GMAT阅读资料第41篇 PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/126/2021_2022_GMAT_E9_98_85_E8_AF_BB_c89_126613.htm It was once assumed that all living things could be divided into two fundamental and exhaustive categories. Multicellular plants and animals, as well as many unicellular organisms, are eukaryotic-their large, complex cells (5) have a well-formed nucles and many organelles. On the other hand, the true bacteria are prokaryotic cell, which are simple and lack a nucleus. The distinction between eukaryotes and bacteria, initially defined in terms of subcellular structures visible with a microscope, was ulti- (10) mately carried to the molecular level. Here prokaryotic and eukaryotic cells have many features in common. For instance, they translate genetic information into proteins according to the same type of genetic coding. But even where the molecular processes are the same, the details in (15) the two forms are different and characteristic of the respec- tive forms. For example, the amino acid sequences of vari- ous enzymes tend to be typically prokaryotic or eukaryotic. The differences between the groups and the similarities within each group made it seem certain to most biologists (20) that the tree of life had only two stems. Moreover, argu- ments pointing out the extent of both structural and func- tional differences between eukaryotes and true bacteria convinced many biologists that the precursors of the eukaryotes must have diverged from the common (25) ancestor before the bacteria arose. Although much of this picture has been sustained by more recent research, it seems

fundamentally wrong in one respect. Among the bacteria, there are organisms that are significantly different both from the cells of eukaryotes and (30) from the true bacteria, and it now appears that there are three stems in the tree of life. New techniques for determining the molecular sequence of the RNA of organisms have produced evolutionary information about the degree to which organisms are related, the time since they diverged (35) from a common ancestor, and the reconstruction of ances- tral versions of genes. These techniques have strongly suggested that although the true bacteria indeed form a large coherent group, certain other bacteria, the archaebac- teria, which are also prokaryotes and which resemble true (40) bacteria, represent a distinct evolutionary branch that far antedates the common ancestor of all true bacteria. 1. The passage is primarily concerned with (A) detailing the evidence that has led most biologists to replace the trichotomous picture of living organisms with a dichotomous one (B) outlining the factors that have contributed to the current hypothesis concerning the number of basic categories of living organisms (C) evaluating experiments that have resulted in proof that the prokaryotes are more ancient than had been expected. (D) summarizing the differences in structure and function found among true bacteria, archaebacteria, and eukaryotes (E) formulating a hypothesis about the mechanisms of evolution that resulted in the ancestors of the prokaryotes 2. According to the passage, investigations of eukaryotic and prokaryotic cells at the molecular level supported the conclusion that (A) most eukaryotic organisms are unicellular (B) complex cells

have well-formed nuclei (C) prokaryotes and cukaryotes form two fundamental categories (D) subcellular structures are visible with a microscope (E) prokaryotic and eukaryotic cells have similar enzymes 