Biology

Is a branch of science that deals with living organisms and their vital processes. Biology encompasses diverse fields, including botany, conservation, ecology, evolution, genetics, marine biology, medicine, microbiology, molecular biology, physiology, and zoology.

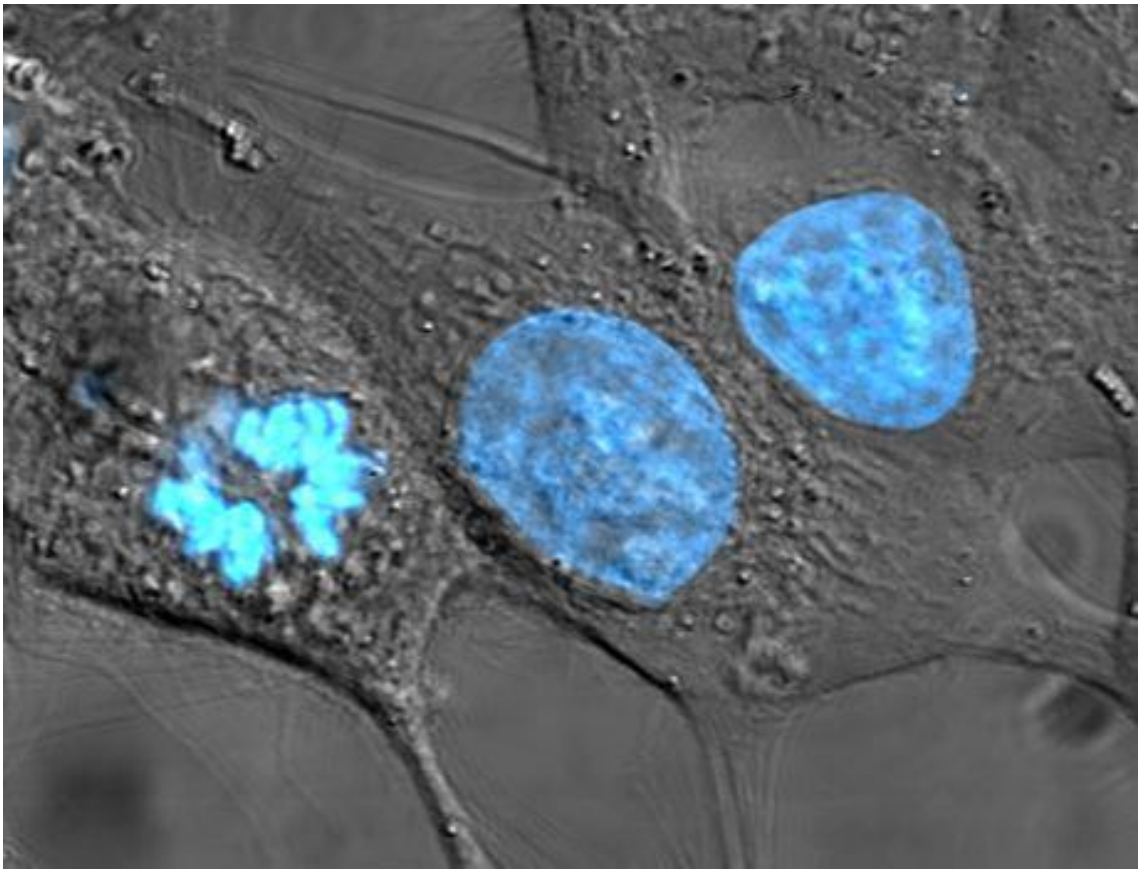
What's is the science of biology

History

With continual improvements made to microscopes over time, magnification technology became advanced enough to discover cells. This discovery is largely attributed to **Robert Hooke**, and began the scientific study of cells, known as cell biology. When observing a piece of cork under the scope, he was able to see pores. This was shocking at the time as it was believed no one else had seen these. To further support his theory, **Matthias Schleiden** and **Theodor Schwann** both also studied cells of both animal and plants. What they discovered were significant differences between the two types of cells. This put forth the idea that cells were not only fundamental to plants, but animals as well.

cell theory

Is a scientific theory first formulated in the mid-nineteenth century, that living organisms are made up of cells, that they are the basic structural/organizational unit of all organisms, and that all cells come from pre-existing cells. Cells are the basic unit of structure in all living organisms and also the basic unit of reproduction. Cell theory has traditionally been accepted as the governing theory of all life, but some biologists consider non-cellular entities such as viruses living organisms .



cells with nuclei (specifically the DNA) stained blue. The central and rightmost cell are in interphase, so the entire nuclei are labeled. The cell on the left is going through mitosis and its DNA has condensed.

A cell is the smallest independently functioning unit of a living organism. Even bacteria, which are extremely small, independently-living organisms, have a cellular structure. Each bacterium is a single cell. All living structures of human anatomy contain cells, and almost all functions of human physiology are performed in cells or are initiated by cells. A human cell typically consists of flexible membranes that enclose cytoplasm, a water-based cellular fluid together with a variety of tiny functioning units called organelles. In humans, as in all organisms,

cells perform all functions of life. A tissue is a group of many similar cells (though sometimes composed of a few related types) that work together to perform a specific function. An organ is an anatomically distinct structure of the body composed of two or more tissue types. Each organ performs one or more specific physiological functions. An organ system is a group of organs that work together to perform major functions or meet physiological needs of the body.

Subdivisions of biology

- Botany.
- Taxonomy.
- Zoology.
- Microbiology.
- Parasitology
- Biochemistry .
- Marine biology
- Medicine .
- Molecular biology
- Cell biology (cytology) .
- Biotechnology .
- Taxonomy.
- Phycology.
- Immunology.
- Radiobiology.

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