



QK2014342

CODEN SXJTA8

XIAN DAI SHENG WU YI XUE JIN ZHAN

现代生物医学进展

PROGRESS IN MODERN BIOMEDICINE

中国科技核心期刊

科技部中国科技论文统计源期刊

中国学术期刊网络出版总库 (CNKI) 收录期刊

美国化学文摘 (CA) 检索期刊

俄罗斯文摘杂志 (AJ) 收录期刊

英国国际农业与生物科学研究中心 (CABI) 数据库收录期刊

美国剑桥文摘 (CSA) 收录期刊

英国Global Health数据库收录期刊

Genamics Journal Seek收录期刊

美国ProQuest数据库收录期刊

美国EBSCO数据库收录期刊

波兰白尼索引 (IC) 收录期刊

WHO西太区医学索引 (WPRIM) 收录期刊

ISSN 1673-6273



9 771673 627207

02>



万方数据

2020年第20卷 (第2期)

现代生物医学进展

XIANDAI SHENGWUYIXUE JINZHAN

半月刊 2001 年 4 月创刊 第 20 卷 第 2 期 2020 年 1 月 30 日出版 Progress in Modern Biomedicine

主 管：黑龙江省卫生厅
主 办：黑龙江省森工总医院
哈尔滨医科大学附属第四医院
协 办：哈尔滨工业大学
上海交通大学附属第一人民医院
编 辑：现代生物医学进展编辑委员会
150040 哈尔滨市和兴路 32 号
电 话：0451-82583800
E-mail:biomed_54@126.com
E-mail:liudhui_21@126.com
E-mail:biomagnetism@163.com
http://biomed.cnjournals.com
http://www.shengwuyixue.com
http://swcx.periodicals.net.cn
学 术 顾 问：杨宝峰 刘颂豪
阮长耿 曾溢滔 贺 林
张亨栋 王迺谦 刘玉清
郝希山 曾益新 张岂凡
执行主编：吴文忠
主 编：徐万海
副 主 编：李 钰 张贵祥
黄文华 黄菊芳 刘 平
吕传柱 曾乐平 唐一源
曾凡一 刘 明 代文杰
张清媛
编辑部主任：刘同奎
编辑部副主任：
刘子馨 谢建平 郑林丰
编辑部地址：150001，哈尔滨市 54 号信箱
(哈尔滨市花园街 184 号 403)
电 话：0451-82583800 0451-53658268
传 真：0451-82583966
出 版：现代生物医学进展杂志社
印 刷：哈尔滨市工大节能印刷厂
发 行：国内：哈尔滨市报刊发行局
国 外：中国国际图书贸易总公司
(北京 399 信箱, 100044)
国外发行代号：Q1728
订 购：全国各地邮局
邮发代号：14-12
邮 购：现代生物医学进展编辑部
(150001 哈尔滨市 54 号信箱)
定 价：30.00 元 / 期, 全年 720.00 元
中国标准刊号：ISSN 1673-6273
CN 23-1544/R
2020 年版权归现代生物医学进展杂志社所有
本刊刊出的所有文章不代表编委会的观点，
除非特别声明 本刊如有印刷质量问题，请向
现代生物医学进展杂志编辑部调换

目 次

· 论 著 ·

· 基础研究 ·

HepG2 细胞中线粒体形状的动态变化
..... 高关刚 盛园园 张嘉杰等 (201)

烟碱型乙酰胆碱受体在面神经支配的口轮匝肌
和躯体神经支配的腓肠肌中的表达差异研究
..... 吴 爽 黄 勇 邢怡安等 (209)

Roxadustat 对肾缺血再灌注损伤的保护作用及机制研究
..... 吴俊波 徐 婷 乔苏迟等 (214)

山萘酚通过增强 Treg 细胞免疫抑制功能延长
移植物生存时间
..... 葛茹茹 徐辰鸣 顾 蔚等 (220)

白藜芦醇减轻高糖所致心肌微血管内皮细胞损伤的
作用及机制研究
..... 李聪叶 王 利 张明明等 (226)

