Gel Electrophoresis

1. Use the designated bench (on the right).
2. Make gel solution (1% agarose solution) in 150-200 ml flask:

0.75 g agarose
75 ml 1xTAE

3. Heat to boiling in microwave (~1 min) swirling each 20-30 sec.
4. Place flask on the bench to cool down to ~56^0C.

5. Add **1.8 µl** of ethidium bromide (in the hood). Swirl the mixture.
6. Prepare a small gel box (in the drawer, labeled "Lamp lab").
7. Prepare a gel tray. Attach the rubber walls, make sure they are tight. Place a comb in the desired place.
8. Pour gel solution into the gel tray. Let set about 25-30 min.

9. When ready, carefully take the comb out (one single movement), remove the rubber walls, and place the gel tray in the gel box to run the gel ("RUN TO THE RED").
10. Fill the gel box with 1x TAE solution (used) until the gel is completely submerged (covered with the buffer for ~3-4mm).

11. Take the PCR samples and the ladder from the freezer. Let it thaw.
12. (If needed) Mix **5 µl** of the 1 kb ladder with **1 µl** green dye in a separate PCR tube or on parafilm.
13. (If needed) Load **5 µl** of the ladder mixture into the 1st well.
14. Load **4 µl** of each PCR sample into the rest of the wells.
15. Cover the gel box with the lid.

16. Plug into the power pack and run at constant voltage approx. 130V until bands have migrated to approximately 1 inch from the end (~15-20 min).
17. When it is done, turn off the power pack and remove the gel.
18. Place gel onto UV illuminator to see the results.