

# A New Gene Transfer Treatment for Various Diseases with Antibiotic Spray

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## Abstract

The human body is purely made up of cells. Cells are the basic building blocks of human beings. Generally a human body is made up of trillion of cells, which creates the structure for the human body. These take nutrients from the food and convert that in to energy. In basis Most of the diseases are caused by viruses. This paper proposes the new method of gene transfer treatment to recover the patients from the affected various diseases. By good cells to the patients can recover from the diseases. This paper provides a solution to transfer the antibacterial sprayed good cell.

**Keywords**— Antibiotic, Human cell structure, viruses, DNA

## I. INTRODUCION

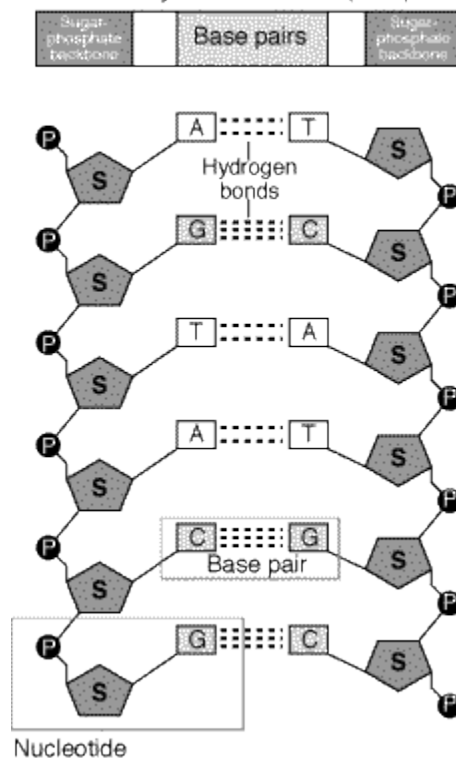
Generally body of all the living organisms are made up of trillion of cells the structure of the humans are depends on the cell. The diseases are affected the human via injuries, nose and mouth. The viruses affect the cell and kill the tissues of our body. By transferring good cells to the host cells the virus affected cells can be rectified. The gene is transferred between the organisms with different level of same DNA structure. The hosted gene on the patient's cell is reacting with the living virus of the host cell. Generally virus spread in the environment which is waiting for the host cell to get a home and food for that. They can enter us through the nose, injuries and mouth to affect the host cell. The remaining part of the paper will discusses about genes, DNA, antibiotic and human cell structure.

## II. DNA

Deoxyribonucleic acid (DNA) is a blueprint for building the structure of human body. DNA is further classified as nuclear DNA and mitochondrial DNA. The DNA is made up of four chemical base; guanine, cytosine, adenine and thymine. The DNA consist of three billion base most of the base are same for all human beings. All the base pair of the DNA are connected with sugar molecular and phosphate molecular these are called nucleotide. The nucleotides are arranged as a ladder with base pair, the important

property of the DNA is replicate which makes the copies itself.

**Fig.1 DNA Chemical formation**  
Deoxyribonucleic Acid (DNA)



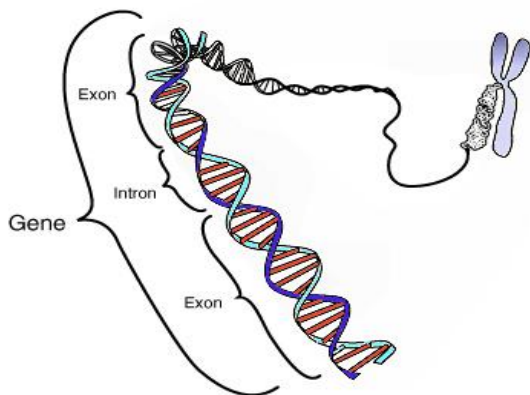
## III. GENE

The gene of humans are fully made up of DNA, Every human has two copies of a gene which are inherited from the parent. The genes are act as a blue print to design the human structure and characteristics'. Chromosomes are attached with human genes which are the proteins. The different characteristics of nucleotides provide different characteristics for the human beings. For example the combination of AAACCGGTTTAA makes blue eyes. The gene decides the following:

- Color of your skin
- Color of your hair

- Whether you tall or short
- Whether you are good in sports or not
- How you response for the environment

