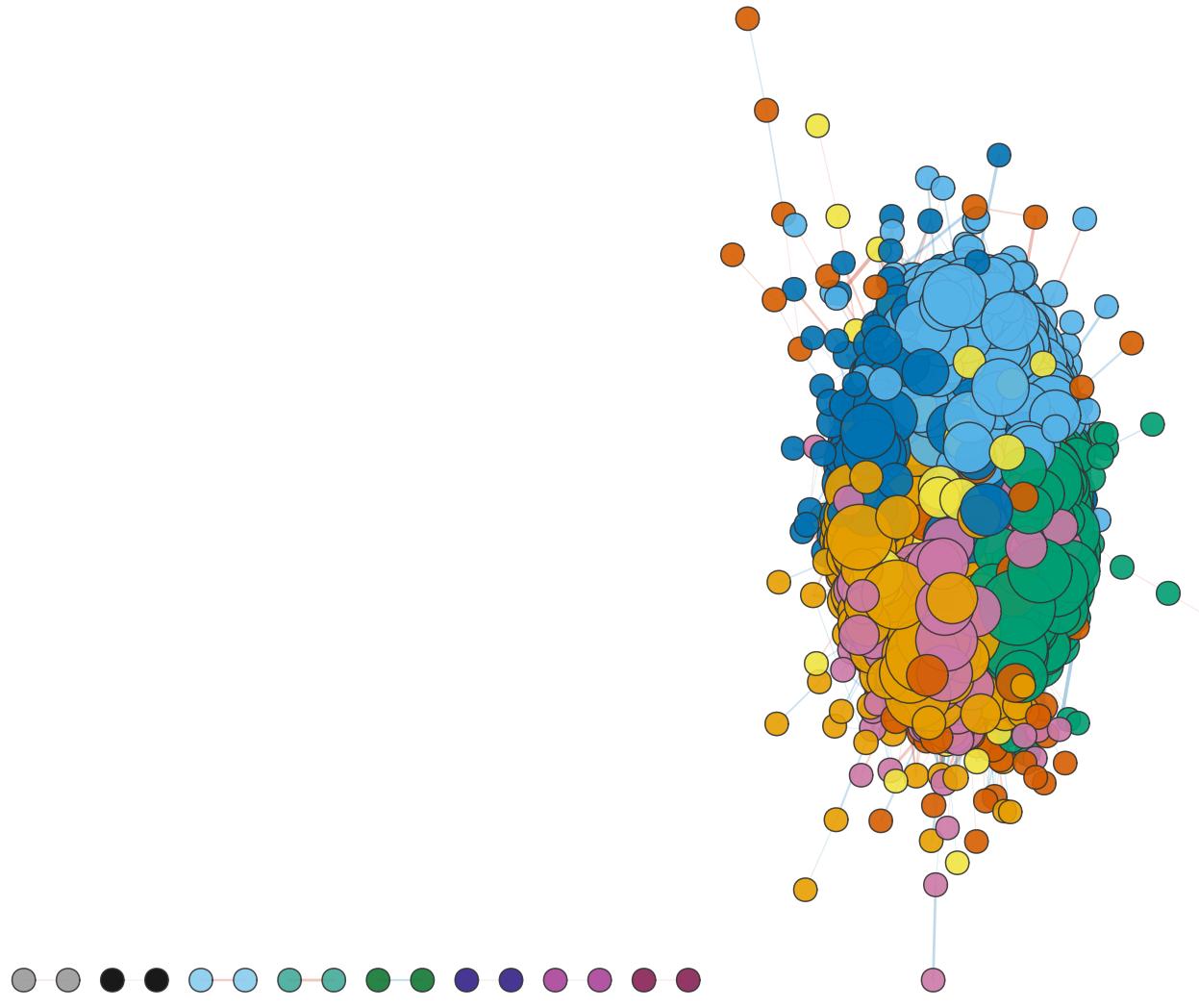


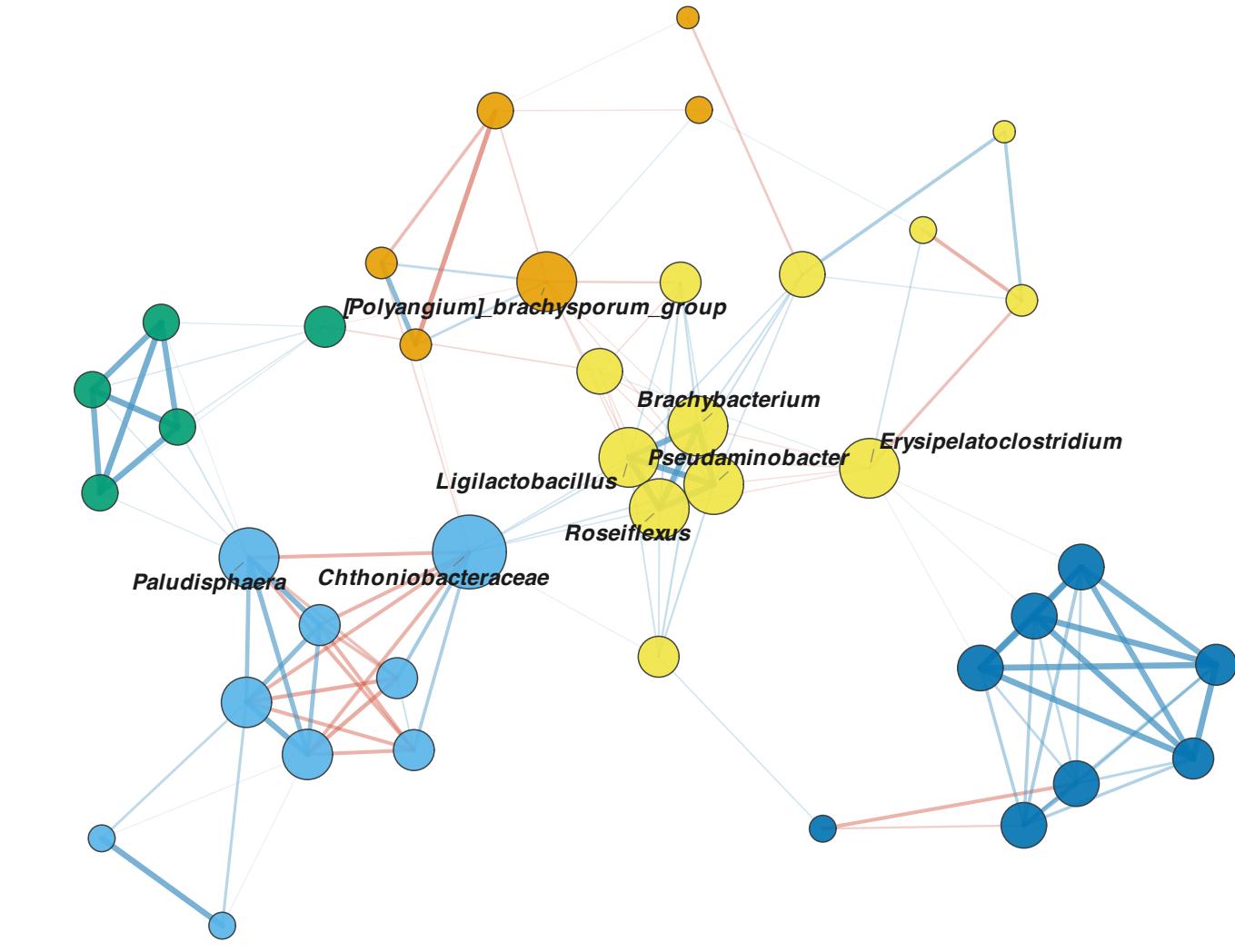
A. Exudate co-variance network

Spearman $\rho_{\text{hol}} \geq 0.80$; BH-FDR < 0.05; n = 1686 nodes



B. Microbiome co-occurrence network

Spearman $\rho_{\text{hol}} \geq 0.60$; BH-FDR < 0.05; genus level (Top 40)



4 5 6 7 8 9 10 11 12 13 14 15 lpl

0.80 0.85 0.90 0.95

0.7 0.8 0.9 1.0

Module

1 2 3 4 5

Edge negative positive