

Lab4: cell counting

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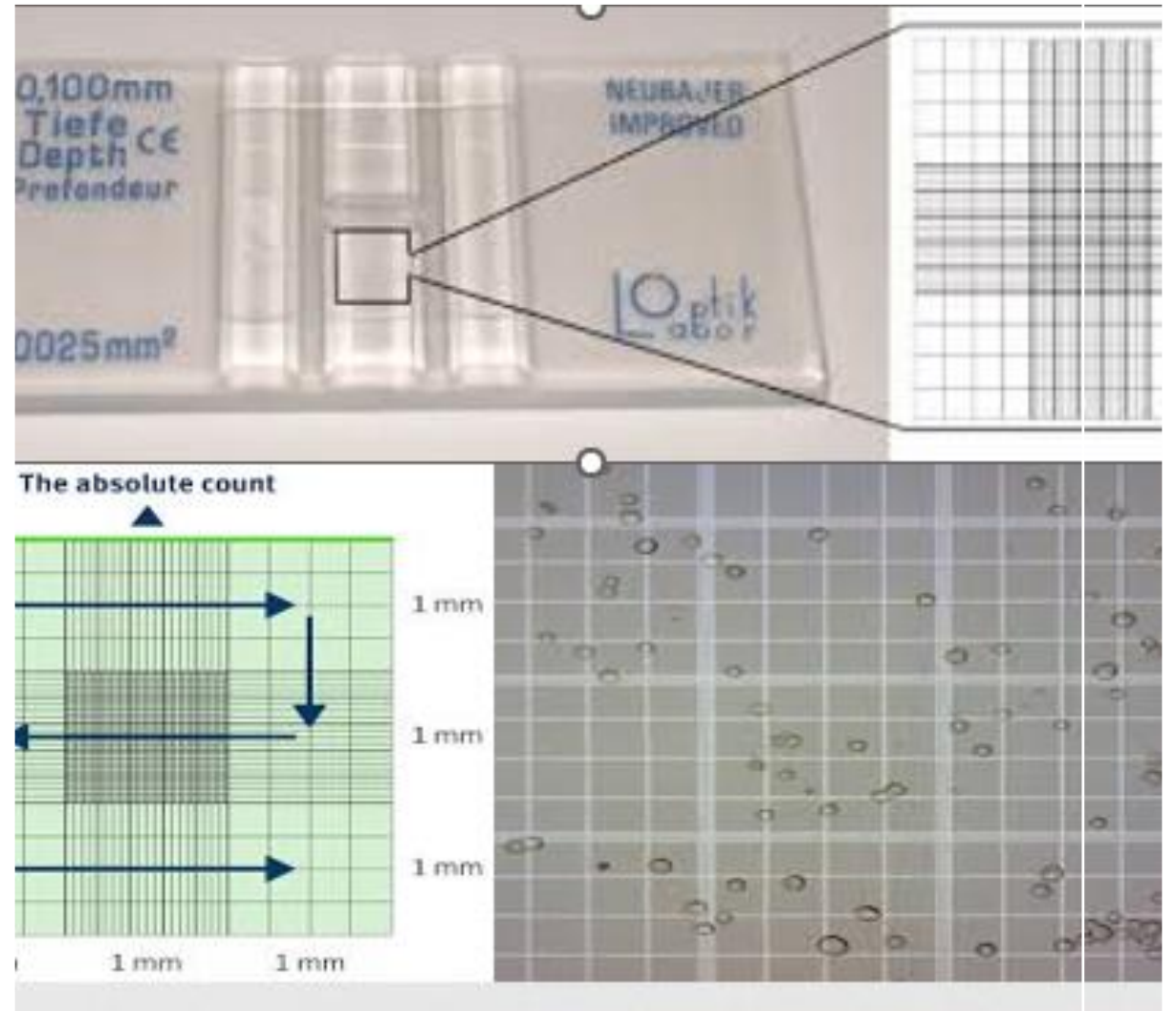
Cell counting Methods

