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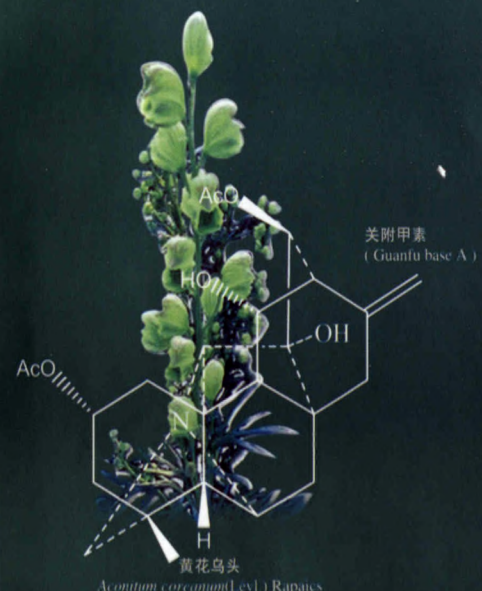


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*(Zhongguo Tianran Yaowu)*

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*Chin J Nat Med*, 2012, **10** (3): 177-184

## Protective effect of *Ornithogalum saundersiae* Ait (Liliaceae) against acetaminophen-induced acute liver injury *via* CYP2E1 and HIF-1α

WAN Ying [Δ], WU Yan-Ling [Δ], LIAN Li-Hua, NAN Ji-Xing *

*Key Laboratory for Natural Resource of Changbai Mountain & Functional Molecules, Ministry of Education, College of Pharmacy, Yanbian University, Yanji 133002, China*

The hepatoprotective effects of total saponin from *Ornithogalum saundersiae* Ait (Liliaceae) (OC) against acetaminophen (APAP)-induced acute liver injury *in vivo* and *in vitro* were investigated. The results suggest that the hepatoprotective mechanism of OC might be related to antioxidation *via* blocking the CYP2E1, and mediating reactive oxygen species scavenging and accumulation of hypoxia-inducible factor (HIF)-1α.

**[Research funding]** This project was supported by the National Natural Science Foundation of China (Nos. 81160538 and 30960511).

*Chin J Nat Med*, 2012, **10** (3): 185-189

## β-Cell protective efficacy, hypoglycemic and hypolipidemic effects of extracts of *Achillea millifolium* in diabetic rats

Khalid G. Mustafa [1, 2], Bashir A. Ganai [1*], Seema Akbar [2], Mohamad Y. Dar [2], Akbar Masood [1]

[1]*Department of Biochemistry, Faculty of Biological Sciences, University of Kashmir, Srinagar 190006 Kashmir, India;*
[2]*Drug Standardisation Research Unit, Regional Research Institute of Unani Medicine (CCRUM), Naseem Bagh, University of Kashmir Campus, Srinagar 190 006 Kashmir, India*

The therapeutic uses of *Achillea millifolium* in diabetic rats were evaluated. The results indicate that the extracts showed significant decrease in blood glucose level, TGL, VLDL, cholesterol, SGOT, SGPT, and ALP in diabetic rats, and prevented the β-cells of pancreas from the cytotoxic effects of Alloxan monohydrate.

*Chin J Nat Med*, 2012, **10** (3): 190-195

## *In vitro* antioxidant activity of *Parnassia wightiana* W. extracts

WEN Xin-Bao [1], MIAO Fang [1*], ZHOU Le [2], ZHANG Miao [1], HE Quan-Lei [1]

[1]*College of Life Sciences, Northwest A & F University, Yangling 712100, China;*
[2]*College of Science, Northwest A & F University, Yangling 712100, China*

The total flavonoid contents and *in vitro* antioxidant activity of different extracts from *Parnassia wightiana* and their correlation were studied. The total flavonoid content in ethyl acetate extract (EAE) was the highest, followed *n*-butanol extract (BE), water extract (WE) and chloroform extract (CE). WE and BE showed better antioxidant activity than CE and EAE. Each extract showed concentration dependent antioxidant activity and a high correlation between content of flavonoids and antioxidant activity.

**[Research funding]** This project was supported by the National Natural Science Foundation of China (Nos. 31000865, 30771454, 31172365, 31170366).

