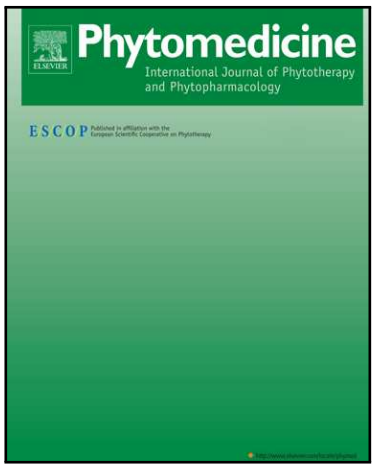

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PII: S0944-7113(18)30048-5
DOI: 10.1016/j.phymed.2018.03.013
Reference: PHYMED 52387

To appear in: *Phytomedicine*

Received date: 23 July 2017
Revised date: 10 January 2018
Accepted date: 7 March 2018

Please cite this article as: Yin Xiong , Yupiao Hu , Fan Li , Lijuan Chen , Qin Dong , Jiabo Wang , Elizabeth A. Gullen , Yung-chi Cheng , Xiaohe Xiao , Promotion of quality standard of Chinese herbal medicine by the integrated and efficacy-oriented quality marker of Effect-constituent Index, *Phytomedicine* (2018), doi: 10.1016/j.phymed.2018.03.013

Promotion of quality standard of Chinese herbal medicine by the integrated and efficacy-oriented quality marker of *Effect-constituent Index*

Yin Xiong[a,b,*], Yupiao Hu[a], Fan Li[a], Lijuan Chen[a], Qin Dong[c], Jiabo Wang[c], Elizabeth A. Gullen[d], Yung-chi Cheng[d], Xiaohe Xiao[c,*]

[a]*Faculty of Life Science and Technology, Kunming University of Science and Technology, Kunming 650504, China*

[b]*College of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing 100102, China*

[c]*China Military Institute of Chinese Materia Medica, 302 Military Hospital, Beijing 100039, China*

[d]*Department of Pharmacology, Yale University School of Medicine, New Haven, CT 06510, USA*

[*]*Corresponding authors*

Yin Xiong, Faculty of Life Science and Technology, Kunming University of Science and Technology, Kunming 650504, China

Xiaohe Xiao, China Military Institute of Chinese Materia Medica, 302 Military Hospital, Beijing 100039, China

E-mail addresses: yhsiung@163.com (Y. Xiong), pharmacy302@126.com (X. Xiao)

ABSTRACT

Background: Multiple constituents have been applied currently as markers to control the quality of Chinese herbal medicine (CHM). However, those constituents are isolated from each other, failed to present their contribution differences to the bioeffect of CHM. Besides, a CHM for different clinic uses is often controlled by the same quality marker (Q-marker), which cannot correlate its efficacies differentially.

Purpose: The study aims to promote the quality standard of CHM by the integrated and efficacy-oriented Q-marker of *Effect-constituent Index* (*ECI*).

Methods: With Coptidis Rhizoma (C. Rhizoma) as a case study, the Q-marker of *ECI* based on the integration of bioeffect and active constituents was developed. According to the efficacies of C. Rhizoma, we investigated its antibacterial and antineoplastic effects by microcalorimetry and MTT assay, respectively. High performance liquid chromatography was performed to determine the active constituents of C. Rhizoma extract simultaneously. ECI_S of