

# 国际阿尔茨海默病高峰论坛

## International symposium on Alzheimer's disease: challenges and opportunities in the century

2016年10月15日-17日

中国-合肥

“国际阿尔茨海默病高峰论坛”（英文名称： International symposium on Alzheimer' s disease: challenges and opportunities in the century）由中国科学技术大学生命科学学院主办，南京大学医学院附属鼓楼医院、第三军医大学大坪医院以及中华阿尔茨海默病协会协办。会议组织委员会主席由生命科学学院中组部千人学者申勇教授、国家杰出青年牛立文教授和中科大生命科学学院院长薛天教授共同担任。

### 【会议主题】

神经退行性疾病包括阿尔茨海默病发病，病理机制及治疗的研究与进展。会议背景、意义：神经退行性疾病特别是阿尔茨海默病(AD)是一类起病隐匿的神经系统退行性疾病。目前全世界约有 2430 万患者，它的危害包括记忆障碍等严重影响患者的生活质量。但是目前 AD 的发病机理尚不明确，也无有效的早期诊断及治疗方法。通过举办阿尔茨海默病国际会议在 AD 领域研究有重要意义，并极大地拓展转化医学等相关领域研究。会议规模预计 300 人，特邀演讲嘉宾约 32-35 人，其中境外代表 10 人，主要来自于美国、法国，德国和日本等国家。

### 【主办单位】

中国科学技术大学生命科学学院  
中国科学技术大学脑资源库暨神经退行性疾病研究中心

### 【会议主席】

申勇 牛立文 薛天

### 【副主席】

刘强 熊伟 徐运 王延江 施炯

### 【会议秘书长】

毕丹蕾 高峰

**【会议组委】**

薛天 甘莉 刘强 徐运 施炯 童刚 王延江 熊伟 周江宁 毕国强

**【特别赞助】**

灵北（中国）制药

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百奥赛图基因生物技术有限公司

# Programme

## Clinical medicine, October 15th, 2016, Sat, Dragon Palace Theatre

08:00-11:00	Registration on site	
<b>Keynote Report</b>	<b>Chair: Yong Shen</b>	
08:30-09:10	Harald Hampel	Development of Precision Medicine in Alzheimer's disease
<b>Special Report</b>	<b>Chair: Jiangning Zhou</b>	
09:10-09:45	Hank F. Kung	Development of Imaging Agents for Diagnosis of Alzheimer's Disease
<b>Feature Report</b>	<b>Chair: Qiang Liu</b>	
09:45-10:05	Chunjiu Zhong	Rethinking Alzheimer's disease pathogenesis: A new hypothesis and its clinical significances
10:05-10:25	Guangjun Nie	Nanotechnology : a potentially powerful tool for delivery of therapeutic drugs and imaging agents for the neurodegenerative diseases
10:25-10:45	Qiang Liu	The function of Non-coding RNAs in Alzheimer's disease
10:45-11:05	Jiangning Zhou	A peptide-based probe to early detect $\beta$ -amyloid deposits in Alzheimer's disease
11:10-11:30	Group photography on the third floor hall	
11:30	Lunch	
<b>Keynote Report</b>	<b>Chair: Robert J. Vassar</b>	
14:00-14:40	Yigong Shi	$\gamma$ secretase: what we know and what we don't know
<b>Special Report</b>	<b>Chair: Harald Hampel</b>	
14:40-15:15	Akihito Takashima	Mechanism of neurodegeneration and therapy for Alzheimer's disease
15:15-15:30	Tea Break	
<b>Feature Report</b>	<b>Chair: Wei Xiong</b>	
15:30-15:50	Binggui Sun	Inhibiting adult neurogenesis ameliorates synaptic and cognitive deficits in an animal model of Alzheimer's disease
15:50-16:10	Yunwu Zhang	The function of Rps23rg1 in dementia
16:10-16:30	Jintai Yu	TREMs in Alzheimer's disease: Genetics, Mechanisms and Therapy

16:30-16:50	Peng Lei	Loss of tau protein function in diseases
17:00	Dinner	

**Translational Medicine, October 16th, 2016, Sun, Maple mahogany willow Room**

<b>Keynote Report</b>	<b>Chair: Liying Cui</b>	
08:30-09:10	Gary Tong	Alzheimer's treatment Clinical Trials: current status and future perspective
<b>Special Report</b>	<b>Chair: Yanjiang Wang</b>	
09:10-09:45	Weihong Song	Targeting APP Processing for Alzheimer's Disease
09:45-10:15	Fudong Shi	Neuroinflammation in AD
10:15-10:45	Liyong Cui	Amyotrophic lateral sclerosis with frontotemporal dementia-case report
10:45-11:00	Tea Break	
<b>Feature Report</b>	<b>Chair: Chunjiu Zhong</b>	
11:00-11:20	Wenxia Zhou	The study of circulating biomarker panels in early diagnosis of Alzheimer's disease
11:20-11:40	Dehua Cui	Implication of Lipid Related Risk Factor for Pathogenic Mechanism in Preclinical Stage Alzheimer's Disease
11:40-12:00	Yun Xu	Clinic Reseach of Function MRI on Diagonosis of Cognitive Decline
12:00	Lunch	
<b>Keynote Report</b>	<b>Chair: Yun Xu</b>	
14:00-14:40	Michael Sierks	Targeting oligomeric beta-amyloid variants as therapeutics for AD & Controlling APP processing with proteolytic antibodies as a therapeutic for AD.
<b>Special Report</b>	<b>Chair: Weihong Song</b>	
14:40-15:15	Kumar Sambamuff	The function of Non-coding RNAs in Alzheimer's disease
15:15-15:45	Jiayi Li	The prion concept in relation to neurodegenerative diseases
15:45-16:15	Weidong Le	Discovering New Pathogenesis of Alzheimer's Disease By Using iPSCs from Patients with PSEN1 mutation
16:15-16:30	Tea Break	
<b>Feature Report</b>	<b>Chair: Yunwu Zhang</b>	
16:30-16:50	Zhanyou Wang	Metal ion dyshomeostasis in Alzheimer's disease

16:50-17:10	Jianqing Ding	Increased APP and its beta-C-terminal fragment induce endosomal dysfunction and disrupt NGF signaling
17:10-17:30	Yan Zhang	The role of axon initial segment in Alzheimer's disease
17:30	Dinner	

**Preclinical Medicine, October 17th, 2016, Mon, Maple mahogany willow Room**

<b>Keynote Report</b>	<b>Chair: Robert J. Vassar</b>	
08:30-09:10	Li Gan	Converging pathways in dementia
<b>Special Report</b>	<b>Chair: Li Gan</b>	
09:10-09:45	Robert J. Vassar	BACE1: promise and challenges as a therapeutic target for Alzheimer's disease
09:45-10:15	Xiaojiang Li	Use of non-human primates to study AD-like neuropathology
10:15-10:30	Tea Break	
<b>Feature Report</b>	<b>Chair: Lin Li</b>	
10:30-10:50	Zengqiang Yuan	ATP release dysfunction: Depression and Dementia
10:50-11:10	Yanjiang Wang	Systemic approaches of understanding pathogenesis and developing therapies for Alzheimer's disease.
11:10-11:30	Jing Ai	MicroRNA-195 protects against dementia induced by chronic brain hypoperfusion via its anti-amyloidogenic targets-network in rats
11:30-11:50	Haiyan Zhang	Discovery of Novel Abeta-targeting "Off-On"Fluorescent Probes
11:50-12:10	Lin Li	Multi-target strategy and new drug development of traditional Chinese medicine for Alzheimer's disease therapy
12:00	Lunch	
<b>Keynote Report</b>	<b>Chair: Yi Zhong</b>	
14:00-14:40	Hongjun Song	Plasticity in the adult mammalian brain
<b>Special Report</b>	<b>Chair: Tian Xue</b>	
14:40-15:15	Yi Zhong	A new theory guided drug development for treatment of Alzheimer's disease
15:15-15:30	Tea Break	
<b>Feature Report</b>	<b>Chair: Michael Sierks</b>	

15:30-15:50	Quanhong Ma	Modulating degradation of BACE1---novel targets of Alzheimer's disease
15:50-16:10	Qian Yang	Chaperon-Mediated Autophagy and Mitochondria Homeostasis in neuronal survival and death: Implication for Alzheimer disease
16:10-16:30	Chaoshe Guo	High Efficiency Genome Editing Platform at Biocytogen
17:00	Dinner	



**Li Gan, PhD**  
**Professor, University of California, San Francisco**  
**Senior Investigator, Gladstone Institute of Neurological Disease, San Francisco**

Dr. Gan is Professor at Department of Neurology, University of California, San Francisco, CA and Senior Investigator at Gladstone Institute of Neurological Disease, San Francisco, CA.

Dr. Gan studies the molecular mechanisms behind the loss of functional neurons in neurodegenerative diseases, including Alzheimer's disease and Frontotemporal Dementia. Her lab explores the relationship between the aging of neural circuits, the accumulation of toxic proteins and the subsequent activation of a chronic inflammatory response. Understanding how these processes become dysfunctional in neurodegeneration could lead to new therapeutic strategies to tackle Alzheimer's disease and Frontotemporal dementia. One aspect of Dr. Gan's research focuses on why toxic proteins accumulate in the brains of Alzheimer patients. Dr. Gan and her team discovered new cellular mechanisms that could lead to novel approaches to remove toxic proteins from aging neurons. Dr. Gan's research also explores stem cell-based regenerative approaches in Alzheimer's disease—a promising yet highly challenging therapeutic direction. She showed that neural stem cells in the hippocampus of mice genetically modified to mimic Alzheimer's symptoms develop abnormally and integrate poorly into the network of neural circuits. More importantly, Dr. Gan and her colleagues found that they can offset these deficits by manipulating electrical signals with pharmacological approaches. Their research provides important clues to encourage the development of new brain cells in those with Alzheimer's disease.

#### **SELECTED PUBLICATIONS**

1. Min SW, Cho SH, Zhou Y, Schroeder S, Haroutunian V, Seeley WW, Huang EJ, Shen Y, Masliah E, Mukherjee C, Meyers D, Cole PA, Ott M, **Gan L**. (2010) Acetylation of tau inhibits its degradation and contributes to tauopathy. *Neuron* 67:953–966. PMID: PMC3035103
2. Min S\*, Xu C\*, Tracy TE, Sohn PD, Shirakawa K, Devidze N, Minami SS, Lee BH, Wang C, Schiling B, Cong X, Ellerby L, Gibson BW, Johnson J, Ponnusamy R, Zhou Y, Li Y, Shamloo M, Masliah E, King R, Finley, D, Verdin E and **Gan L** (2015). Critical Role of Acetylation in Tau-mediated Neurodegeneration and Cognitive Deficits: Therapeutic Implications. *Nat Med*. 21(10):1154-1162. PMID: PMC4598295.
3. Sohn PD, Tracy TE, Son HI, Zhou Y, Leite REP, Miller BL, Seeley WW, Grinberg LT, **Gan L** (2016). Acetylated tau destabilizes the cytoskeleton in the axon initial segment and is mislocalized to the somatodendritic compartment. *Mol. Neurodegener. in press*.



**Harald Hampel, MD, MSc, PhD**  
**Professor, Pierre and Marie Curie University (UPMC)**  
**AXA-UPMC Excellence Chair Holder on Alzheimer's Disease**

Prof. Harald Hampel is a world authority on Alzheimer's disease and related neurodegenerative diseases. He is Professor and AXA Research Fund and UPMC Excellence Chair at the Sorbonne Universities, Pierre and Marie Curie University (UPMC) in Paris, France

He is Scientific Director of the Institute for Memory and Alzheimer's disease (IM2A), and PI at the Brain and Spine Institute (ICM), the Department of Neurology at the Pitié-Salpêtrière University Hospital. Dr. Hampel obtained his MD at the University of Munich, Germany. He also holds an MSc from Cologne University, Germany and an MA from Trinity College, University of Dublin, Ireland. After training at the University of Munich, he moved to Washington D.C., USA, for a post-doctoral fellowship at the National Institutes of Health (NIH), National Institute on Aging (NIA), Laboratory of Neurosciences focused on structural, functional and metabolic neuroimaging of the healthy aging and Alzheimer's disease brain. He later became founding director of the Alzheimer Memorial Center at the University of Munich where he was appointed as Professor of Psychiatry in 2005. In 2006 he was appointed as Professor and Chair of Psychiatry at Trinity College, University of Dublin, Ireland. During this time he was a leading PI at Trinity College Institute of Neuroscience (TCIN). In 2010 he was appointed as Professor, Chair and Head of Department of Psychiatry, head of the Alzheimer Research Center and co-director of the Brain Imaging Center (BIC) at the University of Frankfurt, Germany. In 2013 he was appointed as Professor to Pierre and Marie Curie University in Paris.

