

ISSN 0513-4870 CN 11-2163/R



Q K 1 8 1 6 9 1 8

# 药学学报

第53卷

第4期

2018 Vol. 53 No. 4

Acta  
Pharmaceutica Sinica

综述

张燕宇, 魏刚等

眼部疾病的基因治疗与递送

策略

万方数据

研究论文

何贝轩, 郭美丽等

CtCHS4响应茉莉酸甲酯诱导促进了红花  
醌式查尔酮类化合物的积累



中国药学会

中国医学科学院药物研究所

# 药 学 学 报

第 53 卷 第 4 期 2018 年 4 月

## 综 述

- 血管平滑肌细胞表型转化中 microRNA 调控信号传导通路的研究进展 ..... 陈 颖, 于浩溔, 孙 岚, 杜冠华 (487)  
Sab 蛋白的研究进展 ..... 姜剑伟, 王 慎, 李 燕 (495)  
DOT1L 抑制剂在肿瘤中的研究进展 ..... 周仕海, 孙朋举, 赵勇强, 张 岩, 余聂芳 (500)  
Bcl-2: 从靶标到上市药物的研究进展 ..... 李孝贤, 刘仁帅, 方 浩 (509)  
眼部疾病的基因治疗与递送策略 ..... 张燕宇, 高 欣, 江 宽, 太玲钰, 魏 刚, 陆伟跃 (518)  
药物纳米晶体制备技术 30 年发展回顾与展望 ..... 岳鹏飞, 刘 阳, 谢 锦, 陈颖翀, 杨 明 (529)

## 研 究 论 文

### 药理学

- 花青素对晶状体上皮细胞氧化应激损伤和上皮间充质转化的抑制作用 ..... 周婉祎, 赵一秀, 安 娜, 白云龙, 张 妍, 杨宝峰 (538)  
人参皂苷 Rg1 调控 miR-153/Nrf2/HO-1 减轻肌萎缩侧索硬化模型小鼠损伤 ..... 张 刹, 王莎莎, 朱天碧, 楚世峰, 陈乃宏 (546)  
赫赛汀获得性耐药胃癌细胞非标定量蛋白质组学研究 ..... 刘文虎, 汪 宜, 李生茂, 张建武, 常晋霞 (553)  
大黄治疗阳虚便秘模型大鼠的整合 PK/PD 研究 ..... 龚小红, 周忆梦, 郑 立, 汤韵秋, 龚莉虹, 余琳媛, 李芸霞, 彭 成 (561)  
基于网络药理学的二至丸保肝作用机制研究 ..... 翟园园, 刘其南, 徐 佳, 姚卫峰, 包贝华, 曹雨诞, 张 丽, 丁安伟 (567)  
基于统计建模的壮骨关节丸诱发特异质肝损伤相关易感性细胞因子分析 ..... 唐进法, 王晓艳, 杨 伟, 李伟霞, 李宇辉, 柏兆方, 王伽伯, 肖小河 (574)

### 药物化学

- 天然蕈毒碱类似物 1',2'-二-O-异亚丙基二氧乙基异噁唑啉衍生物的合成及其对 Cdc25B 和 CD45 体外抗癌和  
白细胞共同抗原活性筛选 ..... 穆赫塔尔·伊米尔艾山, 萨特瓦尔迪·赫力力, 王 婷 (585)  
波罗蜜根中的异戊烯基黄酮类成分 ..... 肖川云, 李文艳, 翟晓晓, 朱灵芝, 周燕飞, 姚鹏程, 舒清霞, 任 刚 (592)

### 药物分析

- 基于核苷类成分对不同商品等级冬虫夏草的比较研究 ..... 黄莉莉, 谷 珂, 过立农, 刘 杰, 郑 健, 马双成 (598)  
卡铂注射液未知杂质结构及其与辅料的相关性研究 ..... 金 薇, 江文明, 刘 茜, 高 旋, 张 叶, 郭 丹, 钱 敏, 任美婷, 杨永健 (604)  
采用 UHPLC-Q Exactive 轨道阱高分辨质谱快速识别脑震宁颗粒的化学成分 ..... 于舒婷, 刘海霞, 李 昆, 秦正国, 秦雪梅, 朱 平, 李震宇 (609)

### 药剂学

- Heparasan 多糖聚合物胶束的制备及体外抗肿瘤活性 ..... 葛 璐, 邱立朋, 单晓甜, 毛 静, 李志超, 陈敬华 (621)  
基于响应曲面法对黄芩-黄连配伍改善 2 型糖尿病糖脂代谢紊乱的相互作用研究 ..... 崔 祥, 尚尔鑫, 江 曙, 钱大玮, 段金廒 (630)

### 生药学

- CtCHS4 响应茉莉酸甲酯诱导促进了红花醌式查尔酮类化合物的积累 ..... 何贝轩, 薛英茹, 涂燕华, 高 越, 郭美丽 (636)  
甘草 CHS 基因多态性与甘草苷含量的相关性分析 ..... 张晓冬, 周 姗, 尹彦超, 胡 婷, 高智强, 韩沂霖, 李文东, 刘 颖 (646)

