

Review Article	1	Small molecule inhibitors targeting the PD-1/PD-L1 signaling pathway Qian Wu, Li Jiang, Si-cheng Li, Qiao-jun He, Bo Yang and Ji Cao
	10	Application of targeted therapy strategies with nanomedicine delivery for atherosclerosis Le-chun Ou, Shan Zhong, Jing-song Ou and Jin-wei Tian
	18	Research progress on the protective effects of licorice-derived 18 β -glycyrrhetic acid against liver injury Shou-yan Wu, Wen-jie Wang, Jin-hui Dou and Li-kun Gong
	27	The hepatotoxicity of <i>Polygonum multiflorum</i> : The emerging role of the immune-mediated liver injury Tai Rao, Ya-ting Liu, Xiang-chang Zeng, Chao-peng Li and Dong-sheng Ou-Yang
Article		
Neuropharmacology	36	An optically active isochroman-2H-chromene conjugate potently suppresses neuronal oxidative injuries associated with the PI3K/Akt and MAPK signaling pathways Ling-xue Tao, Sha-sha Ji, Dóra Szalóki, Tibor Kovács, Attila Mándi, Sándor Antus, Xun Ding, Tibor Kurtán and Hai-yan Zhang
	45	Drinking water temperature affects cognitive function and progression of Alzheimer's disease in a mouse model Jiang-ping Wei, Wen Wen, Yuan Dai, Li-xia Qin, Yue-qiang Wen, Dayue Darrel Duan and Shi-jun Xu
Cardiovascular Pharmacology	55	Puerarin ameliorated pressure overload-induced cardiac hypertrophy in ovariectomized rats through activation of the PPAR α /PGC-1 pathway Ning Hou, Yin Huang, Shao-ai Cai, Wen-chang Yuan, Li-rong Li, Xia-wen Liu, Gan-jian Zhao, Xiao-xia Qiu, Ai-qun Li, Chuan-fang Cheng, Shi-ming Liu, Xiao-hui Chen, Dao-feng Cai, Jing-xuan Xie, Min-sheng Chen and Cheng-feng Luo
Hepatic and Renal Pharmacology	68	Gasdermin E-derived caspase-3 inhibitors effectively protect mice from acute hepatic failure Wan-feng Xu, Quan Zhang, Chu-jie Ding, Hui-yong Sun, Yuan Che, Hai Huang, Yun Wang, Jia-wei Wu, Hai-ping Hao and Li-juan Cao
	77	L-Carnitine protects against tacrolimus-induced renal injury by attenuating programmed cell death via PI3K/AKT/PTEN signaling Hai-lan Zheng, Hai-yue Zhang, Chun-lian Zhu, Hui-ying Li, Sheng Cui, Jian Jin, Shang-guo Piao, Yu-ji Jiang, Mei-ying Xuan, Ji-zhe Jin, Ying-shun Jin, Jung-pyo Lee, Byung-ha Chung, Bum-soon Choi, Chul-woo Yang and Can Li
Immunopharmacology	88	Baicalin prevents LPS-induced activation of TLR4/NF- κ B p65 pathway and inflammation in mice via inhibiting the expression of CD14 Ya-jun Fu, Bo Xu, Shao-wei Huang, Xia Luo, Xiang-liang Deng, Shuang Luo, Chang Liu, Qing Wang, Jin-yan Chen and Lian Zhou
Chemotherapy	97	Avasimibe exerts anticancer effects on human glioblastoma cells via inducing cell apoptosis and cell cycle arrest Jin-yi Liu, Wei-qi Fu, Xiang-jin Zheng, Wan Li, Li-wen Ren, Jin-hua Wang, Cui Yang and Guan-hua Du
	108	Osimertinib successfully combats EGFR-negative glioblastoma cells by inhibiting the MAPK pathway Cheng Chen, Chuan-dong Cheng, Hong Wu, Zuo-wei Wang, Li Wang, Zong-ru Jiang, Ao-li Wang, Chen Hu, Yong-fei Dong, Wan-xiang Niu, Shuang Qi, Zi-ping Qi, Jing Liu, Wen-chao Wang, Chao-shi Niu and Qing-song Liu

