

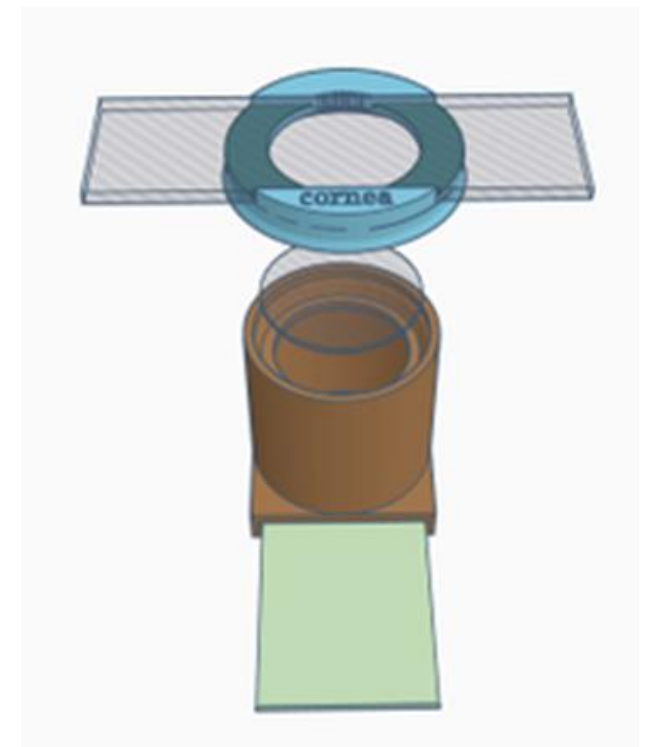
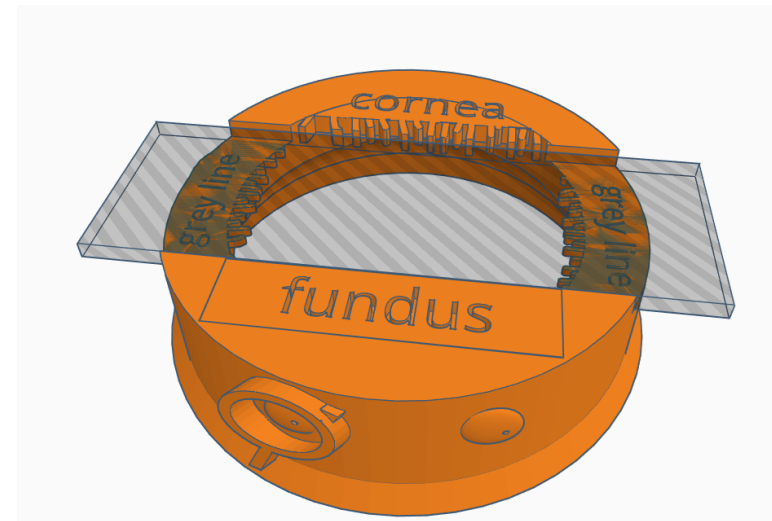


Practical session 2: the cornea

Key skills

- Use DD to identify opacities and focal refractive corneal lesions
- Use Macro lens to obtain magnified view of lesions
- Use direct (oblique broad beam) and indirect (retroillumination and “sclerotic” scatter) lighting techniques to document corneal opacities

Set up model in “cornea mode”, use corneal slide and ensure there is a retina and a lens in the model to give you a tapetal reflection.



Task 1: Use Distant direct to identify & image opacities and refractive errors

Arm's length technique allows both fundic reflexes to be assessed.

Distance = ↓ light intensity = ↓ miosis

Distance = ↓ light intensity = Opacities appear as shadows

Distance = ↓ light intensity = refractive changes visible against a muted fundic reflex

