

## Personalized Nutrition: An Ancient Concept in Iranian Traditional Medicine

Dear Editor,

Conventionally, nutrition is considered as an essential determinant health-related factor. It influences both preventive and therapeutic aspects of human health and disease.<sup>[1]</sup> Either quantity or quality of the nutrition is emphasized to warrant the fitness.<sup>[2]</sup> Nowadays, along with the appearance of some new high-throughput technologies and some comprehensive advanced features of nutrition has been developed using personalized genomic data.<sup>[3]</sup> Nutrigenomic and nutrigenetics are two newfound scientific disciplines focusing on personalized nutrition according to genomic and genetic variations in different persons.<sup>[4]</sup> Nutrients present, accordingly, different metabolic behaviors among the people attributed to their variable genomic context.

All omics data including genomics, transcriptomics, proteomics, and metabolomics relevant to nutrition could be analyzed through the high-density microarrays and some other high-throughput technologies.<sup>[5]</sup> These advanced, however, expensive methods help to differentiate the persons regarding the nutrition-related molecular variants. Hence, personalized nutritional advices may be prescribed according to these individual variants. For example, some recent studies have shown that several particular genomic variants within estrogen receptor 1 gene and Vitamin D receptor gene are in correlation with different metabolic profiles after using Ca and Vitamin D supplements.<sup>[6]</sup> These personalized molecular features could be used to predict the advantages and disadvantages attributed to the prescription of the nutraceuticals.

Iranian traditional medicine (ITM) is an ancient medical school with several 1000-year-old. According to ITM, every person has an individualized temper or “*Mizaj*” which should be considered in the nutritional options. On the other hand, all foods and beverages have a temper special to itself.<sup>[7,8]</sup> A person would be healthy if there is a balanced state with his/her basic temperament. Interestingly, according to ITM, a diet may be advised to someone but not useful to another, regarding their individual temper.<sup>[9]</sup> For example, a cold, dry-temper person may feel better with a warm wet fruit such as fig than a cold dry fruit such as cherry. Drinking water may also be more useful in the persons with hot nature of the stomach in comparison to the cold temper stomach people.<sup>[7]</sup> Moreover, long-term consumption of the incompatible diets could lead to some disorders due to the accumulation and sediment of the bad humors in the vital organs.<sup>[10]</sup> Moreover, seasonal and geographical differences in climate have been also considered in nutritional habits according to ITM.<sup>[8]</sup>

Now, there is an important question: whether the personalized nutrition in the current classic medicine

according to the advanced microarray technologies is compatible with the personalized nutrition in ITM according to the individual tempers? Unfortunately, no study has been run to evaluate this key question at molecular levels. It seems that designing some studies to investigate the molecular association between the different body tempers and nutrition-related signaling pathways could be uncovered the truth.

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### Conflicts of interest

There are no conflicts of interest.

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