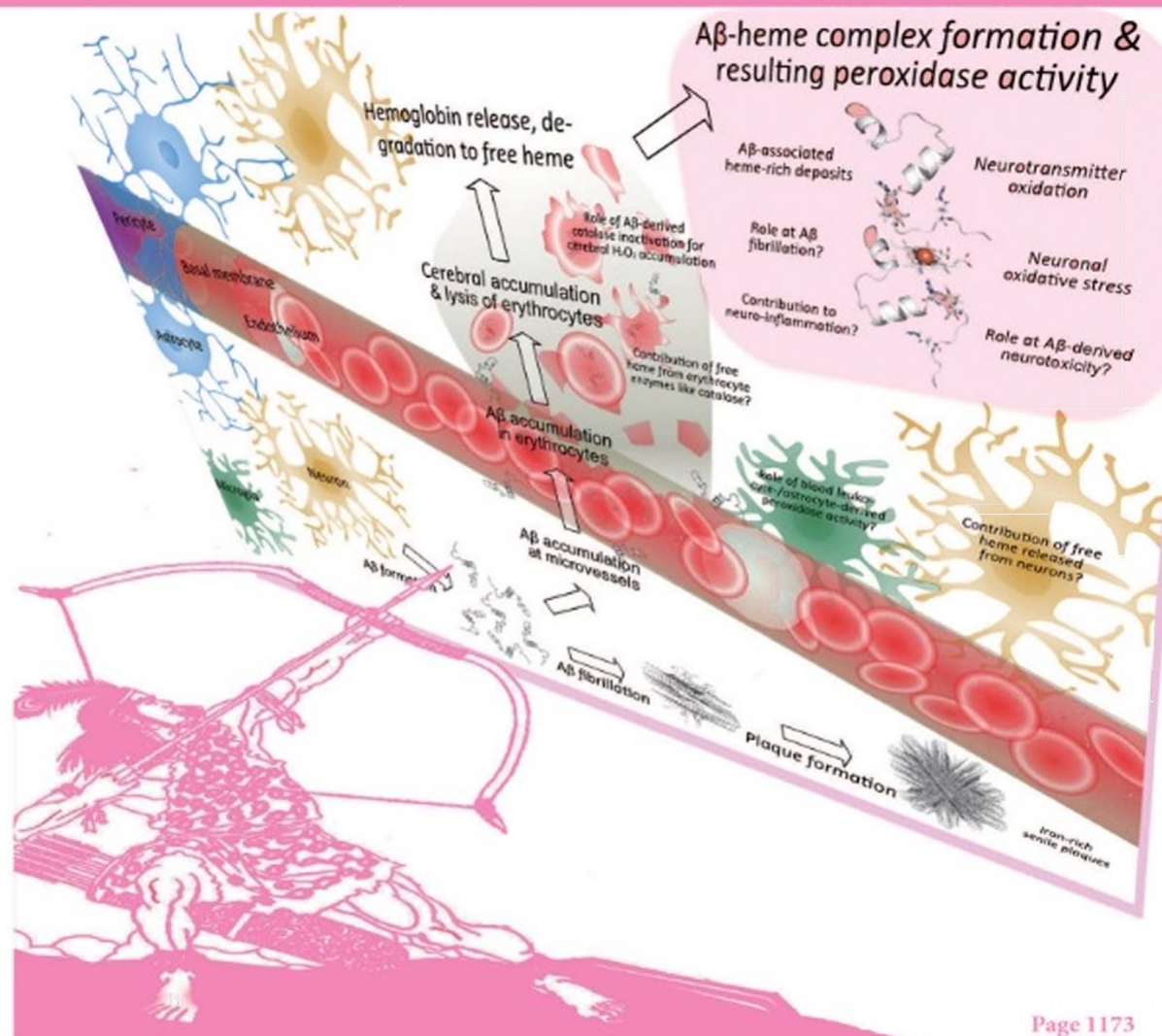


# Neural Regeneration Research



**REVIEW**

- The impact of hypoxic-ischemic brain injury on stem cell mobilization, migration, adhesion, and proliferation** 1125

