Malvern’s Life Science “Toolbox”

**Zetasizer range**
- Size and charge analysis
- Aggregation state
- MW & polydispersity
- Optional Raman for structural information
  - (Zetasizer Helix) 0.6nm – 10µm

**NanoSight range**
- Particle size
- Particle count
- “Visualization”, NTA
  - ~30nm – 2000nm

**Viscosizer TD**
- Micro-capillary viscometry
- Viscosity/size in low volumes
- Capable of handling high concentrations
  - 0.9cP – 120cP

**SEC range**
- Chromatography systems
- SEC-MALS, RALS, LALS
- Size, MW, structure, intrinsic viscosity

**Morphologi G3 / G3-ID**
- Automated microscopy
- Particle size and shape
- Optional Raman for identification
  - 1µm – 1000µm

**Mastersizer range**
- Suspensions, emulsions, dry powders
  - 0.01 – 3500µm
- Size and distribution

**MicroCal DSC & ITC**
- Differential Scanning Calorimetry & Isothermal Titration Calorimetry
- Conformational changes, binding, affinity
- Measures heats of reactions

**Archimedes Resonant Mass Measurement**
- Single particle mass
- Number of particles
- Distinguish between protein aggregates and silicone oil
  - 50nm – 5µm