

专论与综述

核移植与治疗性克隆 Nuclear Transfer and Therapeutic Cloning

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摘要 核移植与治疗性克隆在畜牧业生产以及生物医学上具有广阔和诱人的应用前景。文章分析指出卵母细胞质量与供核细胞重新编程是影响体细胞核移植效率及克隆动物异常的主要因素, 阐述了治疗性克隆所面临的一些基本问题及出路: 治疗性克隆以核移植技术为基础, 核移植所面临的一些问题也直接影响着治疗性克隆的临床应用; 核移植胚胎干细胞分离培养效率的高低以及向重要功能细胞定向分化是治疗性克隆的前提; 成体干细胞可用于一些重大疾病的治疗, 但不能完全替代克隆性治疗; 伦理问题也阻碍治疗性克隆的发展。核移植及治疗性克隆技术要想尽快更好地应用于临床和造福于人类, 需要不断完善各技术环节和加强一些基础理论的研究。Abstract: Nuclear transfer and therapeutic cloning have widespread and attractive prospects in animal agriculture and biomedical applications. We reviewed that the quality of oocytes and nuclear reprogramming of somatic donor cells were the main reasons of the common abnormalities in cloned animals and the low efficiency of cloning and showed the problems and outlets in therapeutic cloning, such as some basic problems in nuclear transfer affected clinical applications of therapeutic cloning. Study on isolation and culture of nuclear transfer embryonic stem (ntES) cells and specific differentiation of ntES cells into important functional cells should be emphasized and could enhance the efficiency. Adult stem cells could help to cure some great diseases, but could not replace therapeutic cloning. Ethics also impeded the development of therapeutic cloning. It is necessary to improve many techniques and reinforce the research of some basic theories, then somatic nuclear transfer and therapeutic cloning may apply to agriculture reproduction and benefit to human life better.

关键词 [核移植](#) [克隆](#) [胚胎干细胞](#) [治疗性克隆](#) **Key words** [Nuclear transfer](#) [Cloning](#) [Embryonic germ cells](#) [Therapeutic cloning](#)

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