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• 計畫英文名稱	--
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• 中文關鍵字	代謝症候群；總膽固醇；高/低密度脂蛋白膽固醇；三酸甘油酯；小本山葡萄；香椿；；
• 英文關鍵字	metabolic syndrome；Total Cholesterol；HDL/LDL；Triacylglycerol；；；；
• 中文摘要	具代謝症候群的人，其罹患心血管疾病、腦血管疾病及腎臟疾病的危險遠比沒有代謝症候群的人高，因此代謝症候群的預防與治療，目前在臨床醫學及基礎研究上引起極大關注。本研究計畫目的爲，測試由台糖研究所提供之樣品，鑑定其在改善代謝症候群，以做爲開發相關產品的標的物。本計劃參照衛生署公佈「健康食品之調節血脂功能評估方法」進行動物實驗並測其血中總膽固醇、高/低密度脂蛋白膽固醇、三酸甘油酯，爲標地之篩選技術平台，來篩選能有效抑制此三種脂肪腌活性之天然植物種類，以協助台糖公司開發具有潛力之產品。本年度測試之天然物爲小本山葡萄及香椿。 本研究計畫分爲兩個實驗：實驗一「本實驗採先餵一合理範圍之高油脂（倉鼠實驗得添加 0.2%的膽固醇）飼料，使動物升高其血清脂質(由另分一組動物來確定)，才開始正式實驗。實驗期以相同之高油脂飼料爲基礎飼料。」；實驗二「本實驗採同時餵食高油脂（倉鼠實驗得添加 0.2%的膽固醇）飼料與天然物。」實驗結束時，如攝取含檢測食品之飼料組的血脂質明顯(P<0.05)比控制組低，則可認定該產品具降低血脂質之功能。實驗結果的部分：在給予不同濃度的天然物(小本山葡萄、香椿)後，對於肝臟、脾臟及腎臟的外觀並無顯著差異。不同濃度的天然物皆具有降低血清中的 TC、TG 及 LDL-C；對於 HDL-C 則有上升的趨勢。其中以小本山葡萄在低劑量的效果最佳而香椿在中劑量的效果相較其他劑量佳。脂質過氧化物測定的部分，天然物小本山葡萄、香椿均具降低血清脂質過氧化之作用，且以小本山葡萄具有較好的抗氧化效果。
• 英文摘要	Metabolic syndrome is a risk factor of cardio-vascular, brain-vascular and kidney disease. Prevention and therapy of metabolic syndrome has becoming an important research issue both in the clinical medicine and basic research. The aims of this study was to

investigate the effect of tested compounds (Shiaobensanputau and Sianchon) provided by Taiwan sugar company in regulating the blood total cholesterol (TC), triglycerol (TG), low density lipoprotein cholesterol (LDL-C) and the blood high density lipoprotein cholesterol (HDL-C) levels for the treatment of metabolic syndrome by using hypercholesterolaemic rats in vivo. The current study was divided into two parts. The first part was designed to evaluate the effect of the tested compounds in an established hypercholesterolaemic rats fed with 0.2% cholesterol in the diet. The other part was designed to evaluate the effect of the tested compounds in rats fed with 0.2% cholesterol and tested compounds simultaneously. Blood lipids were assayed to determine the significance ($p < 0.05$) of the test group and control group. Our results revealed that no significant change of the morphology of liver, spleen and kidney of the rats was found treated with different doses of tested compounds. All the tested doses posses the ability to decrease the serum TC, TG and LDL-C levels, whereas increase the HDL-C levels. The most impressive effects occurred in the low dose of Shiaobensanputau and medium dose of Sianchon. We also analyzed the anti-lipid peroxidative effect of the tested compounds and found that both Shiaobensanputau and Sianchon are effective. Better anti-oxidative effect was found in Shiaobensanputau than in Sianchon.