黄连素预处理对 6- 羟基多巴胺所致 PC12 细胞损伤的影响
..... 鲍 和 王 晨 张津铭等 (231)

压力 - 应激对大鼠心肌细胞 Cx43 蛋白表达
及心肌纤维化的影响
..... 善孝胜 王 东 王 芳等 (237)

基于 PTEN-PI3K-AKT 信号通路探讨竹节参总皂苷抑制人肺腺癌
A549 细胞增殖和转移的机制
..... 高贵洲 张宏瑞 张 涛等 (242)

侧脑室微量注射大麻素受体拮抗剂对 orexin-A 诱导
大鼠能量代谢改变的影响及潜在机制研究
..... 刘金政 王 茜 冷 慧等 (248)

脑缺血大鼠肺组织 NGF/TrkA 表达变化及其意义
..... 顾晓燕 杜 强 潘化平等 (255)

亚麻木酚素对 2 型糖尿病小鼠学习记忆的影响
及其机制初探
..... 党学良 刘继洋 李文湖等 (259)

现代生物医学进展

XIANDAI SHENGWUYIXUE JINZHAN

半月刊 2001 年 4 月创刊 第 20 卷 第 2 期 2020 年 1 月 30 日出版 Progress in Modern Biomedicine

早期糖尿病肾病大鼠模型磁共振弥散加权成像的初步研究	胡小艳 王 强 苟 杰等	(264)
·临床研究·		
过敏原检测在幼儿喘息性疾病中的临床意义	丁 博 李亚琴 李小燕等	(268)
他克莫司乳膏联合治疗白癜风的疗效评价	卢宏俐 胡倩倩 何华萍等	(273)
多西他赛单药与培美曲塞联合顺铂二线治疗老年晚期胃癌的疗效及对患者生活质量的影响	陈晓东 段琼玉 孙宇楠等	(277)
胸外科手术后神经病理性疼痛的发生情况及相关因素分析	程少毅 陈 召 陈 静等	(281)
B 超声引导下肋锁间隙与喙突入路连续臂丛神经阻滞对 Barton 骨折术后镇痛效果比较	殷国江 阮剑辉 周 翔等	(285)
脊髓损伤扩散峰度成像参数与脊髓型颈椎病患者神经功能评分的相关性研究	龙 猛 刘 娜 梁园梓等	(290)
ABO 血型正反定型及交叉配血实验在外科病人手术输血中应用	李晨雪 李淑萍 李松涛等	(295)
苯巴比妥钠联合脑苷肌肽治疗新生儿缺氧缺血性脑病的疗效及对患儿血清 HIF-1 α 、LXA4、ET-1 表达的影响	王明章 贾 玲 尹 旭等	(299)
胆道梗阻合并胆道感染的病原学特征和危险因素及与肝脏损伤的关系研究	胡洪鹏 朱朝庚 戴 金等	(303)
血清 NSE、SCCA 及 CEA 在肺癌早期诊断和预后预测中的应用价值研究	尚文丽 霍树芬 王洁英等	(308)
RUNX3 基因在急性髓系白血病中的表达及预后意义	杨小燕 李 鹏 吴西军等	(313)
妊娠高血压视网膜病变影响因素分析及血管内皮功能检测的临床意义	陈艺中 罗 红 袁昌亮等	(319)
伤椎置钉与不置钉短节段内固定对胸腰椎爆裂骨折患者临床疗效及血清炎症损伤介质的影响	毛洪刚 朱艳丽 刘国栋等	(324)
定坤丹联合复宫宁颗粒治疗子宫内膜异位症的疗效及对血清 MCP-1、sICAM-1、CA125 水平的影响	华玲玲 薛 青 汤月萍等	(329)
平衡超滤技术对小儿先心病术后炎症因子、凝血功能及肺功能的影响	程玉梅 陈 峰 靳明扬等	(333)
洗涤红细胞输注在早产儿贫血中的应用价值分析	唐会珍 屈明利 王 钱等	(338)
地佐辛对骨关节病髋关节置换术患者炎症应激反应及认知功能的影响	李雪丹 黄柯冰 黄 杰等	(342)