Tip: Use digital zoom to fill the screen



Task 2: Use macro lens to image corneal opacities

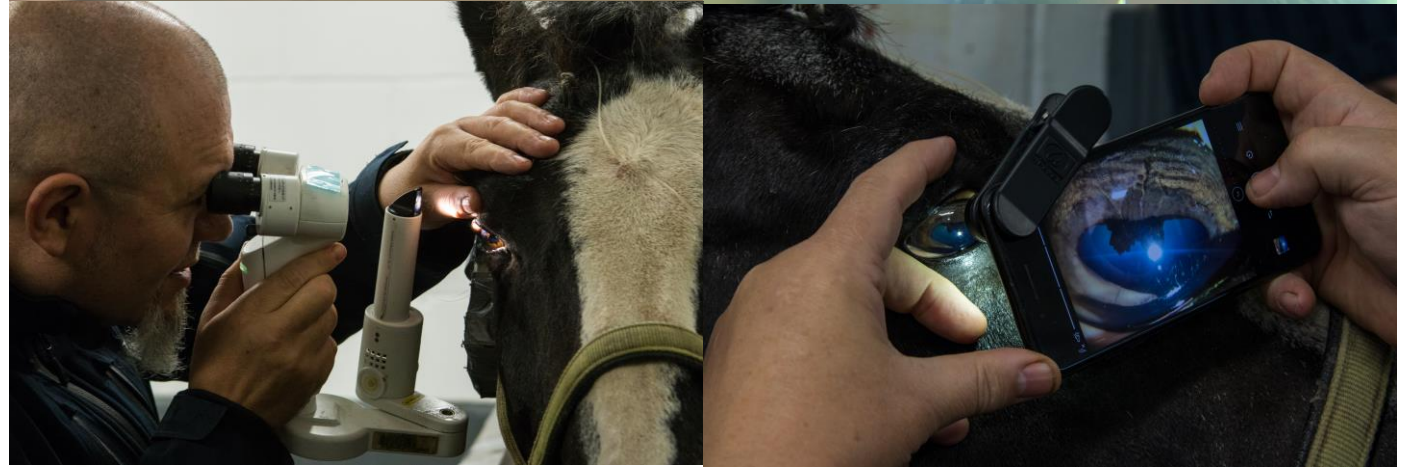
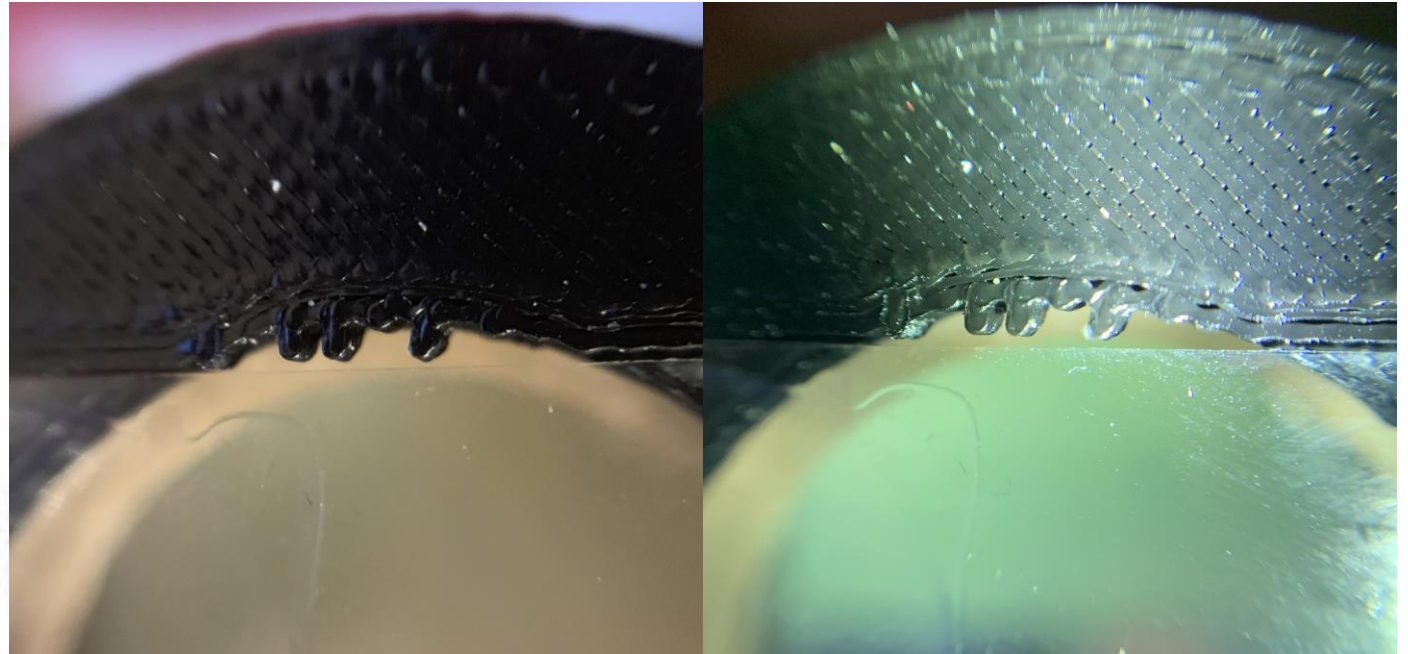
Remember to remove the outer (0.67) lens, remove phone case & turn torch mode off.

Position over lens.

Practice supporting hand to allow micro movements for fine focus.

Try with and without additional light

Corneal reflections can sometimes be documented which helps to assess the PCTF



Task 2: Use macro lens to image corneal opacities

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Task 2: Use macro lens to image corneal opacities

