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Amro Abd-Al-Fattah Amara, ‘ Pharmaceutical and industrial protein engineering: Where are we?’ Pakistan, Journal of pharmaceuticals, 26. 1, (2013): 217-232. Print.
The huge information amount and the considerable number of scientists and their endeavors, funds, laboratories, human capacity, and companies together with other factors contribute in the success of the incredible novel branch of genetic engineering known as protein engineering. This entails modification of protein functions/structure or protein construction from scratch. The engineered proteins normally have novel criteria. Engineering proteins can be mediated on the protein or genes level. Protein engineering has found its way in various crucial sectors, which include medicinal, pharmaceutical, and industrial. This article discusses aspects of protein engineering and how it is applied. Additionally, the tools, concept and protein industrial application, engineered proteins and protein engineering are evaluated. To get knowledge that is up to date about protein engineering application in basic protein and molecular biology various examples are examined (Amara 217). Protein engineering can play an important role in various industrial and pharmaceutical sectors if it is utilized effectively and selectively.
This article evaluates various works written by different professionals concerning the protein engineering to get wider knowledge on the subject. The definition of protein is stated as macromolecules taking part in all processes of various cells. They work together to attain a certain function (Yuan, 556). Various advances have been made to improve the protein selectivity, stability and their catalytic activities; these include cloning, sub-cloning, DNA isolation and purification, new expression systems in eukaryotic and prokaryotic cells, gene synthesis and site-directed mutagenesis. In improvement of protein preparation quality, there are many concepts for a given application. Protein engineering is a systematic and sensitive process that may be broken down in the event that a mistake is committed.

## Work cited

Amro Abd-Al-Fattah Amara, ‘ Pharmaceutical and industrial protein engineering: Where are we?’ Pakistan, Journal of pharmaceuticals, 26. 1, (2013): 217-232. Print.
Tom Yuan, Cathie Overstreet, Issa Moody, Gregory Weiss, ‘ Protein engineering with biosynthesized libraries from Bordetella Bronchiseptica’ Bacteriophage. PLoS ONE, 8. 2 (2013): e556-17. Print