

Title: Exploring Gene Regulatory Networks and Identification of Therapeutic Targets and Potential Drugs with Diseases among PSP, nvPPA and AD

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Abstract: Bioinformatics conceptualizes biological processes to obtain information from biological data in terms of genomics. Background research demonstrates that Progressive supranuclear palsy (PSP), nonfluent variant primary progressive aphasia (nvPPA), and Alzheimer's disease (AD) share a significant number of biochemical and genetic characteristics. To conduct this study, we collect GEO (Gene Expression Omnibus), datasets from NCBI. The goal of our research are to identify commonly shared differentially expressed genes (DEGs), PPI network, hub genes, higher degree interactions of micro-RNAs and transcriptional factors from gene regulatory networks (GRN), functional assessment with gene ontology for identifying significant biological functions and signaling pathways for therapeutic targets among PSP, nvPPA, and Alzheimer's disease (AD). Additionally, this research aims to provide insights for drug design by exploring gene regulatory networks, and protein-drug interactions, contributing to the development of effective treatments.

Keywords: Proteins , Drugs , Shape , Databases , Biological processes , Color , Aphasia , Gene expression , Alzheimer's disease , Bioinformatics

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