

# Pharmacology and Ethnopharmacology

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## Anticancer effect of coptis: Destination of its two thousand years journey?

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Coptis has been used in Chinese medicine over two thousand years. Until Song Dynasty (960-1279 AD) of China, composite formulae containing coptis already reached 1500 recipes. They are for treating various diseases in terms of hot and dampness syndromes, which are kinds of infective and inflammatory diseases nowadays. The ethnopharmacological traits of coptis have led to scientific research to unravel the chemistry and mechanism of its action in *in vitro* and *in vivo* models. Coptis and its composite formulae encompass a wide range of ingredients with a variety of bioactives responsible for their efficacy in prevention and treatment of various diseases such as infective, neurodegenerative, cardiovascular, and diabetic diseases as well as obesity. Recently, we focus on effect of coptis in cancer, especially hepatocellular carcinoma (HCC). Using molecular and cellular as well as OMICS technologies, we conducted series studies on anticancer effect of coptis. Based on miRNAs chip array, we found miRNA-23a was upregulated by coptis and berberine in HCC. We further demonstrated that overexpression of mir-23a could significantly potentiate the *in vitro* and *in vivo* anti-tumor effect of etoposide. We also investigated the involvement of microRNA-23a in p53-mediated inhibition of HCC by berberine. Other mechanisms may also associate with anticancer effect of coptis and berberine. Discussion will be conducted on is the anticancer effect of coptis destination for its two thousand years journey? and why coptis can be panacea for multiple diseases?

### Biography

Yibin Feng is currently an Associate Professor cum Associate Director in School of Chinese Medicine, the University of Hong Kong. He was awarded Bachelor degree in Chinese Medicine from Mainland China. He was awarded his PhD degree in molecular medicine from Hokkaido University School of Medicine and finished Postdoctoral research in the same University in Japan. His research interest focuses on clinical trial and experimental study for cancer, diabetes, hepatic and renal diseases by using recently developed techniques. He has published over 200 publications in these areas and serve as Editor and reviewer for over 50 international journals.

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