流行性感冒疫苗之研究與發展 = Research and development of the influenza vaccine

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摘 要

以雞胚胎蛋培養生產流感疫苗已經有50年歷史，是一項成熟穩定的生產技術。然而，此一生產技術在碰到新型流感病毒株出現時會面臨無法緊急供應疫苗之問題，故現今許多學者都在研究探討相關技術來應付新型流感病毒之生產可行性、產品有效性、安全性及醫藥市場的接受性。 目前世界各國生產流感疫苗之方式，是利用病原大量在雞胚胎蛋中培養後，經由不活化處理，再將其抗原蛋白萃取純化。此具有技術成熟、生產成本相對較低的特性；不過雞蛋蛋白過敏、胚胎蛋供應負擔、產程耗時與技術發展性低是其使用上的缺點。 近年來在疫苗之製作上有一些新的進展及趨勢，包含細胞培養、DNA疫苗、新型免疫佐劑等，其具有製備耗時短、適用病毒廣泛、製備時程富有彈性等特性，但目前於大量生產製備仍有技術上之困難需待克服。 未來流感疫苗製造技術概念包括有反向遺傳技術、通用疫苗、食物疫苗及貼布疫苗等，期能改善預防接種的方式、簡化並加速疫苗之生產流程及提升接種後所產生之免疫力時效，讓其能夠更經濟、更廣泛、更安全地應用在需要接種疫苗的國家。

關鍵詞 : 流感疫苗，雞胚胎，細胞培養

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