Editorial

Application of High-Throughput Findings in Medicine

Widespread development of genomics, proteomics and the other omics-es provided great amounts of data in the field of medicine. Biomarker discovery attracted attention of scientists and researchers in the fields of biochemistry, bioinformatics, biostatistics, genetics, biophysics and medicine. It is expected that this advancement should be accompanied with significant impact in the diagnosis and therapeutic aspects of medicine. The main part of omics-es findings are related to cancer and other malignant diseases study. In spite of vast amount of data obtained from these studies, life threatening diseases such as cancer is still the main issue in today human life.That is, only nominal progress in diagnosis and therapeutic aspects of cancer is achieved by enormous improvement of tools and methods.The medical labs present services as in the past.In addition, application of new biomarkers in medicine is not significant.It seems that the great value of data provided by omics-es could not be applied in the medical fields. This is regarded to two main individual problems: firstly, Inadequate capacity in medical field for high-throughput data application; andsecondly, the high-throughput data are not validated as it is required in medicine.For achieving an appropriate approach, it can be proposed that medical perspective should change to a global vision; in other words, a certain disease to be considered as a part of a systemic disorder. On the other hand, the scientists in the omics-es fields should develop their expertise in the vertical manner. In a way that, data analysis should move towards the development of applicabletoolsin medical field. It can be concluded that improvement of omics-es analysis in addition to change of physicians' perspective about diseases can provided valuable strategies for patients'diagnosis and treatment monitoringgoals.

Mostafa Rezaei-Tavirani
Proteomics Research Center, ShahidBeheshti University of Medical Sciences, Tehran, Iran