

Review Article	1495	Advances in cannabinoid receptors pharmacology: from receptor structural insights to ligand discovery Si-yuan Shen, Chao Wu, Zhi-qian Yang, Ke-xin Wang, Zhen-hua Shao and Wei Yan
	1511	Exploring immunotherapeutic strategies for neurodegenerative diseases: a focus on Huntington's disease and Prion diseases Abhiyanta Mukherjee, Soumojit Biswas and Ipsita Roy
	1539	Cardiorenal syndrome: clinical diagnosis, molecular mechanisms and therapeutic strategies Bo-rui Zhao, Xin-rong Hu, Wei-dong Wang and Yi Zhou
Articles Neuropharmacology	1556	Krüppel-like factor 9 alleviates Alzheimer's disease via IDE-mediated A β degradation Yue-yao Feng, Jing-ran Hao, Yu-jie Zhang, Tong-tong Qiu, Meng-lin Zhang, Wei Qiao, Jin-jin Wu, Ping Qiu, Chao-fan Xu, Yin-liang Zhang, Chun-yuan Du, Zhe Pan and Yong-sheng Chang
	1567	CXCR2 modulates chronic pain comorbid depression in mice by regulating adult neurogenesis in the ventral dentate gyrus Xiao-jie Li, Shuo Wu, Zi-han Liu, An-an Liu, Hui-sheng Peng, Yu-jun Wang, Ye-xiang Chen, Jing-gen Liu and Chi Xu
	1580	GABA transporter 1 is a promising drug target for <i>CUL4B</i> mutation-associated epilepsy Wei Jiang, Yan-yan Ma, Yu-feng Wang, Shi-qi Jin, Rui-qi Yu, Shu-xian Chu, Yang-fan Gao, Mo-lin Wang, Yong-xin Zou, Qiao Liu, Yu Song, Yan Zheng, Chen Zhang, Gong-ping Sun, Bai-chun Jiang and Yao-qin Gong
	1592	Circular RNA hsa_circ_0000288 protects against epilepsy in mice by binding to and stabilizing caprin1 protein Lin Guo, Na Lv, Jian-lun Ji, Ce Gao, Si-yu Liu, Zi-yu Liu, Xin-ting Lin, Zhi-dong Liu and Yun Wang
	1610	Gastrodin promotes CNS myelinogenesis and alleviates demyelinating injury by activating the PI3K/AKT/mTOR signaling Open Xiao-yu Shi, Yi-xi He, Man-yue Ge, Peng Liu, Ping Zheng and Zheng-hao Li
Cardiovascular Pharmacology	1624	Madecassoside mitigates acute myocardial infarction injury by activating the PKCB/SPARC signaling pathway Peng Wang, Ji-qin Yang, Dan-dan Xu, Si-jia Zhang, Shan Lu and Yong Ji
	1639	METTL14-mediated m ⁶ A methylation of pri-miR-5099 to facilitate cardiomyocyte pyroptosis in myocardial infarction Hang Yu, Qing-sui Li, Jun-nan Guo, Zhen Zhang, Xian-zhi Lang, Yi-ning Liu, Long Qin, Xu Su, Qing-wei Zhang, Ya-dong Xue, Li-ling Gong, Ning Xu, Ming Li, Wen-shuang Zhao, Xing-miao Zhao, Wan-yu Zhang, Yi-jing Yao, Xi-ming Chen, Zhen Zhang, Wei Li, Han-xiang Wang, Ben-zhi Cai, Jia-min Li and Ning Wang
	1652	SEC62-dependent ER-phagy contributes to apelin-13/APJ-induced monocyte-vascular endothelial cell adhesion in atherosclerosis pathogenesis Zhe Chen, Jun Cheng, Qun Zhou, Le-le Wu, Jia-wei Chen, Xiang-ning Duan, Jia-long Yan, Jian-gang Cao, Xiao-dan Xia, Lan-fang Li and Lin-xi Chen
Endocrine Pharmacology	1664	Semaglutide ameliorates metabolic disorders in offspring via regulation of oocyte ROS of pre-pregnancy obesity mice Jun-kai Zhang, Xiao-ping Li, Yang Tang, Li-ping Zeng, Xuan Liu, Jian-li Zhang, Cai-yu Chen, Shuo Zheng, Zhi-zhao Liu, Xue Gong, Pedro A. Jose, Li Guo and Chun-yu Zeng

Pulmonary, Gastrointestinal, Hepatic, and Renal Pharmacology

- 1676 Cannabinoid-2 receptor depletion promotes non-alcoholic fatty liver disease in mice via disturbing gut microbiota and tryptophan metabolism [Open](#)
Wei-ting Cheng, Si-ya Pei, Jie Wu, Yan-jie Wang, Yong-wen Yang, Mei-fang Xiao, Jun Chen, Yuan-yuan Wang, Li Wu and Ze-bing Huang
- 1692 Neddylation of RhoA impairs its protein degradation and promotes renal interstitial fibrosis progression in diabetic nephropathy [Open](#)
Xue-qi Li, Bo Jin, Si-xiu Liu, Yan Zhu, Nan Li, Qing-yan Zhang, Cheng Wan, Yuan Feng, Yue-xian Xing, Kun-ling Ma, Jing Liu, Chun-ming Jiang and Jian Lu