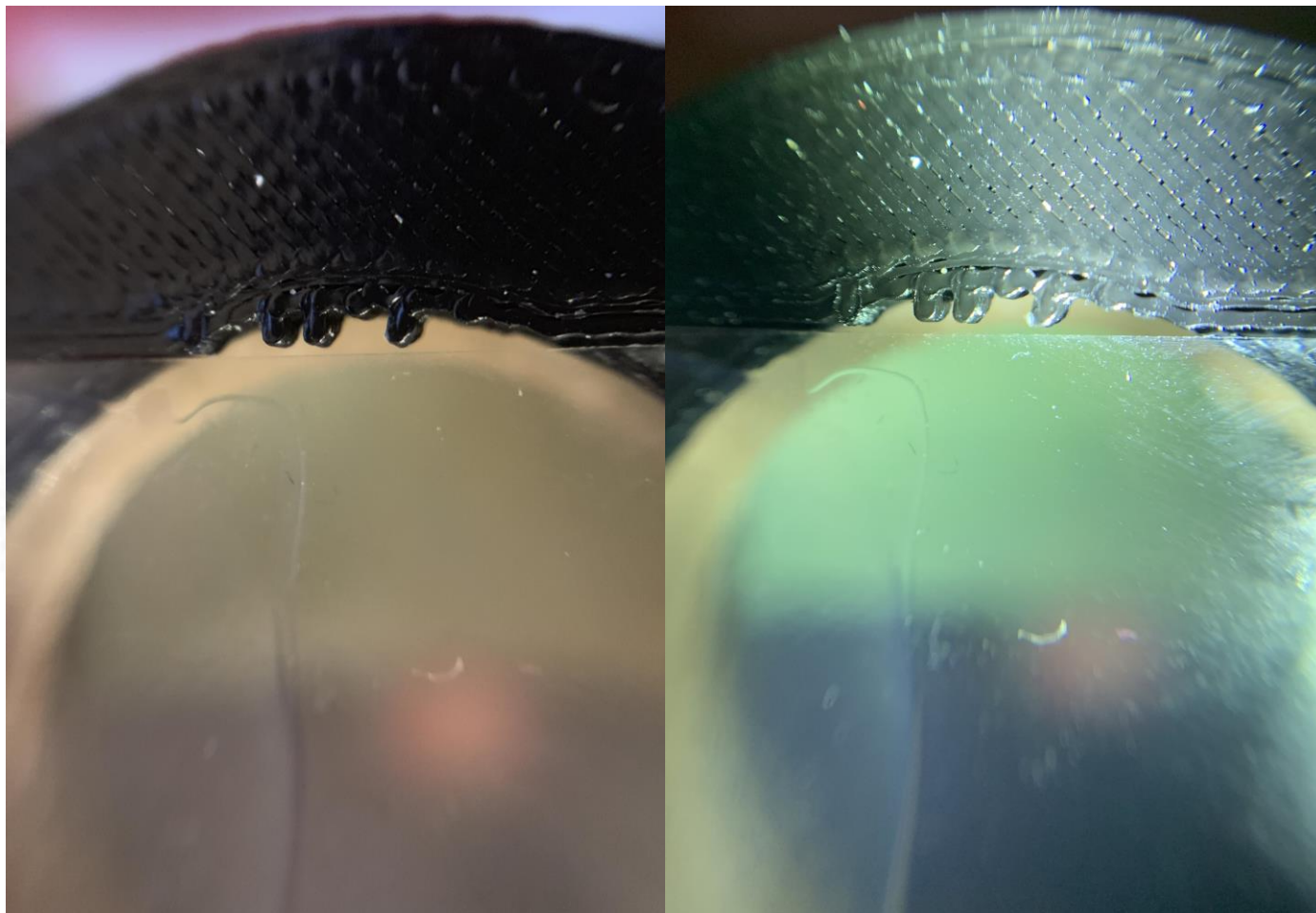
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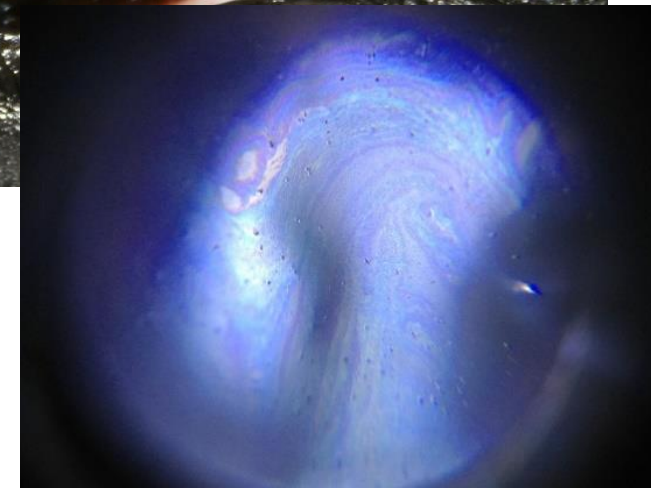
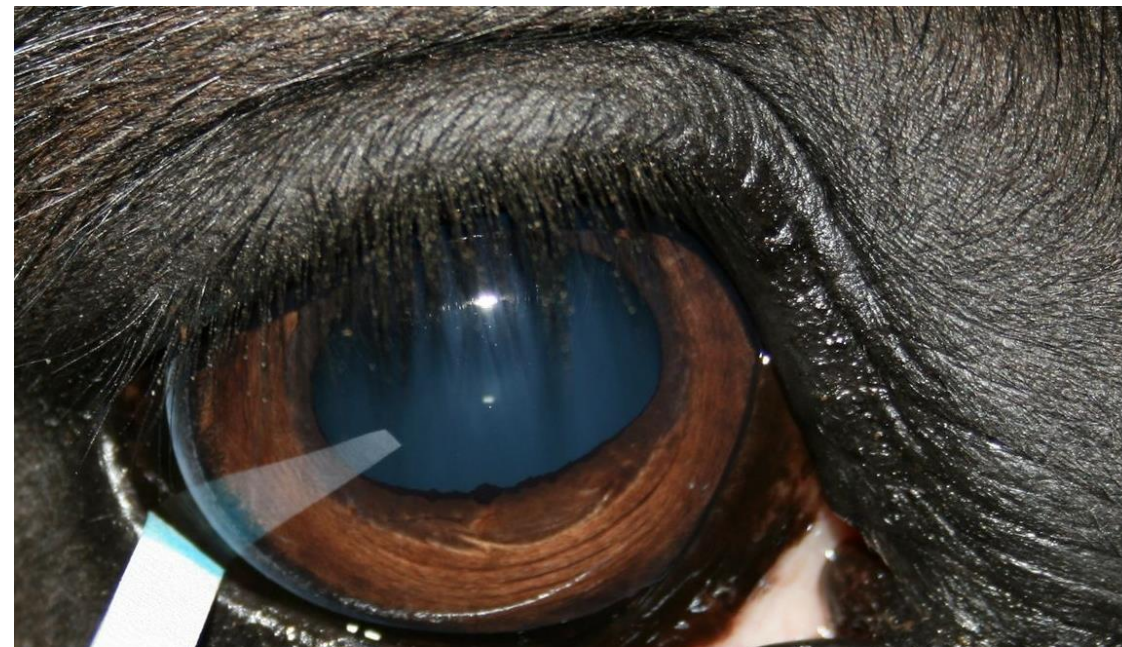
