**E. coli Transformation**

Transformation of *E. coli* Competent Cells

1. Thaw 50 uL of competent cells on ice (DH5a or Smart cells).
2. Gently mix ~10-100 ng plasmid with the cells, 5 uL (ligation reaction) or if 1 uL (existing plasmid).
3. Incubate mixture on ice for 15 min.
4. Heat shock cells @ 42 °C for 1 min.
5. Incubate cells on ice for 2 min.
6. Add 950 uL of SOC media (r.t.) to the sample.
7. Incubate cells @ 37 °C for 1 hour at 250 rpm.
8. Centrifuge the cells at 14,000 rpm for 30 s and remove supernatant.
9. Resuspend cells in 100 uL SOC cells.
10. Plate all of the cells onto selective plates.