

# Lab4: cell counting

Msc. Sarah Raheem



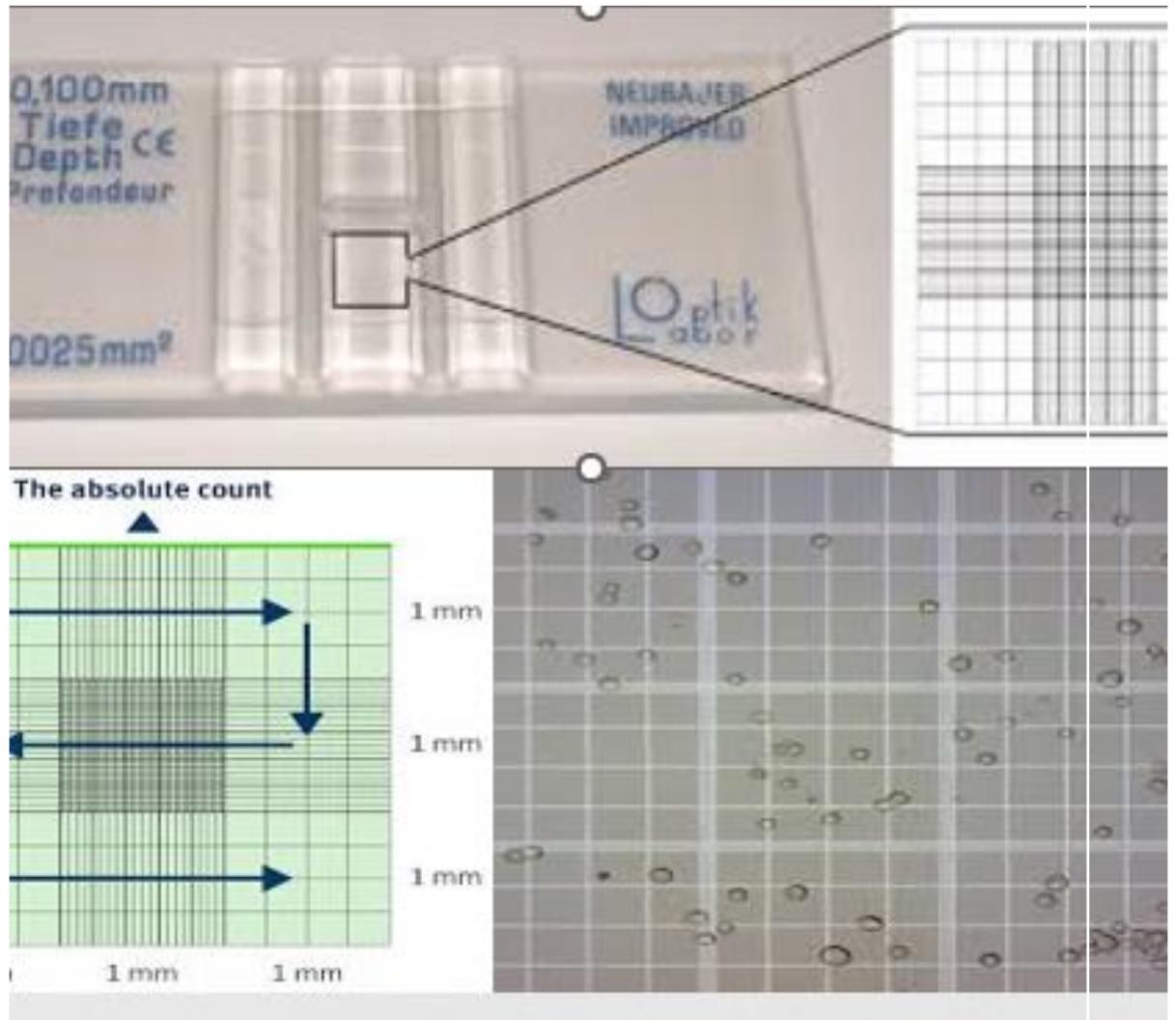
# Cell counting Methods

1. Manual Counting (Hemocytometer)
2. Electronic Counting (Coulter Counter)
