ANALYSIS OF A LOCAL HUNTINGTON PROTEIN INTERACTION NETWORK

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Huntington's Disease is a neurodegenerative disorder caused by an abnormally long stretch of glutamines in the associated huntingtin protein. This study sheds light on possible functions for the huntingtin protein though analysis of a local protein-protein interaction network consisting of the huntingtin protein, proteins called primaries that have been found to interact with the huntingtin protein and secondary proteins that interact with the primary proteins. The first part of the analysis finds annotations that are overrepresented among the primary and secondary proteins. The second part of the analysis examines the network structure and finds functions and proteins that are more highly connected in the network than expected by chance. The third part of the analysis uses additional information, such as gene coexpression, to corroborate the results from the first two analyses.

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