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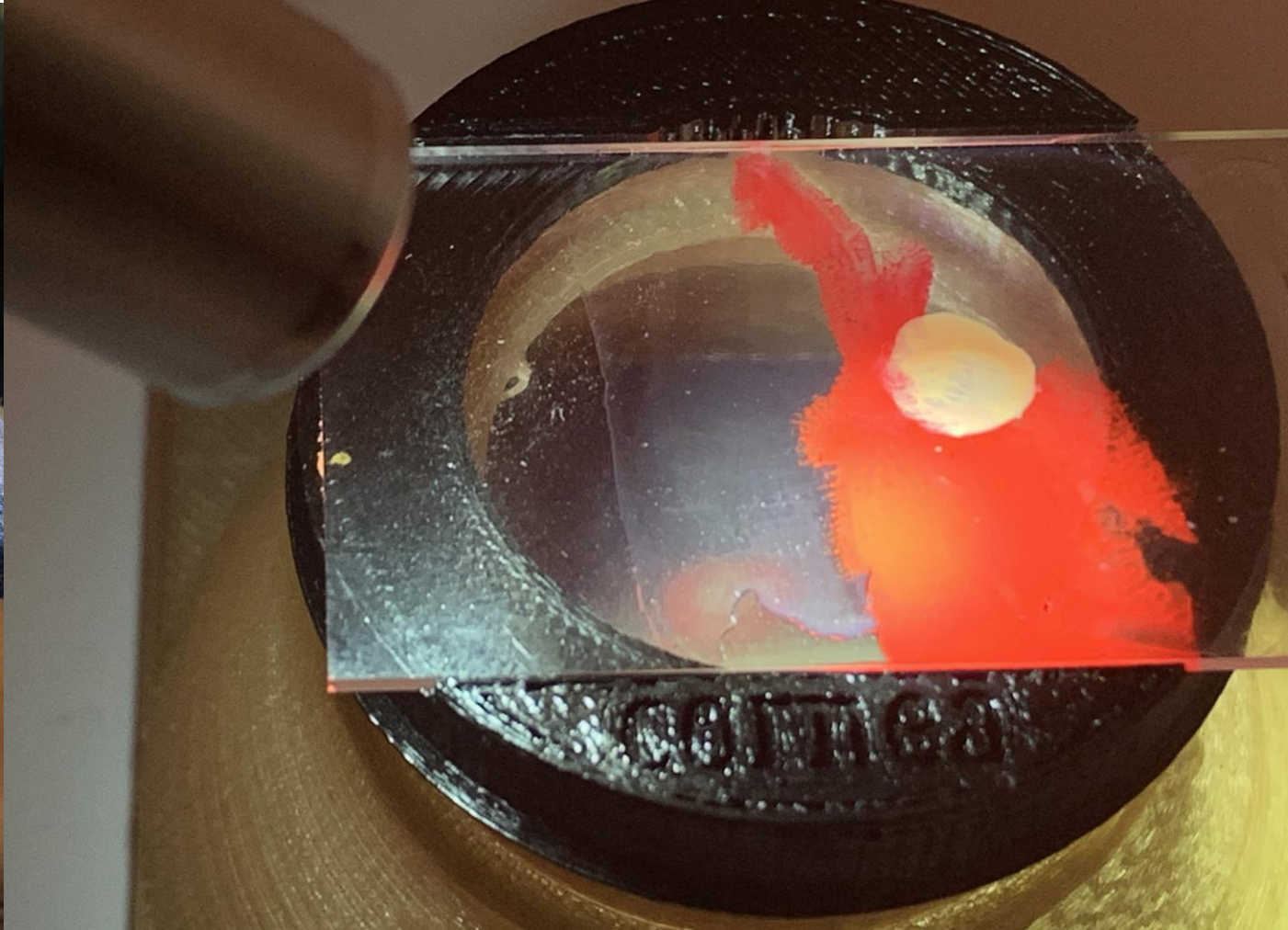
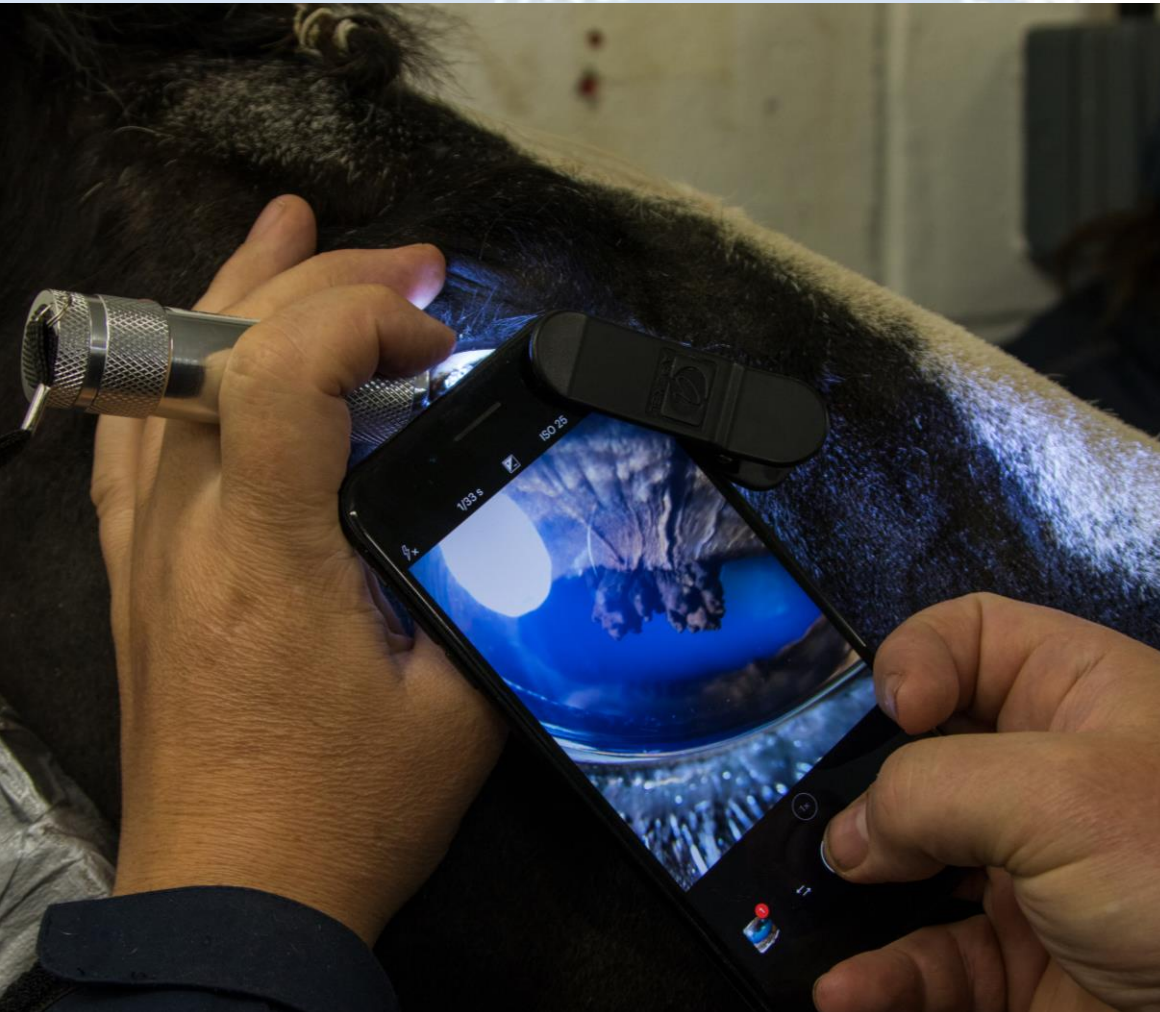
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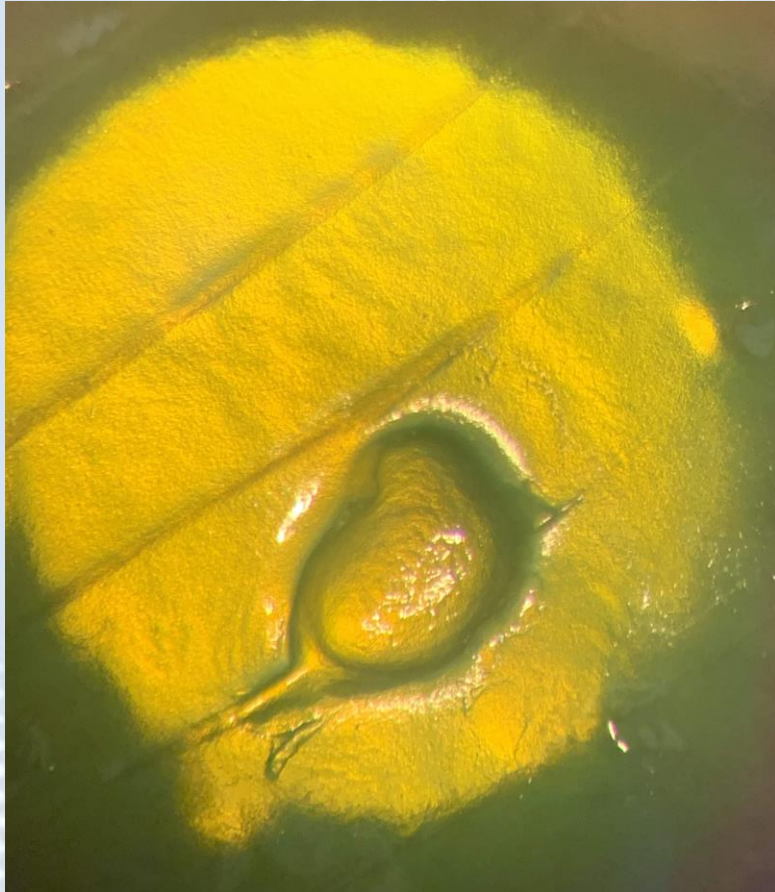
