Supplementary Table 1. Heterogeneity of PSM agreement across search engines before filtering.

	# Search Engines	1	2	3	4
Non-Decoy	YPD	72.71%	6.94%	9.36%	10.98%
	UPS2	58.26%	9.95%	6.57%	25.22%
	iPRG09 Red	83.05%	4.94%	4.78%	7.23%
	iPRG09 Yellow	83.43%	4.86%	4.67%	7.05%

	# Search Engines	1	2	3	4
Decoy	YPD	98.25%	1.60%	0.14%	0.01%
	UPS2	97.89%	1.76%	0.29%	0.07%
	iPRG09 Red	99.41%	0.55%	0.03%	0.00%
	iPRG09 Yellow	99.37%	0.59%	0.04%	0.00%