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药学学报

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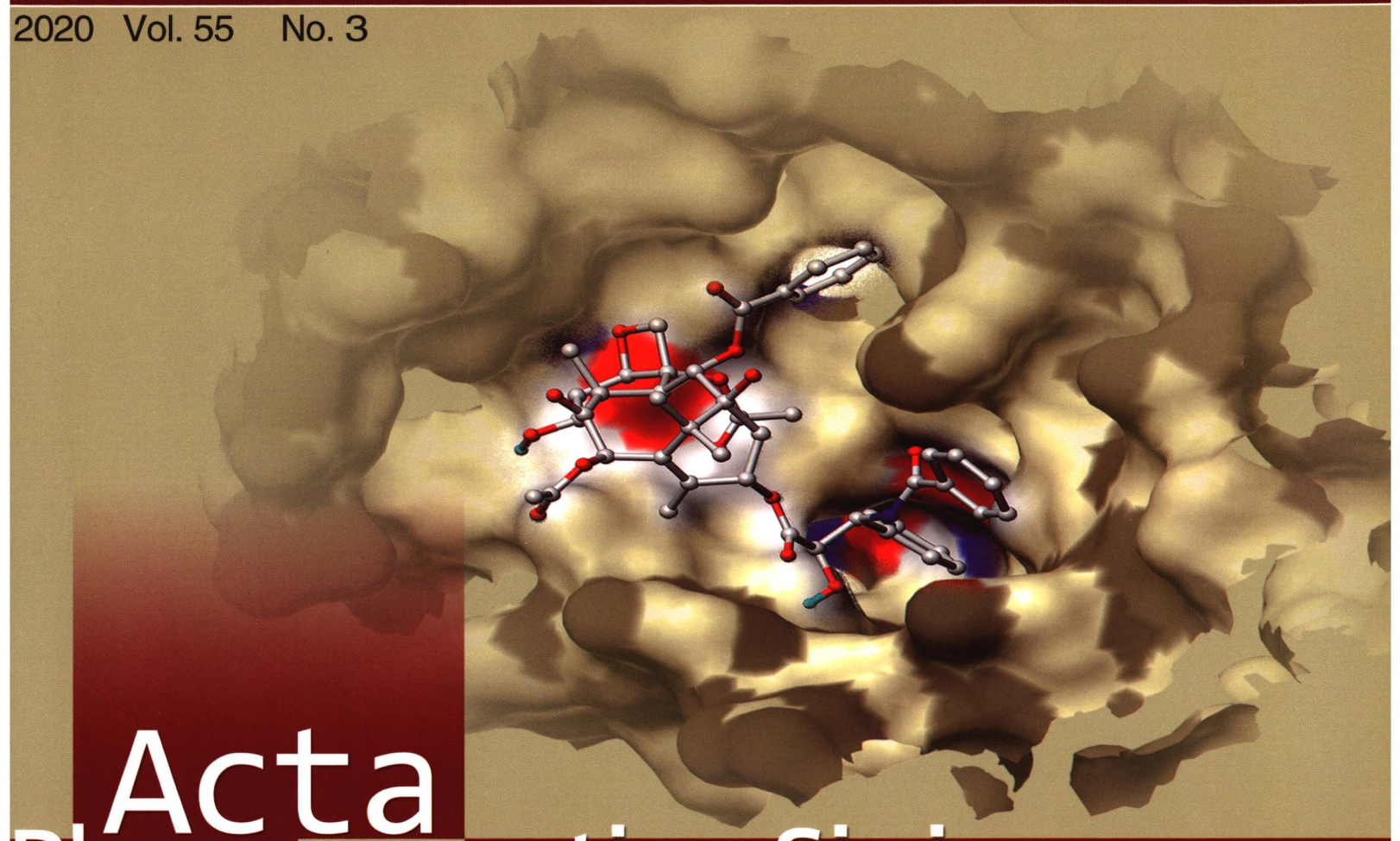

