2024 年 11 月　第 43 卷　第 11 期
月刊
1982 年 7 月创刊

药　学　研　究
JOURNAL OF PHARMACEUTICAL RESEARCH

《药学研究》第十三届编辑委员会

学 术 顾 问: 陈凯先　管华诗　丁　健
岳建民　顾　宁

编 委 会 主 任: 李　涛

编委会副主任:(按姓氏笔画排序)
丁丽霞　王凤山　卢秀莲　杜冠华　李　波
李　燕　邱　峰　陈士林　邵　蓉　郑家晴
胡立宏　柳　红　娄红祥　姚庆强　屠鹏飞

主　编: 王维剑

副主编: 林永强　程春雷　魏　霞　孙　铜

编　委:(按姓氏笔画排序)
丁　克　丁丽霞　于　沛　于荣敏　马　杰
马　国　王凤山　王永军　王戌梅　王荣梅
王淑敏　王　鹏　王　磊　尤启冬　方莲花
尹莉芳　邓仕任　卢秀莲　卢　燕　卢　懿
田海妍　皮荣标　朱　平　朱冬青　乔善义
刘玉璇　刘安昌　刘继华　刘焕香　刘景根
刘新泳　齐宪荣　安林坤　许风国　许　婧
孙成鹏　孙国祥　严春艳　杜冠华　李　华
李孝栋　李芸霞　李卓荣　李明玉　李　波
李　燕　杨　柯　杨　勇　吴亚林　吴　伟
吴艳芬　邱　峰　何祥久　何琪杨　何蓉蓉
余　蓉　沈　雁　宋　超　张东明　张冬梅
张兰英　张　伟　张庆英　张　杰　张相林
张晓琦　张培成　张　海　张　翱　陈士林
陈艳芬　邵　蓉　范　源　罗海彬　金少鸿
金　晶　周建平　郑忠辉　郑　彧　郑家晴
孟宪生　赵龙山　赵桂森　赵　维　赵渤年
胡立宏　胡昌勤　胡金锋　柳　红　娄红祥
姚庆强　姚美村　夏　星　徐　伟　徐志南
徐　峻　凌沛学　高分飞　高　昊　郭远强
郭志睿　郭　颖　唐　蕾　黄鸣清　黄容琴
盛　亮　寇俊萍　屠鹏飞　景　明　程　刚
傅俊杰　鲁　桂　温　清　游雪甫　窦明金
窦桂芳　蔡　圣　臧恒昌

JOURNAL OF PHARMACEUTICAL RESEARCH

目　次

·实验研究·

靶向 PreS1 的 HBV mRNA 疫苗的开发与免疫原性评价
…… Narh Philip Amor (阿莫),林昂(1041)

载小白菊内酯靶向脂质体的制备及体外抗肿瘤研究
…… 袁辉,衣琪昆,李士壮,梁家文,张雨婷,陈浩亮,阎雪莹(1045)

芪蛭益肾胶囊对高糖诱导 HK-2 细胞损伤的保护效应及机制
…… 段文娜,王筱,商桂春,刘静波,刘欣,张龙霏,郑冰清,刘燕,张永清(1053)

苦杏仁苷领域的文献计量学研究及其可视化分析
…… 陈园,李涛,邓斌,丁彦郅,邹龙(1059)

基于 TLR4/NF-κB 通路研究丹皮酚延缓气道重塑治疗哮喘的作用机制
…… 赵辉,赵伟,李素霞(1067)

口服溶液剂洋葱伯克霍尔德菌群检测方法的建立及污染菌存活能力挑战试验 …… 张小涵,郭君贞,王艺,尹平,胡文红,冯丹阳(1072)

·中药"质-量"双标评价·

基于"质-量"双标的吴茱萸质量分析方法研究
…… 苗梦兰,包永睿,王帅,李天娇,关欣,孟宪生(1078)

基于"质-量"双标的连翘质量分析方法研究
…… 邱晓旭,王帅,李天娇,包永睿,杨欣欣,孟宪生(1084)

基于双波长差示融合图谱的中药陈皮"质-量"双标质量分析方法研究
…… 孟营,张强,包永睿,王帅,李天娇,孟宪生(1090)

