

## 脊髓灰质炎病毒的分子进化

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**摘要** 本文根据脊髓灰质炎病毒3个型别参考毒株的基因组核苷酸序列和蛋白质氨基酸序列资料, 首次试用Kimura的分子进化理论和计算方法, 推算出脊髓灰质炎病毒型间的进化距离、分歧进化时间及病毒蛋白质氨基酸的替换率。结果表明: (1) 型间毒株相互进化距离大致相等; (2) 三个型病毒是由一个共同祖先病毒在距今约1—2千年以前几乎同时分歧进化而来; (3) 型间毒株蛋白质氨基酸替换率也大致相等。

**关键词** [脊髓灰质炎病毒; 进化距离; 分歧进化时间; 氨基酸替换率; 分子进化](#)

分类号

## Molecular Evolution of Polioviruses

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### Abstract

According to the data of the genomic nucleotide sequences and the amino acid sequences of the viral proteins of reference strains in all three types of poliovirus, first attempt was made to calculate intertypic evolutionary distance, intertypic divergence time and the rates of amino acid substitution of poliovirus proteins between the strains by using the calculating method based on the Kimura's molecular evolution theory. The results showed: (1) the evolutionary distances between types in all three types of poliovirus were almost equal; (2) three types of poliovirus were almost simultaneously evolved from a common ancestor virus 1000---2000 years ago; (3) the rates per site per year of the amino acid substitutions between three poliovirus types were also similar.

**Key words** [Polioviruses](#) [Evolutionary distance](#) [Divergence time](#) [Substitution rate of amino acid](#) [Molecular evolution](#)

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