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• 計畫英文名稱	Studies on the Constituents of Terminalia chebula and Apium graveolens with Cardiovascular Effects.
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• 研究人員	徐鳳麟 Hsu, Feng-Lin
• 中文關鍵字	降血壓；心臟血管作用；訶子；芹菜；使君子科； 繖形科
• 英文關鍵字	Hypotensive；Cardiovascular effect；Terminalia chebula； Apium graveolens；Combretaceae；Umbelliferae
• 中文摘要	在過去幾年,本實驗室對於具有心臟血管系作用之台灣植物,曾進行系統性之研究。本計畫即爲上述工作之延伸,擬嘗試探討訶子及芹菜對心臟血管系作用之成分。 對於粗抽出物質則藉由多葡聚糖樹脂、聚苯乙烯及逆相層析充填物質等爲固定相,配合適當之各種溶媒系統爲沖提溶媒,進行分離及純化之工作。 從訶子之乾燥果實之水性丙酮萃取物得到兩個活性化合物,依據這些化合物之物理性質以及藉由核磁共振光譜數據與標準品或文獻比較,其化學構造確定爲訶子酸及鞣云實酸。另外從芹菜,分離出一個非多酚性抗高血壓之物質 AP-1,其詳細構造仍在探討當中。於原發性高血壓老鼠,最大血壓(mmHg)之改變,訶子酸下降血壓之能力遠比鞣云實酸及 AP-1 更有效。
• 英文摘要	In the past several years, our laboratory set to work for a systemic investigation of Formosan plants which may have cardiovascular effects. In this project, as part of the above mentioned works, we investigated the hypotensive constituents of Terminalia chebula RWTZ. and Apium graveolens L. Separation and purification of the crude material extracted from either plant were achieved by using polydextran gel, polystyrene resin and reverse phase packings as stationary phase, and eluted with various solvents. From the aqueous acetone extract of dried fruits of Terminalia chebula, two active compounds were obtained; chemical structure of these compounds was identified as corilagin and chebulinic acid, based on comparisons of their physical and NMR spectral data with those of authentic samples or literature. In addition, from Apium graveolens, a non-polyphenolic antihypertensive substance AP-1 was isolated and its structure is under detailed investigation. The maximal changes in blood pressure (mmHg) of SHRs show that

chebulinic acid works more effectively than corilagin and AP-1.