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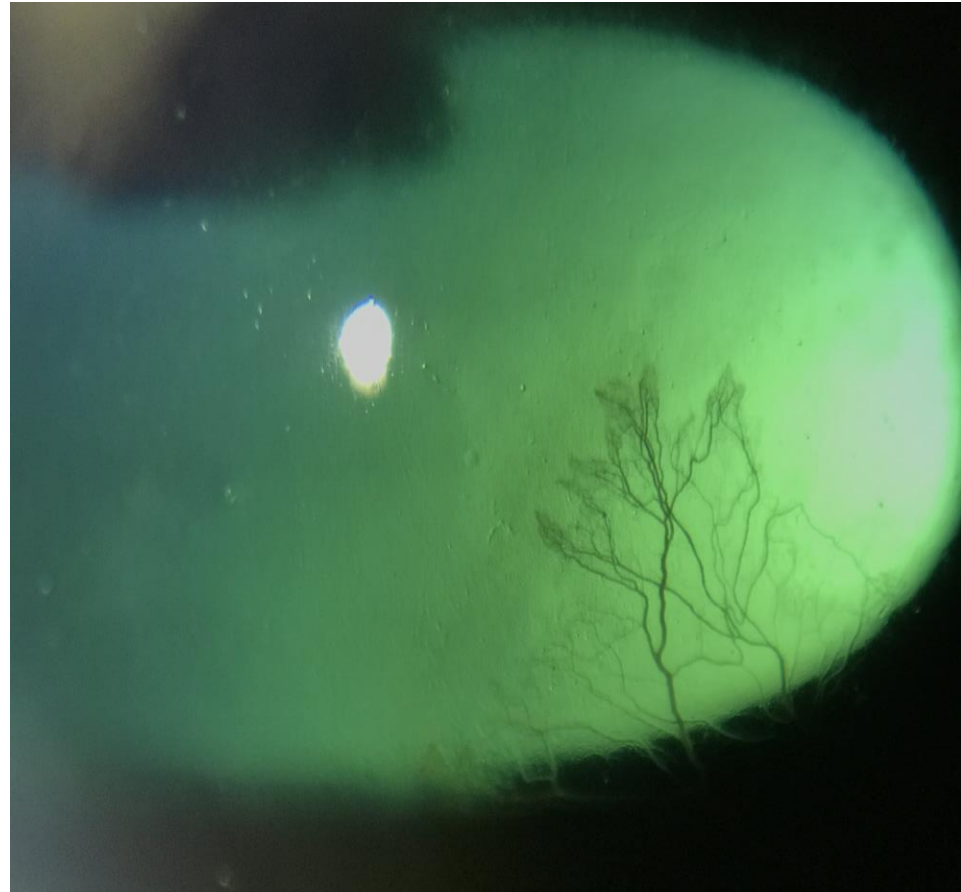
Task 3: Use oblique lighting to image the corneal lesions: practice on your model.



