

A Brief View of Medical and Molecular Biology

Asifa Zerial*

Department of Immunology, Max Planck Institute of Immunobiology and Epigenetics, Freiburg, Germany

Description

Molecular Biology is that the field of biology that studies the composition, structure and interactions of cellular molecules like nucleic acids and proteins that perform the biological processes essential for the cell's functions and maintenance. Molecular biology also plays important role in understanding formations, actions, and regulations of various parts of cells which can be used to efficiently target new drugs, diagnose disease, and understand the physiology of the cell.

The area of science comprises of macromolecules and along these lines the macromolecular systems found in living things, similar to the sub-atomic nature of the quality and its instruments of quality replication, transformation, and articulation. The central significance of these macromolecular instruments, since the commencement of sub-atomic science, a philosophical spotlight on the idea of a system produces the clearest image of sub-atomic science's set of experiences, ideas, and contextual analyses used by scholars of science.

The specific techniques utilized in biology are native to the sector but can also be combined with methods and ideas concerning genetics and biochemistry, so there's no big distinction made between these disciplines. However, when the fields are considered independently of every other, biochemistry concerns chemical materials and essential processes that happen in living organisms. The role, function and structure of biomolecules are key areas of focus among biochemists, as is that the chemistry behind biological functions and therefore the production of biomolecules.

Genetics cares with the consequences of genes on living organisms, which are often examined through "knock-out" studies, where animal models are designed in order that they lack one or more genes compared to a "wild type" or regular phenotype.

Molecular biology looks at the molecular mechanisms behind processes like replication, transcription, translation and cell function. One way to explain the idea of biology is to mention it concerns understanding how genes are transcribed into RNA and the way RNA is then translated into protein. However, this simplified picture is currently be reconsidered and revised because of new discoveries concerning the roles of RNA.

The field of biology overlaps with biology and chemistry and especially, genetics and biochemistry. A key area of biology concerns understanding how various cellular systems interact in terms of the way DNA, RNA and protein synthesis function. The concepts of mechanism, information, and gene all figured quite prominently within the history of biology. Philosophers, in turn, have focused an excellent deal of attention on these concepts so as to know how they need been, are, and will be used.

Molecular biologists can also seek to understand ways the structure of a molecule, including details such as the location and shape of active sites on a protein, affect how a molecule functions. Collecting this information not only provides basic knowledge into how biology works, but helps inform the efforts of other scientists who seek to manipulate that biology. Those scientists include drug designers and genetic engineers. Molecular biology has much in common with two related sciences: biochemistry and genetics. The three sciences all concern themselves with details of how organisms work at the molecular level. However, each focuses on a different area and has different applications.

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* **Address for Correspondence:** Asifa Zerial, Department of Immunology, Max Planck Institute of Immunobiology and Epigenetics, Freiburg, Germany, E- mail: aerial@immunbio.mpg.de

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