

Genetic Engineering: A Hope for Tomorrow

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Editorial

More than 30 years ago when I started my clinical practice, we did not manage only the diseases, but sometimes we have to treat side effects of available medicine. Pork insulin was the insulin available to treat type1 diabetes, and antibodies to insulin were a big problem to the patients.

At that time, Paul Berg, Stanley Cohen and Herbert Boyer were paving the way to a new era in medicine; genetic engineering. They have given a gift to the man when they developed the gene-transfer technique. Actually Paul Berg is the "father of genetic engineering".

In everyday life we have some application for genetic engineering, in agriculture and industries.

In medicine, Insulin [1], growth hormone [2] are now available and produced by genetic engineering with no or minimal side effects. Other products like monoclonal antibodies and vaccines are also available.

Genetics has a role as an etiology in hereditary diseases due to errors in DNA sequencing.

Analysis of human DNA is the main aim of the human genome project (HGP), and consequently genetic mapping is really one of its important tools.

One of the great values of genetic maps is the discovery of the gene responsible for single-gene inherited disorders such as cystic fibrosis and Duchenne muscular dystrophy as well as mapping of the genes that are responsible for polymorphic inheritance in the diseases like cancer, diabetes, and psychiatry [3].

Nowadays, DNA-processing nano computer is aiming to analyze DNA to detect any abnormality as well as to help to correct this abnormality [4].

Gene therapy offers some hope for cure by providing the patients with correct copies of a gene. One example is gene therapy of Duchenne muscular dystrophy [5].

This rapid growth in genetic started by the gene-transfer technique, and it is still rapidly growing.

In the future can we able to cure all diseases?

Is it possible to correct all hereditary disease?

Do we have a hope and a dream?

The answer start and end in a laboratory with DNA sequencing, where we can meet the future.

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