

**Table S5. Random sampling of genes of sample size same as the 5 co-expressed modules with common connections to STRING data at high confidence score > 0.8.**

The common connections with STRING in all the modules are significantly higher than the mean+3\*SD of random samples of same gene size as the co-expressed modules.

Module	Genes	Common connections with STRING in the co-expressed module	Mean & SD of STRING connections between the genes from random samples of genes of same size as the module <sup>a</sup>	mean + 3*SD
<i>Turquoise</i>	322	388	Mean=61.41, SD = 13.78	102.76
<i>Brown</i>	208	150	Mean=25.58, SD = 7.79	48.98
<i>Blue</i>	154	37	Mean=14.15, SD = 5.57	30.89
<i>Red</i>	94	51	Mean=5.38, SD = 3.15	14.84
<i>Black</i>	47	9	Mean=1.32, SD = 1.40	5.53

<sup>a</sup> Values calculated from 1000 random samples.