*Stephanie M. Parry, Eric S. Peeples*

- Subcellular localization of alpha-synuclein aggregates and their interaction with membranes** 1136

*Fabiana Miraglia, Alessio Ricci, Lucia Rota, Emanuela Colla*

- Glaucomatous optic neuropathy treatment options: the promise of novel therapeutics, techniques and tools to help preserve vision** 1145

*Najam A. Sharif*

- Factors that modulate olfactory dysfunction** 1151

*Kate Beecher, James A. St John, Fatemeh Chehrehasa*

- Molecular mechanism of noradrenaline during the stress-induced major depressive disorder** 1159

*Kenjiro Seki, Satomi Yoshida, Manoj Kumar Jaiswal*

- What can computational modeling offer for studying the Ca<sup>2+</sup> dysregulation in Alzheimer's disease: current research and future directions** 1156

*Jingyi Liang, Don Kulasiri*

- Amyloid  $\beta$  and free heme: bloody new insights into the pathogenesis of Alzheimer's disease** 1170

*Jörg Flemmig, Marcel Zámocký, A Alia*

- Matricellular proteins as possible biomarkers for early brain injury after aneurysmal subarachnoid hemorrhage** 1175

*Hiidenori Suzuki, Hirofumi Nishikawa, Fumihiko Kawakita*

- Stem cells: a promising candidate to treat neurological disorders** 1294

*Chang-Geng Song, Yi-Zhe Zhang, Hai-Ning Wu, Xiu-Li Cao, Chen-Jun Guo, Yong-Qiang Li, Min-Hua Zheng, Hua Han*

**PERSPECTIVES**

- Optimization of nanofiber scaffold properties towards nerve guidance channel design** 1179

*Graham Ka-Hon Shea, Francis Mok*

- Vascular endothelial growth factor: an essential neurotrophic factor for motoneurons?** 1181

*Paula M. Calvo, Angel M. Pastor, Rosa R. de la Cruz*

- Bone morphogenetic protein signaling: a promising target for white matter protection in perinatal brain injury** 1183

*Jill Chang, Robert W. Detsman, Maria L.V. Dizon*

- Neurodegenerative diseases are a function of matrix breakdown: how to rebuild extracellular matrix and intracellular matrix** 1185

*Greg Maguire*

- Brain repair for Parkinson's disease: is the answer in the matrix?** 1187

*Niamh Moriarty, Eilís Dowd*

- Developing biomarkers for neurodegenerative diseases using genetically-modified common marmoset models** 1189

*Ikuo Tomioka, Yoshitaka Nagai, Kazuhiko Seki*

- Histone methylation in Huntington's disease: are bivalent promoters the critical targets?** 1191

*Nóra Zsindely, László Bodai*

- Lateral olfactory tract usher substance (LOTUS) protein, an endogenous Nogo receptor antagonist, converts a non-permissive to permissive brain environment for axonal regrowth** 1193

*Tomoko Hirokawa, Kohtaro Takei*

**RESEARCH ARTICLES**
*Brain Injury and Neural Regeneration*

- Houshiheisan and its components promote axon regeneration after ischemic brain injury** 1195

*Yue Lu, Flora Hsiang, Jia-Hui Chang, Xiao-Quan Yao, Hui Zhao, Hai-Yan Zou, Lei Wang, Qiu-Xia Zhang*

- Ginkgolide B promotes the proliferation and differentiation of neural stem cells following cerebral ischemia/reperfusion injury, both *in vivo* and *in vitro*** 1204

*Pei-Dong Zheng, Rajneesh Mungur, Heng-Jun Zhou, Muhammad Hassan, Sheng Nan Jiang, Jie-Sheng Zheng*



