

Fundamentals of natural science



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Running Head: SCIENTIFIC PROGRESS Progress of Scientific Discovery

regarding Genetics of Progress of Scientific Discovery regarding Genetics

Fundamentals of natural sciences have made it evident over the time that human living processes and environment around living things constantly undergo changes. These changes have been noted over the time because of natural events. Every time a distinctive attributes of a physical or chemical change were noted, scientists had undergone progress in discovery. This paper generalizes regarding genetics discovery progress over time.

In the contemporary field of genetics, a great of information is evident due to the context of discovery investigation in the context of breeding tests, biochemistry and cytology. Earlier, it was noted that scientific studies made the presence of gene and their transmission from one generation to another. But with the increased progress of scientific research allowed understanding regarding the mechanism in which genes would work (Bunch & Hellemans, 2004).

The process of scientific research to renew the facts about mechanism of operation of gene in the body was greatly debated. Initially, researchers believed that it was impossible to find the particles and molecules making up several arrangements. Later on, it was observed that scientists made use of three-dimensional structure of DNA to evaluate the biochemical functioning (Treichel, 2008).

By 1930s, scientists found out the correlation between the chromosomes and linkage of different molecules which ultimately led in the development of scientific study noting the mechanism in which genes work. This progress in the scientific study led in the correct knowledge of cytological information. During the experimentation for evaluating mechanism of genes, it was

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observed that new born babies had dominating features from the families of their parents. This made it evident that the mechanism of genes was greatly controlled by some other component of gene. It was for this reason that Walter Flemming studied the addition of another component in genes. Walter discovered that every cell had a nuclein which was also controlling the cell nucleus. But even then the relationship between both the components was not established with practical experimentation (Bunch & Hellemans, 2004). In order to understand as to why babies had exactly the same features as family side including eye color and other facial features, Oscar Hertwig conducted experimentation. It was noted in his experiment of observing sea urchins. The reason behind his consideration of sea urchins as the best experimental subject because its eggs are relatively bigger in size and are translucent which made it easier for Hertwig to evaluate the injection of nucleus control through sperm cells. The continuous events of hereditary has allowed us to understand the fact that even the replication of DNA can be undertaken as the field of genetics have greatly developed by continuous scientific progress (Treichel, 2008).

Through the above analysis, it could be said that the facts and figures of genetics, structure of genes and their working mechanism are apparent to us due to the continuous progress of scientific discovery. It is the fundamental of natural science that changes keep on occurring in terms of physical and chemical processes. Initially, genetics was limited to structure but now humans are able to replicate DNA with the help of scientific progress.

References

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