

Table S8. Spearman correlation of betweenness centrality for orthologs between species.

networks 1 and 2	ρ	p-val	empirical p-val
Yeast-all and Athal	0.42	$3e-06$	< 0.001
Athal and Human-hq	0.38	$7e-06$	< 0.001
Athal and Human-all	0.33	$6e-06$	< 0.001
Yeast-hq and Athal	0.37	0.002	0.001
Fly and Human-all	0.27	$8e-07$	< 0.001
Yeast-hq and Fly	0.26	0.002	0.001
Yeast-all and Fly	0.11	0.1	0.067
Athal and Fly	-0.00	1.0	0.493

Betweenness centrality correlation analysis for hubs in pairs of networks: Spearman's rho, corresponding p-value, empirical p-value for 1000 random permutations of betweenness centrality values among hubs. Correlations with absolute value above 0.1 and both p-values < 0.05 are shown in bold. See main text and **Materials and methods** for details.