

Foodomics: A New Approach to The Influence of Nutrition on The Health of Biological Systems

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Industrialization and developing technologies caused many changes in human being's life style. Among different aspects of these changes, food and nutrition have the most effects on people's life. In recent years, studying the effect of food on human's health and well-being leads to emerging new field of study named "foodomics". The definition of Foodomics as a simple example is: the expression of the gene expression, expression of the protein, and expression of the metabolites in a biological system in a controlled state and treated by different foodstuffs. Then, by comparing the two states, biological markers can be used as indicators affected by food extraction and then construct a model of food effect on the system. In foodomics the aim is to study the impact of different foods and nutrition on biological systems. Researchers in this area use high-throughput technologies like genomics, transcriptomics and metabolomics to define biological systems components threatened by foods and then determine the influence of those foods on systems. In this article the purpose is to review why foodomics has been emerged and in continue some bioinformatics and systems biology methods that have application in foodomics have been explained.

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