#### **SELECTED PUBLICATIONS**

1. Steinberg S, Stefansson H, Jonsson T,..., **Hampel H**,...Snaedal J, Stefansson K. Loss of function variants in ABCA7 confer risk of Alzheimer's disease. *Nature Genetics*, accepted.
2. Jansen WJ, Ossenkoppele R,...**Hampel H**,...Zboch M, Zetterberg H. Prevalence of Cerebral Amyloid Pathology in Persons without Dementia: A Meta-analysis. *JAMA – Journal of the American Medical Association*. 2015 May 19;313(19):1924-1938.
3. Ewers M, Mattsson N,..., Blennow, **Hampel H**. Differential diagnosis of Alzheimer's disease using cerebrospinal fluid biomarkers. A large-scale international multi-center study. *Alzheimer's and Dementia*, 2015.





**Gary Tong, MD, PhD**  
**Lundbeck LLC**  
**US Therapeutic Area Head, Dementia**

- US trained physician scientist and board certified neurologist.
- Exploratory Development Team Leader for Alzheimer's programs, early clinical development medical lead for Alzheimer's disease, progressive supranuclear palsy, migraine, anxiety, and depression programs of Bristol Myers Squibb; member of BMS neuroscience in-licensing team and provided scientific and medical expertise for more than 20 neuroscience compounds in various stages of development;
- US lead for a large phase III Alzheimer's program, early clinical development medical lead for Alzheimer's disease at Lundbeck;
- Lead teams who are responsible for providing advice and guidance to clients in how to design drug development programs, how simultaneous pieces fit together scientifically, including Discovery, Biomarkers, Non Clinical Safety, Proof-of-concept, Clinical, CMC, Regulatory and Statistics for US and Ex US development of compounds and registration; Provide strategic drug development consulting to clients in Neuroscience (Alzheimer's, Parkinson's disease, progressive supranuclear palsy), Oncology, Diabetes, Stem Cell based therapy, HCV, and HIV at Covance Extensive knowledge in translational medicine, biomarkers, IND, CRO, early and late phase drug development; extensive knowledge in various stages of preclinical and clinical development of CNS drugs(both Academia and Industry);
- Extensive knowledge in Neurology and basic neurosciences (Alzheimer's disease, fronto-temporal dementia, Migraine, multiple sclerosis, Parkinson's disease, ALS, neuropathic pain, ion channels, glutamate receptors, synaptic plasticity);
- Demonstrated ability to develop and lead complicated matrix clinical development teams in both pharma and CRO;

**SELECTED PUBLICATIONS**

1. **Tong, G.**, Castaneda, L., Wang, JS., Sverdlov, O., Huang, S-P., Slemmon, R., Gu, H., Wong, O., Li, H., Berman, R.M., Smith, C., Albright, C. F., and Dockens, R., (2012) Effects of Single Doses of Avagacestat on Cerebrospinal Fluid A $\beta$  Levels in Healthy Young Men. *Clin Drug Investigation*. 2012 Sep 14.
2. Boxer AL, Gold M, Huey E, Gao FB, Burton EA, Chow T, Kao A, Leavitt BR, Lamb B, Grether M, Knopman D, Cairns NJ, Mackenzie IR, Mitic L, Roberson ED, Van Kammen D, Cantillon M, Zahs K, Salloway S, Morris J, **Tong G**, Feldman H, Fillit H, Dickinson S, Khachaturian Z, Sutherland M, Farese R, Miller BL, Cummings J. (2012)Frontotemporal degeneration, the next therapeutic frontier: Molecules and animal models for frontotemporaldegeneration drug development. *Alzheimer's and Dementia*. 2012 Oct 5.
3. Hiroto Takahashi, Peng Xia, Jiankun Cui, Maria Talantova, Karthik Bodhinathan , Wenjun Li, Emily Holland, **Gary Tong**, Juan Piña-Crespo , Dongxian Zhang, Nobuki Nakanishi, James W. Larrick , Scott R. McKercher, Tomohiro Nakamura, Yuqiang Wang, Stuart A. Lipton (2015) Pharmacologically targeted NMDA receptor antagonism by NitroMemantine for cerebrovascular disease. *Nature Scientific Reports*, Oct 19;5:14781.



**Hongjun Song, MD, PhD**  
**Professor, Johns Hopkins University School of Medicine**  
**Director of Stem Cell Program, Institute for Cell Engineering**

Dr. Song is Professor at Department of Neurology and Neuroscience, Institute for Cell Engineering, Johns Hopkins University School of Medicine, Baltimore, MD. And he is also Director of Stem Cell Program, Institute for Cell Engineering, Johns Hopkins University School of Medicine, Baltimore, MD.

**POSITION & EMPLOYMENT**

2007-2010 Associate Professor, Department of Neurology and Neuroscience, Institute for Cell Engineering, Johns Hopkins University School of Medicine, Baltimore, MD

2010-present Director, Stem Cell Program, Institute for Cell Engineering, Johns Hopkins University School of Medicine, Baltimore, MD

2010-present Professor, Department of Neurology and Neuroscience, Institute for Cell Engineering, Johns Hopkins University School of Medicine, Baltimore, MD

2012-present Affiliated member of Johns Hopkins University Translational Tissue Engineering Center, Baltimore, MD

2015-present Associate Member of Kavli Neuroscience Discovery Institute at Johns Hopkins University, Baltimore, MD

Dr. SONG's lab studies the novel mechanisms regulating structural and functional plasticity in the mammalian central nervous system. Their research focuses on two major topics: mammalian neural stem cells and neurogenesis, and epigenetic mechanisms in the mammalian nervous system. Their laboratory uses integrated approaches to address these questions, including technologies in molecular biology, cell biology, biochemistry, epigenetics, genomics, bioinformatics, virology, histology, in vivo multiphoton confocal imaging, electrophysiology, mouse genetics and animal behaviors.

**SELECTED PUBLICATIONS**

1. Ma, D.K., Jang, M.H., Guo, J.U., Kitabatake, Y., Chang, M.L., Pow-Anpongkul, N., Flavell, R.A., Lu, B., Ming, G.L., and **Song, H-j.** (2009). Neuronal activity-induced Gadd45b promotes epigenetic DNA demethylation and adult neurogenesis. *Science* 323, 1074-7.
2. Guo, J.U., Su, Y., Zhong, C., Ming, G.L., and **Song, H.** (2011). Hydroxylation of 5-methylcytosine by TET1 promotes active DNA demethylation in the adult brain. *Cell* 145, 423-34.
3. Guo, J.U., Su, Y., Shin, J.H., Shin, J., Li, H., Xie, B., Zhong, C., Hu, S., Le, T., Fan, G., Zhu, H., Chang, Q., Gao, Y., Ming, G.L., **Song, H.** (2014). Distribution, recognition and regulation of non-CpG methylation in the adult mammalian brain. *Nature Neuroscience* 17, 215-22.



**Akihiko Takashima, MD, PhD**  
**Director, Department of Aging Neurobiology,**  
**National Center for Geriatrics and Gerontology**

Dr. Takashima is Director at Department of Aging Neurobiology, National Center for Geriatrics and Gerontology. And he is also the Section Editor (Alzheimer's disease) of Neurobiology of Aging, Board Member of Directors In Dementia Japan, Council Member of Neurochemistry Japan and Scientific Advisory Board of Alzheimer Research Forum (USA).

#### **RESEARCH & PROFESSIONAL EXPERIENCE**

1991-1993 Post Doctral Fellow, Laboratory of Protein Chemistry, Mitsubishi Kasei Institute of Life Science, working on Tau protein kinase in AD.

1993-1998 Senior Staff, Project "Mechanism of Neuronal death in AD", Mitsubishi Kasei Institute of Life Science.

1998-2011 Laboratory Head, Laboratory for Alzheimer's disease, RIKEN Brain Science Institute.

2011-present Director, Department of Aging Neurobiology, National Center for Geriatrics and Gerontology.

2000-2005 Visiting professor, Department of Life Science, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology. During visiting professor in Tokyo institute of technology, I supervised three graduate students, and they successfully received the degree of Ph.D.

2007 - 2012 Editorial Board Member of *Journal of Biological Chemistry*

2007 - 2011 Editorial Board Member of *Journal of Alzheimer's Disease*

2011 - present Section Editor (Alzheimer's disease) of Neurobiology of Aging

2006 - present Board Member of Directors In Dementia Japan

2006 - present Council Member of Neurochemistry Japan

2009 - present Scientific Advisory Board of Alzheimer Research Forum (USA)

#### **SELECTED PUBLICATIONS**

1. Moreira PS, Sotiropoulos I, Silva J, **Takashima A**, Sousa N, Leite-Almeida H, Costa PS. The Advantages of Structural Equation Modeling to Address the Complexity of Spatial Reference Learning. *Front Behav Neurosci*. 2016 Feb 26;10:18.

2. Soeda Y, Yoshikawa M, Almeida OF, Sumioka A, Maeda S, Osada H, Kondoh Y, Saito A, Miyasaka T, Kimura T, Suzuki M, Koyama H, Yoshiike Y, Sugimoto H, Ihara Y, and **Takashima A**. Toxic tau oligomer formation blocked by capping of cysteine residues with 1,2-dihydroxybenzene groups. *Nat Commun*. 2015 Dec 16;6:10216.

3. Yagishita S, Murayama M, Ebihara T, Maruyama K, **Takashima A**. Glycogen Synthase Kinase-3 $\beta$ -mediated Phosphorylation in the Most C-terminal Region of Protein Interacting with C Kinase 1 (PICK1) Regulates the Binding of PICK1 to Glutamate Receptor Subunit GluA2. *J Biol Chem*. 2015 Dec 4;290(49):29438-48.



**Robert J. Vassar, PhD**  
**Professor, Dept. of Cell and Mol. Biol, Northwestern University**

Dr. Vassar is Professor at Department of Cell and Molecular Biology, Northwestern University. He is the Member of Cure Alzheimer's Fund Research Consortium, Member of AAAS Section V (Neuroscience) Steering Group, Member of DIAN-TU Therapy Evaluation Committee and Member of Cure Alzheimer's Fund Genes to Therapies Steering Committee.

#### **EDUCATION**

1978	University of Chicago	A. B.	Biological Sciences
1992	University of Chicago	Ph.D.	Molecular Genetics and Cell Biology

#### **FACULTY APPOINTMENTS**

1996-2001	Research Scientist	Amgen, Inc.	Neuroscience
2001-2008	Associate Professor	Northwestern University	Cell and Molecular Biology
2008-present	Professor	Northwestern University	Cell and Molecular Biology

Dr. Vassar's ongoing research focuses on the role of A $\beta$  and BACE1 in normal biological processes and in disease mechanisms of relevance to AD. His lab is particularly interested in the functions of BACE1 and the homologue, BACE2, and the cell biology of A $\beta$  in neurons. Cellular and molecular studies of BACE1 and BACE2 knockout mice will be important for elucidating the biological functions of these novel aspartic proteases and identifying their substrates. Finally, the lab is interested in the role of inflammation in AD pathophysiology, novel transgenic and knockout mouse models of AD, and molecular changes that may occur during brain aging leading to neurodegeneration.

#### **SELECTED PUBLICATIONS**

1. Fernandes HB, Riordan S, Nomura T, Remmers CL, Kraniotis S, Marshall JJ, Kukreja L, **Vassar R**, Contractor A. (2015) Epac2 Mediates cAMP-Dependent Potentiation of Neurotransmission in the Hippocampus. *J Neurosci*. 35(16):6544-53. PMID: 25904804
2. Liao F, Zhang TJ, Jiang H, Lefton KB, Robinson GO, **Vassar R**, Sullivan PM, Holtzman DM. (2015) Murine versus human apolipoprotein E4: differential facilitation of and co-localization in cerebral amyloid angiopathy and amyloid plaques in APP transgenic mouse models. *Acta Neuropathol Commun*. 3:70.
3. Sadleir KR, Kandalepas PC, Buggia-Prévot V, Nicholson DA, Thinakaran G, Vassar R. (2016) Presynaptic dystrophic neurites surrounding amyloid plaques are sites of microtubule disruption, BACE1 elevation, and increased A $\beta$  generation in Alzheimer's disease. *Acta Neuropathol*.



**Weihong Song, MD, PhD, FCAHS**  
**Fellow of Canadian Academy of Health Sciences**  
**Canada Research Chair in Alzheimer's Disease**  
**Jack Brown and Family Professor**

Dr. Weihong Song was trained as a clinical psychiatrist and molecular neuroscientist. He is the Canada Research Chair in Alzheimer's Disease and Jack Brown and Family Professor at the UBC Department of Psychiatry. He was appointed as Associate Director of Institute of Mental Health, and Head of Basic Neuroscience Division in July 2015. He has been serving as Special Advisor to the President on China at UBC since 2009 and he is also the professor of the "Thousand-Talent Scholar".