现代生物医学进展

XIANDAI SHENGWUYIXUE JINZHAN

半月刊 2001年4月创刊 第20卷 第2期 2020年1月30日出版 Progress in Modern Biomedicine

肺癌超声造影参数与新生血管的相关性分析	高 飞 李 涛 阳 甜等	(346)
促红细胞生成素对脑损伤早产儿 NBNA 评分、肝肾功能以及脑干听觉诱发电位的影响	吴新婷 卞伟妮 郑玲芳等	(349)
乙型病毒性肝炎患者血清 HBV-LP 与 HBV-DNA 水平表达的相关性及临床意义	李艳芳 杨雪梅 罗 萍等	(353)
马来酸氟伏沙明片联合氨磺必利治疗精神分裂症患者的疗效及安全性分析	刁维东 王金柱 李永红等	(357)
BISAP、Ranson 和 APACHE II 评分系统对高脂血症性急性胰腺炎患者病情和预后的评估价值	陈 辉 兰 涛 张培君等	(361)
重症蜂螫伤患者的肾脏病理表现	郭博慧 芦建伟 李 毅等	(366)
腰大池引流联合法舒地尔治疗动脉瘤性蛛网膜下腔出血的疗效及对血清 sICAM-1、FABP、MCP-1 水平和脑积水形成的影响	刘永军 高 翔 吴建梁等	(370)
慢性肾小球肾炎患者血清 UA、Cys C、TAFI 联合检测的临床意义	王春花 秦兰芳 胡文博等	(375)
·生物信息学·		
宫颈癌差异表达基因筛选及功能分析	王会平 郜赵伟 李锐成等	(379)
·技术与方法·		
基于支持向量机的表面肌电信号和加速度融合跌倒识别方法	刘晓光 李奂良 姜存广等	(385)
·专论与综述·		
组织工程用纤维增强天然多糖水凝胶的进展	孙 茜 李 伟 孙 康	(391)
精神分裂症患者中的高泌乳素血症研究进展	王丽华 孙秀佳 于文娟等	(397)
·重要信息·		
《现代生物医学进展》2020 年封面设计说明		(208)
《现代生物医学进展》杂志简介及投稿指南		(I ~ IV)

责任编辑:王念、武海艳、郭晓东、李寿朋、王国华、陈文、田向荣、曾垂凯、陶维东、王沛坚、崔玉宝
英文编辑:田林杰、王娟、杨尚琴、李媛媛、吕志刚、马军、符波、朱杰、许愿忠、靳大川、岳颖、陈芸芸
执行编辑:谢建平、曾乐平、刘子馨、郑林丰、韩康、周利红、周颖、张玉环、董佩锋、朱英杰、万民熙
封面设计:曾乐平、彭安安

