

## Common Buffer and Fixatives for Electron Microscopy

### 0.4M Cacodylate Buffer Stock

- Measure out 42.8 g of cacodylic acid-sodium salts
- Mix into 500 ml ultrapure water (MilliQ or Millipore)

### 0.1M Cacodylate Buffer Working Solution

- Add 120 ml of 0.4M cacodylate stock solution to 360 ml ultrapure water to make a total of 480 ml of working buffer
- Check and adjust pH to 7.2-7.4 by adding HCL or NaOH solution

### 2.5% Gluteraldehyde in 0.1M Cacodylate Buffer

- Add 10 ml of 50% gluteraldehyde to 190 ml of ultrapure water.
- Check pH to 7.2-7.4

### 2% Gluteraldehyde / 2% Paraformaldehyde in 0.1M Cacodylate Buffer

- Add 10 ml of 50% gluteraldehyde to 240 ml 0.1M cacodylate buffer
- Remove 40 ml and dispose or retain for another purpose
- Add 30 ml (3 vials) of 16% paraformaldehyde
- Check pH to 7.2-7.4

### 1% Osmium Tetroxide in 0.1M Cacodylate Buffer

- Add 6 ml of 0.1M cacodylate buffer to a 2 ml vial of 4% osmium tetroxide.
- Seal vial with parafilm and store in original tube IN FUME HOOD