

e-Science技术

DNA测序技术发展及其展望

孙海汐<sup>1</sup>,王秀杰<sup>2</sup>

- 1.
- 2. 中科院遗传发育所

摘要:

DNA测序技术是现代生物学研究中重要的手段之一。自从1977年第一代测序技术问世以来,经过三十几年的努力,DNA测序技术已经取得了很大的发展,在第一代和第二代测序技术的基础上,以单分子测序为特点的第三代测序技术已经诞生。本文回顾了每一代测序技术的原理和特点,并对测序技术的发展趋势和它在生物学研究中的应用做了展望,以期更好地帮助人们理解测序技术在生命科学研究中的重要作用。

关键词: 第一代测序技术;第二代测序技术;第三代测序技术;基因芯片技术

The Development and Future Perspectives of DNA Sequencing Technology

1, 2

- 1.
- 2. Institute of Genetics & Developmental Biology, Chinese Academy of Sciences

Abstract:

DNA sequencing technology has played important roles in modern biological research. The first generation of sequencing technology appeared in 1977. During the past decade, the so-called next generation sequencing technologies had emerged and caused a revolution in biological research. Recently, the third generation sequencing technology, which is able to determine the base composition of single DNA molecules, has joined the race. The mechanisms and features of each generation of sequencing technology and their future perspectives will be discussed here.

Keywords: first-generation-sequencing-technology second-generation-sequencing-technology third-generation-sequencing-technology microarray

收稿日期 2009-05-08 修回日期 2009-06-24 网络版发布日期 2009-10-22

DOI:

基金项目:

通讯作者: 孙海汐

作者简介:

作者Email:

参考文献:

本刊中的类似文章

文章评论

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(1559KB)
- ▶ [HTML全文]
- ▶ 参考文献[PDF]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 第一代测序技术;第二代测序技术;第三代测序技术;基因芯片技术

本文作者相关文章

- ▶ 孙海汐
- ▶ 王秀杰

PubMed

- ▶ Article by Xun,H.X
- ▶ Article by Yu,X.J

|      |                      |      |                                   |
|------|----------------------|------|-----------------------------------|
| 反馈人  | <input type="text"/> | 邮箱地址 | <input type="text"/>              |
| 反馈标题 | <input type="text"/> | 验证码  | <input type="text" value="8843"/> |

