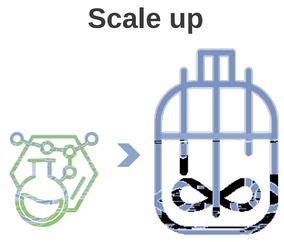
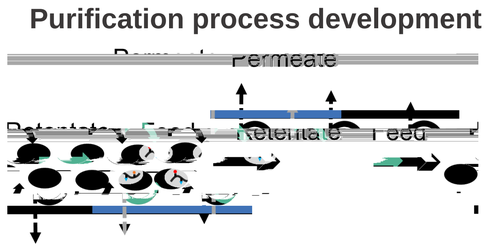
Scale up



Purification process development



Case Study I: Process Optimization for More Reproducible & Homogeneous ADCs

This case shows a bispecific nanobody drug conjugate with a targeted DAR value of 4. The payload is MMAE and the linker contains a branched hydrophilic moiety as an added modification to the molecule design. The BsAb bears a disulfide-containing knob-into-hole structure, which results in additional needs to control unintended Cys-conjugation. We systematically optimized the reduction and conjugation process parameters to generate DAR 4 species accounting for greater than 98%, and the DAR value remains highly consistent at different synthesis scales.

Case Study II: Optimization to Minimize the Level of ADC Aggregation

In this case, the molecule is designed as a cysteine-conjugated DAR8 ADC. The hydrophobicity from the exatecan-based payload-linker in this ADC causes ADC aggregation in conjugation process, resulting in low yield. We optimized the process by adjusting the reaction pa2 (o001 Tc -0.0a5 ca26 .%cas)4.3 (e,)]TJ -0.001 Tc6.18emustmaxtem -0.0a.s(i)2.8 (ng)]TJ -0.001 Tc 03041 Tw 4.862 0 Td[(

g scale

100 g scale

1000 g scale