His lab has made major contribution to the understanding on how BACE1 and  $\gamma$ -secretase regulate APP processing and their role in Alzheimer pathogenesis and drug development. His recent work also defined the molecular pathways contributing to AD pathogenesis in Down Syndrome. He has served on numerous international grant review panels and a member of the editorial board of "Journal of Clinical Investigation", a Handling Editor of "Journal of Neurochemistry" and an Associate Editor of "Current Alzheimer Research". Dr. Song was elected to Fellowship in the Canadian Academy of Health Sciences (CAHS) in 2012, one of the highest honors for members of the Canadian health sciences community. Dr. Song plays an instrumental role in facilitating the establishment of the China-Canada Joint Health Research Initiatives, a joint funding program by CIHR and NSFC. For his contribution in forging crucial Canada-China collaborations on research and education, Dr. Song was awarded by the government of China the 2011 "Friendship Award", China's highest honor for foreign experts.

**SELECTED PUBLICATIONS**

1. Wang Z., Sadovnick A.D., Traboulsee A.L., Ross J.P., Bernales C.Q., Encarnacion M., Yee I.M., de Lemos M., Greenwood T., Lee J.D., Wright G., Ross C.J., Zhang S., **Song W.**, and Vilariño-Güell C. (2016). Nuclear receptor NR1H3 in familial multiple sclerosis. *Neuron* 90, 948-954.
2. Zheng L., Duan J., Duan X., Zhou W., Chen C., Li Y., Chen J., Zhou W., Wang Y., Li T., and **Song W.** (2016). Association of Apolipoprotein E (ApoE) polymorphism with Alzheimer's disease in Chinese population. *Current Alzheimer Research* 13, 912-917.
3. Wang J. and **Song W.** (2016). Regulation of LRRK2 promoter activity and gene expression by Sp1. *Molecular Brain* 9, 33.



**Hank F. Kung, PhD.**  
**Professor, University of Pennsylvania, Philadelphia, PA**

Dr. Hank F. Kung was trained as a medicinal chemist in the department of medicinal chemistry, University of Buffalo. Currently, he is a Professor of Radiology, University of Pennsylvania.

Dr. Kung's research interest has been on developing novel in vivo imaging agents to provide diagnostic information in different diseases, such as Parkinson's and Alzheimer's diseases. In conjunction with single photon emission computed tomography (SPECT) or positron emission tomography (PET) these imaging tools can deliver in vivo functional images not attainable by other imaging techniques. Many novel ligands probing CNS monoamine neurotransmitter systems have been developed in the Kung lab. Specifically, I-123 IBZM (iodo-benzamide) and Tc-99m TRODAT-1 are used worldwide for differential diagnosis of Parkinson's disease. Recently, several PET imaging agents, including Amyvid and AV-133, developed in the Kung lab for diagnosis of Alzheimer's and Parkinson's disease have moved from bench to clinics. Several C-11 and F-18 glutamine-based PET imaging agents targeting tumor metabolism have been prepared and tested. They may be useful to image changes in tumor metabolism via glutaminolysis therefore showing negative scans with FDG/PET.

#### **POSITIONS & EMPLOYMENT**

1976 - 1977      Postdoctoral Fellow, Roswell Park Memorial Institute, Buffalo  
1977 - 1987      Associate Professor, University of Buffalo, Buffalo, NY  
1987 – present    Professor, University of Pennsylvania, Philadelphia, PA

#### **SELECTED PUBLICATIONS**

1. Zhu L, Ploessl K, **Kung HF**. Chemistry. Expanding the scope of fluorine tags for PET imaging. *Science*. 2013 Oct 25;342(6157):429-30.
2. Venneti S, Dunphy MP, Zhang H, Pitter KL, Zanzonico P, Campos C, Carlin SD, La Rocca G, Lyashchenko S, Ploessl K, Rohle D, Omuro AM, Cross JR, Brennan CW, Weber WA, Holland EC, Mellinghoff IK, **Kung HF**, Lewis JS, Thompson CB. Glutamine-based PET imaging facilitates enhanced metabolic evaluation of gliomas in vivo. *Sci Transl Med*. 2015 Feb 11;7(274):274ra17.
3. Zhu L, Ploessl K, **Kung HF**. PET/SPECT imaging agents for neurodegenerative diseases. *Chem Soc Rev*. 2014 Oct 7;43(19):6683-91.



**Kumar Sambamurti, PhD.**  
**Tenured Professor, Department of Neurosciences,**  
**Associate Professor, Department of Physiology,**  
**Medical University of South Carolina, USA.**

Dr. Sambamurti did his BSc from Madras University in 1977 and MSc from Pune University in 1979, India and subsequently completed his Ph.D. at the University of Medicine and Dentistry (UMD) of New Jersey in 1989. He subsequently did a post-doctoral fellowship with Dr. Nikolaos Robakis at the Mount Sinai Medical Center where he stated his research on the proteolytic processing of APP. He then went to the University of Texas Houston and the Mayo Clinic-Jacksonville as an Assistant Professor. He Joined the Medical University of South Carolina where he progressed to become a tenured Research Professor in 2008. Dr. Sambamurti is also the Co-Director of the Carol Campbell brain bank.

Dr. Sambamurti's research program is focused on mechanisms of neurodegeneration that ultimately result in the slow decline associated with aging as well as in a number of diseases such as Alzheimer's disease (AD), macular degeneration (AMD) and Parkinson's disease (PD). These diseases are characterized by the failure of the protein maintenance mechanisms resulting in their deposition.

Dr. Sambamurti's team are currently, studying APP processing and function to ultimately dissect out the processes and pathways that lead to neuronal dysfunction and death in AD and AMD. Their studies use cellular and animal models to characterize the metabolic pathways of APP and related proteins, understand the function of these proteins and determine the protein interactions and localization changes associated with normal and abnormal functioning of neuronal cells.

### **SELECTED PUBLICATIONS**

1. Greig NH, Tweedie D, Rachmany L, Li Y, Rubovitch V, Schreiber S, Chiang YH, Hoffer BJ, Miller J, Lahiri DK, **Sambamurti K**, Becker RE, Pick CG. (2014) Incretin mimetics as pharmacologic tools to elucidate and as a new drug strategy to treat traumatic brain injury. *Alzheimers Dement*. 2014 Feb;10(1S):S62-S75.
2. Wang, X., Zhu, M., Hjorth, E., Cortes-Toro, V., Eyjolfsson, H., Graff, C., Nennesmo, I., Palmblad, J., Eriksson, M., **Sambamurti, K.**, Fitzgerald, J. M., Serhan, C. N., Granholm, A. C., and Schultzberg, M. (2015) Resolution of inflammation is altered in Alzheimer's disease. *Alzheimer's & dementia : the journal of the Alzheimer's Association* 11, 40-50 e42.
3. Baranello, R. J., Bharani, K. L., Padmaraju, V., Chopra, N., Lahiri, D. K., Greig, N. H., Pappolla, M. A., and **Sambamurti, K.** (2015) Amyloid-Beta Protein Clearance and Degradation (ABCD) Pathways and their Role in Alzheimer's Disease. *Current Alzheimer research* 12, 32-46.





**Michael R. Sierks, MS, PhD.**  
**Associate/Full Professor,**  
**Chemical and Materials Engineering Department, Arizona State University**

Dr. Michael R. Sierks is Associate/Full Professor at Chemical and Materials Engineering Department, Arizona State University.

#### **EDUCATION**

1978	Stanford University	B.S.	Chemical Eng
1982	Colorado State University	M.S.	Chemical Eng
1988	Iowa State University	Ph.D.	Chemical Eng
1990	Carlsberg Laboratory, Denmark	Post-doc.	Protein Eng

#### **POSITION & EMPLOYMENT**

1978-1980	Research Engineer, Phillips Petroleum Company, Bartlesville, Okla.,
1988-1990	Post-Doctoral Research Scientist, Carlsberg Laboratory, Copenhagen, Denmark.,
1991-2000	Assistant/Associate Professor, Chemical and Biochemical Engineering Department, University of Maryland, Baltimore County
2000-present	Associate/Full Professor, Chemical and Materials Engineering Department, Arizona State University

Dr. Sierks' research efforts have focused on developing better research tools to help study the complexities involved in protein misfolding diseases such as Alzheimer's and Parkinson's diseases.

#### **SELECTED PUBLICATIONS**

1. Kasturirangan, S; Lin, L; Emadi, S; Boddapati, S; Schulz, P; **Sierks, MR**. Nanobody specific for oligomeric beta-amyloid stabilizes non-toxic form. *Neurobiol Aging* 33,1320–1328 (2012).
2. **Sierks MR**, Chatterjee G, McGraw C, Kasturirangan S, Schulz P, Prasad S., CSF levels of oligomeric alpha-synuclein and beta-amyloid as biomarkers for neurodegenerative disease. *Integr Biol (Camb)*. 2011 Dec 1;3(12):1188-96.
3. Wang MS, Boddapati S, **Sierks MR**. Anti-fibrillizing agents can promote formation of toxic intermediate aggregates of beta-amyloid. *Biotechnol Prog*. 26:1172-963 (2010)





**Jing AI, M.D, PhD**  
**Dept. of Pharmacology**  
**Harbin Medical University**

Jing Ai, Ph.D. Professor of Pharmacology of Harbin Medical University. From 2001-2009, her research interest was the discovery of drugs for cardiovascular diseases. Currently she mainly focuses on molecular mechanisms of vascular dementia and aging-related cardiovascular diseases at microRNA level. Specifically, her lab has found that microRNA-195 regulates cognitive function following chronic brain hypoperfusion by targeting on multi-genes that are association with A $\beta$ /CDK5/PP2A/GSK-3 $\beta$ /Tau cascade networks. In addition, her lab is also found that microRNA-1 participate the process of cardiac ischemia lead to dementia.

#### **HIGH EDUCATION**

- 1986-1991 Preventive medicine Department of Harbin Medical University,  
Bachelor Degree (Preventive medicine specialty)
- 1998-2001 Pharmacological Department, Pharmacy institute of Harbin Medical University,  
Master Degree (Pharmacological specialty)
- 2001-2003 Pharmacological Department, Pharmacy institute of Harbin Medical University,  
Ph.D Degree (Pharmacological specialty)

#### **SELECTED PUBLICATIONS**

1. Liu CD, Wang Q, Zong DK, Pei SC, Yan Y, Yan ML, Sun LL, Hao YY, Mao M, Xing WJ, Ren H, **Ai J\***. Knockdown of microRNA-195 contributes to protein phosphatase-2A inactivation in rats with chronic brain hypoperfusion. **Neurobiol Aging**. 2016 Sep;45:76-87. doi: 10.1016/j.neurobiolaging.2016.05.010. Epub 2016 May 18
2. Che H, Yan Y, Kang XH, Guo F, Yan ML, Liu HL, Hou X, Liu T, Zong DK, Sun LL, Bao YN, Sun LH, Yang BF, **Ai J\***. MicroRNA-27a Promotes Inefficient Lysosomal Clearance in the Hippocampi of Rats Following Chronic Brain Hypoperfusion. **Mol Neurobiol**. 2016 Mar 19
3. Zhang R, Niu H, Kang X, Ban T, Hong H, **Ai J\***. Long-Term Administration of Neuropeptide Y in the Subcutaneous Infusion Results in Cardiac Dysfunction and Hypertrophy in Rats. **Cell Physiol Biochem**. 2015;37(1):94-104. doi: 10.1159/000430336. Epub 2015 Aug 17



**Dehua Chui ,M.D ,Ph.D**  
**Professor of Neurobiology and neurology**  
**Health Science Center Peking University**

Dehua Chui ,Ph.D., Hirosaki University, Japan (1988) ,Post-doctoral National Center of Neurology and Psychiatry Japan (1989/1992) , Associate Professor Dept.of Neurology, Bethune University China (1995),A senior COE researcher National Center of Neurology and Psychiatry, Japan (1996/2001), Fellow of Lab. for Alzheimer`s disease, Brain Science Institute, RIKEN BSI Japan(2001-2003), Neuroscience research Institute, Health Science Center, Third Hospital, AD group Peking University. (2004-Present).

