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Medical Microbiology Reports

Editorial

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Bacteria in Human Health and Disease

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Editorial

Microbiology is the study of microscopic organisms, such as bacteria, viruses, archaea, fungi and protozoa. This discipline includes fundamental research on the biochemistry, physiology, cell biology, ecology, evolution and clinical aspects of microorganisms, including the host response to these agents. Eukaryotic microorganisms possess membrane-bound organelles and include fungi and protists, whereas prokaryotic organisms all of which are microorganisms are conventionally classified as lacking membrane-bound organelles and include Bacteria and Archaea. Microbiologists traditionally relied on culture, staining, and microscopy. However, less than 1% of the microorganisms present in common environments can be cultured in isolation using current means. Microbiologists often rely on molecular biology tools such as DNA sequence based identification, for example 16s rRNA gene sequence used for bacteria identification.

Bacteria are classified into 5 groups according to their basic shapes: spherical (cocci), rod (bacilli), spiral (spirilla), comma (vibrios) or corkscrew (spirochaetes). They can exist as single cells, in pairs, chains or clusters. Art work of bacterial cells becoming resistant to antibiotics.

Bacteria can be beneficial as well as detrimental to human health. Commensal, or "friendly" bacteria, share space and resources within our bodies and tend to be helpful. There are about 10 times more microbial cells than human cells in our bodies; the highest numbers of microbial species are found in the gut, according to microbiologist article in Nature. The human gut is a comfortable setting for bacteria, with plenty of nutrients available for their sustenance. Other microorganisms, such as helpful strains of E.coli and Streptococcus, aid in digestion, stave off colonization by harmful pathogens, and help to develop the immune system. Moreover, the disruption of gut bacteria has been linked to certain disease conditions. For instance, patients with Crohn's disease have an increased immune response against gut bacteria.

An important facet of combating antibiotic resistance is to be careful about their use. "It's so important for us to use antibiotics intelligently," Crnich told LiveScience. "You only want to use an antibiotic when you have a clear-cut bacterial infection." In cases of antibiotic resistance, the infectious bacteria are no longer susceptible to previously effective antibiotics. According to the CDC, at least 2 million people in the U.S. are infected with antibiotic-resistant bacteria every year, leading to the death of at least 23,000 people.

I would like to express my views about this journal as it mainly focus on the research in Blood and Hematologic Diseases covering all the research areas of Bacteriology, Mycology, Protozoology, Phycology/algology, Parasitology, Immunology, Virology, Nematology, bacteria, archaea, protozoa, algae, fungi, viruses. Viruses have been variably classified as organisms, as they have been considered either as very simple microorganisms or very complex molecules. Prions, never considered as microorganisms, have been investigated by virologists, however, as the clinical effects traced to them were originally presumed due to chronic viral infections, and virologists took search discovering "infectious proteins".

Journal of Medical Microbiology Reports began in the year 2017 and got support from the patrons just as the endorsers. Journal keeps on distributing new research on all parts of Microbiology. Nonetheless, the editors are acutely mindful that in specific fields, for example, Microbiology framework and are on edge to make great such insufficiencies and welcome the accommodation both of reports on close to home research and of wide running studies. The support of suitable entries is one of the primary duties of the Advisory Editorial Board, and arrangements to it have consistently been made with the end goal of expanding association in the Journal.