

THE ORIGIN OF MICROBIOLOGY AND ITS DIFFERENCES WITH BIOLOGY

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ANNOTATION

This article discusses the origin of microbiology, the fact that the first systematic system of microorganisms applies to Danish Myuller, microbiology cannot be seen with a very small, simple eye.

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The opening of microorganisms was directly related to the discovery of the microscope. Among the first, microscopes were created and improved by Gans and Zaharian Yansen, sungra G. Galiles, and K. Drebbel.

Dutch scientist Anton van Levenhuk (1632-1723) used a microscope he made to examine samples such as dirty water, liquids of various organic matter—boils of various substances, toothpaste, and describes the forms of microorganisms in his book *The Secrets of Medicine* discovered by Anton Levenhuk (1695).

The first microscope in Russia was discovered by Ivan Belyayev and Ivan Kulibins.

Russian scientist D. S. Samoylovich (1744-1805) examined the causative agent of chuma disease using a microscope and proposed a way to vaccinate people against the disease. His invention was the basis for studying the cause of other infectious diseases. English physician E. Djenner (1749-1823) showed that vaccination against chewing gum was important in 1798. Since the second half of the 19th century, much improved microscopes have been created. This allowed the microorganisms to study notonly the morphological absorption of nys, but also the physiology of the nynder. Since the opening of the microscope, the work on microorganisms has been done in the history of microbiology, 1 period differs from the "Morphology period of the development of microbiology."

Although Swedish scientist K. Linney (1707-1778) had put all living creatures into one system, he introduced microorganisms into a generation and called them "chaos."

The first systematic of microorganisms applies to The Danish Myuller. Its systematicates "animalcules" in water and soil. He called them "info'zoriyas." Gradually, the study of microorganisms began.

Later, M. Terexovsky also studied the microorganisms of various boils working on microorganisms. In 1835, Erenburg wrote a scientific work on the theme "Infusions are perfect org anesthetics," and it divided all abysmal creatures into 22 classes. He inserted an atlas of infu zoriyas into the book and gave their descriptions, called the microorganismsbinary nomenclature, and divided all bacteria into three classes.

Microbiology is very small, it surrounds microorganisms that are visible only by optical instruments-light or electronic microscopes that are not visible to the ordinary eye. Microbiology is a Greek word meaning micros-may, bios-life, and logos-science. Microbiology is a science that studies the morphology, physiology, biochemistry, genetics, ecology, and

systematics of microscopic organisms, bacteria, ricketts, mycoplasma, viruses, actinomycetes, and microscopic water. Microbiology also tells about the importance of microorganisms in the life of humans, animals, and plants, the exchange of substances in nature, and the role of various infectious diseases in the elimination of various infectious diseases. The world of microorganisms is very rich and diverse. The most common are bacteria belonging to prokaryotes, which are the simplest and smallest organisms. Bacteria, unlike other living organisms, are introduced into the Prokaryota, a separate universe. Microbiology is a relatively young network of biology that grows and progresses day by day. It is closely related to biochemistry, molecular biology, biotechnology, agrochemistry, phytopathology, veterinary medicine, epidemiology, agriculture, industry, sea, geology, genetics, cosmic microbiology, and other subjects. In the food industry, the preparation of sugar, cheese, silage preservation depend on the activity of lactic acid bacteria. Baking, various drinks (alcohol, wine), and so on are also processes involving alcohol. The formation of many useful excavations (torf, stone, oil, iron, sulfur ore) is also associated with bacteria activities. Refracting bacteria break down plant debris, animal bodies and other waste, cleans the earth and ensures the circulation of substances in nature. Microorganisms also play a major role in cleaning dirty water, shattering methane gas in coal mines and clearing air. Many microorganisms have the ability to synthesize various physiologically active substances: enzymes, vitamins, amino acids, biological stimulants, vaccines and antibiotics. For example, *Sarcomitset achitqis* can synthesize between 45 and 50% oxygen. Some bacteria synthesize antibiotics: thyrotricin, batsitratsin, subtilin, polymyxin V. Some bacteria synthesize acetic acid. Actinomycetes: synthesize antibiotics streptomycin, aureomycin, neomycin, tetracycline. That is, actinomycetes synthesize 2/3 of the antibiotics currently known. Microorganisms also play an important role in agriculture, because as a result of their activity, nutrients needed by plants accumulate in the soil, the fertility of the soil increases, as a result of which the yield of crops is also higher. Most of the processes that go in the soil depend on the activity of its microorganisms. For example, the processes of forming soils, land processing, land fertilization, irrigation, loss of physiological work and acidity that occur in the soil, the removal of water from land, the preparation, storage and use of organic fertilizers are related to the activities of microorganisms. The study of nitrogen-collecting microorganisms found in the soil is important in solving the issue of atmospheric nitrogen use. Academician V. L. Omelyansky moves microbes this way: "They (microbes) are everywhere. They will be accompanied by a man's way of life without seeing him." Given that every hectare of land contains 80,000 tons of atmospheric azot, this nitrogen reaches a million years when it comes to plants less. Comparing this with the fact that plants often lack nitrogen, it becomes clear how big microorganisms play in agricultural production. Because nitrogen in the atmosphere is molecular, the plant is not able to absorb it as a food. The resulting rise in seams from the meltwater could spell disaster for hundreds of millions of people. Only some soil microorganisms have such a characteristic.

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