Chemical Transformations

1. Thaw frozen cells on ice for ~10-15 min.
(**Note:** Leaving these on ice longer does not appear to affect transformation efficiency)
2. Label 1.5 mL Eppendorf tubes
3. Aliquot 1-2 µL of DNA plasmid to corresponding Eppendorf tube
    - 2 µL for uncoiled DNA (i.e. re-suspended parts and ligation products)
    - 1 µL for supercoiled DNA (i.e. miniprep products)
4. Add 40 µL competent cells to DNA aliquots
(**Technique:** Aspirate (draw & release) w/ pipet several times to mix)
5. Incubate on ice for ~30 min.
(**Note:** Leaving these on ice longer does not appear to affect transformation efficiency)
6. Heat shock cells in water bath for ~60 s @ 42° C
(**Note:** ~10 min. @ 37° C also works well)
7. Incubate on ice for ~5 min.
8. Add 200 µL SOC and put in shaker for ~2 hr. @ 37° C
(**Note:** If short on time, 1 hr. recovery is sufficient)
9. Distribute transformed cells uniformly over appropriate LB plates
    - ~100 µL for uncoiled DNA
    - ~25 µL for supercoiled DNA
10. Once dry, turn upside down and incubate overnight @ 37° C
(**Note:** Over weekend @ R.T. provides similar results)