Fig.2 Gene structure



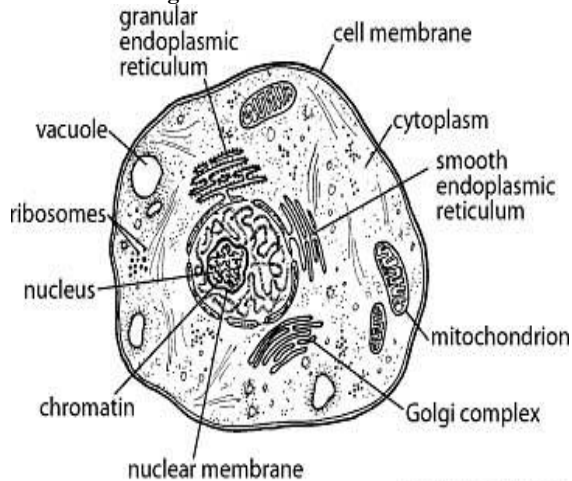
#### IV. HUMAN CELL STRUCTURE

The cell is the basic building blocks of all human beings, some organisms has only one cell called unicellular and all the animals and human beings has more number of cell called multi cellular. There are around 200 types of cells in human body. Some of the specialized cells of the human body are as follows;

- Epithelial cell
- Nerve cell
- Exocrine cells
- Endocrine cells
- Red blood cells
- White blood cells

The size of the human cells are very tiny, we can see that only with the help of microscope equipment.

Fig.3 Structure of Human Cells



Laurel Cook Lhowe

The human cell consists of nucleus, lysosomes, mitochondria, ribosomes, endoplasmic

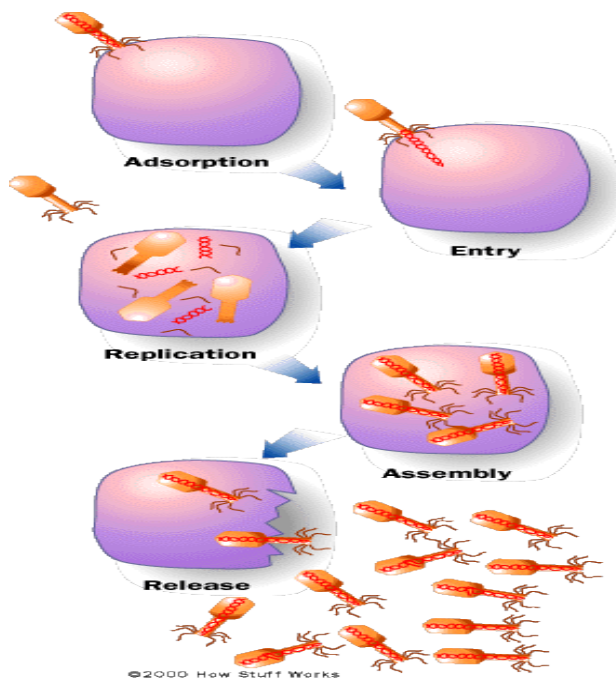
reticulum, plasma membrane and Golgi apparatus. The parts of the cell having different functions.

#### V. VIRUS AND BACTERIA

Virus is small organisms which are lies around our environment; it always seeks for the host cell of humans. It enters the human body via through nose and mouth. The lytic cycles of the viruses are following

- A virus attached with the host cell.
- The virus particle releases its genetic instructions into host cell.
- The injected particles offer the host cell enzymes.
- Enzymes produce more new virus particles.
- The new particles assembles the new virus
- Finally viruses are break from the host cell.

Fig.4 Function of Virus



#### VI. GENE THERAPY

Gene therapy is a one kind of treatment to the seek patients. This method of treatment alters the genes of patient's body cell to cure the disease. The operations behind the gene therapy are to transferring the good cell from one person body to the host cell of the patients to repair their cells as it is. These hosted genes are work on the host cell structure to reconstruct the good cell and improve the immunity of the cell.

Some of the applications of the gene therapy are as follows

- Acquiring damaged tissues
- Prevention of irradiation damages to the SGs

- To potentiate biological damages
- Transfer of non-microbial toxic gene
- Regulated expression of toxic gene

If the gene is directly inserted in to the host cell it does not works properly. So that vector is designed to deliver the gene, generally virus release more number of new genes, which helps to host the new cell in to the targeted patient's body. These types of virus are specially designed so which are not create new disease. The vectors are directly injected in to the human body. The sample tissues are taken from the patient body and the vector is inserted with this tissue and replaced with the patient. The new approach behind the gene therapy is based on antibiotic gene therapy. This antibiotic creates immunity and minimizing the virus reproduction. Penicillin is a good antibiotic chemical for all types of bacteria and other infectious diseases. In this approach the antibiotic chemicals are combined with the vector cell of infectious tissues. This provides more immunity to kill the damaged cells and tissues and replace the good cells after some period. Because there is more chance to get infection on new cells which are transfers to the host cell so that the injected antibiotic with the vector of engineered cell is replaced on the host cell, which are more effective than any other gene therapy.

## **VII.CONCLUSION**

There are more types are gene therapy are available such as Germ line gene therapy, somatic gene therapy, etc., year by year the disadvantages of the previous methods are rectified and even though the problems are identified and rectified. There is some limits for the applications of gene therapy. The limitation of gene therapy is taken as a future work to minimizing the limitations on the application of the gene transfer.

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