Acta Pharmaceutica Sinica

聚焦抗新冠病毒药物研究

孙 静, 崔晓兰等
苦参碱氯化钠注射液对人冠状病毒肺炎寒湿疫毒袭肺证小鼠病证结合模型的治疗作用

综述

高宇雄, 钟大放
抗体药物LC-MS法生物分析进展

中国药学会
中国医学科学院药物研究所

药 学 学 报

第 55 卷　第 3 期　2020 年 3 月

图 文 摘 要

聚焦抗新冠病毒药物研究

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新型冠状病毒有关药物和生物制品研究进展

王赫然*, 王茜

(科学技术部火炬高技术产业开发中心, 北京 100045)

本文综述了可能用于治疗新型冠状病毒肺炎的化学药、中药和生物制品的研究进展, 供有关部门、单位和科技人员参考。

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浅析注册用于新冠肺炎治疗的临床试验药物

张超[1], 陈姝冰[2], 张洁[1], 郭颖[2*]

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截至 2020 年 2 月 14 日, 共有 14 个化学药物 (含 2 个临床在研药物) 注册用于治疗新冠肺炎的临床研究。本文在总结上述药物临床试验方案的基础上, 并分析了这些药物与抗新型冠状病毒相关的临床数据、实验结果和作用机制。

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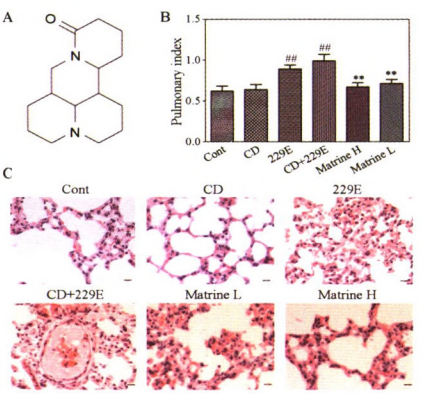
苦参碱氯化钠注射液对人冠状病毒肺炎寒湿疫毒袭肺证小鼠病证结合模型的治疗作用

孙静[1], 赵荣华[1], 郭姗姗[1], 时宇静[1], 包蕾[1], 耿子涵[1], 高英杰[1], 刘建[2], 李琼[2], 崔晓兰[1*]

(1. 中国中医科学院中药研究所生物安全实验室, 北京 100700; 2. 湖北康沁药业股份有限公司, 湖北 荆门 448000)

本文研究了苦参碱氯化钠注射液对人冠状病毒肺炎寒湿疫毒袭肺证小鼠病证结合模型的治疗作用, 为临床用药提供了实验室数据支持。



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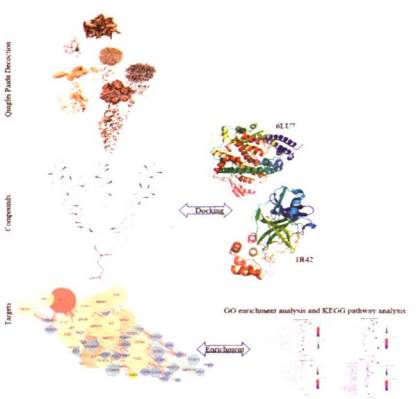
基于网络药理学和分子对接技术初步探索"清肺排毒汤"抗新型冠状病毒肺炎作用机制

吴昊[1#], 王佳琪[1#], 杨雨薇[1], 李天怡[1], 曹一佳[1], 曲玉霞[1], 靳玉洁[2], 张晨宁[1,2*], 孙毅坤[1*]

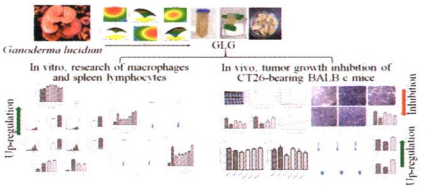
(1. 北京中医药大学中药学院, 北京 102488; 2. 十堰市太和医院, 湖北医药学院附属医院, 湖北 十堰 442000)

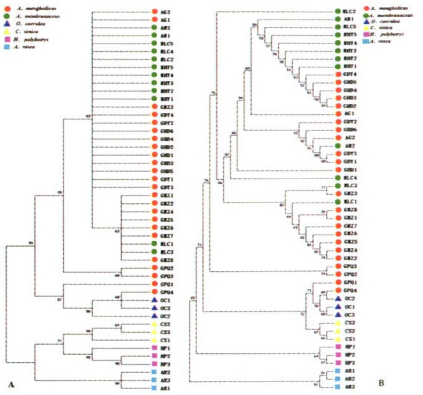
采用网络药理学技术初步探索了清肺排毒汤抗 COVID-19 的生物学机制, 并对复方中的关键化合物进行了分子对接预测。



