Hello everyone,

Flowers are beautiful and equally fascinating especially structures of different types of pollen grains and they way they interact with different fluids. This time I’ve observed the pollen grains of tuberose under my foldscope and also the petal epidermis.

Here are pictures of the petal. There are even some stomata like structures on the petals which is surprising because till date I’ve only heard about stomata on leaf epidermis.
Here are pictures of the pollen grains both dry and wet:

Now, here’s a video of how the pollen grains interact with water...they swell up very quickly so quick that it’s not possible to take the slide out from the foldscope, add water and observe them absorbing the water. The video is real time and not a time lapse.

So, I had to figure out a way in which I could capture the action. Here’s how I managed it

1.) Tape together 3 coverslips in a row like so

2.) now once you tape them like this, you can place them on the slide
3.) now here’s the trick **mount the pollen grains under one of the coverslips on the sides and not the central one.**

4.) focus the pollen grains under the foldscope. Now you’ll notice that since we’ve mounted the pollen grains under the coverslip at the end of the slide, one coverslip along with the slide will stick out of the foldscope like this.

5.) when you focus the pollen grains you can mount your phone with the magnetic couplers so that you can see them on the screen.

I haven’t mounted my phone here because magnets make my phone stop working so, I have to take the videos through the lens directly by holding the phone with my hands.

6.) once you’ve focused the desired area on your phone screen its time to add water under the coverslip like this.

The water will come down under the lowest coverslip by adhesion and we’ll be able to view it on the screen. Tilt the foldscope a bit so that the water comes down and doesn’t start coming out from the sides of the top coverslip.

On Lakshmi sir’s suggestion I tried doing this with glycerine. The process is much slower compared to water.
Also, no flowers were plucked for the post I've taken it from garlands.

~Have Fun Foldscoping.