Progress in Modern Biomedicine

Established in April 2001

Volume 20 Number 2

January 30 2020

Responsible: The public Health Bureau of
Heilongjiang province
Sponsor: Heilongjiang Province Forestry General Hospital
The Fourth Hospital of Harbin Medical
University
Cosponsor: Harbin Institute of Technology
Shanghai Jiao Tong University
Affiliated First People's Hospital
Editing: Editorial Board of Progress in Modern
Biomedicine
No.32, Hexing Road, Harbin 150040
Tel:(0451) 82583800
<http://biomed.cnjournals.com>
<http://www.shengwuyixue.com>
<http://swcx.periodicals.net.cn>
E-mail: biomed_54@126.com
E-mail: liudhui_21@126.com
E-mail: biomagnetism@163.com
Academic Adviser: YANG Bao-feng
LIU Song-hao RUAN Chang-geng
ZENG Yi-tao HE Lin
ZHANG Ting-dong WANG Nai-qian
LIU Yu-qing HAO Xi-shan
ZENG Yi-xin ZHANG Qi-fan
Executive-Editor-in-chief:
WU Wen-zhong
Editor-in-chief:
XU Wan-hai
Associate Editor-in-chief: LI Yu
ZHANG Gui-xiang HUANG Wen-hua
HUANG Ju-fang LIU Ping
LV huan-zhu ZENG Le-ping
TANG Yi-yuan ZENG Fan-yi
LIU Ming DAI Wen-jie
ZHANG Qing-yuan
Managing Director:
LIU Tong-kui
Managing Associate Director:
LIU Zi-xin XIE Jian-ping
ZHENG Lin-feng
Address of Editorial Department:
150001, Harbin No.54 Post-office box
(Room 403, No.184 at Huayuan Street, Harbin)
Tel: 0451-82583800 0451-53658268
Publishing: House, Journal of Progress in Modern
Biomedicine
Printing: Harbin city Gongda save energy
printing House
Overseas Distributor: China International
Book Trading corporation.
P.O Box 399, Beijing, code No.Q1728
Mail-Order: Editorial Department of publishing
House, Progress in Modern Biomedicine
Harbin 54 Post-office box, Harbin 150001
Tel: 0451-53658268 0451-82583800
CSSN: ISSN 1673-6273
CN 23-1544/R
Copyright 2020 by the publishing
House of Progress in Modern Biomedicine
All articles published represent the opinions of
the authors, do not reflect the official policy of
the Editorial Board of Progress in Modern Biomedicine
unless this is clearly specified.

Contents in Brief

ORIGINAL ARTICLES

·BASIC RESEARCH·

Dynamic Change of Mitochondria Morphology in HepG2 Cells

GAO Guan-gang, SHENG Yuan-yuan, ZHANG Jia-jie, et al

..... (201)

A Study on the Different Expression of Nicotinic Acetylcholine

Receptors in the Facial Nerve Innervated Orbicularis Oris

and the Somatic Nerve Innervated Gastrocnemius

WU Shuang, HUANG Yong, XING Yi-an, et al

..... (209)

Protective Effect and Mechanism of Roxadustat on

the Renal Ischemia-reperfusion Injury

WU Ju-bo, XU Ting, QIAO Su-chi, et al

..... (214)

Kaempferol Prolongs the Graft Survival Time by

Enhancing the Immunosuppressive Function of Treg Cells

GE Ru-ru, XU Chen-ming, GU Wei, et al

..... (220)

Polydatin Decreases the Impairment of CMECs Caused

by High Glucose in Rat by Enhancing Autophagy

LI Cong-ye, WANG Li, ZHANG Ming-ming, et al

..... (226)

Effects of Berberine Preconditioning on PC12 Cells

Exposed to 6-OHDA

BAO He, WANG Chen, ZHANG Jin-ming, et al (231)

Progress in Modern Biomedicine

Established in April 2001

Volume 20 Number 2

January 30 2020

Effects of Pressure-stress on the Expression of Cx43 Protein and Myocardial Fibrosis in Rat Cardiomyocytes	
SHAN Xiao-sheng, WANG Dong, WANG Fang, et al	(237)
Study on the Mechanism of Saponins from Panaxjaponicus on Inhibition of A549 Cell Proliferation and Migration through Regulating PTEN/PI3K/Akt Pathway	
GAO Gui-zhou, ZHANG Hong-rui, ZHANG Tao, et al	(242)
Effect of Intracerebroventricular Microinjection of Ephedrine Receptor Antagonist on Energy Metabolism induced by Orexin-A in Rats and Its Potential Mechanism	
LIU Jin-zheng, WANG Qian, LENG Hui, et al	(248)
Dynamic Expressions of Nerve Growth Factor and Its Tyrosinekinase A Receptor in Lung Tissue of Rats with Lung Injury Induced by Cerebral Ischemia	
GU Xiao-yan, DU Qiang, PAN Hua-ping, et al	(255)
Effects of Flax Lignans on Spatial Learning and Memory in Diabetic Encephalopathy Mice and Its Mechanism	
DANG Xue-liang, LIU Ji-yang, LI Wen-hu, et al	(259)
A Preliminary Study of Diffusion-weighted Magnetic Resonance Imaging in Early Diabetic Nephropathy Rats	
HU Xiao-yan, WANG Qiang, GOU Jie, et al	(264)
·CLINICAL RESEARCH·	
Clinical Significance of Allergen Detection in the Asthmatic Diseases of Infants	
DING Bo, LI Ya-qin, LI Xiao-yan, et al	(268)
Evaluation of the Clinical Efficacy of Combined Treatment with Tacrolimus for Vitiligo	
LU Hong-li, HU Qian-qian, HE Hua-ping, et al	(273)
Efficacy of Docetaxel and Pemetrexed Combined with Cisplatin as Second-line Therapy for Elderly Patients with Advanced Gastric Cancer and Its Effect on Quality of Life of Patients	
CHEN Xiao-dong, DUAN Qiong-yu, SUN Yu-nan, et al	(277)