Prof. Chui has been researching in molecular neurobiological mechanism of neurodegenerating diseases and Alzheimer`s disease (AD) for more than twenty years. He had discovered that elevated intracellular Abeta 42 could cause neurotoxicity without senile plaques formation in the Japan National Center of Neurology and Psychiatry. This finding was the first and published in Nature Medicine.1999. The findings make an important contribution to the study of the pathogenesis of Preclinical AD (PCAD). Recently, he had identified that lipoprotein lipase (LPL) and phospholipid transfer protein (PLTP) played a role in cognitive function in the central nervous system; Lipoprotein lipase deficiency leads to  $\alpha$ -synuclein aggregation and ubiquitin C-terminal hydrolase L1 reduction; Impaired synaptic vesicle recycling contributes to presynaptic dysfunction in lipoprotein lipase-deficient mice and published this paper in Journal of neuroscience or neuroscience. PLTP deficiency accelerates memory dysfunction through altering amyloid precursor protein (APP) processing in a mouse model of Alzheimer's disease and published this paper in Hum Mol Genet. 2015. Extract xylocoside G and Formononetin of Chinese medicine can protect Abeta-induced neurotoxicity; protects neurons against hypoxia-induced cytotoxicity through upregulation of ADAM10 and sA $\beta$ PP $\alpha$ . Blood-brain barrier dysfunction in mice induced by lipopolysaccharide is attenuated by dapsone;Autophagy is involved in oral rAAV/A $\beta$  vaccine-induced A $\beta$  clearance in APP/PS1 transgenic mice.

#### **SELECTED PUBLICATIONS**

1. Li W, Yu J, Liu Y, Huang X, Abumaria N, Zhu Y, Huang X, Xiong W, Ren C, Liu XG, **Chui D**, Liu G. Elevation of brain magnesium prevents synaptic loss and reverses cognitive deficits in Alzheimer`s disease mouse model. **Mol Brain**. 2014 Sep 13;7(1):65.
2. Liu X, Zhang B, Yang H, Wang H, Liu Y, Huang A, Liu T, Tian X, Tong Y, Zhou T, Zhang T, Xing G, Xiao W, Guo X, Fan D, Han X, Liu G, Zhou Z, **Chui D**. Impaired synaptic vesicle recycling contributes to presynaptic dysfunction in lipoprotein lipase-deficient mice. **Neuroscience**. 2014 Sep 3.
3. Liu Y, Sun Z, Sun S, Duan Y, Shi J, Qi Z, Meng R, Sun Y, Zeng X, **Chui D**, Ji X. Effects of hypoxic preconditioning on synaptic ultrastructure in mice. **Synapse**. 2014 Aug 25.



Liying Cui

**Professor of Neurology**

**Chair of Neurological department**

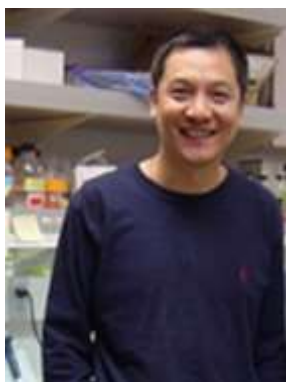
**Peking Union Medical College Hospital**

Liying Cui, Professor of Neurology, is Chair of Department of Neurology in Peking Union Medical College Hospital. She is the President of Chinese Society for Neurology and the President of Chinese Society for EMG & Clinical Neurophysiology. Dr. Cui is the member of IFCN (International Federation of Clinical Neurophysiology) and is also the general editor of Chinese Journal of Neurology. Dr. Cui had been trained in Duke University and UNC medical centers as a Visiting professor in EMG Lab and in California University Medical Center at Irvine as a clinical neurophysiological fellow doing SFEMG and olfactory evoked potentials in AD and PD patients.

Her Research experience includes routine EMG and Single fiber EMG studies in myasthenia gravis and amyotrophic lateral sclerosis. She also has experience on transcranial magnetic stimulation (TMS) and repetitive TMS (rTMS) in research of stroke, ALS and multiple system atrophy. Her most clinical researches are focus on ALS, ALS-FTD and other neuromuscular disorders. Dr. Cui has published more than 400 papers.

#### **SELECTED PUBLICATIONS**

1. Zou ZY, Li XG, Liu MS, **Cui LY**. Screening for C9orf72 repeat expansions in Chinese amyotrophic lateral sclerosis patients. **Neurobiol Aging**. 2013 Jun;34(6):1710.e5-6.
2. Zou ZY, Sun Q, Liu MS, Li XG, **Cui LY**. Mutations in the profilin 1 gene are not common in amyotrophic lateral sclerosis of Chinese origin. **Neurobiol Aging**. 2013 Jun;34(6):1713.e5-6.
3. Zou ZY, Wang XN, Liu MS, Sun Q, Li XG, **Cui LY**, Kong J. Identification of a novel missense mutation in angiogenin in a Chinese amyotrophic lateral sclerosis cohort. **Amyotroph Lateral Scler**. 2012 May;13(3):270-5.



**Jianqing Ding**  
**Institute of Neurology, Ruijin Hospital**  
**Shanghai Jiao Tong University School of Medicine**

After finished his postdoctoral training in the laboratory of Dr. Yanmin Yang at Stanford University, he joined the Institute of Neurology at Ruijin Hospital in 2000. The research focus of Dr. Ding's laboratory is on defining molecular and cellular mechanisms underlying neurodegenerative diseases including Alzheimer's Disease and Parkinson's Disease. Dr. Ding has published over 30 papers in peer-reviewed journals including Nature, Journal of Clinical Investigation, Journal of Cell Biology, Annals of Neurology and PNAS. His research has been supported by the grants from National Natural Science Foundation of China, Ministry of Science and Technology of the People's Republic of China and Shanghai Science and Technology Commission.

#### **SELECTED PUBLICATIONS**

1. Lipeng Tian, Shi Zhang, Yingjie Zhang, **Jianqing Ding**#, Shengdi Chen . Lmx1b can promote the differentiation of embryonic stem cells to dopaminergic neurons associated with Parkinson's disease.. **Biotechnology Letters**,2012;34(7):1167-74
2. Lipeng Tian , Shi Zhang , Liang Xu, Wen Li, Ying Wang, Shengdi Chen, **Jianqing Ding** #. Selenite benefits embryonic stem cells therapy in Parkinson's disease. **Current Molecular Medicine**,2012;12(8):1005-14
3. Zhiquan Wang, Yu Zhang, Shi Zhang, Qianqian Guo, Yuyan Tan, Xinyi Wang, Ran Xiong, **Jianqing Ding**#, Shengdi Chen. DJ-1 can inhibit microtubule associated protein 1 B formed aggregates. **Molecular Neurodegeneration**,2011;6:38
4. Yiwen Wu, Tianyi Rong, Huahua Li, Qing Xiao, Qingzhou Fei, Eng-King Tan, **Jianqing Ding**#, Shengdi Chen. Analysis of Lingo1 variant in sporadic and familial essential tremor among Asians. **Acta Neurologica Scandinavica**,2011;124(4):264-268



**Fei Dou, Ph.D**  
**College of Life Sciences,**  
**Beijing Normal University**

Dr. Dou studies the molecular mechanisms behind the loss of proteostasis in neurodegenerative diseases, including Alzheimer's disease and Down's syndrome. His lab is interested in the roles molecular chaperones play in the modification and degradation of candidate proteins involved in such diseases. Based on the understanding of how these processes become dysfunctional in neurodegeneration could lead to new therapeutic strategies to tackle Alzheimer's disease. Dr. Dou discovered that Hsp90 could regulate the activity of CDK5 and GSK3b and further affect Tau phosphorylation level, which suggest that Hsp90 inhibitors could be used as a potential treatment for AD. Dr. Dou's lab also studies the toxicity of Tau protein in neurons in *Drosophila* and mouse models, and found that the C-terminus of Tau protein is important for its stability.

Recently Dr. Dou's lab focuses on protein TTC3, which has similar structure as Hsp90 co-factor, CHIP. TTC3 protein is encoded by a gene located inside Down's syndrome critical region 1, and enriched in CNS. By using Y2H, they identified several proteins could interact with TTC3. POLG, Hsp90 and PSMB6 are 3 of them, which implies that TTC3 may play an important role in regulation protein degradation and the homeostasis of mitochondria. The exploration of how TTC3 affect POLG degradation, cell viability and embryo development may provide more clues of the pathology of AD and DS.

#### **SELECTED PUBLICATIONS**

1. Junhua Geng, Lu Xia, Wanjie Li, Changqi Zhao and **Fei Dou**. Cycloheximide Treatment Causes a ZVAD-Sensitive Protease-Dependent Cleavage of Human Tau in *Drosophila* Cells. **J Alzheimers Dis**. 2015 Nov 22; 49(4):1161-8. doi: 10.3233/JAD-150423.
2. Luping Yin, Malte J. Rasch, Quansheng He, Si Wu, **Fei Dou** and Yousheng Shu. Selective Modulation of Axonal Sodium Channel Subtypes by 5-HT1A Receptor in Cortical Pyramidal Neuron. **Cereb Cortex**. 2015 Oct 22. pii: bhv245. [Epub ahead of print]
3. Xingya Chang, Guang Cao, Kun Wang, Xiaoyan Zhang and **Fei Dou**. Application of intra-molecular fluorescence complementation in the topology examination of polytopic proteins in living cells. **Acta Biochim Biophys Sin**. 2015 Aug; 47(8):654-6. doi: 10.1093/abbs/gmv048.



**Chaoshe Guo, Ph.D**  
**Vice President**  
**Senior R&D Director**  
**BIOCYTOGEN CO., LTD**

### **EXPERIENCES**

7/2015-Present: Vice President; Senior R&D Director, Biocytogen CO., LTD

1/2015-6/2015: Senior R&D Director; BD Director, Biocytogen CO., LTD

10/2013-12/2014: R&D Director; Biocytogen CO., LTD

9/2012-9/2013: Instructor (Department of Pathology, Children's Hospital Boston, Harvard Medical School).

7/2006-8/2012: Research fellow (Department of Urology/Pathology, Children's Hospital Boston, Harvard Medical School).

2/2005-6/2006: Research fellow (Department of Molecular and Cellular Biology, Harvard University).

9/1994-7/1996: Assistant professor (Department of Pharmacology, Henan Medical University)

### **EDUCATION**

2000-2004: Ph.D. (Biochemistry), Max-Planck-Institute of Biophysical Chemistry & University of Goettingen, Germany

1996-1999: Master of Sciences, Peking Union Medical College & Chinese Academy of Medical Sciences

1989-1994: Bachelor of Clinical Medicine, Henan Medical University, China

### **SELECTED PUBLICATIONS**

1. Schmitz-Abe K, Ciesielski SJ, Schmidt PJ, Campagna DR, Rahimov F, Schilke BA, Cuijpers M, Rieneck K, Lausen B, Linenberger ML, Sendamarai AK, **Guo C**, Hofmann I, Newburger PE, Matthews D, Shimamura A, Snijders PJ, Towne MC, Niemeyer CM, Watson HG, Dziegiel MH, Heeney MM, May A, Bottomley SS, Swinkels DW, Markianos K, Craig EA, Fleming MD. Congenital sideroblastic anemia due to mutations in the mitochondrial HSP70 homologue HSPA9. **Blood**. 2015;126(25):2734-8.

2. Liu Q, Fan C, Zhou S, Guo Y, Zuo Q, Ma J, Liu S, Wu X, Peng Z, Fan T, **Guo C**, Shen Y, Huang W, Li B, He Z, Wang Y. Bioluminescent imaging of vaccinia virus infection in immunocompetent and immunodeficient rats as a model for human smallpox. **Sci Rep**. 2015 Aug 3;5:11397.

3. **Chaoshe Guo**, Ye Sun, Chunming Guo, et al., *Dkk1* in the Peri-Cloaca Mesenchyme Regulates Formation of Anorectal and Genitourinary Tracts. **Dev Biol**. 2014; 385(1): 41-51.



**Weidong Le, MD, PhD**  
**Director of Center for Clinical Research on Neurology Disease**  
**Vice President of 1st Affiliated Hospital**  
**Dalian Medical University**

Weidong Le, MD, PhD, a neurologist/neuroscientist with the major research interest in neurodegenerative disorders, is a Thousand-Talent Scholar Professor. He was a Professor of Neurology in Baylor College of Medicine, and a Professor and Co-director of Institute of Neurology, Shanghai Jiao Tong University School of Medicine, and a Professor and Director of Neurogenomic Laboratory, Institute of Health Sciences, SIBS, Chinese Academy of Sciences. Since 2013 he has been appointed as a Director of Center for Clinical Research on Neurology Disease, and Vice President of 1st Affiliated Hospital, Dalian Medical University. He has published over 200 SCI papers in peer review journals with a citation over 9500, and edited 7 scientific books. He is a board member or associate editor for 8 international journals. He has been selected by Elsevier as one of the most influenced neuroscientist in China from 2014-2015.

