• 系統編號	RN9607-3576
• 計畫中文名稱	利用含有(1)缺氧因子(2)心臟特殊啓動子及(3)前列環素合成基因之腺相關整合病毒保護心臟缺血後之損傷
• 計畫英文名稱	Protection of Myocardial Ischemia Injury by Cardiac Specific Recombinant Adeno-Associated Viral Vector Containing a Hypoxia Sensor, Alpha-Myosin Heavy Chain (Alpha-MHC) Promoter and Bicistronic PGIS Genes
• 主管機關	行政院國家科學委員會
• 計畫編號	NSC94-2314-B038-038
• 執行機構	台北醫學大學醫學系
• 本期期間	9408 ~ 9507
• 報告頁數	10 頁
• 使用語言	英文
• 研究人員	林恆 Lin, Heng
• 中文關鍵字	--
• 英文關鍵字	--
• 中文摘要	查無中文摘要
• 英文摘要	We tested the hypothesis that prostacyclin synthase (PGIS) Transfer by heart specific Adeno-associated virus-8 (AAV-8) reduce heart infarct volume by augmenting synthesis of protective prostaglandins. Method and Result: In this study, we infused into lateral ventricle of a mice stroke model by recombinant AAV-8 containing PGIS (AAV-8- PGIS), or AAV-GFP control vector, and we determined PGIS protein and eicosanoid levels and infarct volume of the heart. PGIS proteins were increased in a time-dependent manner. AAV-8-PGIS infusion selectively augmented prostacyclin levels, with reduction of other eicosanoids in ischemic heart and a significant reduction of infarct volume. Infusion of AAV-8-PGIS also increased prostacyclin, suppressed leukotriene levels, and achieved a similar degree of heart protection. Its cardio-protection was abrogated by treatment with a selective PGIS inhibitor. Conclusions: AAV-8-PGIS gene transfer reduce heart infarct volume by augmenting prostacyclin and suppressing leukotriene productions.