Progress in Modern Biomedicine

Established in April 2001

Volume 20 Number 2

January 30 2020

Analysis of the Occurrence and Related Factors of Neuropathic Pain after Thoracic Surgery	
CHENG Shao-yi, CHEN Zhao, CHEN Jing, et al	(281)
Comparison of Postoperative Analgesic Effects of Continuous Brachial Plexus Block Via Costoclavicular Approach and Via Coracoid Approach under the Guidance of Ultrasound for Patients Who Underwent Barton's Fracture Surgery	
YIN Guo-jiang, RUAN Jian-hui, ZHOU Xiang, et al	(285)
Correlation of Diffusion Kurtosis Imaging in the Cervical Spinal Cord with the Clinical Scores of Patients	
LONG Meng, LIU Na, LIANG Yuan-zi, et al	(290)
Application of ABO Blood Group Positive and Negative Typing and Cross Matching Test in the Surgical Transfusion	
LI Chen-xue, LI Shu-ping, LI Song-tao, et al	(295)
Curative Efficacy of Sodium Phenobarbital Combined with Cattle Encephalon Glycoside and Ignotin in the Treatment of Neonatal Hypoxic-ischemic Encephalopathy and Its Effects on the Serum HIF-1α, LXA4, ET-1 Levels	
WANG Ming-zhang, JIA Ling, YIN Xu, et al	(299)
Etiological Characteristics and Risk Factors of Biliary Obstruction Complicated with Biliary Tract Infection and Its Relationship with Liver Injury	
HU Hong-peng, ZHU Chao-geng, DAI Jin, et al	(303)
Application Value of Serum NSE, SCCA and CEA for the Early Diagnosis and Prognostic Prediction of Lung Cancer	
SHANG Wen-li, HUO Shu-fen, WANG Jie-ying, et al	(308)
Expression and Prognostic Significance of RUNX3 Gene in Acute Myeloid Leukemia	
YANG Xiao-yan, LI Peng, WU Xi-jun, et al	(313)
Analysis of Influencing Factors of Retinopathy in Pregnancy-induced Hypertension and Clinical Significance of Detection of Vascular Endothelial Function	
CHEN Yi-zhong, LUO Hong, YUAN Chang-liang, et al	(319)

