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• 計畫英文名稱	--		
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• 中文關鍵字	液相層析串聯質譜；濫用藥物；資料庫		
• 英文關鍵字	--		
• 中文摘要	藥物濫用的問題，造成個人健康問題，社會安寧之危害，已成為全球各地關心的問題。有鑒於濫用藥物所可能造成的危害、多重濫用藥物併用及許多新興濫用物質之出現，能夠快速且正確的對樣品進行廣泛之篩檢及鑑定為本計畫的目的。而現在分析儀器發展日新月異，利用液相層析串聯質譜(LC/MS)進行分析，已有許多學術性的探討，有鑑於國內濫用藥物之多樣性，故本計畫首先將要以市面上所收集到第 1 級至第 4 級之管制藥品五十種的標準品，以 MS 及 LC-MS 進行此濫用藥物之資料庫建立，提供相關鑑定單位能夠快速及有效進行篩檢。而第二部分則從五十種中挑出其中二十種(含同位素)進行尿液中篩選之方法開發，此部分是建立除了傳統篩檢試劑之篩檢方法外另一種方式，是能夠同時且快速篩選其他無篩檢試劑之多種濫用藥物尿液之鑑定。由濫用藥物液相層析質譜資料庫之建立，到實際運用於濫用藥物尿液之廣篩，可以為國家節省大量篩檢之驗尿費用。目前已經建立第 1 級至第 4 級之五十種管制藥品的標準品 MS 的離子化條件，及各離子 MS/MS 相對強度的資料庫，亦建立了二十多種安非他命類(含同位素)LC 的分析條件及以液相層析串聯質譜對尿液檢體中二十多種安非他命類(含同位素)濫用物質篩檢分析及定量分析之評估，此成果可解決部份多重濫用藥物併用的檢測困難，並且，節省國家相關鑑定單位之鑑定時間及成本		
• 英文摘要	Drug abuse has been a global problem for a long time. It could endanger user's physical and mentle health, ruin the happiness of family life, and disturb peace of the society. Multiple-drug-use and the new abused drugs just complicate the identification process. Liquid chromatography (LC) has been developed in various laboratories for the identification of various abused drugs. However, we intended to develop a speedy and accurate LC/MS methodology for solving the complicated identification problem. In this study we obtained 50 drugs from commercial sources as standard		

samples, ranging from controlled drug classes I~IV, aiming at the establishment of MS and LC/MS data bases. Such data bases could serve for effective drug screening tests in forensic and medical laboratories. In addition, we selected 20 out of 50 drugs, some are isotope labeled compounds, as standards for the establishment of urine sample screening tests, a method that other than the traditional reagents-aids tests. Therefore, application of LC/MS data base to massive urine sample screening test would be a speedy and accurate identification method and reducing a great deal of testing fees. In our laboratory we have accomplished the data base of ionization conditions for mass spectroscopic analysis and MS/MS relative intensity of the 50 standard samples. Besides, LC analysis of more than 20 amphetamine analogues, including isotope labeled compounds were established. The screening tests and quantitative analysis using LC/MS methodology of urine samples were also accomplished. This achievement should be valuable to the multiple-drug-use analysis and beneficial to the cost and time-consuming process.