#### **SELECTED PUBLICATIONS**

1. Zhang XJ, Chen S, Song L, Tang Y, Shen YF, Li J, **Le W** (2014) MTOR-independent, autophagic enhancer trehalose prolongs motor neuron survival and ameliorates the autophagic flux defect in a mouse model of amyotrophic lateral sclerosis. **Autophagy**. Epub.
2. Yang DH, Li T, Xu M, Gao F, Yang J, Yang Z, **Le W** (2014). Graphene oxide promotes the differentiation of mouse embryonic stem cells to dopamine neurons. **Nanomedicine**. Epub.
3. Tang Y, Li T, Li J, Yang J, Liu H, Zhang XJ, **Le W** (2014) Jmjd3 is essential for the epigenetic modulation of microglia phenotypes in the immune pathogenesis of Parkinson's disease. **Cell Death Differ**. 21(3):369-80.
4. **Le W**, Sayana P, Jankovic J. (2014) Animal Models of Parkinson's Disease: A Gateway to Therapeutics? **Neurotherapeutics**(2014) 11:92–110
5. Wang Z, Zhang XJ, Li T, Li J, Tang Y, **Le W** (2014) Valproic Acid Reduces Neuritic Plaque Formation and Improves Learning Deficits in APPSwe /PS1A246E Transgenic Mice via Preventing the Prenatal Hypoxia-Induced Down-Regulation of Neprilysin. **CNS Neurosci Ther**. 20(3):209-17.



**Peng Lei, PhD**  
**Principle Investigator**  
**State Key Laboratory of Biotherapy**  
**West China Hospital, Sichuan University, China**

Dr. Peng Lei received his PhD in the University of Melbourne in 2012, and relocated to Sichuan University in 2015 under 'Young 1000 Talents Program'. He is the recipient of several awards including the 'Young 1000 Talents Program', the Chancellor's Prize from the University of Melbourne, Commendation for Premier award for Health & Medical Research 2014 of Victoria Australia, and the Early Career Fellowship from Australian NHMRC. He discovered the involvement of tau protein in metal haemostasis and its implications in neurodegenerative disorders, and currently focuses on the physiological functions of tau protein and its pathological involvement in brain disorders.

#### **EDUCATION AND ACADEMIC APPOINTMENTS**

- 2003 – 2007 B.Sc. (Major in Chemistry and Biology), Department of Chemistry, Tsinghua University, China. (Supervisor: Prof. Yan-mei Li)
- 2008 – 2012 Ph.D., Department of Pathology, the University of Melbourne, Australia. (Supervisor: Prof. Ashley I. Bush)
- 2012 - 2015 Research Officer (Senior Research Officer), the Florey Institute of Neuroscience and Mental Health, Australia
- 2015 - Principle Investigator (Professor of Neuroscience), State Key Laboratory of Biotherapy, West China Hospital, Sichuan University, China

#### **SELECTED PUBLICATIONS**

1. **Lei P**, Ayton S, Finkelstein DI, Spoerri L, Ciccotosto GD, Wright DK, Wong BXW, Adlard PA, Cherny RA, Lam LQ, Roberts BR, Volitakis I, Egan GF, McLean C, Cappai R, Duce JA, Bush AI\*. Tau deficiency induces parkinsonism with dementia by impairing APP-mediated iron export. **Nature Medicine**, 18(2):291-5, 2012
2. **Lei P\***, Ayton S, Appukuttan AT, Moon S, Duce JA, Volitakis I, Cherny R, Wood SJ, Greenough M, Berger G, Pantelis C, McGorry P, Yung A, Finkelstein DI, Bush AI\*. Lithium suppression of tau induces brain iron accumulation and neurodegeneration. **Mol. Psychiatry**. doi: 10.1038/mp.2016.96. 2016 (Co-corresponding author)
3. Li X, **Lei P\***, Tuo QZ, Ayton S, Li QX, Moon S, Volitakis I, Liu R, Masters CL, Finkelstein DI, Bush AI\*. Enduring Elevations of Hippocampal Amyloid Precursor Protein and Iron Are Features of  $\beta$ -Amyloid Toxicity and Are Mediated by Tau. **Neurotherapeutics**. 12 (4), 862-873, 2015 (Co-corresponding author)





**Jiayi Li, MD, PhD**  
**Institute of Neuroscience**  
**Northeastern University, China**

Dr. Jiayi Li is Professor at Institute of Neuroscience, Northeastern University, China since 2013 and also holds a Professor position at the Wallenberg Neuroscience Center at Lund University in Sweden since 2011. He is a Thousand-Talent Scholar Professor. He received a medical degree from Luzhou Medical College, China, in 1982; Master degree in West-China University of Medical Sciences (now Sichuan University) in 1988 and a Ph.D in neurobiology at University of Gothenburg, Sweden, in 1995. He is well acquainted with protein aggregation, propagation and neuronal dysfunction in the neurodegenerative diseases.

#### **SELECTED PUBLICATIONS**

1. Li W., Englund E., Widner H., Mattsson B., van Westen D., Lätt J., Rehnström S., Brundin P., Björklund A.\*, Lindvall O.\*, and **Li J.-Y\***. (2016) Extensive graft-derived dopaminergic innervation is maintained 24 years after transplantation in the degenerating Parkinsonian brain. **Proc Natl Acad Sci USA** 113: 6544-6549. (Senior authors).
2. Li W., Chen SD and **Li J.-Y**. (2015) Human induced pluripotent stem cells in Parkinson's disease: a novel cell source of cell therapy and disease modeling. **Prog. Neurobiol.** 134:161-177.
3. Roybon L., Mastracci T. L., Li J., Stott S. R., Leiter A. B., Sussel L., Brundin P. and **Li J.-Y**. (2015) The origin, development and molecular diversity of rodent olfactory bulb glutamatergic neurons distinguished by expression of transcription factor NeuroD1. **PlosOne**, DOI: 10.1371/journal.pone.0128035.
4. Kiskis J., Fink H., Nyberg L., Thyr J., **Li J.-Y**. and Enejder A. (2015) Plaque-associated lipids in Alzheimer's diseased brain tissue visualized by nonlinear microscopy **Sci. Report** .Aug 27;5:13489. doi: 10.1038/srep13489.
5. Vaikath NN, Majbour NK, Paleologou KE, Ardah MT, van Dam E, van de Berg WD, Forrest SL, Parkkinen L, Gai WP, Hattori N, Takanashi M, Lee SJ, Mann DM, Imai Y, Halliday GM, **Li JY**, El-Agnaf OM. (2015) Generation and characterization of novel conformation-specific monoclonal antibodies for a-synuclein pathology. **Neurobiol Dis.**, 30:81-99.



**Lin Li, MD, PhD**  
**Department of Pharmacology**  
**Xuanwu Hospital of Capital Medical University**

Dr. Lin Li is professor at Department of Pharmacology, Xuanwu Hospital of Capital Medical University, the director of Beijing Engineering Research Center for Nerve System Drugs, and the executive deputy director of Key Laboratory for Neurodegenerative Diseases of Ministry of Education of China.

#### **EDUCATIONAL AND WORK EXPERIENCE**

Dr. Lin Li graduated from Capital Medical University School of Medicine in 1975, worked as physician in a army hospital and Xuanwu Hospital of Capital Medical University from 1976 to 1985, got Master's degree at Capital Medical University in 1988, received Ph.D. degree at Military Medical Science Academy in 1991, worked as post-doc and research associate in Loma Linda University School of Medicine, USA from 1991 to 1994, the chair of Department of Pharmacology, Xuanwu Hospital of Capital Medical University from 1994 to 2014, the vice president of Xuanwu Hospital of Capital Medical University and the deputy director of Beijing Geriatric Clinical and Research Center from 1998 to 2009. She has worked as the deputy director of Key Laboratory for Neurodegenerative Diseases of Ministry of Education since 2005, and the director of Beijing Engineering Research Center for Nerve System Drugs since 2011.

#### **ACADEMIC SOCIETY POSITION**

Dr. Lin Li is the president of Beijing Pharmacology Society, the chair of Anti-aging and Senile Dementia Committee of Chinese Pharmacology Society, the chair of Expert Committee of Cognitive Impairment of Chinese Gerontology Society, and the member of International Association of Alzheimer's Disease.

#### **SELECTED PUBLICATIONS**

1. Li-hong Zhao, Yue-xia Ding, Lan Zhang, **Lin Li\***.Cornel iridoid glycoside improves memory ability and promotes neuronal survival in fimbria-fornix transected rats. **European Journal of Pharmacology**. 2010,647:68-74.
2. Lin-Lin Yin, Wei Li, Yan-Qi Chu, **Lin Li\***.ERK pathway activation is required for amyloid- $\beta$ 1-40-induced neurotoxicity of THP-1 human monocytes towards SK-N-SH neuroblastoma. **Brain Research**. 2011,1378:9-17.
3. Fangling Sun, Lan Zhang, Ruyi Zhang, **Lin Li\***.Tetrahydroxystilbene glucoside protects human neuroblastoma SH-SY5Y cells against MPP<sup>+</sup> -induced cytotoxicity. **European Journal of Pharmacology**. 2011,660:283-290.



**Xiaojiang Li**  
**Professor**  
**Department of Human Genetics**  
**Emory University School of Medicine**

Xiao-Jiang Li is a Professor in Department of Human Genetics at Emory University and has been working at Emory University since 1996. He was a Chang-Jiang Scholar Professor awarded by Ministry of Education in China Since 2008, and a Thousand-Talent Scholar Professor at Institute of Genetics and Developmental Biology, Chinese Academy of Sciences since 2009. The main interest of the Li Lab is to understand the molecular mechanisms of age-dependent neurodegenerative diseases. These diseases share common pathological features, which are age-dependent accumulation of misfolded proteins in neuronal cells and selective neurodegeneration despite ubiquitous expression of the disease proteins. Xiao-Jiang Li will use various transgenic animal models, including transgenic pig and monkey models, to elucidate the pathogenesis of these diseases.

#### **SELECTED PUBLICATIONS**

1. Weng L, Lin YF, Li AL, Wang CE, Yan S, Sun M, Gaertig MA, Mitha N, Kosaka J, Wakabayashi T, Xu X, Tang B, Li S, **Li XJ**. Loss of Ahi1 affects early development by impairing BM88/Cend1-mediated neuronal differentiation. J Neurosci. 33:8172-84. 2013.
2. Kocerha J, Liu Y, Willoughby D, Chidamparam K, Benito J, Nelson K, Xu Y, Chi T, Engelhardt H, Moran S, Yang SH, Li SH, **Li XJ**, Larkin K, Neumann A, Banta H, Yang JJ, Chan AW. Longitudinal transcriptomic dysregulation in the peripheral blood of transgenic Huntington's disease monkeys. BMC Neurosci. 14(1):88. 2013
3. Xu Q.Q., Huang S.S., Song M.K., Wang C.E. Yan S., Liu X.D., Gaertig M.A., Yu. S.P., Li H., Li S.H., **Li XJ**. Synaptic Mutant Huntingtin Inhibits Synapsin-1 Phosphorylation and Causes Neurological Symptoms. J. Cell Biol. 202:1123-1138, 2013.



**Qiang Liu, PhD**  
**School of Life Science**  
**University of Science and Technology of China (USTC)**

Qiang Liu, PhD, is currently the Professor of the School of Life Science at University of Science and Technology of China (USTC). He received his PhD degree in Biophysics from Institute of Biophysics of Chinese Academy of Science. Before joining USTC, he had Post-doc fellowship at Washington University School of Medicine and HHMI/University of Pennsylvania School of Medicine. Dr. Liu has published over 20 articles in *Cell*, *Neuron*, *PLoS Biology*, *PNAS*, *J. Neurosci*, *J. Cell Sci*, *FASEB J.*, *JBC et.al*. He has received awards and honors including the “Thousand Youth Talents Plan”, “The National Science Fund for Outstanding Young Scholars”, “Hope Center Award”, *Fifth China Association for Science and Technology Excellent Academic Paper et al*. Dr Liu’s major research interests are in elucidating the function of Non-coding RNAs and RNA Binding Proteins in learning and memory, and their relationship with Alzheimer’ disease.

#### **SELECTED PUBLICATIONS**

1. **Liu Q**, Zhang J, Zerbinatti C, Zhan Y, Kolber BJ, Herz J, Muglia LJ, Bu G. Lipoprotein receptor LRP1 regulates leptin signaling and energy homeostasis in the adult central nervous system. *PLoS Biology*. 9(1): e1000575, 2011.
2. **Liu Q**, Zerbinatti CV, Zhang J, Hoe HS, Wang B, Cole SL, Herz J, Muglia L, Bu G. Amyloid Precursor Protein Regulates Brain Apolipoprotein E and Cholesterol Metabolism through Lipoprotein Receptor LRP1. *Neuron*. 56:66-78, 2007.
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4. **Liu Q**, Zhang J, Trotter J, Cheng C, Han X, Weeber EJ, Bao J, Herz J, Bu G. Lipoprotein receptor LRP1 regulates age-dependent synaptic and neuronal degeneration by modulating brain lipid metabolism. *J. Neurosci*. 30:17068-17078. 2010.