3. Flow Cytometry
4. Spectrophotometry

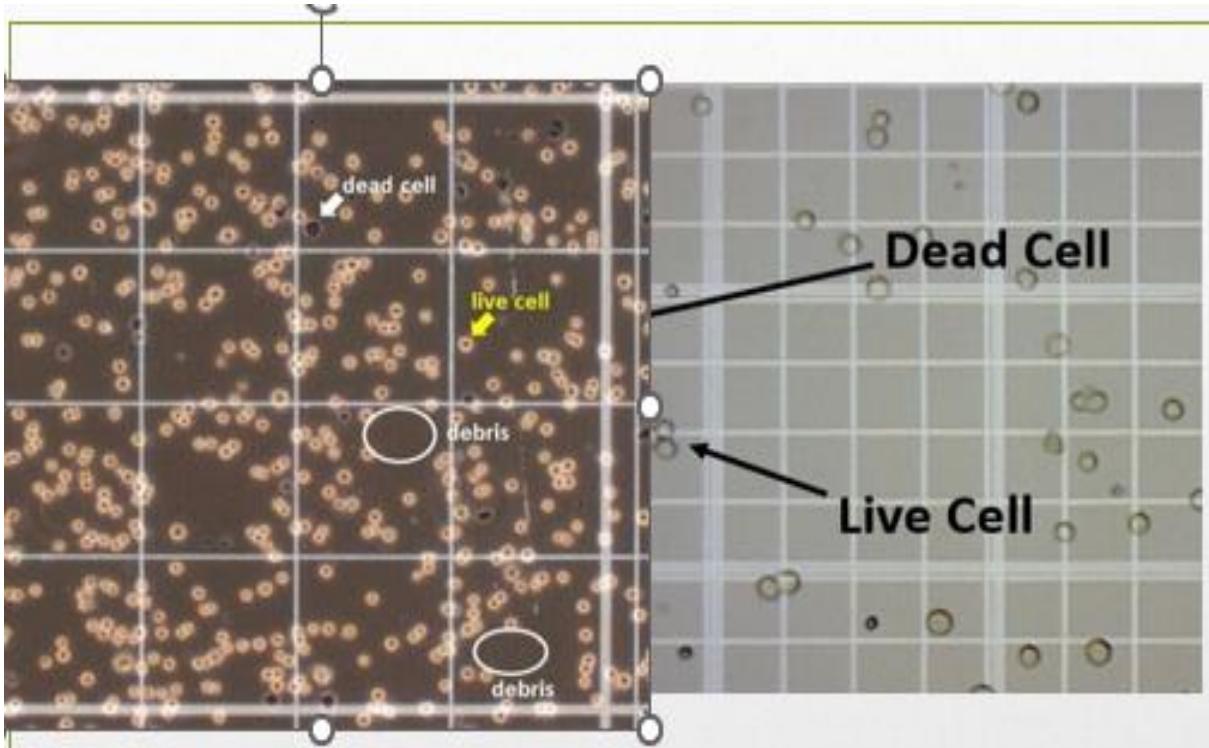
# Manual Counting

Glass slide with grid for manual cell counting.

Trypan Blue test distinguishes live and dead cells.



