



## A UPLC-DAD–MS Method for the Quality Analysis of ‘JiangYaBiFeng’ Tablet

Lin ZHU, Siwei PENG, Olajide OLALEYE, Aidi QI, Xin CHAI, Haitao LIU & Yuefei WANG \*

*Tianjin State Key Laboratory of Modern Chinese Medicine and  
Tianjin Key Laboratory of TCM Chemistry and Analysis,  
Tianjin University of Traditional Chinese Medicine, 300193 Tianjin, PR China.*

**SUMMARY.** ‘JiangYaBiFeng’ (JYBF) tablet for treatment of hypertension in China is a composite prescription of Chinese and western medicines. By using ultra high performance liquid chromatography coupled with mass spectrometry (UPLC-MS), twenty-five compounds were simultaneously identified or tentatively characterized based on their retention times and MS spectra. Nine target compounds, hydrochlorothiazide (HC), rutin, genistin, sophoricoside, baicalin, wogonoside, genistein, baicalein and wogonin, were further quantified by ultra high performance liquid chromatography with diode-array detector (UPLC-DAD). Chromatographic separation was successfully performed on a C<sub>18</sub> column with gradient elution of 0.1 % formic acid aqueous solution and acetonitrile at the flow rate of 0.4 mL/min in 15 min at 52 °C. Different wavelengths were used to determine corresponding compounds to ensure the best resolution. According to the methodological validation, including linearity, precision, accuracy and stability, this method was proved to be rapid, comprehensive, sensitive and feasible in the quality assessment of JYBF tablet.

**KEY WORDS:** ‘JiangYaBiFeng’ tablet, Qualitation, Quantification, UPLC-DAD–MS.

\*Author to whom correspondence should be addressed. *E-mail:* wangyuefei\_2006@hotmail.com