Selection on protein families (fuNOG IvI2) Translation, ribosomal structure and biogenesis Transcription -Signal transduction mechanisms Secondary metabolites biosynthesis, transport and catabolism Replication, recombination and repair -Posttranslational modification, protein turnover, chaperones Lipid transport and metabolism General function prediction only Function unknown Energy production and conversion Defense mechanisms -Cytoskeleton · Coenzyme transport and metabolism Chromatin structure and dynamics Cell wall/membrane/envelope biogenesis Carbohydrate transport and metabolism Amino acid transport and metabolism Nuclear structure -Inorganic ion transport and metabolism -Nucleotide transport and metabolism Extracellular structures -RNA processing and modification · Sample Cell cycle control, cell division, chromosome partitioning -Secreted Intracellular trafficking, secretion, and vesicular transport **CSEPs** Cell motility 0.50 0.00 0.25 0.75 1.00 dN/dS ratio