Role of Proteomics in Identification of New Targets for Drug Discovery And New Biomarkers for Diagnosis and Prognosis of Diseases

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deshdeepak singh

Abstract

Proteomics is emerging technology that is approach to the study of complete complement of protein, trnascriptomics and genomics disparity in large scale as a result of beneficial in drug discovery and development process. A handful of disease biomarker is at present worn usually for population screening disease identification, prediction, monitoring of therapy, and expect of therapeutic response. Unluckily, most of the biomarker goes through from low sensitivity, specificity, and prognostic value mainly to unusual disease in inhabitant's transmission program. Require new disease biomarkers so as to will additional improve our ability to detect, prognoses, and predict therapeutic response in many types of disease. Novel biomarker discovery and drug target justification are highly complex and supply-rigorous processes, requiring an integral use of various tools, approaches and information. The newly developed proteomic technology features elevated-throughput similar examination of thousands of proteins in individual patients and amount populations and thus opens up the opportunity of given that more details at a global level on the molecular mechanisms. With frequently efficient public databases, bioinformatics can contribute to these processes by providing functional information of target candidates and correlating this information to the biological pathways. In this review, we summarize up to role of drug discovery date advance of bioinformatics application in proteomic research on biomarker discovery and drug target rationale. Particularly, we highlight how Proteomics in identification of new targets for drug discovery and new biomarkers for diagnosis and prognosis of diseases can facilitate the proteomic studies of biomarker identification and drug target validation.