Task 4: Use retroillumination to image corneal lesions

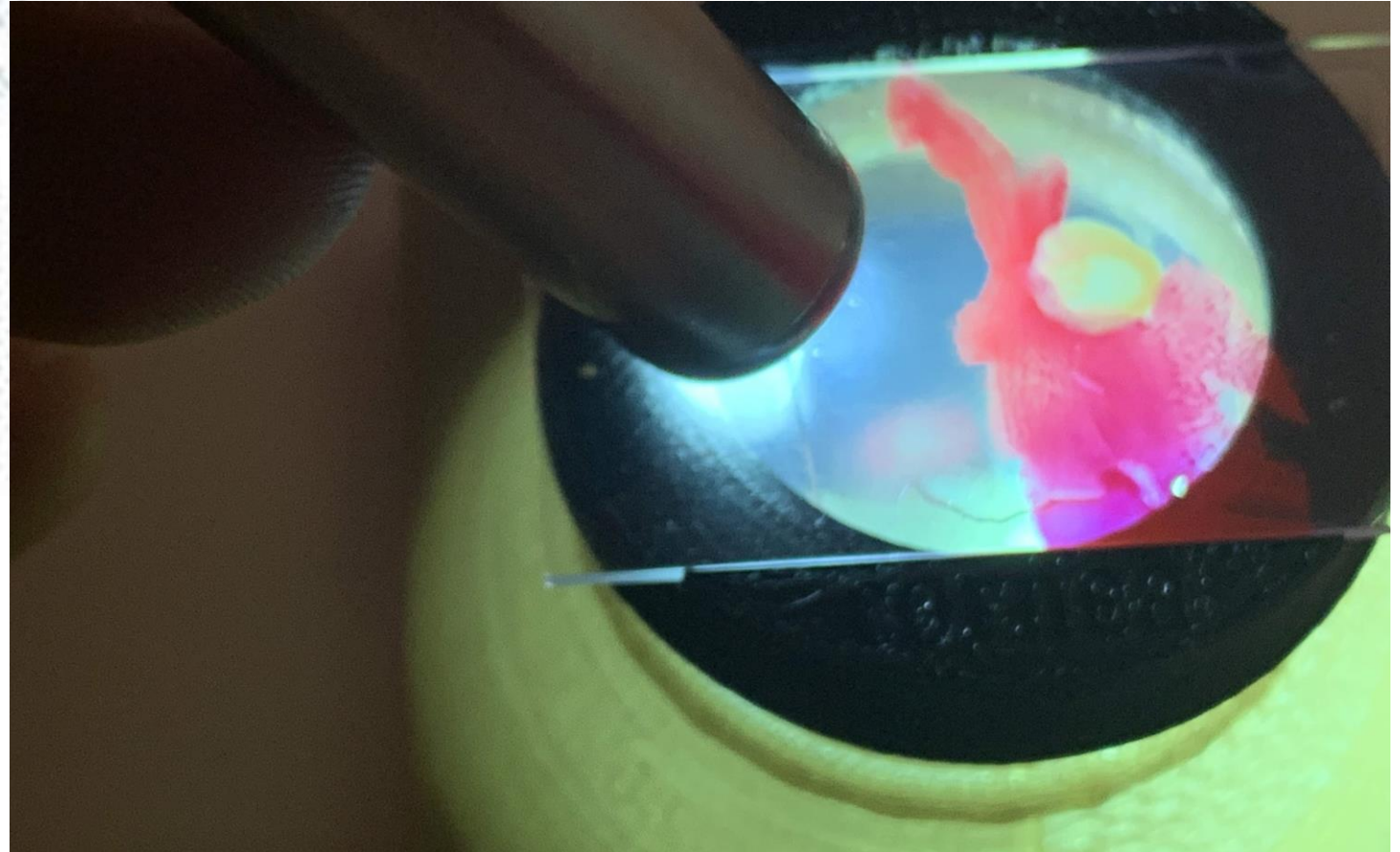
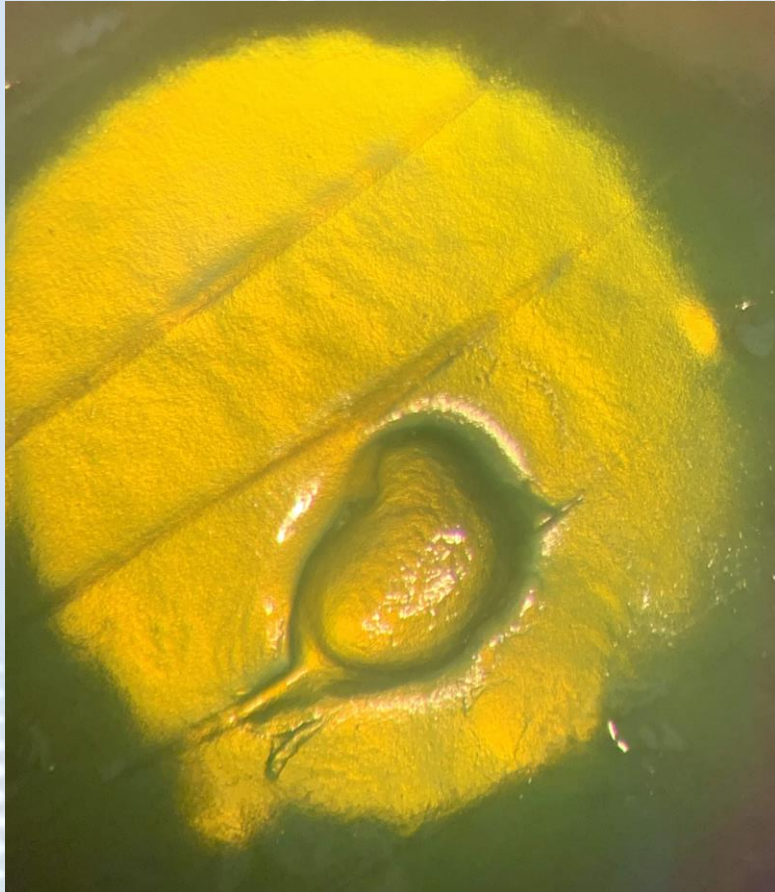


