

**Table S8. Directionality of core-core edges in the multi-omics correlation networks.**

Network	Degree cutoff	Positive edges (%)	Negative edges (%)	Total edges
HSD	$\geq 1$	43.7	56.3	602
	$\geq 13$	33.1	66.9	269
HCOF	$\geq 1$	50.8	49.2	667
	$\geq 12$	52.7	47.3	298

**Note:** Degree cutoffs were adjusted between groups to yield comparable numbers of core-core edges and ensure balanced network visualization.