3 Fluorescence observation of mCerulean3 transformants of *Chlamydomonas reinhardtii*

3.1 Materials and Equipments

Cell culture ofmCerulean3 *Chlamydomonas* transformants of, FV-1000 laser confocal microscope (Olympus, Japan), slide and 0.17mm cover slide

3.2 Procedures

1) Inoculate the engineered alga 10% (v/v) in 15 mL of TAP medium for 3 days, centrifuge at 2500 rpm for 5 min to harvest cells, and carefully remove the supernatant.
2) Resuspend the 10 mL TAP medium to clean the cells, and centrifuged at 2500 rpm for 5 min. Carefully and quickly removed the supernatant.
3) Repeat step 2.
4) Resuspend the cells with Tap medium to reach the concentration of 1×10^6 cells/mL.
5) Add 50 μL algal droplet to the slide, cover the slide, and leave the sample dry. Place the sample upside down on the platform, and selected the dye for scanning to obtain fluorescent images.