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• 中文關鍵字	幾丁聚醣；微脂粒劑型疫苗；雞新城疾病		
• 英文關鍵字	Chitosan；Lipovaccine；Newcaste Disease		
• 中文摘要	本研究主要目的是利用微脂粒做一疫苗口服載體之開發,並期許建構一口服劑型載體(Lipovaccine carrier)之技術平台。由於是口服劑型，本研究首先必須先強化「微脂粒疫苗載體」在腸胃道中的對於生物因子的耐受度，因此必須進一步地在微脂粒表面加以改質，添加上一層保護膜，形成新型態的「口服微脂粒疫苗載體，以避免其遭受到腸胃道蠕動時機械力的破壞與酵素對於「口服式微脂粒疫苗載體」的分解。在微脂粒表面修飾改質材料之選材，我們選用了天然高分子聚合物-幾丁聚醣(Chitosan)來修飾處理，期待運用幾丁聚醣保護膜效益對抗腸胃道環境之外，更結合幾丁聚醣保護膜對消化道黏膜高度的吸附性及滲透作用，成功(提高)的將疫苗載入並引起有效之免疫效價。此外，本研究也將做一簡單雞隻動物實驗模式，了解雞隻於口服微脂粒載體疫苗後之免疫效價，最終更期許能夠商品上市以提升國內動物疫苗技術之競爭性及市場之經濟價值。		
• 英文摘要	The objective of the study is to develop oral vaccine carrier based on liposome and to establish a technical plateform for the development of oral lipovaccine carrier (OLC). To develop oral dosage form, the first target is to enhance the resistance of OLC to biofactors in the gastrointestinal (GI) tracts. That can be approached by further modifying the outmost surface of liposome with coating a protective membrane onto the liposome surface. The novel form of OLC is expected against the destruction and degradation caused by mechanical and enzymatic forces in the GI tracts, respectively. The nature polymer, chitosan, will be chosen as the material for modifying the liposomal surface. The coating membrane made of chitosan not only gives protective benefits from the GI environment, but also provides greater adherence and permeation across the GI mucosa that may effectively increase the immune efficiency to deliver vaccine aimed at mucosal surfaces. In addition, the study will apply the simple experimental model in chickens for OLC to the understanding of the immune efficiency after taking OLC. The ultimate goal of the study is to commercialize the product for promoting the market value and competitiveness of animal		

vaccine technology in Taiwan.