# Manual Counting



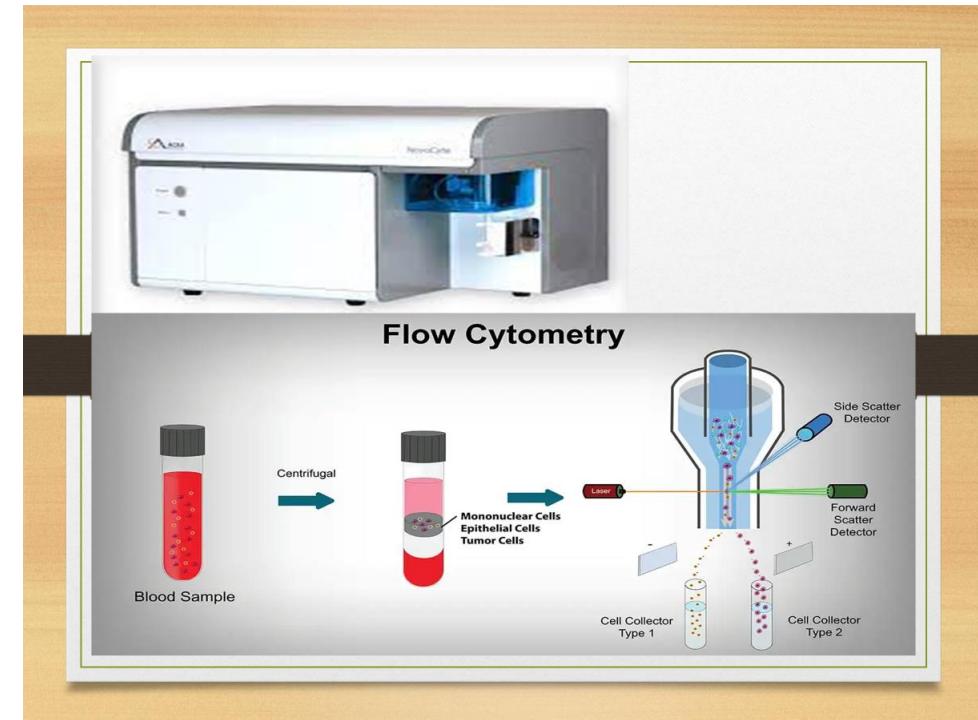
# Electronic Counting

Cells pass through a small aperture;  
resistance change counted.



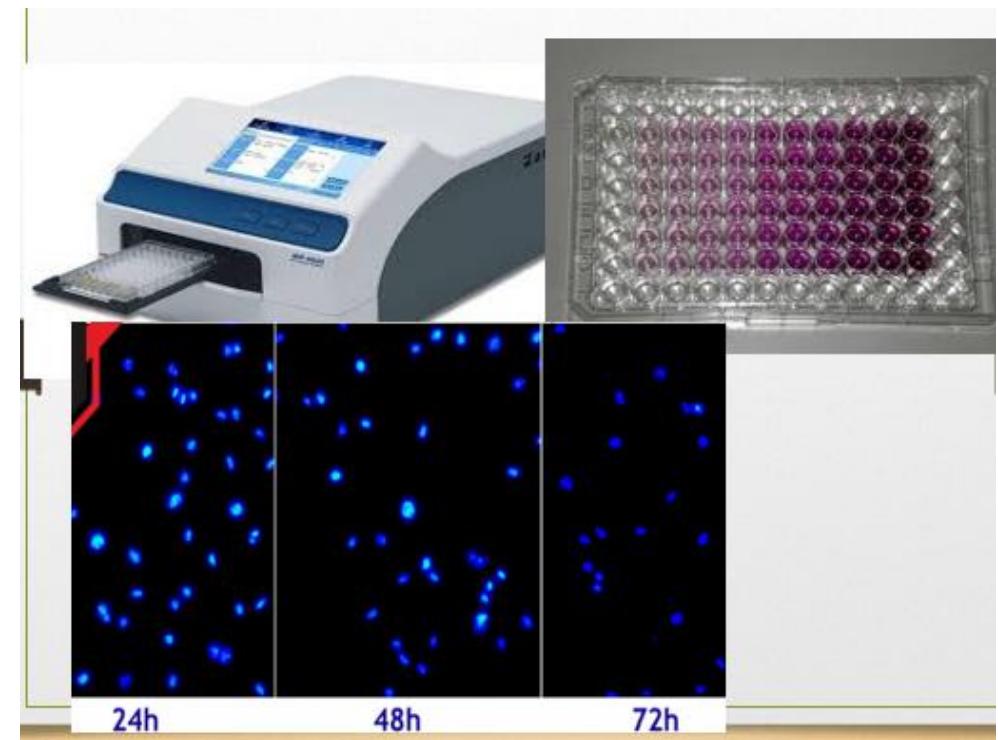
# Flow Cytometry

- Measures cell size, granularity, fluorescence.
- Used for viability and apoptosis.



# Spectrophotometric Quantitation

- Based on absorbance (OD) correlation with cell number.
- Common assays: MTT, Crystal Violet.
- Spectrophotometry (OD): measures turbidity, mainly microbes.
- Automated Imaging: real-time cell monitoring, confluence, morphology.



# Thank you

