Exploring the evolutionary rate differences of party hub and date hub proteins in *Saccharomyces cerevisiae* protein-protein interaction network

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Evolutionary rates of party hub and date hub proteins of *Saccharomyces cerevisiae* are analyzed under the perspective of ordered/disordered ness of proteins and the three dimensional structural context such as the solvent accessibility of the amino acid residues. Our results suggest that the lowering of evolutionary rate of the party hub proteins than the date hub proteins is solely contributed by the ordered regions of the corresponding proteins. Moreover the slower evolutionary rate of the party hub proteins than the date hub counterparts can be attributed to the presence of buried amino acid residues. Thus, our work endeavors further into the understanding of the evolutionary rate differences of the two different types of hub proteins of *Saccharomyces cerevisiae*. 