UNIVERSAL ACADEMY

BOTANY

THE CELL

SYNOPSIS

Earth 4500 million years old-Life appeared 3500 million years ago

Eukaryotes originated-1500 million years ago

Atmosphere on the earth had hydrogen , helium and nitrogen

During biological evolution -the association with RNA and LIPIDS create Progenote -first organism

The early organisms-obligate anaerobes

Eukaryotes originated -1500 million years ago

Robert Hooke - first observe cell

Leeuwenhoek - first observe bacterium

Swammerdam-observed RBC

Cell theory- Schleiden -botanist- 1838 and Schwann - zoologist-1839

Virchow 1855-cell originate from pre-existing cells

The longest plant - Fiber

Virus exceptions to cell theory

The shape and size of cell is variable

No cytoplasmic streaming in prokaryotes

The animal cell lack cell wall

The plant cell lack microvilli, centriole

The plant ribosomes 70s/80s

The animal ribosomes 55s/80s

Tonoplast- vacuole membranes