**Quanhong Ma, PhD**  
**Principle Investigator**  
**Institute of Neuroscience**  
**Soochow University, China**

### **EDUCATION**

- 2005-2008 PhD. Zentrum fur Molekulare Neurobiologie, University of Hamburg, Hamburg, Germany  
(Supervisor: Prof. Melitta Schachner)
- 2002-2005 Master of Science, Institute of Molecular and Cell Biology, Singapore and Dalian Medical University, P.R China
- 1997-2002 Medicine Bachelor, Binzhou Medical College, P.R China

### **PROFESSIONAL EXPERIENCES**

- 2010.10 -now Principle Investigator, Institute of Neuroscience, Soochow University, China
- 2009.1-2010.10 Senior Scientist, Glaxosmithkline, R&D China
- 2004.5-2005.5 Research Officer, Institute of Molecular and Cell Biology, Singapore
- 2003.10-2004.4 Medical Technologist, Department of Clinical Research, Singapore General Hospital.

### **RESEARCH FOCUS**

- Molecular pathogenesis of Alzheimer's disease.
- Molecular mechanisms of differentiation of neural stem cells in the physiological brain and developmental disorders such as autism spectrum disorder.
- Drug development for Alzheimer's disease and developmental disorders.

### **SELECTED PUBLICATIONS**

1. He ZY, Hu WY, Zhang M, Yang ZZ, Zhu HM, Xing D\*, **Ma QH\***, Xiao ZC\*. Wip1 phosphatase modulates both long-term potentiation and long-term depression through the dephosphorylation of CaMKII. **Cell Adh Migr**. 2016 May 9:1-11.
2. Wu ZQ, Li D, Huang Y, Chen XP, Huang WH, Liu CF, Zhao HQ, Xu RX, Cheng M, Schachner M, **Ma QH\***. Caspr Controls the Temporal Specification of Neural Progenitor Cells through Notch Signaling in the Developing Mouse Cerebral Cortex. **Cerebral Cortex**. 2016 Jan 5. pii: bhv318.
3. Deng QS, Dong XY, Wu H, Wang W, Wang ZT, Zhu JW, Liu CF, Jia WQ, Zhang Y, Schachner M, **Ma QH\***, Xu RX\*. Disrupted-in-Schizophrenia-1 Attenuates Amyloid- $\beta$  Generation and Cognitive Deficits in APP/PS1 Transgenic Mice by Reduction of  $\beta$ -site APP-Cleaving Enzyme 1 Levels. **Neuropsychopharmacology**. 2016. doi: 10.1038/npp.2015.164.



**Guangjun Nie, Ph.D**  
**National Center for Nanoscience and Technology, China**

Guangjun Nie is a Professor at the National Center for Nanoscience and Technology, China. He obtained his Ph.D in Biochemistry and Biophysics at the Institute of Biophysics, CAS in 2002. Currently, he is a Chief Scientist of a MoST National Basic Research Program and National Distinguished Youth Scientist. He was also awarded the Hundred Talent Program Scholar of CAS in 2008. He is regarded as one of the leading scientists in nanobiology and nanomedicine in China. He has a long standing interest in cancer biology, blood physiology and pathophysiology of human disorders involving dysregulation of redox balance and metal metabolism, such as neurodegenerative diseases. Currently, his main interests are design of bio-inspired materials to overcome the current barriers in tumor therapy and nanobiology. In particular, his group is working toward controlling the chemical properties of multi-functional nanoparticles in order to allow specific targeting and regulation of tumor cells and their microenvironment.

#### **SELECTED PUBLICATIONS**

1. Wang H, Zhao RF, Li YY, Liu HY, Li F, Zhao YL, **Nie GJ\***, Aspect ratios of gold nanoshell capsules mediated melanoma ablation by synergistic photothermal therapy and chemotherapy, **Nanomedicine: Nanotechnology, Biology, and Medicine**, 2016, 12, 439-448.
2. Zhao X, Yang KN, Zhao RF, Ji TJ, Wang XC, Yang X, Zhang YL, Cheng KM, Liu SL, Hao JH, Ren H, Leong KW, **Nie GJ\***, Inducing enhanced immunogenic cell death with nanocarrier-based drug delivery systems for pancreatic cancer therapy, **Biomaterials**, 2016, 102, 187-197.
3. Xiao Yang, Yanping Ding, Tianjiao Ji, Xiao Zhao, Hai Wang, Xiaozheng Zhao, Ruifang Zhao, Jingyan Wei, Sheng Qi, **Guangjun Nie\***, Improvement of the In Vitro Safety Profile and Cytoprotective Efficacy of Amifostine against Chemotherapy by PEGylation Strategy, **Biochemical Pharmacology**, 2016, 108, 11-21.
4. Xiao Song, Yanping Ding, Gang Liu, Xiao Yang, Ruifang Zhao, Yinlong Zhang, Xiao Zhao, Gregory J Anderson and **Guangjun Nie\***, Cancer Cell-Derived Exosomes Induce Mitogen-Activated Protein Kinase-Dependent Monocyte Survival by Transport of Functional Receptor Tyrosine Kinases. **J Biol Chem**. 2016, 291(16), 8453-8464.



**Fudong Shi, M.D., Ph.D**  
**Professor of Neurology, Neurologist-in-Chief**  
**Department of Neurology, Tianjin Neurological Institute**  
**Tianjin Medical University General Hospital, China**

Fudong Shi, Thousand-Talent Scholar Professor, is a neurologist specialized with management of multiple sclerosis (MS), myasthenia gravis (MG), inflammatory neuropathy, and stroke. He completed his clinical and research training in Peking Union Hospital, China, Karolinska Institute, Sweden, The Scripps Research Institute, California, USA, and Barrow Neurological Institute, Arizona, USA. His research dissects mechanisms governing neural-immune interactions and explores immune therapies in several neurological disorders and corresponding animal models. In the last five years, Dr. Shi maximized the synergy between his research and clinical teams at Barrow and Tianjin Medical University General Hospital, China. He has identified the specificities of immune responses within the brain, described new clinical, immunological and imaging features of neuromyelitis optica spectrum disorders (NMOSD), and conducted innovative immune modulatory clinical trials in patients with NMOSD, MG, ischemic stroke, and intracerebral hemorrhage. Dr. Shi has authored 133 peer-reviewed articles.

#### **SELECTED PUBLICATIONS**

1. Liu Q, Tang ZW, Gan Y, Wu W, Kousari A, **Shi FD**. Genetic deficiency of  $\beta$ 2-nAChRs attenuates brain Injury in ischemic stroke. **Neuroscience**. Under revision. 2013 Oct 30.
2. Xiao J, Simard AR, **Shi FD**, Hao J, New Strategies in the Management of Guillain-Barr é Syndrome. **Clin Rev Allergy Immunol**. 2013 Sep 24.
3. Zhang J, Meng LL, Qin W, Liu NN, Xue R, **Shi FD**, Yu CS. Structural damage and functional compensation in ipsilesional M1 after stroke. **Stroke**, 2014 Feb 4.
4. Tang ZW, Gan Y, Yin JX, Liu Q, Shi J, **Shi FD**. CX3CR1 deficiency suppresses proliferation and neurotoxicity of macrophage/microglia in MCAO mice. **J. Neuroinflammation**. 2014 Feb 3.
5. Gan Y, Liu Q, Wu W, Yin J, Tang Z, Turner G, Chen J, Wang Y, Lanrent J, Yokayama W, **Shi FD**. Ischemic neurons recruit NK cells that accelerate brain infarction. **PNAS**. In press. 2014 Feb.





**Yigong Shi**  
**Professor of Structure Biology**  
**Dean of the School of Life Sciences**  
**Vice Chancellor at Tsinghua University**

Dr. Yigong Shi, Professor of Structure Biology at Qinghua University, Thousand-Talent Scholar Professor, is a world-renowned structural biologist, Dean of the School of Life Sciences, Vice Chancellor at Tsinghua University. Dr. Shi received his Ph.D at the John Hopkins University, US. Dr. Shi is an Academician of the Chinese Academy of Sciences, a Fellow of the American Association for Advancement of Sciences, an Honorary Foreign Member of the American Academy of Arts and Sciences, a Foreign Associate of the US National Academy of Sciences, and a Foreign Associate of the European Molecular Biology Organization.

Dr. Shi made seminal discoveries on protein structures. One of outstanding achievements is decoding of  $\gamma$ -secretase structures. Shi's research group recently reported (*Nature* in 2015) the first atomic-level structure of  $\gamma$ -secretase revealing how individual amino acids interact within the four-unit complex that churns out  $A\beta$ , a major toxic protein in the brain with Alzheimer's disease (AD). Furthermore, Dr. Shi group utilized that the high resolution cryo-electron microscopy (cryo-EM) (3.4 Angstrom resolution structure) illuminated the configuration of the 20 transmembrane regions that weave in and out of the cell. The discovery offered hints about how the complex contorts to snip substrates. In addition, Dr. Shi used the protein structure to map out many of the known presenilin mutations linked to familial AD, pinpointing "mutation hotspots" that face the enzyme's core. After measured  $A\beta$  production from 10 of the mutants, Shi and his colleagues found that while some trigger an uptick in  $\gamma$ -secretase activity and others turn it down, they all tipped the balance toward production of  $A\beta_{42}$  over  $A\beta_{40}$ .

#### **SELECTED PUBLICATIONS**

1. Chuangye Yan\*, Ruixue Wan\*, Rui Bai\*, Gaoxingyu Huang, **Yigong Shi**. Structure of a yeast catalytic allyactivated spliceosome at 3.5 Å resolution. **Science** 21 Jul 2016: DOI: 10.1126/science.aag0291
2. Ruixue Wan\*, Chuangye Yan\*, Rui Bai\*, Gaoxingyu Huang\*, **Yigong Shi**. Structure of a yeast catalytic step I spliceosome at 3.4 Å resolution. **Science** 21 Jul 2016: DOI: 10.1126/science.aag2235
3. Wan R, Yan C, Bai R, Wang L, Huang M, Wong CC, **Shi Y**. The 3.8 Å structure of the U4/U6.U5 tri-snRNP: Insights into spliceosome assembly and catalysis. **Science**. 2016 Jan 29;351(6272):466-75.
4. Yan C, Hang J, Wan R, Huang M, Wong CC, **Shi Y**. Structure of a yeast spliceosome at 3.6-angstrom resolution. **Science**. 2015 Sep 11;349(6253):1182-91.
6. Bai XC, Yan C, Yang G, Lu P, Ma D, Sun L, Zhou R, Scheres SH, **Shi Y**. An atomic structure of human  $\gamma$ -secretase. **Nature**. 2015 Sep 10;525(7568):212-7.





**Binggui Sun, Ph.D.**  
**Principal Investigator**  
**Institute of Neuroscience**  
**Zhejiang University School of Medicine**

#### **WORKING EXPERIENCE**

2010 - Professor, Institute of Neuroscience, Zhejiang University School of Medicine  
2005 - 2010 Postdoctoral Fellow, The Gladstone Institutes, University of California San Francisco  
1997 - 2002 Instructor, China Agricultural University

#### **EDUCATION**

2002 - 2005 Ph.D., Saitama University, Japan  
1994 - 1997 M.S., China Agricultural University  
1990 - 1994 Bachelor, Agricultural University of Hebei

#### **RESEARCH INTERESTS**

- Circuitry mechanisms for Alzheimer's disease
- Adult neurogenesis

#### **SELECTED PUBLICATIONS**

1. Pan H, Wang D, Zhang X, Zhou D, Zhang H, Qian Q, He X, Liu Z, Liu Y, Zheng T, Zhang L, Wang M, **Sun B\***. Amyloid  $\beta$  Is Not the Major Factor Accounting for Impaired Adult Hippocampal Neurogenesis in Mice Overexpressing Amyloid Precursor Protein. **Stem Cell Reports** 2016, 7(4): in press
2. Wang C<sup>#</sup>, **Sun B<sup>#</sup>**, Zhou Y, Grubb A, Gan L. Cathepsin B degrades amyloid- $\beta$  in mice expressing wildtype human amyloid precursor protein. **J Biol Chem** 2012, 287(47):39834-39841. <sup>#</sup>Equal contribution
3. Martens LH, Zhang J, Barmada SJ, Zhou P, Kamiya S, **Sun B**, Min SW, Gan L, Finkbeiner S, Huang EJ, Farese RV Jr. Progranulin deficiency promotes neuroinflammation and neuron loss following toxin-induced injury. **J Clin Invest** 2012, 122(11):3955-3959.