·新药注册与审评技术·

化学仿制药注射剂过量灌装药学研究探讨
…… 董晨欢,姜喜凤,龚青,张新房(1096)

·综　　述·

小胶质细胞在多发性硬化症中的作用研究进展
…… 单纯,杨勇(1101)

阿片类药物与药物代谢酶基因多态性研究进展
…… 王泽宇,颜娟(1109)

脂质纳米颗粒在肿瘤治疗中的发展及应用
…… 杜秀丽,李娴静(1116)

轮状病毒及轮状病毒疫苗研究进展
…… 刘记伟,王维剑,武志昂,石峰,戚瑞卿,梁海岩(1125)

智能配药机器人在静脉药物调配的应用研究进展
…… 谢丽明,陈观凤,陈日志,罗荣琼,权维燕,欧阳茜茜,邱芝青(1131)

·药学教育·

药学拔尖人才培养模式下药用高分子材料学课程教学改革探讨
…… 邢磊,吴正红,姜虎林(1136)

以科研能力培养为导向的多途径天然药物化学教学方法探索
…… 张娟,周俊俊,贾亚雪,孙成鹏(1141)

《药学研究》杂志 2025 年度征订启事 …… (1066)

期刊基本参数: CN37-1493/R * 1982 * m * A4 * 104 * zh * P * ￥30.00 * * 17 * 2024-11
本期责任编辑: 孙铜

2024 November Volume 43 Number 11
Monthly
Founded in July, 1982

药 学 研 究
JOURNAL OF PHARMACEUTICAL RESEARCH

Academic Advisor: CHEN Kaixian GUAN Huashi DING Jian YUE Jianmin GU Ning

Director of Editorial Board: LI Tao

Associate Director of Editorial Board:

DING Lixia	WANG Fengshan	LU Xiulian
DU Guanhua	LI Bo	LI Yan
QIU Feng	CHEN Shilin	SHAO Rong
ZHENG Jiaqing	HU Lihong	LIU Hong
LOU Hongxiang	YAO Qingqiang	TU Pengfei

Editor-in-Chief: WANG Weijian

Associate Editors-in-Chief: LIN Yongqiang CHENG Chunlei WEI Xia SUN Tong

Members of Editoriol Board:

DING Ke	DING Lixia	YU Pei
YU Rongmin	MA Jie	MA Guo
WANG Fengshan	WANG Yongjun	WANG Xumei
WANG Rongmei	WANG Shumin	WANG Peng
WANG Lei	YOU Qidong	FANG Lianhua
YIN Lifang	DENG Shiren	LU Xiulian
LU Yan	LU Yi	TIAN Haiyan
PI Rongbiao	ZHU Ping	ZHU Dongqing
QIAO Shanyi	LIU Yuxuan	LIU Anchang
LIU Jihua	LIU Huanxiang	LIU Jinggen
LIU Xinyong	QI Xianrong	AN Linkun
XU Fengguo	XU Jing	SUN Chengpeng
SUN Guoxiang	YAN Chunyan	DU Guanhua
LI Hua	LI Xiaodong	LI Yunxia
LI Zhuorong	LI Mingyu	LI Bo
LI Yan	YANG Ke	YANG Yong
WU Yalin	WU Wei	WU Yanfen
QIU Feng	HE Xiangjiu	HE Qiyang
HE Rongrong	YU Rong	SHEN Yan
SONG Chao	ZHANG Dongming	ZHANG Dongmei
ZHANG Lanying	ZHANG Wei	ZHANG Qingying
ZHANG Jie	ZHANG Xianglin	ZHANG Xiaoqi
ZHANG Peicheng	ZHANG Hai	ZHANG Ao
CHEN Shilin	CHEN Yanfen	SHAO Rong
FAN Yuan	LUO Haibin	JIN Shaohong
JIN Jing	ZHOU Jianping	ZHENG Zhonghui
ZHENG Yu	ZHENG Jiaqing	MENG Xiansheng
ZHAO Longshan	ZHAO Guisen	ZHAO Wei
ZHAO Bonian	HU Lihong	HU Changqin
HU Jinfeng	LIU Hong	LOU Hongxiang
YAO Qingqiang	YAO Meicun	XIA Xing
XU Wei	XU Zhinan	XU Jun
LING Peixue	GAO Fenfei	GAO Hao
GUO Yuanqiang	GUO Zhirui	GUO Ying
TANG Lei	HUANG Mingqing	HUANG Rongqin
SHENG Liang	KOU Junping	TU Pengfei
JING Ming	CHENG Gang	FU Junjie
LU Gui	WEN Qing	YOU Xuefu
DOU Mingjin	DOU Guifang	CAI Sheng
ZANG Hengchang		

