3. Determining cell number/ml (haemocy-

tometer)

This is a specialised microscope slide on which 2 grids have been engraved, in a central region that is 0.1mm lower than the rest of the slide. Each grid comprises 25 large squares, each containing 16 smaller squares of area 1/400mm². This creates a region of known volume (0.1mm³) when a special coverslip is correctly placed over the central region (get someone to show you how to do this - and take care as the coverslips are easily broken!). A few μ l's of culture are then pipetted under the coverslip and cells counted in a proportion of the gridsquares (count as many as is convenient). Multiplying the total number of cells in the entire grid by 10⁴ gives the number of cells / ml.

- 1. Ensure the haemocytometer is clean using 70% ethanol.
- 2. Affix the coverslip using gentle pressure
- 3. Vortex cell sample and take 10 ul sample using a Gilson. Fill the hae-

mocytometer by capillary action.

Count cells (x40 objective) using the tally counter. To calculate the no cells per ml multiply by 10⁴ (red square), 2.5 x 10⁵ (yellow square), 4 x

10⁶ (blue square)