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

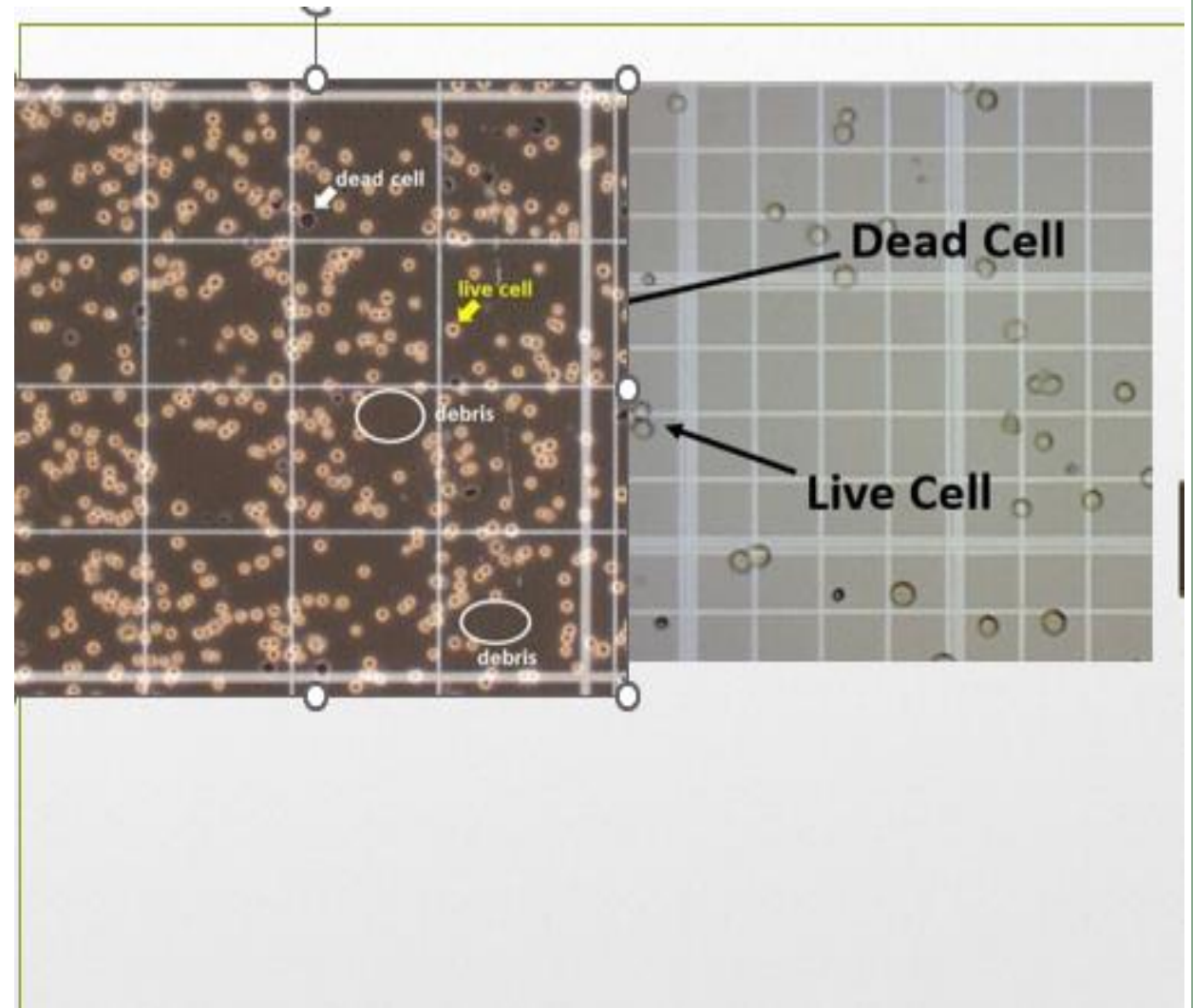
Manual Counting

Glass slide with grid for manual cell counting.

Trypan Blue test distinguishes live and dead cells.