JOURNAL OF PHARMACEUTICAL RESEARCH

CONTENTS

Development and evaluation of PreS1-targeted HBV mRNA vaccine ····· *NARH PHILIP Amor, LIN Ang* (1041)

Preparation and anti-tumor study of parthenolide targeting liposomes in vitro ····· *YUAN Hui, YI Qikun, LI Shizhuang, LIANG Jiawen, ZHANG Yuting, CHEN Haoliang, YAN Xueying* (1045)

Protective effect and mechanism of Qizhi Yishen Capsules on HK-2 cell injury induced by high glucose ····· *DUAN Wenna, WANG Xiao, SHANG Guichun, LIU Jingbo, LIU Xin, ZHANG Longfei, ZHENG Bingqing, LIU Yan, ZHANG Yongqing* (1053)

Bibliometric research and visual analysis in the field of amygdalin ····· *CHEN Yuan, LI Tao, DENG Bin, DING Yanzhi, ZOU Long* (1059)

Study on the mechanism of paeonol delaying airway remodeling in asthma based on TLR4/NF-κB pathway ····· *ZHAO Hui, ZHAO Wei, LI Suxia* (1067)

Establishment of a method for the detection of *Burkholderia cepacia* in oral solution and the challenge experiment of survival ability of contaminated bacteria ····· *ZHANG Xiaohan, GUO Junzhen, WANG Yi, YIN Ping, HU Wenhong, FENG Danyang* (1072)

Study on quality analysis method of *Euodiae Fructus* based on "quality-quantity" double standard ····· *MIAO Menglan, BAO Yongrui, WANG Shuai, LI Tianjiao, GUAN Xin, MENG Xiansheng* (1078)

Research on the quality analysis method of *Forsythiae Fructus* based on "quality-quantity" double standard ····· *QIU Xiaoxu, WANG Shuai, LI Tianjiao, BAO Yongrui, YANG Xinxin, MENG Xiansheng* (1084)

Study on "quality-quantity" double standards quality analysis method for traditional chinese medicine *Citri Reticulatae Pericarpium* based on dual wavelength differential fusion spectrum ····· *MENG Ying, ZHANG Qiang, BAO Yongrui, WANG Shuai, LI Tianjiao, MENG Xiansheng* (1090)

Discussion on pharmaceutical research of overfilling for generic injections ····· *DONG Chenhuan, JIANG Xifeng, GONG Qing, ZHANG Xinfang* (1096)

Research advances in the role of microglia in multiple sclerosis ····· *SHAN Chun, YANG Yong* (1101)

Research progress of opioid drugs and gene polymorphism of drug metabolism enzymes ····· *WANG Zeyu, YAN Juan* (1109)

The development and application of lipid nanoparticle in tumor therapy ····· *DU Xiuli, LI Xianjing* (1116)

Research progress on rotavirus and rotavirus vaccines ····· *LIU Jiwei, WANG Weijian, WU Zhiang, SHI Feng, XIAN Ruiqing, LIANG Haiyan* (1125)

Research progress on the application of intelligent dispensing robots in intravenous drug preparation ····· *XIE Liming, CHEN Guanfeng, CHEN Rizhi, LUO Rongqiong, QUAN Weiyan, OUYANG Qianqian, QIU Zhiqing* (1131)

Discussion on the teaching reform of polymer science in pharmaceutics under training mode of pharmaceutical top-notch talents ····· *XING Lei, WU Zhenghong, JIANG Hulin* (1136)

Exploration of multi-channel teaching methods of natural medicinal chemistry guided by the cultivation of scientific research ability ····· *ZHANG Juan, ZHOU Junjun, JIA Yaxue, SUN Chengpeng* (1141)

Journal Primary Parameter: CN37-1493/R * 1982 * m * A4 * 104 * zh * P * ￥30.00 * * 17 * 2024-11