

2003 年河南农业大学微生物学考研复试试题

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1、Translating Follow the paragraph into Chinese(20 分)

The genome sequence of the filamentous fungus *Neurospora crassa* is a central organism in the history of twentieth-century genetics, biochemistry and molecular biology. Here, we report a high-quality draft sequence of the *N. crassa* genome. The approximately 40-megabase genome encodes about 10,000 protein-coding genes—more than twice as many as in the fission yeast *Schizosaccharomyces pombe* and only about 25% fewer than in the fruitfly *Drosophila melanogaster*. Analysis of the gene set yields insights into unexpected aspects of *Neurospora* biology including the identification of genes potentially associated with red light photobiology, genes implicated in secondary metabolism, and important differences in Ca^{2+} signalling as compared with plants and animals. *Neurospora* possesses the widest array of genome defence mechanisms known for any eukaryotic organism, including a process unique to fungi called repeat-induced point mutation (RIP). Genome analysis suggests that RIP has had a profound impact on genome evolution, greatly slowing the creation of new genes through genomic duplication and resulting in a genome with an unusually low proportion of closely related genes.

2、试述原核基因与真核基因结构及表达调节的异同？（40 分）

3、试看人类基因组计划（40 分）