Manual Counting



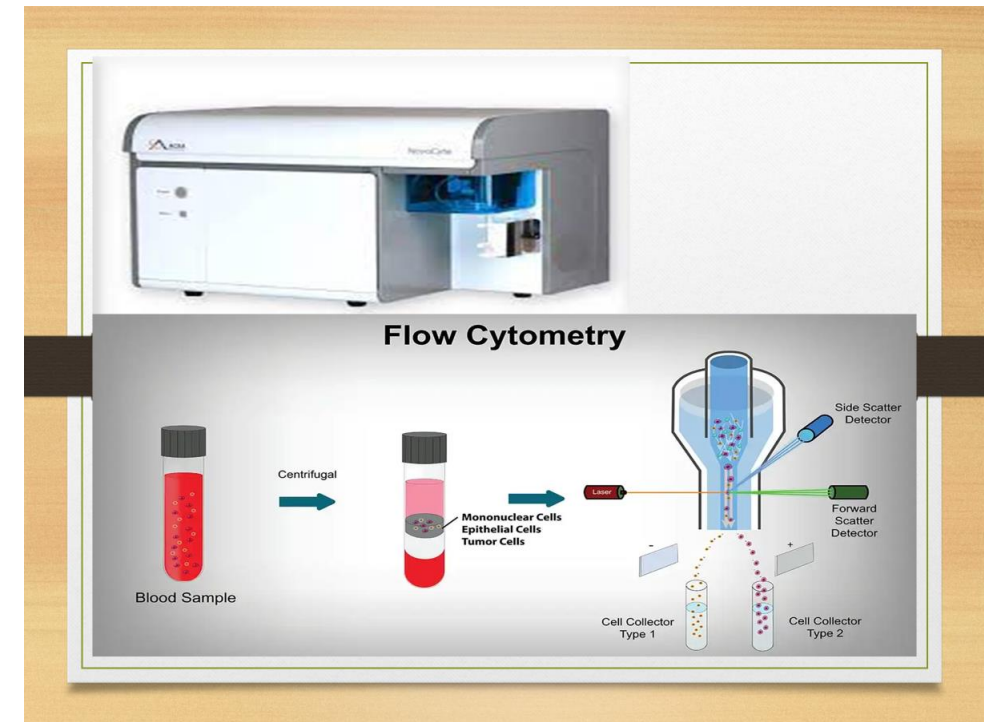
Electronic Counting

Cells pass through a small aperture;
resistance change counted.



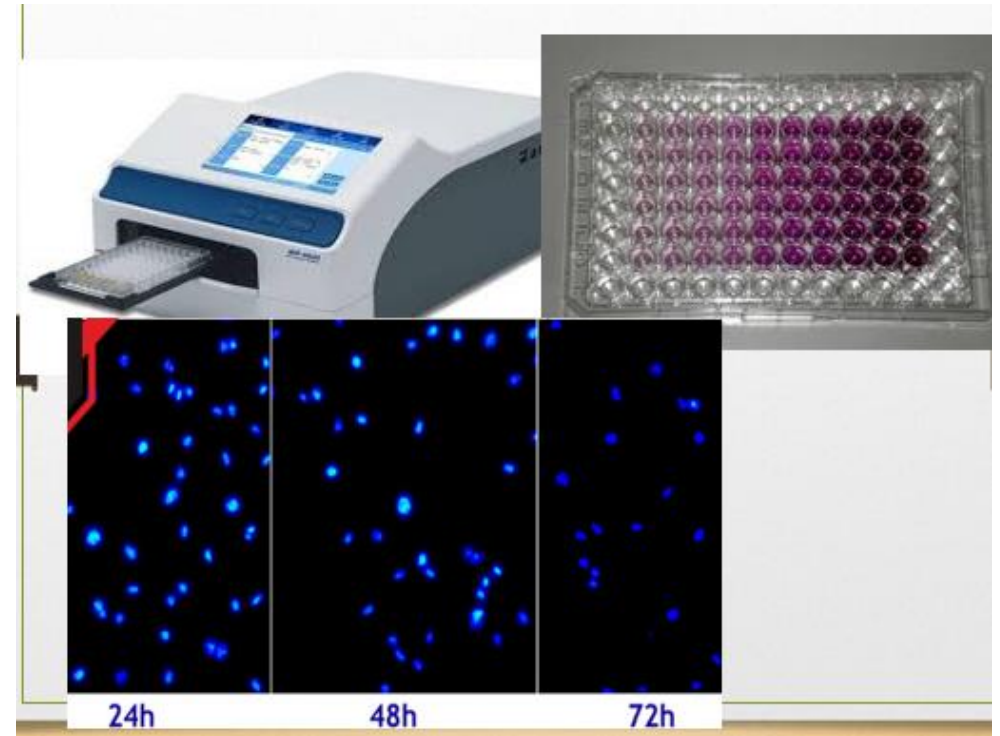
Flow Cytometry

- 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, confluency, morphology.



Thank you

