

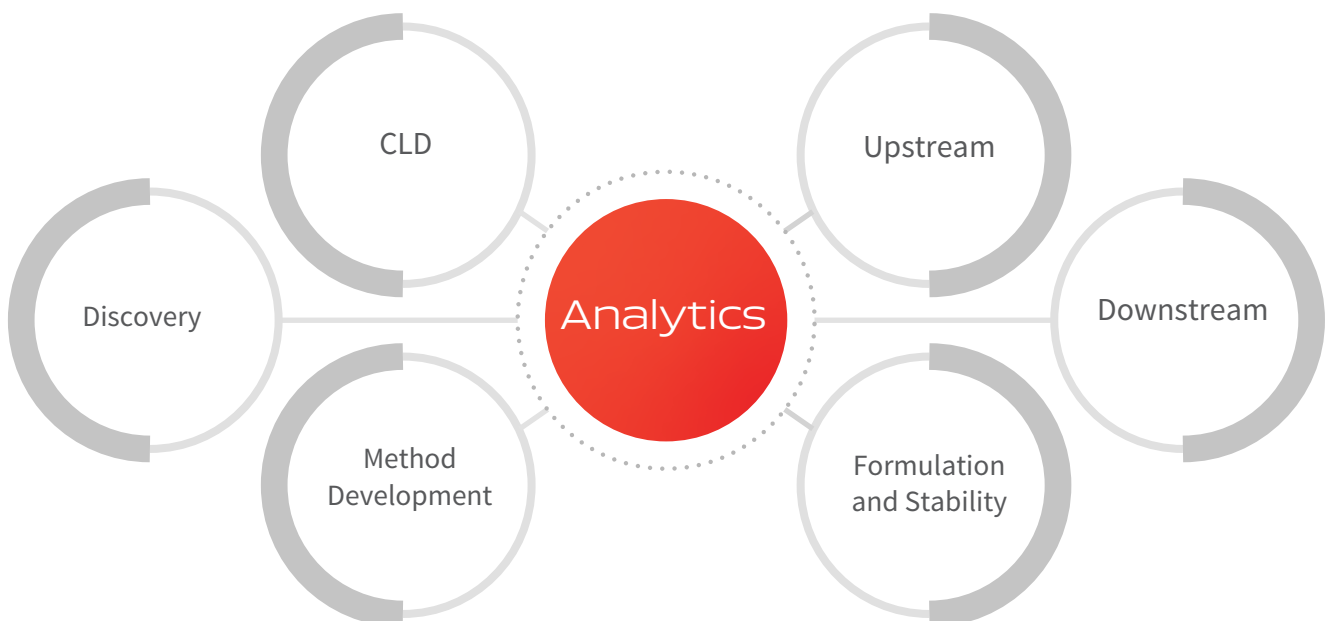
# Protein Analytics

Early analytics ensures successful research and development



Aragen customizes analytical services by focusing on product quality attributes that impact the function and stability of the protein. We help clients identify and characterize functional attributes through industry-leading analytical and developability assessment, to identify liabilities that may impact preclinical processes and timelines.

With a broad range of analytical services and capabilities, we provide our clients the tools and understanding to achieve successful biologics characterization and process development in a phase-appropriate manner. The analytics team collaborates with other teams and external partners to ensure the seamless transfer of knowledge.



## Aragen's analytical capabilities span across biophysical characterization to full developability assessment and formulation studies to understand:

- Quality (structural integrity and purity)
- Stability
- Solubility
- Concentration
- Post-translational modifications

Let's start a discussion about how Aragen analytics, developability and formulation can help understand and accelerate your biologic development.

### We offer:

#### Protein Activity

- Binding affinity (FortéBio Octet® RED96 System, GE Biacore™ T200)
- Enzyme activity
- Cell-based assays
- *In vivo* testing

#### Protein Titer/Concentration

- Protein A HPLC
- ELISA
- A280

#### Protein Integrity and Structure

- Size variants by SEC-HPLC
- Size variants by SEC-MALS
- Size variants by CE-SDS (reduced and non-reduced)
- Hydrophobic variants by RP-HPLC/UPLC or HIC
- Protein purity by SDS-PAGE
- N-glycan analysis by HILIC-FLD
- N-glycan analysis by CE
- Sialic acid content by DMB RP
- Free thiol content by SEC-FLD
- Charge variants by cIEF
- Western Blot
- HCP and HCD
- Residual Protein A, Protein G, Protein L by ELISA or Octet
- Endotoxin levels by LAL

#### Protein Stability (UnchainedLabs: Uncle)

- $T_m$  and  $T_{agg}$
- $\Delta G$
- Isothermal stability
- Thermal recovery
- Sizing and polydispersity
- Sizing with thermal ramp
- B22 and kD
- Viscosity

#### Protein Mass (Agilent HPLC- CHIP/QTOF)

- Accurate mass: proteins, protein-drug conjugates
- Peptide and Glycan mapping
- Determination of post-translational modifications either in known or unknown samples
- Standard COAs

Let's begin the conversation

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