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TITLE

Biomarker of Neurological Diseases and Drug Discovery: A Metabolomic Approach

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Biomarkers are pharmacological and physiological measurements or specific biochemicals in the body that have a particular molecular feature that makes them useful for measuring the progress of disease or the effects of treatment. Due to the complexity of neurological disorders, it is very difficult to have perfect markers. Brain diseases require plenty of markers to reflect the metabolic impairment of different brain cells. The recent introduction of the metabolomic approach helps the study of neurological diseases based on profiling a multitude of biochemical components related to brain metabolism. This review is a trial to elucidate the possibility to use this approach to identify plasma metabolic markers related to neurological disorders. Previous trials using different metabolomic analyses including nuclear magnetic resonance spectroscopy, gas chromatography combined with mass spectrometry, liquid chromatography combined with mass spectrometry, and capillary electrophoresis will be traced. Role of biomarkers in drug discovery and delivery will be discussed in detail.

Biography

Afaf El-Ansary has completed her Ph.D at the age of 32 years from Ain Shams University, Egypt. She is a Professor in Biochemistry Department, King Saud University. She has published more than 70 papers in reputed journals and serving as reviewer in many international journals within the scope of her research interest.