

Poster H-57

Construction of multiple transcription factor prediction system



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Short Abstract: Gene expression in mammalian cells is regulated by colplicated function of multiple transcription factor(TF)s. In this study, we developed prediction system for putative function of multiple TFs in the promoter regions of known genes. Prediction algorithm was prepared using Markov chain(MC) and Greedy algorithm.

Long Abstract:

Gene expression in mammalian cells is regulated by colplicated function of multiple transcription factor(TF)s. those functional combinations of TFs in the target genes are hardly understood. In this study, we developed prediction system for putative function of multiple TFs in the promoter regions of known genes. Prediction algorithm was prepared using Markov chain(MC) and Greedy algorithm. We grouped the homologous combination of TFs using Edit distance. The function of clustered groups of target genes are annotated by GO. Our result provide the prediction of the function of unknown genes, the regulation of those gene expression, and basic information of genetic network.