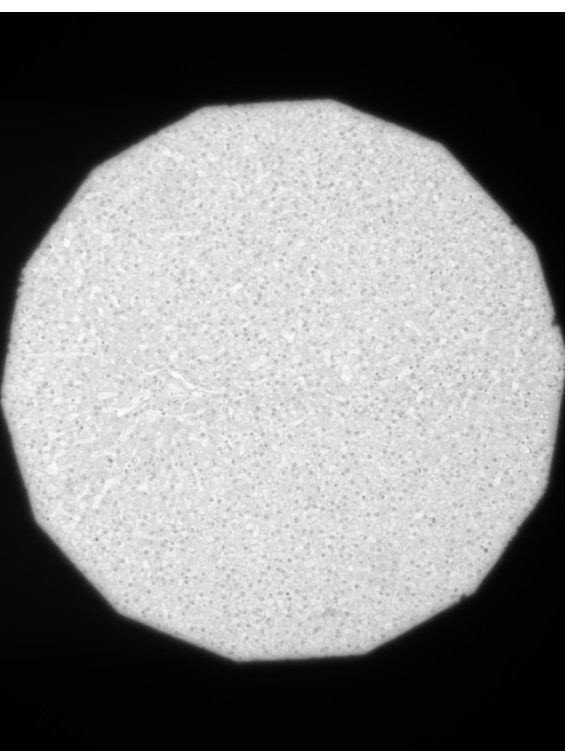
**FIGURE 3.**



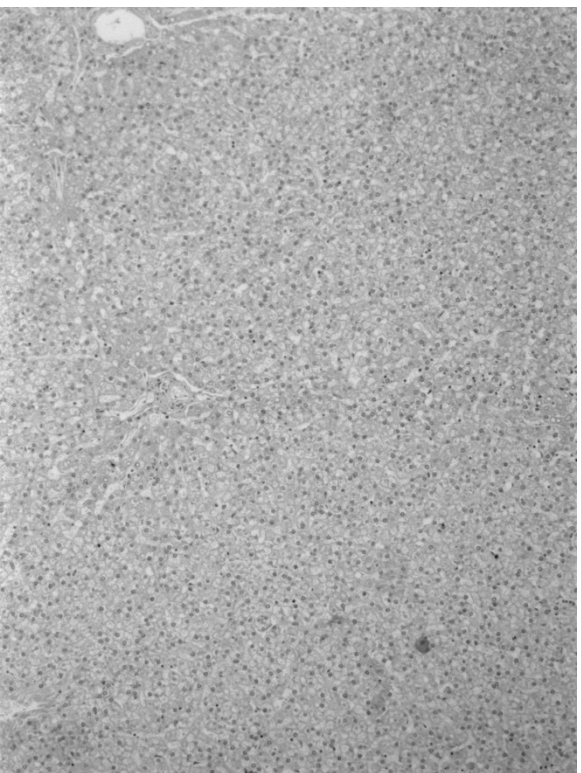
**FIGURE 4.**



**FIGURE 5.**







**FIGURE 6.**

**FIGURE 7.**

