

# Review on Microbiology and Molecular Biology

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**Abstract:** *Microbiology is the study of microorganisms biological entities too small to be seen with the unaided eye. Most major advances in microbiology have occurred within the past 150 years, and several important subdisciplines of microbiology have developed during this time, including microbial ecology, molecular biology, immunology, industrial microbiology and biotechnology. Microorganisms of various types exist in all three domains of life (the Bacteria, Archaea and Eukarya), and they are by far the most abundant life forms on Earth. Microscopic biological agents include bacteria, archaea, protists (protozoa and algae), fungi, parasitic worms (helminths) and viruses. Although a small percentage of microorganisms are harmful to certain plants and animals and may cause serious disease in humans, the vast majority of microorganisms provide beneficial services, such as assisting in water purification and the production of certain foods, and many are essential for the proper functioning of Earth's ecosystems. Molecular biology has revolutionized our understanding of the diversity, function, and community structure of marine microorganisms. Increasingly, tools and techniques derived from the biomedical diagnostics and research industries are used in parallel with sensors that characterize the physical, chemical, and optical properties of ocean waters.*

**Keywords:** Microbiology

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