• 系統編號	RW9801-0729
• 計畫中文名稱	利用初代人類軟骨細胞與關節炎鼠模式，開發小葉葡萄應用於關節炎保建之研究(II)
• 計畫英文名稱	The Use of Arthritis Animal Experiments and Human Osteoarthritic Chondrocytes to Develop Vitis Thunbergii against Arthritis (II)
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• 中文關鍵字	保健食品；小葉葡萄；關節炎；人類軟骨細胞；關節炎動物模式；
• 英文關鍵字	Nutritional Supplement；Vitis thunbergii；Arthritis；Primary Human Chondrocyte；Collegenase-induced Osteoarthritis Model
• 中文摘要	小葉葡萄是台灣特有種植物，本研究以人類軟骨細胞與關節炎鼠模式進行其功效評估。結果：以甲醇萃取，並以 LPS 或 IL-1 作誘導人類軟骨細胞發炎檢測其抗發炎，以主莖萃取物效果最佳，且分離得 vitisin-A, vitisin-B, ampelopsin-C 及 resveratrol 等，且以 resveratrol 抑制 PGE2，COX-2 及 MMP-3 活性最強。另以 LPS 誘導大白兔關節炎模式評估小葉葡萄水萃物，當餵服 500mg/kg 後，可減緩關節炎發生。再利用 Diaion 管柱分離時，以 100%甲醇沖提之劃分部活性最佳，此結果將可作開發健康食品參考。
• 英文摘要	Vitis thunbergii (Vt) is a native medicinal plant of Taiwan used in arthritis etc. The study is to develop Vt as a nutritional supplement for arthritis by LPS or IL-1induced production of inflammatory mediators in primary human chondrocytes (PHC) and LPS-induced osteoarthritis model in animal. The MeOH extracts of Vt could inhibit inflammatory mediators in PHC and be obtained four natural products, vitisin A, vitisin B, ampelopsin C and resveratrol. Among them, the anti-inflammatory effects of resveratrol were strongest and could inhibit COX-2 and MMP-3 activity. The other hand, LPS induced osteoarthritis in rabbits and the morbidity rabbits were treated with the water extract of Vitis thunbergii (W-Vt, 500mg/kg). The W-Vt could inhibit osteoarthritis. Compare with chromatography and bioactivity assay, the W-Vt was loading in Diaion column, and 0 to 100%MeOH grading eluted. The results showed, the elution of 100% MeOH was more anti-inflammatory effects. The above results of this study clarified several important informations regarding the role of Vitis thunbergii as a nutritional supplement against arthritis, including the pharmacological effect and methods of quality control for the preparation.