综述

研究论文





新药发现与研究实例简析

ACTA PHARMACEUTICA SINICA

Volume 55 Number 3 2020 March

Graphical Abstracts

Focus on Anti Novel Coronavirus Drugs Research

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Advances in research of novel coronavirus related drugs and biological products

WANG He-ran*, WANG Xi

(Torch High Technology Industry Development Center, Ministry of Science and Technology, Beijing 100045, China)

We reviewed the advances in research of novel coronavirus related chemical drugs, Chinese traditional medicines and biological products, which could provide reference for relevant departments, units and scientists.

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Analysis of chemical drugs applied for clinical trial for the treatment of COVID-19

ZHANG Chao[1], CHEN Shu-bing[2], ZHANG Jie[1], GUO Ying[2*]

(1. National Clinical Research Center for Cancer, Key Laboratory of Cancer Prevention and Therapy, Tianjin's Clinical Research Center for Cancer, Tianjin Medical University Cancer Institute and Hospital, Tianjin 300060, China; 2. Beijing Key Laboratory of New Drug Mechanisms and Pharmacological Evaluation Study, Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100050, China)

There were 14 chemical drugs, including 12 drugs on market and 2 in clinical trials, registered clinical trials for COVID-19 treatment by Feb. 14th, 2020. We summarize the medication regimens of the clinical trials, along with these drugs' clinical data, experimental results, and mechanism related to the activity against SARS-CoV-2.

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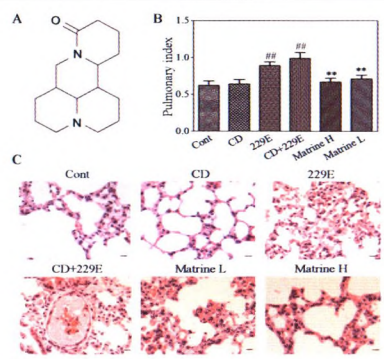
Effect of matrine sodium chloride injection on a mouse model combining disease with syndrome of human coronavirus pneumonia with cold-dampness pestilence attacking the lung

SUN Jing[1], ZHAO Rong-hua[1], GUO Shan-shan[1], SHI Yu-jing[1], BAO Lei[1], GENG Zi-han[1], GAO Ying-jie[1], LIU Jian[2], LI Qiong[2], CUI Xiao-lan[1*]

(1. Biosecurity Laboratory, Institute of Chinese Materia Medica, China Academy of Chinese Medical Sciences, Beijing 100700, China; 2. Hubei Kangqing Pharmaceutical Co., Ltd., Jingmen 448000, China)



This study on the effect of matrine sodium chloride injection on a mouse model combining disease with syndrome of human coronavirus pneumonia with cold-dampness pestilence attacking the lung provided laboratory data support for its clinical use.

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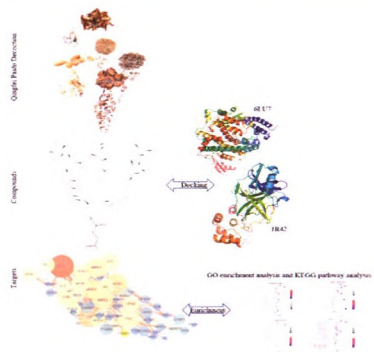
Preliminary exploration of the mechanism of Qingfei Paidu decoction against novel coronavirus pneumonia based on network pharmacology and molecular docking technology

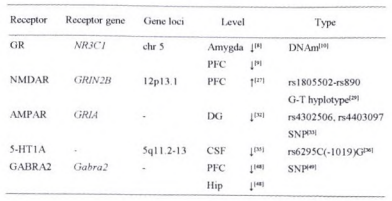
WU Hao[1#], WANG Jia-qi[1#], YANG Yu-wei[1], LI Tian-yi[1], CAO Yi-jia[1], QU Yu-xia[1], JIN Yu-jie[2], ZHANG Chen-ning[1,2*], SUN Yi-kun[1*]

