Genetics o The branch of biology that studies heredity and variation, especially the mechanisms of hereditary transmission of characteristics from parent to offspring.o positive charged o H1, H2A, H2B, H3, H4 Diverse group of proteins involved in various cellular processes, including gene regulation. The shape is ultimately determined by the specific function of the cell as follows: o Red blood cells (discoidal) o Nerve cells )stellate( o guard cells (Lenticular( 4–Structure A eukaryotic cell consists of the following components : A. Cell wall and plasma membrane B. Cytoplasm C. Nucleus Nucleus o The nucleus is centrally located and spherical cellular component which controls all the vital activities of the cytoplasm and carries the hereditary material the DNA in it. o The nucleus consists of the following three structures : 1–Nuclear envelope and nucleoplasm: Nuclear envelope comprises two nuclear membranes (an inner nuclear membrane and an outer nuclear membrane).