

# Biological drugs (Antibodies, Antibodies-Drug Conjugates) Characteristics by high mass-accuracy LC-MS/MS

## Biologic Drug Characteristics

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### Antibody Biosimilar

- N-terminal Heterogeneity: Pyroglutamate,.....
- Amino acid modifications: Deamination, Oxidation, Glycation
- Fragmentation: Cleavage in hinge region
- Oligosaccharides: Fucosylation, Sialylation,.....
- Disulfide Bonds: free thiols, disulfide shuffling, thioether
- C-terminal heterogeneity: Proline amidation, lysine truncation

### ADC (ADC)

- # of toxins/drugs, variable drug-antibody ratio, DAR
- ADC DAR distribution impacting Efficacy and PK/TK