(1. School of Chinese Materia Medica, Beijing University of Chinese Medicine, Beijing 102488, China; 2. Taihe Hospital, Hubei University of Medicine, Shiyan 442000, China)

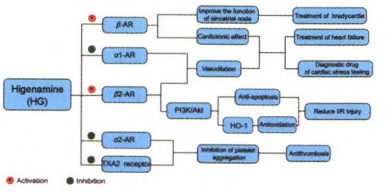


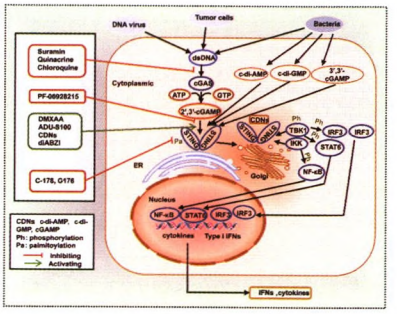
The biological mechanism of Qingfei Paidu decoction against COVID-19 was preliminarily predicted using network pharmacology technology, and the key compounds of the Chinese medicinal materials were predicted by molecular docking.

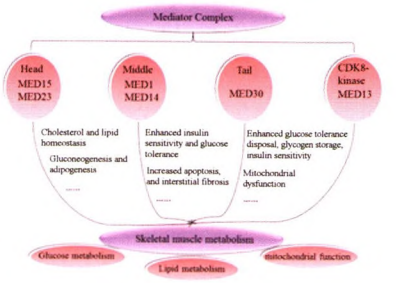
Reviews

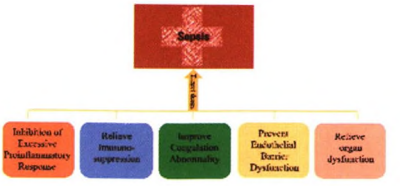


Receptor	Receptor gene	Gene loci	Level		Type
GR	*NR3C1*	chr 5	Amygda	↓[8]	DNAm[15]
			PFC	↓[9]	
NMDAR	*GRIN2B*	12p13.1	PFC	↑[17]	rs1805502-rs890
					G-T hyplotype[29]
AMPAR	*GRIA*	-	DG	↓[32]	rs4302506, rs4403097
					SNP[33]
5-HT1A	-	5q11.2-13	CSF	↓[35]	rs6295C(-1019)G[36]
GABRA2	*Gabra2*	-	PFC	↓[48]	SNP[49]
			Hip	↓[48]	

