
MODERN METHODS OF TEACHING MEDICAL BIOLOGY

Qo`Ng`Irotova Anorxol Inoyatovna

Teacher, Termez branch of Tashkent Medical Academy

Abstract:

This article deals with the modern methods of teaching medical biology, the history of the subject and developments.

Key words: biology, development, usage, history, science

Introduction

Medical biology (from Greek.βίος, bios, quot; zhiznquot; and λόγος, logo, quot; znaniequot;) - this is the study of life and related issues. It is a branch of empirical science that studies the structure, functions, changes, origin, evolution and death of living organisms. It sorts different organisms, describes their functioning, the emergence of species, their interaction and their relationship with the environment. Biology is divided into various subspecies, such as Botany, Zoology, Physiology. Biology is represented as a science that combines the knowledge system of wildlife. Because in this science, the previously studied facts are included in certain systems from the point of view of historicity, and their quantity makes it possible to determine the Basic Laws of the Organic World.

Main part

On the basis of these laws, rational management, protection and reproduction of nature are carried out. Currently, the following research methods are used in various fields of biology. Among them there are observations, comparisons, historical and experimental methods. Method of observation. This is one of the oldest ways that it is possible to describe, describe any biological phenomenon. Later this method was widely used in the identification of species. K in this area. Linni has achieved great success. This method has not lost its relevance today. Biology (biology... V..Logia) is a complex of Wildlife Sciences. B. he studies all the manifestations of life: the structure and functions of living organisms and natural communities, the origin and spread of living beings, their interaction between them and nature. B. the main task is to study the patterns of manifestation of a living nature, to reveal the essence of life, to systematize living organisms. "B. the term was first introduced by JK. B. Lamarck and G. R Treviranus offered. This term is T. Rose (1797) and K. ham three in the works of de burda (1800). System of Biological Sciences. B. it consists of several disciplines. B. on the object of the study. it is divided into Botany (a science that studies plants), Zoology (a science that studies animals), aiatomy and human physiology (a science that studies the structure and

function of the human body), Microbiology (a science that studies microorganisms) and hydrobiology (a science of water organisms). These subjects, in turn, are divided into several small areas. At the same time B. as a result of the merger of Science with each other and with other sciences, several complex Sciences (for example, cytogenetics, cytoembriology, environmental genetics, and environmental physiology) were formed. B. subjects can be divided into separate disciplines according to the methods of research. Fluid studies the biogeography of the distribution of organisms, biochemistry of tissues and cell composition, physical processes and methods of biophysics. In turn, these sciences can be divided into separate disciplines according to the objects of research (for example, biochemistry of plants, biochemistry of animals). Biochemical and biophysical methods often replace each other or, in combination with other disciplines, form new Sciences (for example, biochemistry, obobiology). In analyzing and summarizing the results of biological studies, biometrics, that is, biological mat, is used. of great importance. Depending on the degree of study of the structure of living organisms, there were several Sciences (for example, molecular biology, histology, Anatomy, ecology, etc.). B. issues directly related to practice are studied in such disciplines as Parasitology, helminthology, Immunology, Bionics, cosmic biology. Man Studies Social Biology as a product of biological evolution and the Natural Science of the object, anthropology as a product of social life. History of development. If it is implied that animals and plants are a source of food for humans, then B. it can be said that the history began even earlier than the time when a person began to live in a cave. Drawings of animals drawn to caves, in which primitive people began, and the hunting landscape shows them that they are aware of the structure of animals. Similar photos are found in the caves of the Zirovutsoy gorge of Kohitang mountain in the Surkhandarya region. The Present Tense is B. development of science peoples living in the Mediterranean Sea (Fig. Egypt, Greece) is associated with civilization. Greek and Roman natives first tried to understand the essence and origin of life from a materialistic point of view. In particular, the Democritus put forward a materialistic idea that things and events in the environment change without permanent ones. Aristotle was the first to propose the study of putting animals into the system. Galen is the first physiology experimentator, which describes the internal structure of a person, the function of blood vessels and nerves, based on the internal structure of animals (monkeys and pigs) (at that time it was forbidden to crack the body of a person). At a time when the development of Sciences in Western European countries almost ceased in the Middle Ages, Natural Sciences began to develop rapidly in the countries of the Central Asian region. In the history of the sciences of this period, such scholars as Muhammad Khorezmi, Abu Nasr Forabi, Abu Ali ibn Sina and Abu Rayhon Beruni occupy a special place. Beruni admits that nature is created from 5 elements: emptiness, Air, Fire, Water and soil. In his work "India" he likens nature to a gardener, which allows the growth of the most energetic and healthy branches on a tree. With this he predicts that the struggle for survival between living organisms will go away and