- 115 HKB99, an allosteric inhibitor of phosphoglycerate mutase 1, suppresses invasive pseudopodia formation and upregulates plasminogen activator inhibitor-2 in erlotinib-resistant non-small cell lung cancer cells
Qian Liang, Wei-ming Gu, Ke Huang, Ming-yu Luo, Jing-hua Zou, Guang-lei Zhuang, Hui-min Lei, Hong-zhuan Chen, Liang Zhu, Lu Zhou and Ying Shen
- 120 MDL-800, an allosteric activator of SIRT6, suppresses proliferation and enhances EGFR-TKIs therapy in non-small cell lung cancer
Jia-lin Shang, Shao-bo Ning, Ying-yi Chen, Tian-xiang Chen and Jian Zhang
- 132 DCZ5248, a novel dual inhibitor of Hsp90 and autophagy, exerts antitumor activity against colon cancer
Xiang-ling Chen, Peng Liu, Wei-liang Zhu and Li-guang Lou
- 142 CS1003, a novel human and mouse cross-reactive PD-1 monoclonal antibody for cancer therapy
Fu Li, Jingrong Li, Ke Yin, Juan Zhang, Zhen-hu Li, Liang Lu, Yuan-wu Bao, Zhen Qin, Yong Zheng, Bao-tian Yang, Jing Li and Xinzhong Wang
- 149 Sphingomyelin synthase 2 facilitates M2-like macrophage polarization and tumor progression in a mouse model of triple-negative breast cancer
Yan Deng, Jia-chun Hu, Shu-hua He, Bin Lou, Ting-bo Ding, Jin-tong Yang, Ming-guang Mo, De-yong Ye, Lu Zhou, Xian-cheng Jiang, Ker Yu and Ji-bin Dong
- 160 ACSL4 is a predictive biomarker of sorafenib sensitivity in hepatocellular carcinoma
Ji Feng, Pei-zhi Lu, Guang-zhi Zhu, Shing Chung Hooi, Yong Wu, Xiao-wei Huang, Hui-qi Dai, Pan-hong Chen, Zhong-jie Li, Wen-jing Su, Chuang-ye Han, Xin-ping Ye, Tao Peng, Jing Zhou and Guo-dong Lu

Information for authors

i-viii

Cover

Immunotherapy has achieved great outcome in clinic, and PD-1/PD-L1 immunotherapy is the most promising one. Due to the limitations of monoclonal antibodies, the discovery of small molecule drugs blocking PD-1/PD-L1 signaling has attracted great interest. In this article, Wu et al summarized the advances in small molecule inhibitors targeting the PD-1/PD-L1. See the article in pages 1-9.

EXECUTIVE EDITOR FOR THIS ISSUE ZHU, Qian-rong (Shanghai)

ACTA PHARMACOLOGICA SINICA (Monthly)

2021 January; Volume 42 Number 1

(Founded in September, 1980)

Sponsored by

Chinese Pharmacological Society
Shanghai Institute of Materia Medica, Chinese Academy of Sciences

Supervised by

China Association for Science and Technology

Editor-in-chief

DING, Jian

Edited by

Editorial Board of Acta Pharmacologica Sinica
294 Tai-yuan Road, Shanghai 200031, China
Http://www.chinaphar.com
E-mail aps@simm.ac.cn or aps@sibs.ac.cn
Phn 86-21-5492-2821, 5492-2822; Fax 86-21-5492-2823

Published jointly by

Editorial Office of Acta Pharmacologica Sinica
Springer Nature

Publication date

5th every month

Printed by

Shanghai Shengtong Times Printing Co Ltd
568 Guang-ye Road, Shanghai 201506, China

Copyright © 2021 Shanghai Institute of Materia Medica, Chinese Academy of Sciences and Chinese Pharmacological Society