• 系統編號	RC8903-0025		
• 計畫中文名稱	脈波,血流與生理功能間之關係		
• 計畫英文名稱	N/A		
• 主管機關	行政院國家科學委員會	• 計畫編號	NSC83-0412-B001-002-M01
• 執行機構	中央研究院物理研究所		
• 本期期間	8208 ~ 8307		
• 報告頁數	0 頁	• 使用語言	英文
• 研究人員	徐則林 Hsu, Tse-Lin		
• 中文關鍵字	生理功能；血流；血壓；共振理論；穴道；主動脈		
• 英文關鍵字	Physiological function；Blood flow；Blood pressure；Resonance theory；Acupoint；Aorta		
• 中文摘要	先前我們曾由共振理論導出了血壓波分布方程式,在側支器官與在主動脈上血壓的分布各自不同。而射入組織之血流速度可由器官血管床的壓力依比例導出。在模擬的主動脈與側支器官系統上此理論應用良好。 在此報告中,我們進一步將此方程式推展至一特殊之弱耦合狀態以模擬穴道與其藕合之主動脈的關係。我們以雷射都卜勒血流計來測量人體表一些點(穴道點)的血流速度,我們發現相對應的血壓波和血流速度有高度之相關性。		
• 英文摘要	Previously, we had derived the pressure distribution equations according to the resonance theory. The pressure is distributed differently in the side branch organ and the main artery. The velocity of the blood flow injects into the tissue can be derived to be proportional to the pressure in the vascular bed in the organ. This theory had been worked well in a simulated artery with side branch organ model. In this report, we further developed the pressure distribution equations under the special weak coupling status to simulate the relation between the acupoint and its coupled artery. We studied the blood velocity at some points on the body surface of human (the acupoints) by laser-Doppler technique. We found that the corresponding pressure and the blood velocity are highly correlated.		