Chemotherapy

- 1706 Discovery of 5-imidazole-3-methylbenz[d]isoxazole derivatives as potent and selective CBP/p300 bromodomain inhibitors for the treatment of acute myeloid leukemia
Jian-kang Hu, Xin Tang, Guo-long Luo, Cheng Zhang, Tian-bang Wu, Chao Wang, Hui Shen, Xiao-fan Zhao, Xi-shan Wu, Jeff B. Smaill, Yong Xu, Yan Zhang and Qiu-ping Xiang
- 1722 Natural compound PEITC inhibits gain of function of p53 mutants in cancer cells by switching YAP-binding partners between p53 and p73
Yi-xuan Wang, Li-wei Wang, Ying Huang, Lin Zhou, Guo-yu Li, Jia-wen Yang, Xue-feng Wu, Jing-cai Cheng, Qiang Xu and Yan Shen
- 1733 Bardoxolone displays potent activity against triple negative breast cancer by inhibiting the TRIP13/STAT3 circuit
Jun-hao Deng, Hong-yue Li, Zi-yang Liu, Jing-pei Liang, Ying Ren, Yuan-ying Zeng, Ya-li Wang and Xin-liang Mao
- 1742 Acyl-CoA thioesterase 8 induces gemcitabine resistance via regulation of lipid metabolism and antiapoptotic activity in pancreatic ductal adenocarcinoma [Open](#)
Bo-rui Li, Ting Wang, Hai-feng Hu, Di Wu, Chen-jie Zhou, Shun-rong Ji, Qi-feng Zhuo, Zheng Li, Zhi-liang Wang, Gui-xiong Fan, De-sheng Jing, Chong-yuan Yu, Yi Qin, Xue-min Chen, Jun-feng Xu and Xiao-wu Xu
- 1757 Co-inhibition of RAGE and TLR4 sensitizes pancreatic cancer to irreversible electroporation in mice by disrupting autophagy
Cui-fang Ye, Jia-di Wu, Lin-rong Li, Shu-guo Sun, Yu-gang Wang, Tian-an Jiang, Xin Long and Jun Zhao
- 1772 Development of orthotopic mouse models for mid-low rectal cancer
Wen Chen, Kun Shi, Dong Mo, Meng Pan, Zhong-wu Bei, Han-zhi Deng, Pei-pei Yang, Qi Tong, Li-ping Yuan, Yi-yao Wan, Jia-feng Liu, Li-li Pan and Zhi-yong Qian

Drug Discovery

- 1782 Chemoproteomics reveals proteome-wide covalent and non-covalent targets of withaferin A
Hui-jun Nie, Ying-jie Fu, Shang Long, Jia-yu Wang, Wen-si Zhao, Lin-hui Zhai, Yin-long Yang, Min-jia Tan, Hao Hu and Xiao-hua Chen

Correction

- 1794 Author Correction: Paris saponin VII, a Hippo pathway activator, induces autophagy and exhibits therapeutic potential against human breast cancer cells
Yu-chen Xiang, Peng Peng, Xue-wen Liu, Xin Jin, Jie Shen, Te Zhang, Liang Zhang, Fang Wan, Yu-liang Ren, Qing-qing Yu, Hu-zi Zhao, Yuan Si and Ying Liu
- 1795 Author Correction: THBr attenuates diabetic cardiomyopathy by inhibiting RAGE-dependent inflammation
Heng-hui Xu, Sheng-xin Hao, He-yang Sun, Xin-xin Dong, Yuan Lin, Han Lou, Li-min Zhao, Ping-ping Tang, Zi-jia Dou, Jing-jing Han, Meng-han Du, Zhou-xiu Chen, Philipp Kopylov, Dmitry Shchekochikhin, Xin Liu and Yong Zhang

- 1797 Author Correction: Bicyclol protects HepG2 cells against D-galactosamine-induced apoptosis through inducing heat shock protein 27 and mitochondria associated pathway
Xiu-qi Bao and Geng-tao Liu
- 1799 Author Correction: Ginsenoside Rg1 mitigates cerebral ischaemia/reperfusion injury in mice by inhibiting autophagy through activation of mTOR signalling
Zhi-chao Xi, Han-gui Ren, Lin Ai, Yuan Wang, Meng-fan Liu, Yu-fei Qiu, Ji-ling Feng, Wang Fu, Qian-qian Bi, Feng Wang and Hong-xi Xu
- 1800 Correction: A novel annexin dimer targets microglial phagocytosis of astrocytes to protect the brain-blood barrier after cerebral ischemia
Wei Tang, Rong Cheng, Meng-yue Gao, Min-jin Hu, Lu Zhang, Qiang Wang, Xin-yu Li, Wei Yan, Xiao-ying Wang, Hai-mei Yang, Jian Cheng and Zi-chun Hua

Cover

Current therapies struggle to repair white matter damage in multiple sclerosis and related demyelinating disorders. Using a visually tractable zebrafish screening platform that dynamically tracks fluorescent myelination in vivo, we identified gastrodin as a promising therapeutic candidate. This naturally derived compound activates the PI3K/AKT/mTOR signaling pathway in oligodendrocytes, promoting robust remyelination and restoring function in demyelination models. By bridging drug screening with mechanistic neuroscience, our work highlights gastrodin as a clinically translatable strategy for treating demyelinating diseases. See the article in pages 1610–1623.

EXECUTIVE EDITOR FOR THIS ISSUE XU, Jia (Shanghai)

ACTA PHARMACOLOGICA SINICA (Monthly)
2025 June; Volume 46 Number 6
(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](http://www.chinaphar.com)
E-mail aps@simm.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 © 2025 Shanghai Institute of Materia Medica, Chinese Academy of Sciences and Chinese Pharmacological Society