- Is transesophageal echocardiography needed for evaluating tissue-based transient ischemic attack?** 1212  
*Mohamed Al-Khaled, Björn Scheef, Toralf Brüning*
- MicroRNA-219 alleviates glutamate-induced neurotoxicity in cultured hippocampal neurons by targeting calmodulin-dependent protein kinase II gamma** 1216  
*Ting Wang, Qun Cai, Wen-Jie Yang, Hai-Hua Fan, Jian-Feng Yi, Feng Xu*
- Chronic stress causes protein kinase C epsilon-aldehyde dehydrogenase 2 signaling pathway perturbation in the rat hippocampus and prefrontal cortex, but not in the myocardium** 1225  
*Wen-Yuan Zhang, Ke-Yi Wang, Yun-Jing Li, Ying-Ran Li, Rong-Zhi Lu*
- Spinal Cord Injury and Neural Regeneration**
- A partition-type tubular scaffold loaded with PDGF-releasing microspheres for spinal cord repair facilitates the directional migration and growth of cells** 1231  
*Xue Chen, Mei-Ling Xu, Cheng-Niu Wang, Lu-Zhong Zhang, Yu-Hong Zhao, Chang-Lai Zhu, Ying Chen, Jian Wu, Yu-Min Yang, Xiao-Dong Wang*
- Effects of decompression joint Governor Vessel electro-acupuncture on rats with acute upper cervical spinal cord injury** 1241  
*Yan-Lei Wang, Ying-Na Qi, Wei Wang, Chunke Dong, Ping Yi, Feng Yang, Xiang-Sheng Tang, Ming-Sheng Tan*
- Peripheral Nerve Injury and Neural Regeneration**
- Controlled release of FK506 from micropatterned PLGA films: potential for application in peripheral nerve repair** 1247  
*Brett Davis, Susan Wojtalewicz, Pratima Labroo, Jill Shea, Himanshu Sant, Bruce Gale, Jayant Agarwal*
- Spatiotemporal microRNA profile in peripheral nerve regeneration: miR-138 targets vimentin and inhibits Schwann cell migration and proliferation** 1253  
*Travis B. Sullivan, Litchfield C. Robert, Patrick A. Teebagy, Shannon E. Morgan, Evan W. Beatty, Bryan J. Cicuto, Peter K. Nowd, Kimberly M. Rieger-Christ, David J. Bryan*
- Puerarin ameliorates allodynia and hyperalgesia in rats with peripheral nerve injury** 1263  
*Heng-Tao Xie, Zhong-Yuan Xia, Xia Pan, Bo Zhao, Zhi-Gang Liu*
- Neurodegenerative Diseases and Neural Regeneration**
- Zishenpingchan granules for the treatment of Parkinson's disease: a randomized, double-blind, placebo-controlled clinical trial** 1269  
*Qing Ye, Xiao-Lei Yuan, Can-Xing Yuan, Hong-Zhi Zhang, Xu-Ming Yang*
- Differences in brain pathological changes between rotenone and 6-hydroxydopamine Parkinson's disease models** 1276  
*Lan-Xiang Liu, Dan Du, Zhan-Qiu Wang, Yuan Fang, Tao Zheng, Yan-Chao Dong, Qing-Lei Shi, Min Zhao, Fang Xiao, Juan Du*
- Degree of dopaminergic degeneration measured by <sup>99m</sup>Tc-TRODAT-1 SPECT/CT imaging** 1281  
*Ling Lin, Jing Ye, Han Zhang, Zhong-Fu Han, Zhi-Hong Zheng*
- Modulation of microglial functions by methyl jasmonate** 1290  
*Jordan A. McKenzie, Andis Klegeris*
- IMAGING IN NEURAL REGENERATION**
- Injury of the superior longitudinal fasciculus by ventriculoperitoneal shunt: a diffusion tensor tractography study** 1288  
*Sung Ho Jang, Han Do Lee*