

The cell is the fundamental unit of life. For example, all eukaryotic cells consist of a nucleus, plasma membrane, cytoplasm, peroxisomes, mitochondria, ribosomes and other cell organelles. Multicellular organisms have specialized cells with complicated cell organelles, which unicellular organisms typically lack. Eventually, more complex multicellular organisms evolved from these unicellular life forms over the aeons. Cell structure and organelles vary in plants and animals, and are primarily classified based on their function. Hence, these cells share some similarities typically associated with eukaryotes. Unicellular organisms are single-celled, while multicellular organisms have a large number of cells. In an ecosystem, plants have the role of producers, while animals have taken the role of consumers.