### 《药学学报》英文刊 2018 年第 2 期图文摘要

## 信 息

- (620) 《药学学报》再次入选全国“百强科技期刊”



## REVIEWS

- 487 Research progress on regulation of signaling pathway by microRNA in phenotypic change of vascular smooth muscle cell  
CHEN Y, YU HY, SUN L, DU GH
- 495 Research advances in study of Sab protein  
JIANG JW, WANG R, LI Y
- 500 Research progress of DOT1L inhibitors in cancer  
ZHOU SH, SUN PJ, ZHAO YQ, ZHANG Y, YU NF
- 509 Bcl-2: research progress from target to launched drug  
LI XX, LIU RS, FANG H
- 518 Gene therapy and delivery strategies for ocular diseases  
ZHANG YY, GAO X, JIANG K, TAI LY, WEI G, LU WY
- 529 Review and prospect on preparation technology of drug nanocrystals in the past thirty years  
YUE PF, LIU Y, XIE J, CHEN YC, YANG M

## ORIGINAL ARTICLES

## Pharmacology

- 538 Inhibitory effects of anthocyanin on oxidative stress injury and epithelial-mesenchymal transition of human lens epithelial cells  
ZHOU WY, ZHAO YX, AN N, BAI YL, ZHANG Y, YANG BF
- 546 Rg1 alleviates the damage in ALS model through regulation of miR153/Nrf2/HO-1  
ZHANG Z, WANG SS, ZHU TB, CHU SF, CHEN NH
- 553 Label-free quantitative proteomic analysis of acquired herceptin resistance in gastric cancer cells  
LIU WH, WANG Y, LI SM, ZHANG JW, CHANG JX
- 561 Study on integrated PK/PD of rhubarb in the treatment of yang-deficiency constipation model rats  
GONG XH, ZHOU YM, ZHENG L, TANG YQ, GONG LH, YU LY, LI YX, PENG C
- 567 Network pharmacology-based study on mechanism of liver protection of Erzhi Pill  
ZHAO YY, LIU QN, XU J, YAO WF, BAO BH, CAO YD, ZHANG L, DING AW
- 574 Cytokine analysis of Zhuangguguanjie wan-induced idiosyncratic liver injury based on mathematical modeling  
TANG JF, WANG XY, YANG W, LI WX, LI YH, BAI ZF, WANG JB, XIAO XH

*Abstracted / indexed in Chemical Abstracts (CA), Index Medicus (IM, Medline), SciFinder Scholar, Elsevier Scopus, Abstract Journal (AJ), Biological Abstracts (BA), Centre for Agriculture and Bioscience International (CABI), Current Bibliography on Science and Technology (CBST), Excerpta Medica (EM), Index Copernicus (IC), International Pharmaceutical Abstracts (IPA), Cambridge Scientific Abstracts (CSA), TOX CENTER, Ulrich's International Periodicals Directory, Chinese Pharmaceutical Abstracts (CPA), Abstracts of Chinese Medicine (ACME), etc.*

## Medicinal Chemistry

- 585 Synthesis of 1',2'-O-isopropylidenedioxyethyl isoxazoline derivatives of natural muscarinic analogs and screening its anti-cancer and leukocyte common antigen activity on Cdc25B and CD45 *in vitro*  
IMERHASAN M, HELIL S, WANG T
- 592 Prenylated flavonoids from the roots of *Artocarpus heterophyllus*  
XIAO CY, LI WY, ZHAI XX, ZHU LZ, ZHOU YF, YAO PC, SHU QX, REN G

## Pharmaceutical Analysis

- 598 Comparative study on nucleosides in circulated *Cordyceps sinensis* of different sizes  
HUANG LL, ZAN K, GUO LN, LIU J, ZHENG J, MA SC
- 604 Study on the structure of an unknown impurity in carboplatin injection and the relationship with the excipient  
JIN W, JIANG WM, LIU Q, GAO X, ZHANG Y, GUO D, QIAN M, REN MT, YANG YJ
- 609 Identification of chemical constituents in Naozhennung granule by UHPLC coupled with hybrid quadrupole-orbitrap MS  
YU ST, LIU HX, LI K, QIN ZG, QIN XM, ZHU P, LI ZY

## Pharmaceutics

- 621 Preparation and properties of heparosan polysaccharide-vitamin E succinate polymer micelles  
GE L, QIU LP, SHAN XT, MAO J, LI ZC, CHEN JH
- 630 Interaction of Scutellaria-Coptis herb pair in improvement of glucose and lipid metabolism of type 2 diabetes rats based on response surface method  
CUI X, SHANG EX, JIANG S, QIAN DW, DUAN JA

## Pharmacognosy

- 636 *CtCHS4* induces the accumulation of safflower quinone chalcones in response to methyl jasmonate induction  
HE BX, XUE YR, TU YH, GAO Y, GUO ML
- 646 Analysis on the correlation between chalcone synthase gene polymorphism and content of liquiritin in licorice  
ZHANG XD, ZHOU S, YIN YC, HU T, GAO ZQ, HAN YL, LI WD, LIU Y





