

## The Economic Aspects of Medical Biotechnology

The biotechnology industry has grown rapidly in recent years, doubling in size between 2004 and 2014. Much attention is given to the potential of the biotechnology industry, from drugs and environmental products currently in the pipeline. These products have the potential to generate tremendous opportunities for society, by improving the quality of health care and producing a cleaner environment. Over the past few decades biotechnology sometimes described as the oldest profession in the world has evolved into a modern technology without which medical progress would be scarcely imaginable. Modern biotechnology plays a crucial role both in the elucidation of the molecular causes of disease and in the development of new diagnostic methods and better targeted drugs. Diagnosis and treatment are thus becoming increasingly intertwined. When a disease, rather than being diagnosed on the basis of more or less vague signs and symptoms, can be detected on the basis of molecular information, the possibility of successful treatment depends largely on what diagnostic techniques are available. Biotechnology is an important component of the worldwide economy, and could take on an increasingly significant role as the industry continues to develop. The economic impact of biotechnology as a distinct industry is currently difficult to evaluate because of the manner in which data is collected; however, it is possible to calculate the combined impact of the biotech and pharmaceutical industries<sup>1,2</sup>.

### References

1. Modabbernia A, Rezaei F, Salehi B, Jafarinia M, Ashrafi M, Tabrizi M, et al. Intranasal oxytocin as an adjunct to risperidone in patients with schizophrenia: an 8-week, randomized, double-blind placebo-controlled study. *CNS Drugs* 2013;27(1):57-65.
2. Hosseini SM, Farokhnia M, Rezaei F, Gougol A, Yekhtaz H, Iranpour N, et al. Intranasal desmopressin as an adjunct to risperidone for negative symptoms of schizophrenia: a randomized, double-blind, placebo-controlled, clinical trial. *Eur Neuropsychopharmacol* 2014;24(6):846-855.

*Shahin Akhondzadeh, Ph.D., FBPharmacolS*  
*Editor in Chief*