Natural Selection will occur. In his works in Ibn St he wrote about plants and animals, as well as other natural bodies, phenomena and their causes. Geographical discoveries in the period of awakening, Kuchay interest in the world of plants and animals, lead to the creation of botanical and Zoological Gardens in several countries. During this period, many works about animals and plants appear. During this period, the Italian botanist A. Chezalpino tried to classify plants according to the structure of their flowers, seeds and fruits, in his works some concepts about metamorphosis, order and species are first threeraydi. In the 16-17-th centuries, several encyclopedic works about animals appear. Swedish scientist K. Gesner's 5 volumes "history of animals", Italian U. 13 volumes of monograph by Aldrovandi, French naturalist G. Rondele and Italian Ch. Salviani's works on the animals of the countries of the Navy are in shular sentence. During this period, especially great discoveries were made in the field of anatomy. English scientist U. Garvey (1578-1657) creates his own doctrine of the circulatory system. Italian scientist F. Although a great blow to the doctrine of the spontaneous emergence of life was caused by the experiences of Redi (1667), it did not lead to its complete destruction. Many scientists had the idea that tubular organisms that do not have an egg cell can appear on their own. The discovery of a microscope in the 16th century B.of great importance for the development of. English R. The discovery of the cell by Guk (1665), Dutch A. Single-celled and spermatozoa by Levenguk (1673), English T. Millington (1676) and German R.Sexual differences in plants by Kamerarmus (1694), Italian Malpigi (1675-79) and English N. Plant tissue by Gryu (1671-82), as well as the egg cell of fish (N. Steno, 1667) and the discovery of capillary blood vessels is associated with the invention of a microscope. These discoveries led to the emergence of two currents in embryology, called hunters and animalists. The first of them—in the case of the organism dwarf mites, the egg is inside the cell, the second—the seed is inside the cell, the error figures suggested that the subsequent changes consist only of quantitative changes (see Preformism). At the end of the 17th and early 18th centuries, there were several attempts to create an artificial system of plants and animals. English scientist J. Ray described plants in more than 18 thousand, plants to 19 class, French J. Turnefor them will be in 22 Class. Ray gave the concept of the species anikdab and developed a classification of invertebrates. Swedish naturalist K. of animals and plants perfect artificial system. Linney proposed in his work "the system of nature" (1735). Although Linney introduced man in his system to the class of mammals and the category of Primates along with monkeys, he has come up with a metaphysical idea that the species does not change, the world is created by divine power. Linney's binary nomenclature (the name of the species through the names of seeds and species) became especially important in the systematics of plants and animals. But Linney's artificial system did not satisfy many naturalist scientists. For this reason, many scientists have tried to establish a natural system. For the first time such a system in the field of Botany was introduced by the French botanist A. L. Jyusye was developed in 1789 year. The idea of systematizing animals and plants did not please all scientists in the same way. French naturalist

J. Byuffon categorically opposes any system in nature, including the Linney system. C. Byuffon in his work "the history of nature" (1748888) shows the generality in the structure of animals, tries to understand the similarity between close forms by their mutual kinship. German physician and chemist G. The Shtal states that the activity of the person is controlled by his soul, and that this, as a year of dal, is associated with the asabiological effects of physiological reactions. His opinion on the "tonus of life" German physiologist A. Galler finds his expression in his idea of exposure (1753). He and Czech Anatomy and physiologist Y. Proxoska showed that without the participation of the brain there is a nerve power that receives the action and moves the organs. Italian scientists L. Galvani and A. Volta determines the electricity in the body of animals, this phenomenon led to the emergence and development of the science of electrophysiology. English scientist J. Pristli indicates that plants produce oxygen, which is necessary for animals to breathe. French scientists A. Lavoazy, P. Laplas and A. Segen showed the importance of oxygen in the respiration and oxidation reactions of animals. Ideas about the historical development of the organic world began to take shape from the second half of the 18th century. German scientist G. V. Leibnits publishes the principles of gradation of living beings and exposes the idea that there are intermediate forms between plants and animals. The principle of "life cycle" (gradation) from minerals to man, the shveysar naturalist Sh. Bonne (1745-64) believes that life shows continuity in structure and development. C. Byuffon has developed his own hypothesis about the history of the Earth. In his opinion, the history of the Earth consists of 80-90 thousand years, divided into 7 periods, only in the most recent period appeared plants, animals and man. French scientist J. B. Lamark in his work "philosophy of Zoology" (1809) gives an understanding of the "life cycle" from the point of view of evolution. The improvement of living organisms from the bottom to the forms of kjsak occurred due to the desire for internal progress (principles of gradation), which, in his opinion, is characteristic for the organism. Lamark could not reveal his main reasons, although he correctly explained evolution. French scientist J. Kyuvye advocates his own Goya of catastrophes to explain the historical alternation of living organisms and the extinction of several species. The French scientist E.C. The sentiae try to understand the generality in the structure of animals and emphasize that the similarity in structure reflects the similarity in their origin. T. The cell theory, founded by Shvann (1839), was of great importance in understanding the unity of the organic world as well as in the development of Cytological and histological investigations. In the middle of the 19th century, the nutritional properties of plants and their differences from animals, as well as the principles of the circulation of substances in nature, are discovered (Yu. Libix, J. B. Bussengo). E. in the field of animal physiology. The basis of electrophysiology due to the work of dyubuaeymon, K. Understanding the importance of organs in digestion by Berner (1845,1847); G. Gelmgols and K. Development of methods for the study of the nervous system and sensory organs by Ludwig; I. M. Sechenov's interpretation of higher nervous activity from a materialistic point

of view ("reflexes of the brain", 1863) was of great importance. L. Thanks to the research conducted by the Pasteur, the doctrine of the spontaneous emergence of current organisms was given a prolonged blow (1860-64). S. N.Y. Vinogradsky used chemosynthesis bacteria (1887— 91), which synthesized organic substances from inorganic substances by chemosynthesis, D. I. Ivanovsky discovered viruses (1892).

Used literature

1. Uzbek national encyclopedia, Tashkent, 2000
2. www.ziyonet.uz
3. www.Medicallife.com