## REVIEWS

- 487 Research progress on regulation of signaling pathway by microRNA in phenotypic change of vascular smooth muscle cell  
CHEN Y, YU HY, SUN L, DU GH
- 495 Research advances in study of Sab protein  
JIANG JW, WANG R, LI Y
- 500 Research progress of DOT1L inhibitors in cancer  
ZHOU SH, SUN PJ, ZHAO YQ, ZHANG Y, YU NF
- 509 Bcl-2: research progress from target to launched drug  
LI XX, LIU RS, FANG H
- 518 Gene therapy and delivery strategies for ocular diseases  
ZHANG YY, GAO X, JIANG K, TAI LY, WEI G, LU WY
- 529 Review and prospect on preparation technology of drug nanocrystals in the past thirty years  
YUE PF, LIU Y, XIE J, CHEN YC, YANG M

## ORIGINAL ARTICLES

## Pharmacology

- 538 Inhibitory effects of anthocyanin on oxidative stress injury and epithelial-mesenchymal transition of human lens epithelial cells  
ZHOU WY, ZHAO YX, AN N, BAI YL, ZHANG Y, YANG BF
- 546 Rg1 alleviates the damage in ALS model through regulation of miR153/Nrf2/HO-1  
ZHANG Z, WANG SS, ZHU TB, CHU SF, CHEN NH
- 553 Label-free quantitative proteomic analysis of acquired herceptin resistance in gastric cancer cells  
LIU WH, WANG Y, LI SM, ZHANG JW, CHANG JX
- 561 Study on integrated PK/PD of rhubarb in the treatment of yang-deficiency constipation model rats  
GONG XH, ZHOU YM, ZHENG L, TANG YQ, GONG LH, YU LY, LI YX, PENG C
- 567 Network pharmacology-based study on mechanism of liver protection of Erzhi Pill  
ZHAO YY, LIU QN, XU J, YAO WF, BAO BH, CAO YD, ZHANG L, DING AW
- 574 Cytokine analysis of Zhuangguguanjie wan-induced idiosyncratic liver injury based on mathematical modeling  
TANG JF, WANG XY, YANG W, LI WX, LI YH, BAI ZF, WANG JB, XIAO XH

*Abstracted / indexed in Chemical Abstracts (CA), Index Medicus (IM, Medline), SciFinder Scholar, Elsevier Scopus, Abstract Journal (AJ), Biological Abstracts (BA), Centre for Agriculture and Bioscience International (CABI), Current Bibliography on Science and Technology (CBST), Excerpta Medica (EM), Index Copernicus (IC), International Pharmaceutical Abstracts (IPA), Cambridge Scientific Abstracts (CSA), TOX CENTER, Ulrich's International Periodicals Directory, Chinese Pharmaceutical Abstracts (CPA), Abstracts of Chinese Medicine (ACME), etc.*

## Medicinal Chemistry

- 585 Synthesis of 1',2'-O-isopropylidenedioxyethyl isoxazoline derivatives of natural muscarinic analogs and screening its anti-cancer and leukocyte common antigen activity on Cdc25B and CD45 *in vitro*  
IMERHASAN M, HELIL S, WANG T
- 592 Prenylated flavonoids from the roots of *Artocarpus heterophyllus*  
XIAO CY, LI WY, ZHAI XX, ZHU LZ, ZHOU YF, YAO PC, SHU QX, REN G

## Pharmaceutical Analysis

- 598 Comparative study on nucleosides in circulated *Cordyceps sinensis* of different sizes  
HUANG LL, ZAN K, GUO LN, LIU J, ZHENG J, MA SC
- 604 Study on the structure of an unknown impurity in carboplatin injection and the relationship with the excipient  
JIN W, JIANG WM, LIU Q, GAO X, ZHANG Y, GUO D, QIAN M, REN MT, YANG YJ
- 609 Identification of chemical constituents in Naozhennung granule by UHPLC coupled with hybrid quadrupole-orbitrap MS  
YU ST, LIU HX, LI K, QIN ZG, QIN XM, ZHU P, LI ZY

## Pharmaceutics

- 621 Preparation and properties of heparosan polysaccharide-vitamin E succinate polymer micelles  
GE L, QIU LP, SHAN XT, MAO J, LI ZC, CHEN JH
- 630 Interaction of Scutellaria-Coptis herb pair in improvement of glucose and lipid metabolism of type 2 diabetes rats based on response surface method  
CUI X, SHANG EX, JIANG S, QIAN DW, DUAN JA

## Pharmacognosy

- 636 *CtCHS4* induces the accumulation of safflower quinone chalcones in response to methyl jasmonate induction  
HE BX, XUE YR, TU YH, GAO Y, GUO ML
- 646 Analysis on the correlation between chalcone synthase gene polymorphism and content of liquiritin in licorice  
ZHANG XD, ZHOU S, YIN YC, HU T, GAO ZQ, HAN YL, LI WD, LIU Y

