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• 計畫英文名稱	Generation and Characterization of Human Hybridomas Secreting Anti-Phospholipid Antibodies (APA).
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• 中文關鍵字	全身性紅斑狼瘡；抗磷脂抗體；單株抗體；人類融合瘤
• 英文關鍵字	Systemic lupus erythematosus (SLE)；Anticardiolipin antibody；Monoclonal antibody；Human hybridomas
• 中文摘要	在全身性紅斑性狼瘡(Systemic lupus erythematosus,SLE)病人裡,抗磷酸酯抗體(Anti-phospholipid antibody,APA),包括(1)用酵素聯結免疫法(ELISA)檢測的抗心磷脂抗體(Anti-cardiolipin antibody,ACA)和(2)用體外延遲血液凝固法檢測的狼瘡抗凝固抗體(Lupus anticoagulant,LAC),和所謂的抗磷酸脂症候群(Anti-phospholipid syndrome,APS)很有關係。(APS 包括復發性的血栓、流產、血小板減少症和神經方面的病變)。 很多證據顯示 APA 可以分成很多在免疫上和功能上各不相同的抗體群。到目前爲止,在這些抗體中示是那一個或那幾個的結合體在調節體內的血栓發生呢?由於血清中含 LAC 和 ACA 的 SLE 病人,並沒有使 APS 的情形惡化,所以我們的實驗理論是:(1)在血栓發生的 SLE 病人血清中可能有一些特定結合和作用性質的 APA,這種 APA 在沒有血栓的 SLE 病人是沒有的。(2)既然抗體的結合特性是由它的變化區(Variable region)所主導的,我們構想中的促進血栓的抗體很可能趨向於利用一些特別的免疫球蛋白(Ig)的變化區基因。 以前所描述的人類抗心磷脂的單株抗體都是重來自沒有被詳加診斷爲磷酸脂症候群的病人,或是 IgM 的抗體而非 IgG 抗體,或是單株抗體會和其他不相關的抗原反應。爲了能更加了解抗心磷脂抗體(ACA)在抗磷酸脂症候群的詳細作用機制,所以我們的利用高心磷脂抗體的抗磷酸脂症候群病人的周邊血液單核球來做 Transformation,製造抗心磷脂的單株抗體(IgG)以便來探討更詳盡作用機轉。
• 英文摘要	In systemic lupus erythematosus (SLE), anti-phospholipid antibodies (APA), including anti-cardiolipin antibodies (ACA) detected by ELISA and the lupus anti-coagulant (LAC) detected by delayed in vitro blood clotting are associated with recurrent thrombosis, fetal loss, thrombocytopenia and neurological pathology: the "antiphospholipid syndrome" (APS). Considerable evidence indicated that APA are composed of several immunologically diverse (directed at phospholipid, .beta./sub 2/GPI or other cofactors, and phospholipid-cofactor complexes) and functionally distinct (with or without in vitro anti-coagulant

activity) antibody species. Considering that many SLE patients with LAC and anti-cardiolipin antibodies do not manifest the APS, we hypothesize that SLE patients with thrombosis may have certain APA of "unique" binding and functional properties which are not produced in SLE patients without thrombosis, even though the "polyclonal" APA detected in both groups of patients appear indistinguishable with present ELISA and blood clotting inhibition assays. In order to delineate the role of ACA in APS patients. In this paper, we transformed the peripheral blood mononuclear cell (PBMC) from a APS patient with high titers of ACA to generate monospecific IgG ACA. All previously described human monoclonal antiphospholipid antibodies have either been produced from individuals without the diagnosis of APS, or is IgM molecules instead of IgG, or been crossreactive with DNA and other unrelated antigens.