iPhone XS Max- operating microscope eye piece image



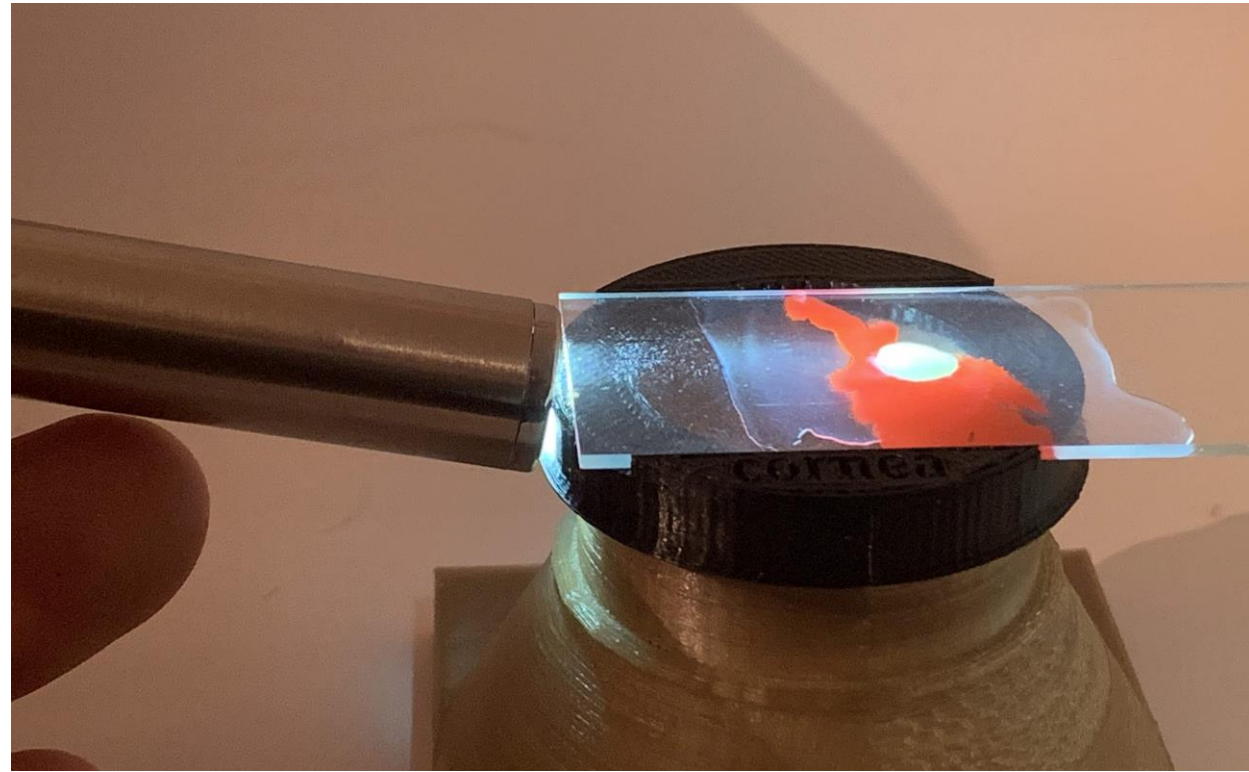
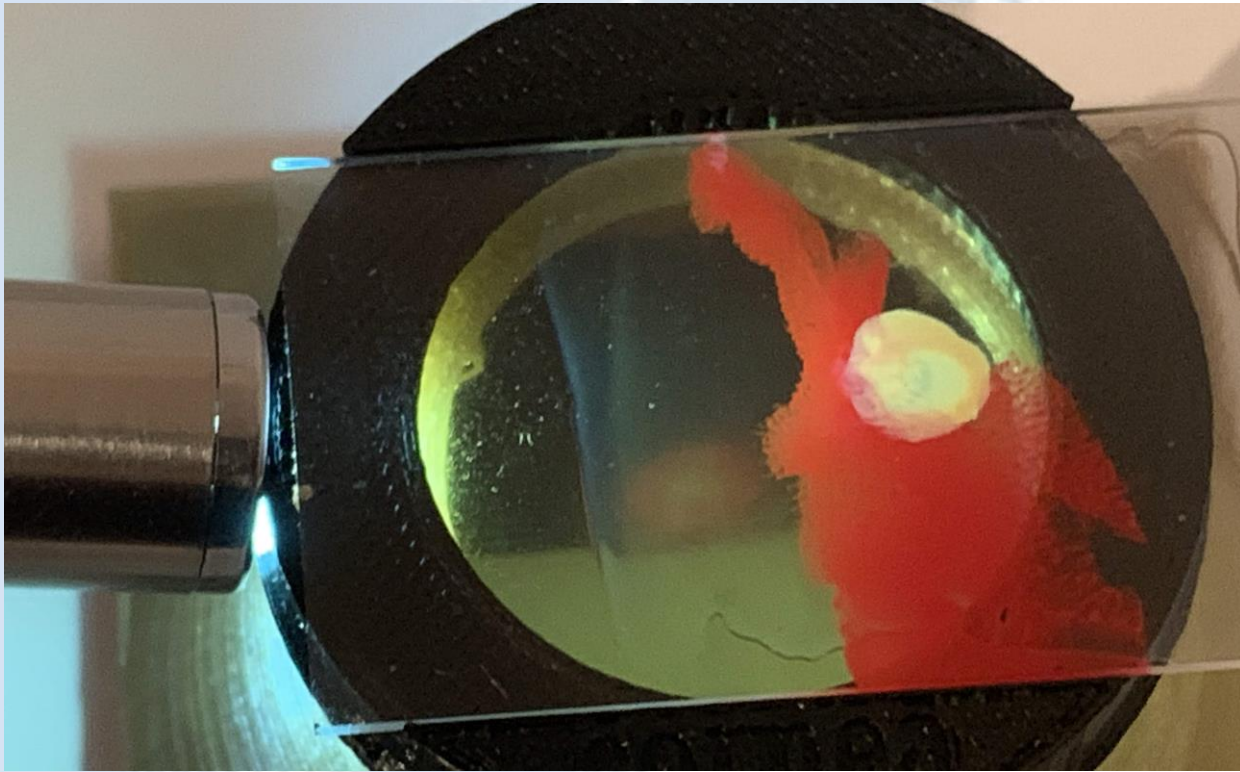
iPhone 7plus and 12x macro lens

