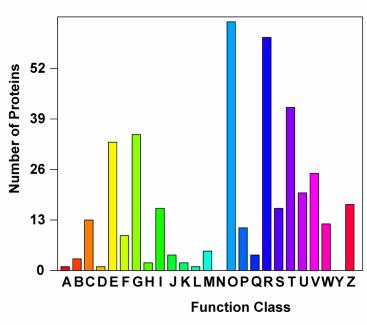
## **KOG Function Classification**



A: RNA processing and modification B: Chromatin structure and dynamics

C: Energy production and conversion
D: Cell cycle control, cell division, chromosome partitioning
E: Amino acid transport and metabolism

F: Nucleotide transport and metabolism

: Carbohydrate transport and metabolism

H : Coenzyme transport and metabolism
I : Lipid transport and metabolism

J: Translation, ribosomal structure and biogenesis

K: Transcription
L: Replication, recombination and repair
M: Cell wall/membrane/envelope biogenesis

: Cell motility

O: Posttranslational modification, protein turnover, chaperones P: Inorganic ion transport and metabolism

Q : Secondary metabolites biosynthesis, transport and catabolism R : General function prediction only

S: Function unknown

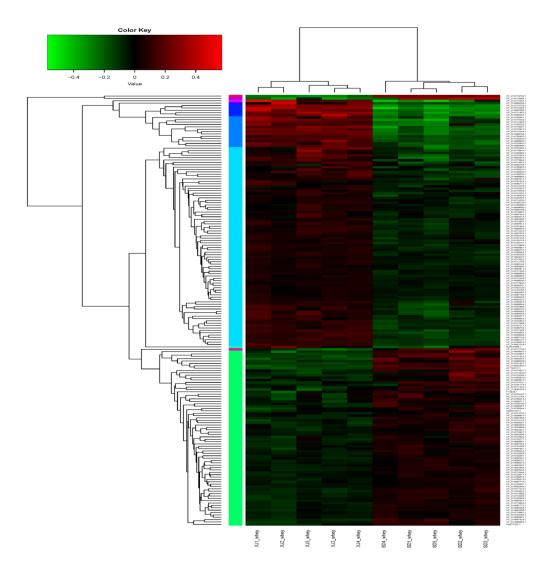
Signal transduction mechanisms

Intracellular trafficking, secretion, and vesicular transport Defense mechanisms

W: Extracellular structures

Y: Nuclear structure

Z: Cytoskeleton



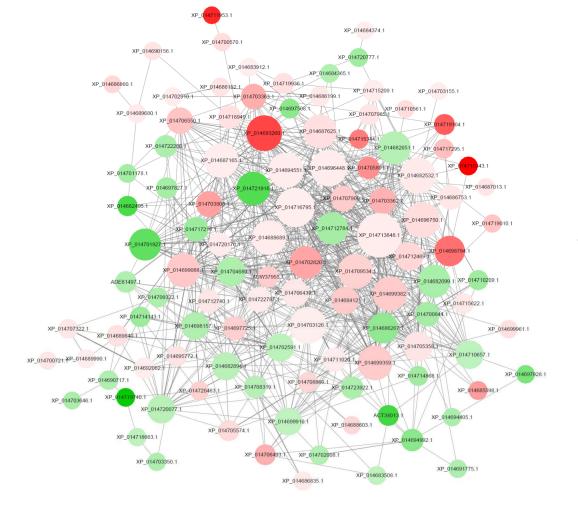
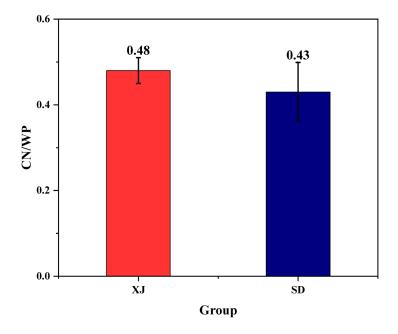


Figure S4



Sample (CN/WP)	XJ	SD
Mean	0.48	0.43
SD	0.03	0.07
Min	0.53	0.47
Max	0.45	0.35