Translational Medicine: A New Global Scientific Competition

N. Parsa*[1], F. Ghamari [2], Ali A. Moosavi-Movahedi[2]

After the completion of human genome sequencing in 2003, the field of translational medicine was created to expedite the conversion of the basic and clinical research into effective therapy and medical devices applicable for patient care. Translational medicine is the synergy between epidemiology, basic and clinical research with diversified impacts on the institutions, clinicians, scientists, patients, investors, policy makers and general public. Current scientific vision is somehow different from the traditional research direction. The difference is the enhanced awareness about the difficulties of reaching scientific goals. These difficulties include scientific challenges, outdated infrastructures, cost, licensing, and length of clinical testing and lack of well-trained scientists that all could affect the medical application. Despite the shortcomings, future of translational medicine is still promising by providing highly trained translational research scientists that can engage with patient, laboratory, industry and government. Most developed countries are going forward strongly by investing on their trained scientists and suitable scientific projects which will warrant a profitable future. In this article, we will discuss the processes, obstacles, opportunities and challenges of translational medicine in countries where they are undisputed scientific leaders in this field in comparison with Islamic Republic of Iran.

Keywords: Translational Medicine, Health Care, Applied Research, Global Scientific Vision.

*Corresponding author, Prof. Emails: nzparsa@yahoo.com
1. National Institutes of Health, USA.
2. Institute of Biochemistry and Biophysics (IBB), University of Tehran, Iran.