Task 4: Use retroillumination to image corneal lesions



iPhone XS Max- operating microscope eye piece image

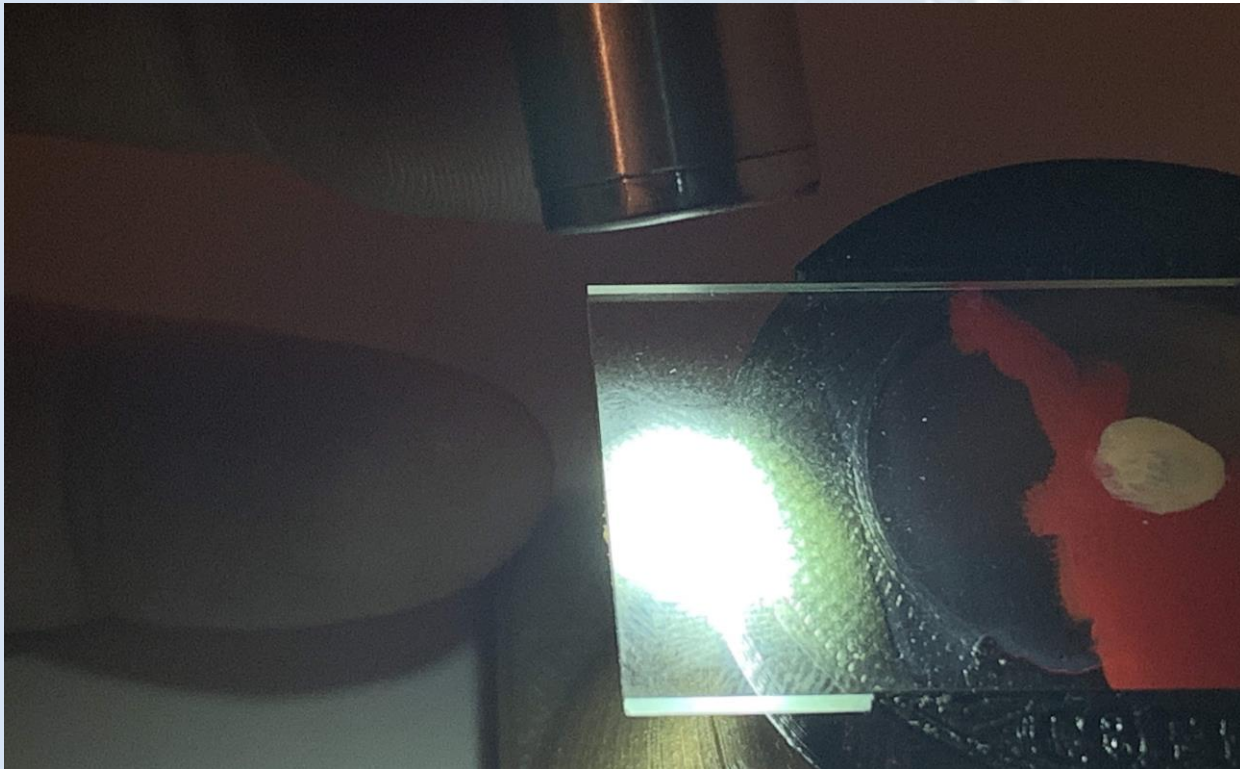
Task 5: Simulate “sclerotic scatter like” technique to illuminate and image corneal lesions.



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Try the slit beam with the macro lens

