

Measuring is believing: quantifying adaptation behaviour of *Hydra*

Microscope video guide

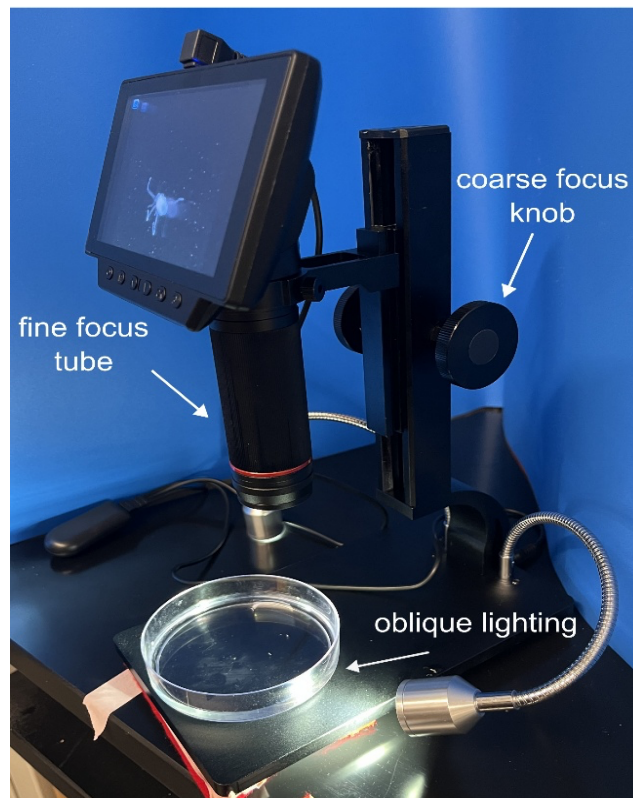


Figure 1: Focus adjustments on the microscope and oblique lighting setup
Image courtesy of the authors

Centring the *Hydra* and zooming in

1. To centre the *Hydra*, move the petri dish on the stage until it comes into view.
2. Adjust the zoom settings through the large knob (coarse focus) on the side and turning the tube in the centre (fine focus) (figure 1).
3. *Hydra* react negatively to very strong light and may contract. To reduce this effect, only shine one light source at an oblique angle onto the *Hydra* dish (figure 1) to achieve a light *Hydra* on a uniform dark background.

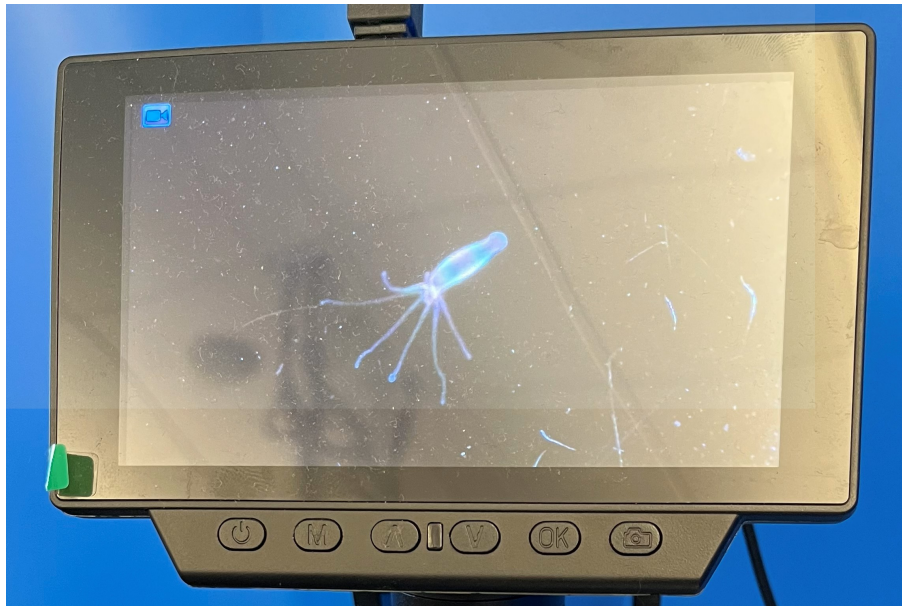


Figure 2: LED Screen of the Microscope in video mode showing an elongated *Hydra*.
Image courtesy of the authors

Recording a video

1. Press the “M” button (adjacent to the power button) until a blue video icon appears on the top left corner (figure 2).
2. To record, press the “OK” button on the right. A blinking red circle should appear next to the blue video icon, indicating that the recording has started.
3. Press the “OK” button again to stop the recording.

Playing back a video

1. To play back a video, press the “M” button multiple times until a still video frame appears with its filename in the upper right corner.
2. Navigate through all collected videos by pressing the up/down arrow buttons in the centre of the panel.
3. Once a video has been found, press the “OK” button to play the video, then press it again to pause.
4. Rewind the video by pressing the “M” button again. Press “M” again to switch back to video recording or camera mode. The camera mode will not be needed for this activity.