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### Standardization of a traditional Thai antihypertensive herbal recipe using LC-MS coupling with multivariate data analysis

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Traditional medicine (TM) reproducibility becomes an important issue for the development process in this field since the evidence-based traditional medicine has been trendy focused in clinical trials. To ensure a reliable efficacy and safety assessment, an error in the content of constituents of TM must be minimized. Various protocols, such as TLC, or HPLC chemical fingerprinting coupling with calculation of correlation coefficient, or identification of active constituents, were used to optimize and standardize TMs. Liquid chromatography coupling with mass spectrometry (LC-MS) is also an excellent tool for preliminary investigation due to its high sensitivity, resolution, availability of mass spectrum databanks, and etc. In this article, LC-MS was used to analyze ten lots of the extracted traditional Thai antihypertensive herbal recipe (TTAH) and some modified TTAHs in different solvents. The recognition models of TTAH were established after the data was processed along with principal component analysis (PCA). The quality of the PCA models was validated and found to be acceptable.

#### Biography

Tossaton Charoonratana has completed his PhD in Pharmaceutical Science since 2012 from Prince of Songkla University, Thailand and won an honorable price for his PhD thesis. He obtained a grant to work as a researcher in Leiden University for six months. Now, he is a lecturer in faculty of Pharmacy, Rangsit University. His research interests have been in various topics of herbal medicine standardization, molecular biology, genetic engineering, metabolomics, and phytochemistry. He has published more than 10 papers in reputed journals.

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