

# Preparation of Samples for Light Microscopy

## Simple Wax Seal

### Materials

- Slide
- Cover Slip
- Paraffin Wax Candle
- Pasteur Pipette (suggested size 5 3/4 inch)
- Matches

### Preparation of the Slide

- You may want to protect the work surface from melted wax. We use a sheet of aluminum foil taped to the work surface.
- Secure the candle to the workbench, and then light it.
- Place your sample on the cover slip, then place the cover slip, with sample down onto the slide.
- Warm the Pasteur pipette by passing it closely above the flame. If the pipette is passed in or too close to the flame, soot will accumulate on the surface. Wipe the soot off with a Kimwipe if necessary.
- Draw wax into the pipette by laying the pipette tip horizontally into the melted wax beneath the flame. Wax will enter the pipette by capillary action. If little or no wax is drawn in, the pipette is not warm enough or is being held too vertical. Simply reheat the pipette and repeat the draw. Try to avoid bubbles in the pipette.
- Warm the wax filled pipette by passing it over the flame as before, until the end emits a light smoke.
- Anchor the corners of the cover slip by dabbing the pipette at each one in turn. Adjust the angle of the pipette to regulate the flow of wax. Holding the pipette more vertical will allow the wax to come out more freely.
- Reheat the pipette. If necessary, draw more wax.
- Drag the pipette tip along the edges of the cover slip to complete the seal.
- You can check the quality of the seal by glancing light off the back of the slide. Breaks in the seal will show up as reflective furrows connecting the cover slip to the outside. Simply apply warm wax to these spots to complete the seal.