• 系統編號	RC8706-0030
• 計畫中文名稱	正常及內毒素影響下，培養中小神經膠細胞凝集素受體之分布及內化現象
• 計畫英文名稱	Distribution and Internalization of Lectin Receptors in Cultured Microglia under Normal or Endotoxin-Treated Condition
• 主管機關	行政院國家科學委員會
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• 使用語言	英文
• 研究人員	吳慶祥 Wu, Ching-Hsia
• 中文關鍵字	小神經膠細胞；超微構造；植物凝集素；分枝性小神經膠細胞；活化小神經膠細胞；體外；內化作用；內毒素；巨噬細胞；細胞內路徑
• 英文關鍵字	Microglia；Ultrastructure；Lectin；Ramified microglia；Activated microglia；in vitro；Internalization；Endotoxin；Macrophage；Intracellular pathway
• 中文摘要	我們以前的研究發現小神經膠細胞在分化的過程中其凝集素受體有調降的現象;這現象可能暗示細胞正進行乳糖基蛋白質的修飾作用。利用相同的方法,本計畫將探討不同形態的培養中小神經膠細胞的凝集素標誌。這些多形態的培養中小神經膠細胞的凝集素標誌表現在細胞膜及一些胞質小泡與液泡上。同樣的標誌型式也出現在小神經膠細胞培養於攝氏四度的凝集素溶液三十分鐘後。然而提高溫度至攝氏三十七度五分鐘後,其表面凝集素受體內化至胞膜的小泡、液泡及管狀結構上。在攝氏三十七度下長時間浸潤一至二小時後,許多溶菌體、少數內面高爾基氏體小囊及其相關的似溶菌體結構都含凝集素的標誌。因此,我們認爲無論培養中小神經膠細胞的形態爲何,其凝集素受體的標誌及細胞內路徑均類似活體內的變形性小神經膠細胞。
• 英文摘要	Our previous study had demonstrated a down-regulation of isolectin receptors during microglial differentiation. Such a process might lead to de novo galactosyl protein modification. Using the same lectin histochemistry, the present study examined the lectin labelling of diverse morphological forms of microglia in culture. The polymorphic microglia in vitro showed lectin labelling at their plasma membrane as well as in a few cytoplasmic vesicles and vacuoles. Such a labelling pattern was observed in cultured microglia incubated with isolectin at 4.degree.C for 30 min. Five minutes after the temperature was raised to 37.degree.C, the surface lectin receptors appeared to be internalized as shown by the occurrence of many subsurface lectin labelled vesicles, vacuoles and tubule-like structures. With longer incubation up to 1-2 hours at 37.degree.C, many lysosomes and a few trans Golgi saccules and associated lysosome-like structures became labelled. It would appear therefore that the lectin labelling including its intracellular pathway in microglia in culture, irrespective of their morphological forms, parallels that of amoeboid microglia in vivo.