

Paramecium is a eukaryotic organism, and it has cilia which should not be confused with microvilli or flagella. The purpose of the cilia is to increase the surface area of the cell membrane for processes like absorption, secretion, digestion, and excretion.

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Life on Earth

All life on Earth can be categorized into three groups: bacteria, archaea, or eukarya. Prokaryotes, which include bacteria and archaea, are unicellular and lack membrane-bound organelles. They are typically smaller in size than eukaryotic cells and divide by binary fission. The DNA in prokaryotes is naked, meaning it is not associated with proteins called histones, although other proteins bind to the DNA. Some bacteria produce pili, while others don't. Prokaryotic cells and chloroplasts are roughly the same size, ranging from one to five micrometers in diameter. All three groups have circular DNA called plasmids as well as a central circular DNA called the nucleoid. Additionally, mitochondria and chloroplasts have circular DNA that is not considered a plasmid. Finally, all three groups have 70S ribosomes, which are smaller than the 80S ribosomes found in eukaryotic cells.

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