Zimei Wang

Professional address: Department of Biomedical Sciences, Marquette University
561 N 15th street, Schroeder complex 485
Milwaukee, WI- 53233
Email address: zimei.wang@marquette.edu

Education and Training:

Institution	Degree	Year	Major Area
Shanghai Second Medical University	Bachelor of Medicine	1993	Medicine
Shanghai Jiao Tong University School of Medicine	PhD	2007	Neuroscience
Virginia Commonwealth University	Post-doctoral fellow	2009-2010	Neuroscience
University of Miami Miller School of Medicine, Miami project	Research Associate II	2010-2011	Neuroscience
Marquette University	Post-doc fellow	2011-2017	Neuroscience

Positions and Employment:

Institution	Year	Position
Marquette University	2017-present	Research assistant professor
Shanghai Jiao Tong University school of medicine	2007-2009	Research assistant professor
Shanghai Engineering & Technology University	1997- 2002	Neurology clinician
Demake pharmacy company (Ltd)	1995-1997	Scientist II
RAAS Blood products company (Ltd)	1993-1995	Scientist I

Research skills:

- Microsurgeries:
  Targeted cortical and midbrain injections, spinal cord injuries, pyramidotomy and sciatic nerve injury (Mouse model)

- Cell culture:
  Dorsal root ganglion (DRG), primary mid-brain and cortical cultures

- Microscopy:
  Confocal microscopy, wide-field fluorescence. Tissue prep for microscopy – cryostat, microstat and Vibratome

- Cell and Molecular Biology:
  Immunohistochemistry, Western Blotting, IP, quantitative PCR, ELISA, LBA, Bidirectional electrophoresis and mass spectrographic analysis

- Behavior studies:
  Horizontal ladder, Y-maze test

Publications:

Wang Z, Winsor K, Nienhaus C, Hess E, Blackmore MG (2016) Combined chondroitinase and KLF7 expression reduce net retraction of sensory and CST axons from sites of spinal injury. Neurobiol Dis 99:24-35

Jayaprakash N, **Wang Z**, Hoeynck B, Krueger N, Kramer A, Balle E, Wheeler DS, Wheeler RA, Blackmore MG (2016) Optogenetic Interrogation of Functional Synapse Formation by Corticospinal Tract Axons in the Injured Spinal Cord. J Neurosci 36:5877-5890.

Wang Z, Reynolds A, Kirry A, Nienhaus C, Blackmore MG (2015) Overexpression of Sox11 promotes corticospinal tract regeneration after spinal injury while interfering with functional recovery. J Neurosci 35:3139-3145.

Simpson MT, Venkatesh I, Callif BL, Thiel LK, Coley DM, Winsor KN, **Wang Z**, Kramer AA, Lerch JK, Blackmore MG (2015) The tumor suppressor HHEX inhibits axon growth when prematurely expressed in developing central nervous system neurons. Mol Cell Neurosci 68:272-283.

Blackmore MG, **Wang Z**, Lerch JK, Motti D, Zhang YP, Shields CB, Lee JK, Goldberg JL, Lemmon VP, Bixby JL (2012) Kruppel-like Factor 7 engineered for transcriptional activation promotes axon regeneration in the adult corticospinal tract. Proc Natl Acad Sci U S A 109:7517-7522.

Wang Z, Xu G, Zhang YF, Hu Y. Neuroprotective effects of Catalpol on BV2 cells injured by MPP+. Journal of Shanghai Jiaotong University (Medical Science 2012 32(10): 1296-1301

Hu Y, **Wang Z**, Zhang R, Wu P, Xia Z, Orsi A, Rees D (2010) Regulation of M1-receptor mRNA stability by smilagenin and its significance in improving the memory of aged rats. Neurobiol Aging 31:1010-1019.

Xu G, Xiong Z, Yong Y, **Wang Z**, Ke Z, Xia Z, Hu Y (2010) Catalpol attenuates MPTP-induced neuronal degeneration of nigral-striatal dopaminergic pathway in mice through elevating glial cell derived neurotrophic factor in the striatum. Neuroscience 167:174-184.

Wang Z, Liu Q, Zhang R, Liu S, Xia Z, Hu Y (2009) Catalpol ameliorates beta-amyloid-induced degeneration of cholinergic neurons by elevating brain-derived neurotrophic factors. Neuroscience 163:1363-1372.

Zhang R, **Wang Z**, Xia Z, Hu Y. Effects of active component of Zhimu on APP and BACE1 in HEK293sw cells. Journal of Shanghai Jiaotong University (Medical Science 2008 28(7): 827-830

Hu Y, **Wang Z**, Sun Q, Zhang Y, Xia Z, A new approach to the pharmacological regulation of memory: sarsasapogenin improves memory by elevating the low muscarinic acetylcholine receptor density in brains of memory deficit rat models. World Science and Technology-modernization of Tradition Chinese medicine and material media. 2007 9(2): 127-133.

Wang Z, Sun Q, Xia Z, Hu Y. A comparative study of the effect of smilagenin and donepezil on BDNF content and ChAT activity in brains of aged rats. Chinese Journal of Geriatrics 2007 26(4): 289-292

Wang Z, Zhang Y, Hu Y. Effect of active compounds of Zhimu and Huangqi on the coupling of the M2 receptor to G protein. Chinese Journal of Medicine 2004: 24 (10): 866-869.

Wang Z, Hu Y. Brain-derived neurotrophic factor and Alzheimer's disease. Academic Journal of Shanghai second medical University 2004: 24 (10): 866-869.

Wang Z, Sun Q, Liu Q, Xia Z, Hu Y. The effect of ZDY102 on brain M receptor in dementia model rats. Chinese Pharmacological Bulletin 2004; 20(9): 997-1000

Honors & Awards:

1992 Outstanding undergraduate student Award, Shanghai Second Medical University

2004 The second Prize of top-performing graduate student, Shanghai Jiaotong University school of Medicine

2007 Outstanding graduate student award, Shanghai Ministry of Education, People's Republic of China

2007 The Third Prize of Science and Technology, Shanghai Municipal Government, People's Republic of China (Certificate number: 20073032-3-R04)

2008 The Second Prize of Science and Technology (student), Ministry of Education, People's Republic of China (Certificate number: 2007-137)

Research Support

1. Shanghai Municipal Education Commission, Science and Technology Innovation program, 09YZ97, 1/2008-12/2009, Role on Project: Principal Investigator
Role of CDNF in the protection of nigral-striatal dopaminergic neurons by Catalpol

2. Faculty Resources Grant, Shanghai Jiaotong University School of Medicine, 2007XJ002, 1/2008-12/2009, Role on Project: Principal Investigator

The role of BCL-2 family in the survival and function of damaged neurons by catalpol.