

• 系統編號	RG9309-7025		
• 計畫中文名稱	絲瓜來源幾丁多醣(chitosan)於化妝品之開發與應用		
• 計畫英文名稱	Development of Luffa Aegyptiaca Chitosan for Cosmetic Application		
• 主管機關	行政院農業委員會	• 計畫編號	91 農科-1.1.1-糧-ZB(3)
• 執行機構	台北醫學大學生物醫學材料所		
• 本期期間	9104 ~ 9112		
• 報告頁數	2 頁	• 使用語言	中文
• 研究人員	蔡翠敏 Tsui-Min Tsai		
• 中文關鍵字	幾丁多醣；細胞培養；纖維母細胞；皮膚		
• 英文關鍵字	Chitosan；Cell Culture；Fibroblast；Skin		
• 中文摘要	<p>幾丁質(Chitin)與幾丁多醣(Chitosan)在經過研究披露其醫療保健價值之後,化妝品界也已有少數應用幾丁多醣於保濕乳液、止汗劑及整髮劑的配方中.本所已研究發現新鮮絲瓜之黏稠液,即以幾丁多醣為主要成分,而老熟瓜體纖維(即菜瓜布)亦含有幾丁質,因此這類農作物如可進一步加以開發,成為非動物性來源之工業級與醫藥品級的幾丁多醣原料,對於台灣的農業升級及相關農作的價值提昇而言,應有相當的助益.本計畫擬以三年時間,利用幾丁多醣(特別是植物性來源經抽提純化所得的幾丁多醣)作為主要組成架構,製備成為可供培養皮膚細胞或組織之支撐基質,並將此支撐基質研發作為評估化妝品刺激性與效能性之仿膚模組.預計三年中將進行的研究項目包括:基質之製備與物化性質評估、仿膚模組之建立、以及此模組應用於化妝品開發之實用性評估.本年度已完成以絲瓜萃取物(含幾丁多醣)薄膜培養纖維母細胞.</p>		
• 英文摘要	<p>Chitin and Chitosan have revealed their usefulness for health related purposes. Recently, there are some examples of chitosan added in cosmetic moisturizers, deodorants, hair styling agents, etc. Previous studies have found that chitosan is present in the mucous fluid of fresh Luffa aegyptiaca. This plant-originated chitosan can further be extracted and formulated as non-animal originated raw material for industrial and medical as well as cosmetic applications. In this study, we plan to use plant-originated chitosan as raw material to construct a matrix for skin culture. This skin culture system can then be utilized for cosmetic screening and safety screening purposes. This year we have successfully prepared the matrix membrane using the Luffa extract (including chitosan), and fibroblasts were successfully cultured onto the membrane.</p>		