*Chin J Nat Med*, 2012, **10** (3): 196-206

## UPLC-MS based metabolic profiling of the phenotypes of *Acanthopanax senticosus* reveals the changes in active metabolites distinguishing the diversities of the plant grown in northeast area of China

SUN Hui [1], HAN Ying [1], ZHANG Ai-Hua [1], MENG Xiang-Cai [1*], WANG Zhen-Yue [2], SUN Wen-Jun [1], SUN Hai-Feng [2], WANG Xi-Jun [1*]

[1]*National TCM Key Laboratory of Serum Pharmaco-Chemistry, Heilongjiang University of Chinese Medicine, and Key Pharmacometabolomics Platform of Chinese Medicines, Harbin 150040, China;*
[2]*Department of Chinese Herbal Medicinal Resource, Heilongjiang University of Chinese Medicine, Harbin 150040, China*

UPLC-MS technology-based metabolic profiles was used to discriminate phenotypes of *Acanthopanax senticosus*. By processing the metabolomic data with principal component analysis (PCA), partial least squares-discriminant analysis (PLS-DA) and orthogonal projection to latent structures (OPLS) analysis, eleven secondary metabolites were found to be responsible for classing the two varieties of *Acanthopanax senticosus*, they might be taken as potential biological markers of sexual type. These marker metabolites include flavone, coumarin, terpenes and organic acids, which are the main active constituents related to the therapeutic effects of *Acanthopanax senticosus*. As a result, by monitoring these highly expressed metabolites and through selective cultivation, an *Acanthopanax senticosus* with higher amounts of medicinally relevant constituents could be created.

*Chin J Nat Med*, 2012, **10** (3): 207-212

## Immobilization mediated enhancement of phyllanthin and hypophyllanthin from *Phyllanthus amarus*

J. S. Thakur*, R. K. Agarwal, M. D. Kharya

*Plant Biotechnology Laboratory, Department of Pharmaceutical Sciences, Dr. Hari Singh Gour Central University, Sagar (M.P.) 470003, India*

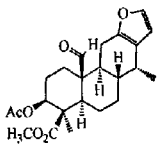
A cost effective process was developed for enhancing phyllanthin and hypophyllanthin utilizing the immobilization technique. The study revealed that an increase in the content of phyllanthin and hypophyllanthin was elicitor concentration dependent and silver nitrate treatment gave a maximum yield of hepatoprotective bioactives as compared to the other abiotic elicitors used.

*Chin J Nat Med*, 2012, **10** (3): 218-221

## Two new cassane diterpenoids from the seeds of *Caesalpinia sappan* Linn.

ZHANG Jing-Yu, WU Fei-Hua, QU Wei, LIANG Jing-Yu*

*Department of Natural Medicinal Chemistry, China Pharmaceutical University, Nanjing 210009, China*

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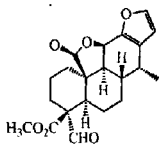


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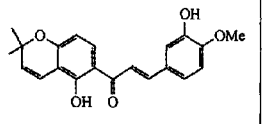
Phanginin L (**1**) and phanginin M (**2**) are two new cassane diterpenoids isolated from the seeds of *Caesalpinia sappan*. Compound **1** showed moderate cytotoxicity against HepG2 cell line with $IC_{50}$ of 9.13 μg·mL$^{-1}$.

*Chin J Nat Med*, 2012, **10** (3): 222-225

## A new prenylated chalcone from the seeds of *Millettia pachycarpa*

SU Xue-Hui, LI Cong-Ying, ZHONG Yu-Jiao, YUAN Zhi-Peng, LI Yan-Fang*, LIANG Bing

*Department of Pharmaceutics & Bioengineering, School of Chemical Engineering, Sichuan University, Chengdu 610065, China*




1

The chemical constituents from the seeds of *Millettia pachycarpa* were investigated. Compound **1**, 3-hydroxy-4-methoxylonchocarpin, is a new prenylated chalcone, and compounds **2**–**4** (4-methoxylonchocarpin, isobavachromene, dorspoinsettifolin) were isolated from this genus for the first time. Compounds **1**–**4** selectively showed moderate inhibition against one or more of the tested cell lines.

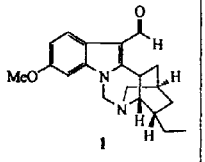
**[Research funding]** This project was supported by the Key Program of the National Natural Science Foundation of China (No. 30730111).

*Chin J Nat Med*, 2012, **10** (3): 226-229

## A new monoterpenoid indole alkaloid from *Ervatamia chinensis*

GUO Ling-Li [1,2], ZHANG Yu [2], HE Hong-Ping [2], LI Yan [2], YU Jian-Ping [1*], HAO Xiao-Jiang [2*]

[1]*School of Life Sciences, Guizhou University, Guiyang 550025 China;*
[2]*State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650201, China*




1

The chemical constituents of the whole plants of *Ervatamia chinensis* was studied. Compound **1** (ervachinine E) is a new monoterpenoid indole alkaloid and with moderate anti-tumor activity, while five known compounds are reported from this species for the first time.

**[Research funding]** This project was supported by the National Natural Science Foundation of China (No. 31100259).