Protocol: Heat Shock Transformation

- Thaw 100 µL of competent cells (per transformation) on ice just before they are needed
- Add DNA (2ul) to thawed cells and mix by flicking the side of the tube. Leave on ice for 30 minutes
- Heat shock for 2 minutes at 42 degrees Celsius or 5 minutes at 37 degrees Celsius
- Place on Ice for 5 minutes
- Add 500ul 2XTY medium to each tube
- Incubate for 30 to 60 minutes with shaking at 37 degrees Celsius. (Note that for Kanamycin containing plasmids always use one hour)
- Spin down to remove all supernatant except approximately 100 µL
- Plate approximately 30 µL on each of two antibiotic plates
- Grow overnight at 37 degrees Celsius

For this protocol we used a couple of controls

- **Positive Control** - pBluescript in TOP10 cells on ampicillin plates
- **Negative Control** - TOP10 cells grown on ampcillin plates