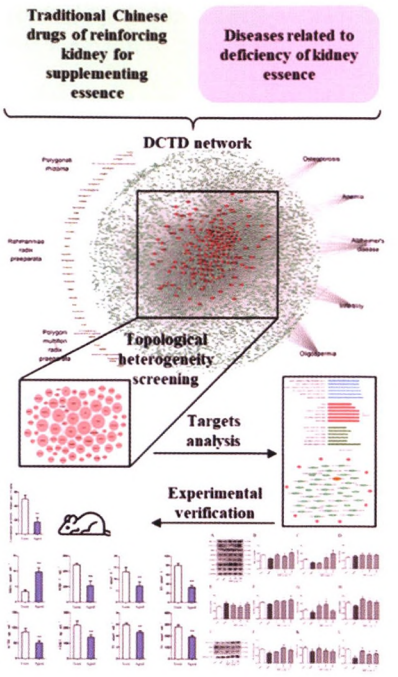


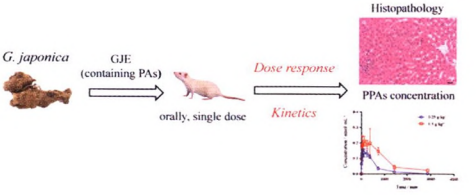


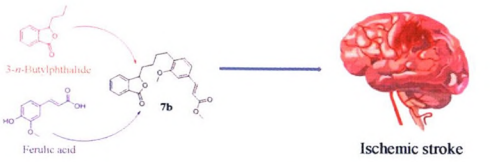


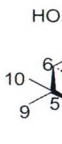


Original Articles

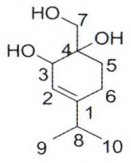






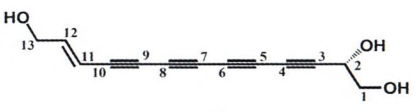


1

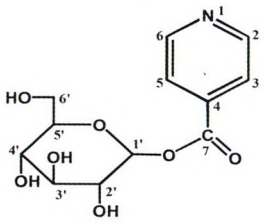


2

The chemical constituents of *Zingiber officinale* peel were isolated and purified by various chromatographic separation techniques. Seven terpenoids were identified by physicochemical properties and spectral data. Compounds **1**, **2** are new compounds, named: (4*R*,6*S*)-1-(hydroxymethyl)-5,5-dimethylbicyclo[3.1.1]hept-2-en-4-ol and 4-(hydroxymethyl)-1-isopropylcyclohex-2-ene-3,4-diol, and compounds **3-7** were obtained from this plant for the first time.

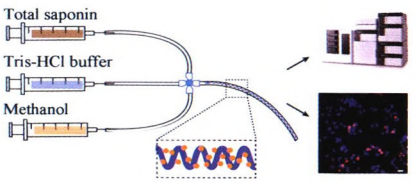


1

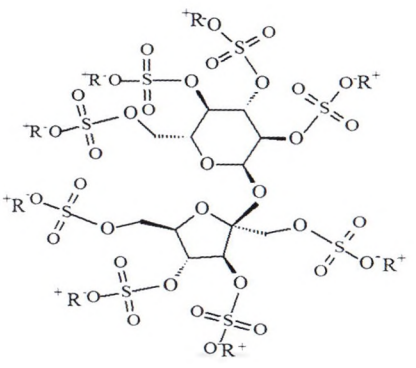


2

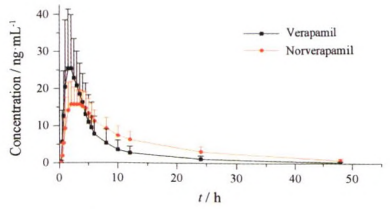
Eleven compounds were isolated from the ethyl acetate fraction of 80% ethanol extract from *Bidens parviflora* Willd. Compounds **1** and **2** are new compounds, named as (2*S*)-11*E*-tetradecene-3,5,7,9-tetrayne-1,2,13-triol (**1**), pyridine-4-formyl-*O*-*β*-*D*-glucopyranoside (**2**).



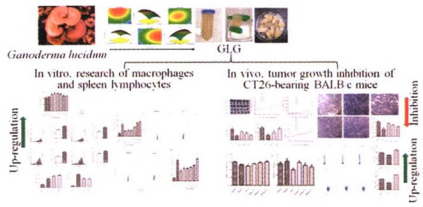
Two small molecular lipase inhibitors were found from the total saponin of Kudingcha through the hollow fiber-based perfusion enzyme affinity selection system, and they are proved to have good anti-atherosclerotic activities.



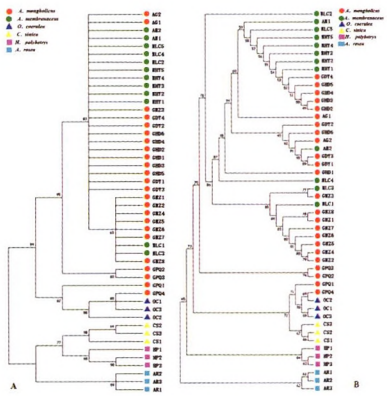
Comparison of the two quantitation methods for determination of sucrose octasulfate in irinotecan hydrochloride liposome injection.



A simple and sensitive method for simultaneous determination of verapamil and norverapamil concentrations in human plasma by liquid chromatography-tandem mass spectrometry (LC-MS/MS) has been developed, this method was used for pharmacokinetic study of oral verapamil tablets (40 mg) in healthy people after approved by the ethics committee.



Response surface analysis for the optimization of alkaline extraction conditionfor *Ganoderma lucidum* particulate β-glucan (GLG). Resident macrophages were activated by GLG. GLG could promote the proliferation of spleen lymphocytes and antitumor immune responses of T lymphocyte in mice.



Identification of *Astragalus* and its adulterants was studied based on ITS2 sequence and secondary structure. With the addition of secondary structure information, the constructed phylogenetic tree not only contains all the conclusions based on the primary structure, but also solves the comb topological structure, at the same time, the distinguish ability and approval rating were also improved.

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