

Biotechnology Application in Medicine

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ARTICLE INFO

Received: 📅 March 18, 2024

Published: 📅 March 26, 2024

Citation: Elham Khalesi. Biotechnology Application in Medicine. Biomed J Sci & Tech Res 55(5)-2024. BJSTR.MS.ID.008757.

ABSTRACT

In this illustration, relation of Electronics technology in this days and other sciences such as Biology or Nano. Medicine has been described. In this situation, I want to observe my new ideas about bioinformatics application in Medicine. In my view for cureness of many dangerous illness such as cancer, diabet and neuro. illnesses we can observe methods based on bioinformatics science and programming. For cure of illnesses that is related to Gen of persons, we can obtain gen. correction by having gen of that illness such as diabet. In this paper, I proposed new idea for patients who have injured neurons in brain. Nowadays Neural Network and Artifitule Intelligence has been subject of many researchers to solve Neural Networks. By information of CNN and it's theory it will be solved some questions about NeuroScience.

Keywords: Neurons; Brain; Bioinformatics; Machine Learning; Biosensors; Gene Correction

Introduction

In this paper, I have reviewed the technology of Bio.electronics. This science nowadays in many branches of technology has influenced specially in Medicine and electronics technology that in continue I illustrate. For this paper from article has been helped that in references has come [1].

Bio. Sensors

The name is a group of sensors designed to react only with a specific substance called analyte that can react chemicals, toxins, toxic gases, etc. Biosensor technology is a combination of biochemistry, molecular biology, chemistry, physics, chemistry, physics, electronics and computers [2]. It is used in various medical sciences, chemical industry, food industry, environmental monitoring, pharmaceutical and health care products, etc. The definition of the International Union of Chemistry (IUPAC), a biosensor is a device that, by means of specific biochemical reactions or through isolated enzymes, tissues, or cellules, detects chemical elements of the material in question, usually electronically, lightly, or thermally. The first biosensor is made to measure blood sugar. DNA-based biosensors with the aim of detecting people's DNA are useful tools to detect mutations and genetic defects

as well as pathogens [3]. In my view, Bio. Technology , Bio. Chemistry and Genetics can solve Bio. Molecular tecniques. In this method Bio. Farming can be solved. In fact, Theory by help computer Programming and Bio. Informatics is a solution for many sides of science.

Gen.Generation . and Gen.Correction

Bio.informatics has a big relation to genetics engineering. By coding gene and translate, change or creat code, we can play cureness [4]. Also, for cure each illness that is related to correct gene, by codes in program we can correct gene to initiate gene and remove the illness for ever. This is my mind, you can do proof it.

Assessment of Alzheimer Illness

It is obvius there is relation between gene and protein brain nerves. Main cause of this illness or demance is abnormal build. up protein in and around brain cells plaques are deposits fragment called beta_ amyloid that build up in the spaces between nerve cells [5]. In my idea for cureness, we are related to correct protein that polted as beta_ amyloid between proteins can have connect. Maybe correction gene by Help bio. informatics methods helps this idea. or other methods of drugs to correct gen in protein and illuminate beta [6]. amyloid for cureness of gen and protein brain, solve thid illness.

Bio. Chemistry and Bio. Informatics

For cure many dangerous illnesses such as cancer and genetical illnesses, combination of Bio. Informatics science and new forms of Bio. Chemistry would be helpful. Even for Enzym. therapy and Hormon [7]. Therapy has been mixed by Bio. Informatics and Pharmacology chemistry.

Various Type Learning Algorithms and Applications

Deep learning in my idea, can be use a for Neural Language Processing, also Computer. Vision and Image Processing and There are tools for deep learning such as CAFFE, TENSOR, TORCH, FLOW (Python, C++) and ... CNN is convolutional neural networks.

Neural Signalling

The brain is adapted at information about body and its environment. Such information must be proceed within illnesses, also it can be stored as memories that endure for years. Neurons perform this function by generating electrical and chemical signals. These signals are generated at synaptic connections between nerve cells. The cellular and molecular mechanism this unique signaling abilities are targets deep poisenes that compromise the function of the nervous system. Function of the nervous system nervos employ several different types of electrical signals to encode and transfer information. The voltage clamp technique is an electrical feedback method that allows control of neurons membrane potential and, simultanteosly, direct measurement of the voltage dependent fluxes of Na⁺ and K⁺ that produce the action potential. The flow of Ions through single open channels can be detected as tiny eelectrical currents, and the synchronous opening of many channels, generate the macroscopic currents that produce action potential and other elecctrical signals.

Deep. Learning for Neurons

Neural Network is a network of interconnected of interconnect-ed nerves. Neurons can be biological (that there is in human brain) or Artifitual. Some forms of Neural Networks can not be mapped to function of human brain and biological Neurons, Because biological Neurons have only two output: on and off.

There are three main components :

- 1) The dandrits that receive the input signals,
- 2) The cell body where the signal is processed in some forms,
- 3) The tail-like axon through which is transform the signal out to the next neurons.

The goal of all supervised machine learning algorithms is to best estimate target function(f) that maps input data(X) onto output ari-able(Y). Different algorithms will be used to form machine larning from X to Y. Common algorithm by using gradient descent are Linear Regression and Logestic Regression. Neurologists have long recog-nized that patients who suffer injuries in brain region can be covered a repair in brain neurons. In some sampels, we applied this category and 80% of brain got healthy state in patient.

Conclusion

There are types of Neural Repair, but in my openion, signaling of healthy brain toward damaged brain neuros by help a algorithm that we leant in before lines for machine learning is a method to injured neurons to recover themselves. It means by mapping of healthy brain signals to patient we behave machine. learning for injured neurons to get healthy.

References

1. Jason Brownlee (2016) Master Machine Learning Algorithms Discover How They Work and Implement Them from Scratch Edition v1.1
2. Dale Purves, George J Augustine David Fitzpatrick (2018) Neuroscience, (6th Edn.), Oxfords University Press.
3. Ivan Vasilev, Daniel Slater, Gianmorio Spacagna (2019) Python Deep Learning (2nd Edn.), Packt Publishing.
4. Roger P Simon, Michael J Aminoff, David A, Greenberg (2018) Clinical Neu- rology, (10th Edn.), by McGraw-Hill Education.
5. Fabio Biscarini, Eugenio Coronado, Anna Painelle (2021) Materials for molecules electronics and magnetism. Journal of Material Chemistry C.
6. Pamelo Allesio Manco Urbina, Marcello Berto, Matteo Sensi a, Simone Borghia, et al. (2021) Physics applied from fumkin isotherm to electro- lyte gated organic transistors as protein bio.sensors. Journal of Material Chemistry C 33.
7. Fabio Biscarini, Eugenio Coronado, Anna Painelle Effects of molecular ge- ometry and extended conjugation on the performance of hydrogen-bond- ed semiconductors in organic thin.film field effect Transistor.

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2024.55.008757

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