Progress in Modern Biomedicine

Established in April 2001

Volume 20 Number 2

January 30 2020

Effect of Short-segment Internal Fixation with or without Screw Placement in Injured Vertebra on Clinical Efficacy and Serum Inflammatory Injury Mediators in Patients with Thoracolumbar Burst Fracture	
MAO Hong-gang, ZHU Yan-li, LIU Guo-dong, et al	(324)
Efficacy of Dingkundan Combined with Fugongning Granule in the Treatment of Endometriosis and Its Effects on the Serum MCP-1, sICAM-1 and CA125 Levels	
HUA Ling-ling, XUE Qing, TANG Yue-ping, et al	(329)
Effects of Balanced Ultrafiltration on Inflammatory Factors, Coagulation Function and Lung Function in Children with Congenital Heart Disease after Operation	
CHENG Yu-mei, CHEN Feng, JIN Ming-yang, et al	(333)
Analysis of the Application Value of Washed Red Blood Cell Transfusion for the Anemia of Premature Infants	
TANG Hui-zhen, QU Ming-li, WANG Qian, et al	(338)
Effects of Dezocine on Inflammatory Stress Response and Cognitive Function in Patients with Bone and Joint Disease Undergoing Total hip Arthroplasty	
LI Xue-dan, HUANG Ke-bing, HUANG Jie, et al	(342)
Correlative Analysis of Ultrasound Contrast Parameters with Neovascularization in the Lung Cancer	
GAO Fei, LI Tao, YANG Tian, et al	(346)
Effect of Erythropoietin on NBNA Score, Liver and Kidney Function and Brainstem Auditory Evoked Potential in Premature Infants with Brain Injury	
WU Xin-ting, BIAN Wei-ni, ZHENG Ling-fang, et al	(349)
Correlative Analysis of Ultrasound Contrast Parameters with Neovascularization in the Lung Can Correlation and Clinical Significance of Serum HBV-LP and HBV-DNA Levels in Patients with Hepatitis B virus	
LI Yan-fang, YANG Xue-mei, LUO Ping, et al	(353)
Analysis of the Clinical Effect and Safety of Fluvoxamine Maleate Tablets Combined with Sulfamethoxalide on the Patients with Schizophrenia	
DIAO Wei-dong, WANG Jin-zhu, LI Yong-hong, et al	(357)

Progress in Modern Biomedicine

Established in April 2001

Volume 20 Number 2

January 30 2020

Value of BISAP, Ranson and APACHEE II Scoring System in Evaluating the Condition	
and Prognosis of Patients with Hyperlipidemic Acute Pancreatitis	
CHEN Hui, LAN Tao, ZHANG Pei-jun, et al	(361)
Renal Pathological Manifestation of Patiens with Severe Multiple Wasp Stings	
GUO Bo-hui, LU Jian-wei, LI Yi, et al	(366)
Curative Efficacy of Lumbar Cistern Drainage Combined with Fasudil in the Treatment of	
Aneurysmal Subarachnoid Hemorrhage and Its Effect on the Serum Levels of sICAM-1,	
FABP, MCP-1 and Hydrocephalus Formation	
LIU Yong-jun, GAO Xiang, WU Jian-liang, et al	(370)
Clinical Significance of Combined Detection of Serum UA, Cys-C	
and TAFI in Patients with Chronic Glomerulonephritis	
WANG Chun-hua, QIN Lan-fang, HU Wen-bo, et al	(375)
·BIOINFORMATICS·	
Screening of Differential Expressed Genes in Cervical Cancer and Functional Analysis	
WANG Hui-ping, GAO Zhao-wei, LI Rui-cheng, et al	(379)
·TECHNIQUES AND METHODS·	
Fall Recognition Based on Surface Electromyography and Acceleration Fusion	
by Support Vector Machine	
LIU Xiao-guang, LI Huan-liang, LOU Cun-guang, et al	(385)
·MONOGRAPHS AND REVIEWS·	
Progress in Fiber-reinforced Natural Polysaccharide Hydrogel for Tissue Engineering Application	
SUN Qian, LI Wei, SUN Kang	(391)
Progress in Research on Hyperprolactinemia in Patients with Schizophrenia	
WANG Li-hua, SUN Xiu-jia, YU Wen-juan, et al	(397)



中国科技核心期刊

(中国科技论文统计源期刊)

收录证书

CERTIFICATE OF SOURCE JOURNAL
FOR CHINESE SCIENTIFIC AND TECHNICAL PAPERS AND CITATIONS

现代生物医学进展

经过多项学术指标综合评定及同行专家
评议推荐，贵刊被收录为“中国科技核心期
刊”（中国科技论文统计源期刊）。

特颁发此证书。



中国科学技术信息研究所
Institute of Scientific and Technical Information of China
北京复兴路 15 号 100038 www.istic.ac.cn

2019年11月

证书编号：2018-F250-1606
有效期至：2020年12月

万方数据

