## **SUPPORTING INFORMATION**

Table S1: Q1 windows with variable width used for SWATH acquisition of the DC dataset. Figure S1: Calibration curves for all three technical replicates of selected example peptides from the SGS dataset. Figure S2: Box-plots illustrating the distribution of intercepts for the SGS dataset. Figure S3: Cumulative fraction of peptides as a function of the mean absolute error for the SGS dataset. Figure S4: Box-plots illustrating the distributions of individual fragment ion intensities. Figure S5: Distribution of the scores obtained for each attribute. Figure S6: Spectronaut detection rate and NOFI rank distribution of the 806 fragment ions manually annotated as affected by interferences in the DC dataset. Figure S7: Example of closely eluting peaks from the DC dataset.