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Professor Wang is the director of department of neurology, Daping Hospital, Third Military Medical University, China. He was trained for medical doctor in Neurology in China, and for PhD in Neuroscience in Australia. His clinical and research interest is in Alzheimer's disease. His group dedicates to identify risk factors, therapeutic targets, drugs and develop novel therapeutic approaches for Alzheimer's disease. He has published over 60 papers in the international referred journals such as *Molecular Psychiatry*, *PNAS*, *Acta Neuropathologica*, *Nature Reviews Neurology*, *Neurology*, and *Journal of Neuroscience*. Professor Wang is the vice chair of Academy of Cognitive Disorders China, vice president of Youth Committee of Chinese Association of Neurology, and panel member of the Chinese Association of Dementia and Cognitive Disorders. He has been awarded "The National Science Fund for Distinguished Young Scholars".

#### **SELECTED PUBLICATIONS**

1. **Wang YJ**. Lessons from Immunotherapy for Alzheimer disease. *Nat Rev Neurol*, 2014;10(4):188-189
2. Liu YH, Giunta B, Zhou HD, Tan J, **Wang YJ\***. Immunotherapy for Alzheimer's Disease-Challenge of adverse effects. *Nat Rev Neurol*, 2012 ;8(8):465-9.
3. **Wang YJ\***, Wang X, Lu JJ, Li QX, Gao CY, Liu XH, Sun Y, Yang M, Lim Y, Evin E, *et al*: p75NTR regulates Abeta deposition by increasing Abeta production but inhibiting Abeta aggregation with its extracellular domain. *J Neurosci*, 2011, 31(6):2292-2304.
4. Li J, **Wang YJ\***, Zhang M, Xu ZQ, Gao CY, Fang CQ, Yan JC, Zhou HD\*, on behalf of Chongqing Aging Study group. Vascular risk factors promote conversion from mild cognitive impairment to Alzheimer's disease. *Neurology*, 2011;76(17):1485-1491.
5. **Wang YJ**, Pollard A, Zhong JH, Dong XY, Wu XB, Zhou HD, Zhou XF: Intramuscular delivery of a single chain antibody gene reduces brain Abeta burden in a mouse model of Alzheimer's disease. *Neurobiol Aging*, 2009, 30(3):364-376.



**Zhanyou Wang, Ph.D**  
**College of Life and Health Sciences**  
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Prof. Zhan-You Wang serves as the deputy dean of the College of Life and Health Sciences at Northeastern University, Shenyang, China. He received his Ph.D. from Gothenburg University (Sweden) under Professor Annica Dahlstrom's supervision in 2002, and pursued a postdoctoral fellowship at Aarhus University (Denmark) with Professor Gorm Danscher before joining the faculty of China Medical University as a Professor in 2003. He has moved to Northeastern University as the director of the Institute of Neuroscience since 2013. Dr. Wang's research interest is centered on the molecular mechanisms underlying brain metal dyshomeostasis and protein misfolding. Using transgenic animals and cells as model systems, his research team has identified several important metal transporters and pathways related to pathogenic protein deposition in Alzheimer's disease. Meanwhile, they have screened several metal chelators that have potential effects on Alzheimer's disease. Among many affiliated responsibilities, Dr. Wang serves as an Associate Editor of Journal of Alzheimer's Disease, and board member of Journal of Anatomical Sciences.

#### **SELECTED PUBLICATIONS**

1. Tian-Shu Sun, Xiao Ju, Hui-Ling Gao, Tao Wang, Dennis J Thiele, Jia-Yi Li, **Zhan-You Wang\***, Chen Ding\*. Reciprocal functions of *Cryptococcus neoformans* copper homeostasis machinery during pulmonary infection and meningoencephalitis. **Nature Communications** 5:5550, 2014.
2. Chun-Yan Wang, **Zhan-You Wang\***, Jing-Wei Xie, Jian-Hui Cai, Tao Wang, Ye Xu, Xu Wang, Li An\*. CD36 up-regulation mediated by intranasal LV-NRF2 treatment mitigates hypoxia-induced progression of Alzheimer's-like pathogenesis. **Antioxidants & Redox Signaling** 21(16):2208-30, 2014.
3. Chun-Yan Wang, Jing-Wei Xie, Ye Xu, Tao Wang, Jian-Hui Cai, Wang X, Bao-Lu Zhao, Li An, **Zhan-You Wang\***. Trientine reduces BACE1 activity and mitigates amyloidosis via the AGE/RAGE/NF- $\kappa$ B pathway in a transgenic mouse model of Alzheimer's disease. **Antioxidants & Redox Signaling** 19(17):2024-2039, 2013.
4. Chun-Yan Wang, Tao Wang, Wei Zheng, Jing-Wei Xie, Si-Ling Wang, Bao-Lu Zhao, Wei-Ping Teng, **Zhan-You Wang\***. Huperzine A activates Wnt/ $\beta$ -catenin signaling and enhances the non-amyloidogenic pathway in an Alzheimer transgenic mouse model. **Neuropsychopharmacology** 36, 1073-1089, 2011.



**Yun Xu, MD, Ph.D**  
**Professor, doctoral supervisor**  
**Department of Neurology, Drum Tower Hospital**  
**Medical School of Nanjing University**

Yun Xu, MD, Ph.D, Professor, doctoral supervisor, Chief neurologist and Chairman in the department of Neurology, Drum Tower Hospital, Medical School of Nanjing University. Director of Diagnosis and Therapy Center of Stroke in Jiangsu Province. Her was trained as a postdoc fellow in neuroscience at the Johns Hopkins University and a visiting Scientist in neurology, Heidelberg University, Germany. Her major research interests are basic and clinical research of dementia, cerebrovascular disease and clinical transformation research of stem cells. Dr. Xu currently is member of the standing committee of the Chinese Neurological Society and a director of Jiangsu province Neurological Society.

Publications in PNAS, Molecular neurodegeneration, Mol Endocrinol, Stroke, JCBFM, Brain Behav Immun, Aging Cell, Mechanisms of Ageing and Development, J Neuroinflammation, Scientific reports, Int J Neuropsychopharmacol, and so on.

#### **SELECTED PUBLICATIONS**

1. **Xu Y**, Zhang W, Klaus J, Young J, Koerner I, Sheldahl LC, Hurn PD, Martínez-Murillo F, Alkayed NJ. (2006). Role of cocaine and amphetamine-regulated transcript in estradiol-mediated neuroprotection. **Proc Natl Acad Sci U S A**. 26, 103(39), 14489-94.
2. Jia J, Guan D, Zhu W, Alkayed NJ, Wang MM, Hua Z, **Xu Y**. Estrogen inhibits Fas-mediated apoptosis in experimental stroke. **Exp Neurol**. 2009, 215(1), 48-52.
3. **Xu Y**, Traystman RJ, Hurn PD, Wang MM. Neurite-localized estrogen receptor-alpha mediates rapid signaling by estrogen. **J Neurosci Res**. 2003 Oct 1;74(1):1-11.

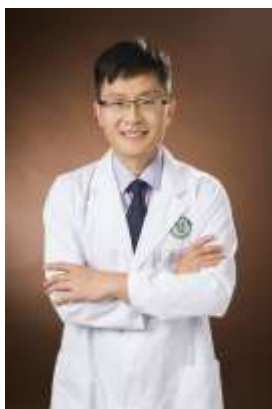


**Qian Yang**  
**professor of Neurosurgery**  
**Tangdu Hospital, The Fourth Military Medical University**

Dr. Qian Yang is professor of Neurosurgery at Tangdu Hospital, The Fourth Military Medical University. She received her medical and Ph.D. degrees from Xi'an Jiao Tong University Medical School and finished her postdoctoral training at Emory University, USA. Her research uses a variety of approaches such as molecular and cellular tools as well as animal modeling, to investigate the molecular and cellular mechanisms of neuronal stress response, regulation of neuronal survival and death, and neurodegenerative diseases. Her studies demonstrate that chaperone-mediated autophagy (CMA) degrades the neuronal survival factor MEF2D and DJ-1 to modulate the viability of dopaminergic neurons, establishing the mechanisms of how loss of homeostasis may sensitize neurons to stress. Her initial work has opened a new line of investigation on CMA and neuronal stress, which may be implicated in Alzheimer's disease. Some of the recent interesting works from her laboratory are published in *Autophagy*, *Molecular Cell*, *Journal of Neuroscience*, etc. .Because of her scientific achievements, Dr. Yang has now been recognized as one of the leading neuroscientists in the field of autophagy and neurodegenerative diseases and received the Woman Scientists Award in 2015, the most prestigious national recognition for woman scientists in China.

#### **SELECTED PUBLICATIONS**

1. Wang B, Cai Z, Tao K, Zeng W, Lu F, Yang R, Feng D, Gao G, **Yang Q**. Essential control of mitochondrial morphology and function by chaperone-mediated autophagy through degradation of PARK7. *Autophagy*. 2016 Aug 2;12(8):1215-28.
2. **Yang Q**, Li W, She H, Dou J, Duong DM, Du Y, Yang SH, Seyfried NT, Fu H, Gao G, Mao Z. Stress induces p38 MAPK-mediated phosphorylation and inhibition of Drosha-dependent cell survival. *Mol Cell*. 2015 Feb 19;57(4):721-34.
3. **Yang Q**, Mao Z. Dysregulation of autophagy and Parkinson's disease: the MEF2D link. *Apoptosis*. 2010 Nov;15(11):1410-4.



**Jintai Yu, MD, PhD**  
**Professor of Neurology**  
**Vice Chairman, Department of Neurology**  
**Assistant to the President of Hospital**  
**Qingdao Municipal Hospital, Qingdao University**

He obtained his M.D. degree from Qingdao University and Ph.D. degree from Ocean University of China. He went on for his postdoctoral study in the Department of Neurology at UCSF from 2014 to 2015, studying dementia. From 2015 to 2016, he worked as an associate specialist of neurology at the Memory and Aging Center, UCSF. He is focusing on the development of genetics, mechanisms and therapy for Alzheimer's disease. Dr. Yu is the recipient of the 2015 Award for Excellence in Research on Alzheimer's and Related Disorders from Alzheimer's Association and the 2013 International Scholarship Award from American Academy of Neurology. He has published more than 100 research papers that are cited more than 3000 times by peer scientists. He is currently the deputy editor of *Annals of Translational Medicine* and senior editor of *Journal of Alzheimer's Disease*.

**SELECTED PUBLICATIONS** (\* Corresponding author)

1. **Yu JT\***, Tan L\*, Hardy J. Apolipoprotein E in Alzheimer's disease: an update. **Annu Rev Neurosci.** 2014; 37:79-100. (IF:20)
2. Tan L\*, **Yu JT\***, Zhang W, Wu ZC, Zhang Q, Liu QY, Wang W, Wang HF, Ma XY, Cui WZ. Association of GWAS-linked loci with late-onset Alzheimer's disease in a northern Han Chinese population. **Alzheimers Dement.** 2013 Sep; 9(5):546-53. (IF:12)
3. Jiang T, Zhang YD\*, Gao Q, Zhou JS, Zhu XC, Lu H, Shi JQ, Tan L\*, Chen Q, **Yu JT\***. TREM1 facilitates microglial phagocytosis of amyloid beta. **Acta Neuropathol.** 2016 (IF:11) (Online)
4. **Yu JT**, Chen J, Wang HF, Zetterberg H, Blennow K, Yokoyama JS, Weiner MW, Kramer JH, Rosen H, Miller BL, Coppola G, Boxer AL. Genome-wide association study identifies MAPT locus influencing human plasma tau levels. **Neurology**, 2016 (Revised) (IF:8)



**Zengqiang Yuan, M.D, M.S, Ph.D.**  
**Professor, Institute of Biophysics,**  
**Academy of Military Medical Sciences**

Zengqiang Yuan, MD & PhD, is currently the Professor in the Brain Science Center, Beijing Institute of Biotechnology. He got master degree from Postgraduate college of Chinese PLA General Hospital and PhD degree from University of South Florida in 2003. After he finished his postdoctoral training in Dr. Azad Bonni's laboratory at Harvard Medical School, he became a PI in the Institute of Biophysics, Chinese Academy of Sciences in 2007 and moved the current institute from this June. He has been awarded "The National Science Fund for Distinguished Young Scholars". The major interest of Yuan laboratory is to define the underlying molecular mechanism of neurodegenerative and psychological diseases.

