

Learning outcome: Antibody based methods and flow cytometry. Thomas Herrmann 14.12.2020

Antibody based methods

- General structure of an IgG as prototypic antibody and of an Ig domain
- Major effector functions of IgG and IgM
- Molecular basis of antigen-binding. Affinity and avidity
- Hybridoma technology – monoclonal antibodies
- Affinity-purification/immunoprecipitation (IP)
- Western Blot
- ELISA (OD vs transmission)

Flow cytometry: Using antibodies for characterization and isolation of cells

- General working principle (measuring optical properties/ of cells while in a fluid stream)
- Properties of cells measured by forward scatter/side scatter
- Interpretation of a histogram and of a dot plot
- Electronic gates and multi-color flow-cytometry
- Need of compensation
- Meaning of CD nomenclature
- Mass cytometry vs fluorescence cytometry