#### **RESEARCH DESCRIPTION**

During the last century, the world population has shown a staggering increase in its proportion of elderly members and thus, neurodegenerative diseases like Alzheimer's (AD) and Parkinson's diseases (PD) are becoming an increasing burden. These diseases can be broadly classified as disorders of cognition and memory or movement. It has been shown that oxidative stress is one the major reasons in the development of neurodegeneration. Oxidative stress influences neuronal cell survival and homeostasis, but the mechanisms underlying the biological effects of oxidative stress remain to be elucidated. By using the updated research technologies and tools, we aim to define the molecular signal transduction of oxidative stress triggered neuronal cell death and identify the therapeutic targets for the treatment of neurodegenerative diseases.

#### **SELECTED PUBLICATIONS**

1. Cheng J, Liao Y, Xiao L, Wu R, Zhao S, Chen H, Hou B, Zhang X, Liang C, Xu Y, **Yuan Z**. Autophagy regulates MAVS signaling activation in a phosphorylation dependent manner in microglia. **Cell Death and Differentiation**. 2016, In press.
2. Yang Y, He S, Wang Q, Li F, Kwak MJ, Chen S, O'Connell D, Zhang T, Pirooz SD, Jeon Y, Chinge NO, Frenkel B, Choi Y, Aldrovandi GM, Oh BH, **Yuan Z**, Liang C. Autophagic UVRAG Promotes UV-Induced Photolesion Repair by Activation of the CRL4 (DDB2) E3 Ligase. **Mol Cell**. 2016 May 19; 62(4): 507-19.
3. Wei ZB, Yuan YF, Jaouen F, Ma MS, Hao CJ, Zhang Z, Chen Q, **Yuan Z**, Yu L, Beurrier C, Li W. SLC35D3 increases autophagic activity in midbrain dopaminergic neurons by enhancing BECN1-ATG14-PIK3C3 complex formation. **Autophagy**. 2016 Jul 2;12(7):1168-79.



**Yan Zhang, Professor,  
College of Life Sciences,  
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### **QUALIFICATIONS**

- Ph.D. McGill University, Montreal, Canada. Department of Neurology and Neurosurgery, August, 2003  
M.Sc. Carleton University, Ottawa, Canada. Department of Psychology, Division of Neuroscience, August, 1999  
B.Sc. Peking University, Beijing, China. Department of Psychology, July, 1997

### **HONORS**

- 2007 New Centaury Young Investigator Award Ministry of Education China  
2011 “Green Leave” Distinct Young Investigator Award in Bio-Medicine Research Peking University  
2011 Outstanding Teaching Award Peking University  
2012 Kavli Fellow National Academy USA  
2012 Roche Excellence Achievement Award Roche Education Foundation

### **SELECTED PUBLICATIONS**

1. Yu Y, Li Y, **Zhang Y\***. Yeast Two-Hybrid Screening for Proteins that Interact with the Extracellular Domain of Amyloid Precursor Protein. 2016, **Neurosci Bull.** 32: 171-176.
2. Zhang L, Niu T, Huang Y, Zhu H, Zhong W, Lin J, **Zhang Y\***. Compound 331 selectively induces glioma cell death by upregulating miR-494 and downregulating CDC20. 2015, **Sci Rep.** 5: 12003.
3. Zhang L, **Zhang Y\***. Tunneling nanotubes between rat primary astrocytes and C6 glioma cells alter proliferation potential of glioma cells. 2015, **Neurosci Bull.** 31: 371-378.





**Yunwu Zhang, Ph.D.**  
**Professor and Acting Director**  
**Institute of Neuroscience, Xiamen University**

Professor Yunwu Zhang obtained his Ph.D. degree from Kunming Institute of Zoology, CAS in 1996. He worked as a post-doctorate at Sanford-Burnham Medical Research Institute before he joined Xiamen University.

Dr. Zhang's research focuses on the etiology of various neurological diseases including Alzheimer's disease (AD), Parkinson's disease (PD), intellectual disability, and epilepsy. By applying genetic, biochemical, cellular and animal techniques, his laboratory is characterizing early molecular cascades of these devastating diseases to determine their pathogenesis. Moreover, his laboratory is comparing similarities in molecular aberrations driving these diseases; and this will help our understanding on the biology of systematic neuropathogenesis. Dr. Zhang has published more than 70 papers on high-profile SCI journals including *Neuron*, *PNAS*, *Nat Struct Mol Biol*, etc. He has also been awarded multiple honorary titles including the Distinguished Young Scholar by National Natural Science Foundation and the New Century Talent Scholar by Ministry of Education. He is on the editorial board of *Molecular Neurodegeneration* (SCI IF 6.51). He also reviews grants for agencies such as NSFC, Ministry of Education, Alzheimers' Association, etc., and manuscripts for journals such as *PNAS*, *JBC*, *J Neurosci*, etc.

#### **SELECTED PUBLICATIONS**

1. Zheng Q, Zheng X, Zhang L, Luo H, Qian L, Fu X, Liu Y, Gao Y, Niu M, Meng J, Zhang M, Bu G, Xu H, **Zhang YW\*** (2016) The neuron-specific protein TMEM59L mediates oxidative stress-induced cell death. **Mol Neurobiol**, June 21. [Epub ahead of print].
2. Wang C, Niu M, Zhou Z, Zheng X, Zhang L, Tian Y, Yu X, Bu G, Xu H, Ma Q, **Zhang YW\*** (2016) Vps35 regulates cell surface recycling and signaling of dopamine receptor D1. **Neurobiol Aging** 46: 22-31.
3. Feng T, Niu M, Ji C, Gao Y, Wen J, Bu G, Xu H, **Zhang YW\*** (2015) SNX15 Regulates Cell Surface Recycling of APP and A $\beta$  Generation. **Molecular Neurobiology**, 53: 3690-3701.



**Haiyan Zhang, Ph.D**  
**Professor and principle investigator**  
**Shanghai Institute of Materia Medica**  
**Chinese Academy of Sciences**

Hai Yan Zhang got her Ph.D degree in Shanghai Institute of Materia Medica, Chinese Academy of Sciences in 2003. She had about four years' postdoctoral experience in Mayo Clinic Jacksonville and Wake Forest University in United States (From 2003-2007). She is currently Professor and principle investigator in Shanghai Institute of Materia Medica, Chinese Academy of Sciences. She has been awarded "The National Science Fund for Outstanding Young Scholars". She mainly focuses on discovery of novel therapeutic strategies for Alzheimer's disease (AD) and ischemic stroke (IS). She has applied three effective research strategies (natural product-directed, clinical drug-directed and key therapeutic target-directed) to clarify novel pharmacological mechanisms and identify active small molecules against AD or IS.

Her research group clarified that two anti-AD drugs, huperzine A and donepezil, significantly ameliorate A $\beta$ -associated mitochondrial dysfunction and reduce mitochondrial A $\beta$  accumulation, which are independent on their classical effects on acetylcholinesterase (AChE) inhibition. Through collaboration with phytochemistry group, her research group discovered a potential anti-IS drug candidate—B-CA, a novel derivative of naturally occurring caffeoyl triterpene, which exhibits promising therapeutic time-window and long-term anti-IS efficacies, as well as robust anti-inflammatory and hypothermic pharmacological mechanisms. Through extensive collaboration with chemistry groups, her research group has currently discovered many active compounds targeting on various AD or IS therapeutic targets (AChE,  $\beta$ -secretase,  $\gamma$ -secretase, A $\beta$  aggregation, etc.) or phenotypic changes, among which several compounds have been under systematic preclinical evaluation.

#### **SELECTED PUBLICATIONS**

1. Ren W, Xu M, Liang SH, Xiang H, Tang L, Zhang M, Ding D, Li X\*, Zhang H\*, Hu Y\*. Discovery of a novel fluorescent probe for the sensitive detection of  $\beta$ -amyloid deposits. *Biosens Bioelectron.* 2016 Jan 15;75:136-41.
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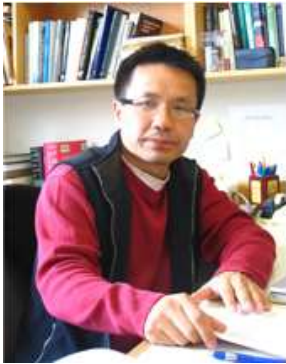
**Chunjiu Zhong, M.S, Ph.D.**  
**Professor, Institution of Brain Science, Fudan University.**  
**Principal Investigator, Institutes for Brain Science.**

Dr. Chunjiu Zhong received his B.S. degree in Clinical Medicine from Anhui Medical University in 1986 and M.S. degree in Neurology from (former) Shanghai Medical University in 1992. He obtained his Ph.D. degree in Neurology in 2007 from Fudan University. Since 1992, Dr. Zhong has been working at Zhongshan Hospital, Shanghai Medical University (presently Fudan University) as a clinician and researcher in Neurology. In 2009, he joined the State Key Laboratory of Medical Neurobiology and in 2010, he joined the Institutes for Brain Science as a principal investigator. He is also associate editor-in-chief of *Neuroscience Bulletin*, and an outstanding executive member in Chinese Neuroscience Society and Chinese Committee for Alzheimer's Disease International (ADI).

His research has been focused on pathogenesis, clinical diagnosis, prevention and treatment of neurodegenerative disorders, especially Alzheimer's disease and Parkinson's disease. Prof. Zhong proposed that Alzheimer's disease is a metabolic disorder and hypothesized that abnormal thiamine metabolism contributes to the onset and progression of Alzheimer's disease by perturbing cerebral glucose metabolism and provoking multiple pathogenic cascades. Based on this hypothesis, Prof. Zhong proposed a novel strategy for searching new targets of Alzheimer's disease diagnosis and intervention through decoding the mechanism in brain glucose hypometabolism of the disease. He first found and demonstrated the diagnostic value of detecting the levels of blood thiamine metabolites for Alzheimer's disease (coverage news in AAIC 2013, *Ebiomedicine* 2016). He also developed two patent chemical drugs of class I in China against Alzheimer's disease as sponsor.

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**Yi Zhong, Ph.D**  
**Professor of Neurobiology**  
**Tsinghua University**

Dr. Yi Zhong, Professor of Neurobiology, Director of the IDG/McGovern Institute for Brain Research at Tsinghua University, is a world-renowned neuroscientist and Thousand-Talent Scholar and Changjiang Scholar Chair Professor. Dr. Zhong received his Ph.D at the Iowa University, US and he then obtained his postdoc training at the same university. Dr. Zhong now is also a professor at Cold Spring Harbor Laboratory (CSHL) in the states.

Dr. Zhong made seminal discoveries on the neural basis of learning and memory using fruit fly models. One of outstanding achievements is to understand the mechanism of memory loss in fruit flies. Zhong's research group recently reported that blocking epidermal growth factor receptor (EGFR) signaling, a pathway commonly targeted in cancer, suppresses brain plaques similar to those implicated in Alzheimer's disease. Separately, having discovered that memory decay is an active process, regulated by the Rac protein, the team has proposed that Rac's role in erasing memory is related to its influence on downstream cytoskeleton remodeling agents.

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**Jiangning Zhou, Professor**  
**Department of Neurobiology, Life Science School**  
**University of Science and Technology of China**

Jiang-Ning Zhou earned his doctoral degrees at the University of Amsterdam in 1996. From 1998 to 2003 he was Professor of Geriatrics and Vice Dean of The First Hospital of Anhui Medical University in China. Since 2003 he is Professor of Neurobiology at Department of Neurobiology, Life Science School, University of Science and Technology of China. His major research interests focus on the pathogenesis of Alzheimer's disease and depression. He has published over 100 papers in SCI journals, including *Nature*, *Archives General Psychiatry*, *Molecular Psychiatry*, *Brain*, *Biological Psychiatry* etc. Zhou mentored 40 PhD students. In 2011 he obtained Excellent Scholar Awards from Chinese Neuroscience Society. In 2014 he received Natural Science Awards from the Ministry of Education of China.

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**Wenxia Zhou, Ph.D.**  
**Professor of Pharmacology**  
**Beijing Institute of Pharmacology and Toxicology**

Wenxia Zhou, Ph.D., professor of Pharmacology, and director of Department of Neuroimmunopharmacology and traditional Chinese medicine in Beijing Institute of Pharmacology and Toxicology. Her research interests include the study of function of neuroendocrine immunomodulation (NIM) network and the pharmacological studies of immunomodulators, endocrinomodulators, antiaging (especially anti-Alzheimer's disease) drugs and cognition-enhancing drugs. Dr. Zhou has published over 150 peer-reviewed publications, more than 60 of them were published in international journals, such as *Neurobiology of Aging*, *Journal of Proteome Research*, *Pharmacology & Therapeutics*, *British Journal of Pharmacology*, *Brain Research*, *Journal of Ethnopharmacology*, *et al.*

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