

## Curriculum Vitae

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ZANG Yu-Feng, M.D., Professor with the State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University. My main research interest is the resting-state fMRI: algorithms and applications to brain disorders. I am also interested in its applications to pharmacology, TMS, bio-feedback, deep brain stimulation, brain-computer interface, and so on.

### Contact Information

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### 1. EDUCATION

Dates	Institution	Major & Degree
Aug 1998–Jul 2001	Institute of Mental Health, Peking University	Psychiatry, Doctor (Graduated in 2001. Got degree in 2002)
Aug 1988–Aug 1991	Tianjin Medical University	Neurosurgery, Master
Sep 1979–Aug 1984	Hebei Medical College	Medicine, Bachelor

### 2. RELEVANT EXPERIENCE

Dates	Institution	Position
Aug 2005-present	State Key Lab of Cognitive Neuroscience and Learning, Beijing Normal University National Lab of Pattern Recognition, Institute of Automation	Professor
Jul 2004-Aug 2005	Chinese Academy of Sciences National Lab of Pattern Recognition, Institute of Automation	Associate Professor
Jul 2002-July 2004	Chinese Academy of Sciences Institute of Psychology, Chinese Academy of Sciences	Postdoctoral Fellow
Jul 2001-July 2002	Department of Neurosurgery, Shijiazhuang Brain Hospital	Visiting Scholar
Jan 1995–Aug 1998	Department of Neurosurgery, 2 <sup>nd</sup> Hospital of Hebei Medical College	Director, Associate Professor
Sep 1991–Dec 1994	Department of Neurosurgery, 2 <sup>nd</sup> Hospital of Hebei Medical College	Physician-in-charge

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Aug 1984–Aug 1988

Department of Neurosurgery,  
2<sup>nd</sup> Hospital of Hebei Medical  
College

Resident

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### 3. SOCIAL ACTIVITIES:

Member: Organization of Human Brain Mapping

Committee, Methodology for Neuroscience, Chinese Society for Neuroscience

Reviewer for Journals: Biological Psychiatry, Expert Review Neurotherapeutics, Human Brain Mapping, IEEE

Trans Med Imaging, Journal of Neuroscience, Journal of Neuroscience Methods, NeuroImage, Neuroscience Letters, Neuroscience & Biobehavioral Reviews, Progress in Natural Sciences, Chinese Journal of Medicine, Chinese Science Bulletin

Reviewer for Foundations: Natural Science Foundation of China (2005-now), National Science Foundation (USA, 2009), Alzheimer Forschung Initiative (Germany, 2010)

### 4. GRANTS (Selected):

Resting-state fMRI: methodology and application to brain disorders (PI, International collaborative project, NSFC, No. 81020108022, RMB 2,000,000, PI, 2011.1-2013.12)

Computer-aided diagnosis of functional MRI in ADHD (PI, National High Technology Program of China (863), No. 2008AA02Z405, RMB 840,000, 2008.1.-2010.12)

Early detection of neurodegenerative and psychiatric diseases based on fMRI analysis of spontaneous brain activity (PI, International collaborative project, NSFC, No. 30621130074, RMB 900,000, PI, 2006.1-2009.12)

Optimization and algorithms of scanning parameters of resting-state fMRI (PI, NSFC, No. 30770594, RMB 330,000, 2008.1-2010.12)

### 5. PUBLICATIONS (PEER REVIEWED JOURNAL PAPERS):

Wu T, Long X, Wang L, Hallett M, **Zang Y**, Li K, Chan P. Functional connectivity of cortical motor areas in the resting state in Parkinson's disease. *Hum Brain Mapp.* 2010 Aug 25. [Epub ahead of print]

Liu D, Yan C, Ren J, Yao L, Kiviniemi VJ, **Zang Y**. Using coherence to measure regional homogeneity of resting-state fMRI signal. *Front. Syst. Neurosci.* 2010, 4:24. doi:10.3389/fnsys.2010.00024

Yan C, **Zang Y**. DPARSF: a MATLAB toolbox for "pipeline" data analysis of resting-state fMRI. *Front. Syst. Neurosci.* 2010, 4:13. doi:10.3389/fnsys.2010.00013.

Wang L, Yu C, Chen H, Qin W, He Y, Fan F, Zhang Y, Wang M, Li K, **Zang Y**, Woodward TS, Zhu C. Dynamic functional reorganization of the motor execution network after stroke. *Brain.* 2010 Apr;133(Pt 4):1224-38.

Biswal BB, Mennes M, Zuo XN, Gohel S, Kelly C, Smith SM, Beckmann CF, Adelstein JS, Buckner RL, Colcombe S, Dogonowski AM, Ernst M, Fair D, Hampson M, Hoptman MJ, Hyde JS, Kiviniemi VJ, Kötter R, Li SJ, Lin CP, Lowe MJ, Mackay C, Madden DJ, Madsen KH, Margulies DS, Mayberg HS, McMahon K, Monk CS, Mostofsky SH, Nagel BJ, Pekar JJ, Peltier SJ, Petersen SE, Riedel V,

- Rombouts SA, Rypma B, Schlaggar BL, Schmidt S, Seidler RD, Siegle GJ, Sorg C, Teng GJ, Veijola J, Villringer A, Walter M, Wang L, Weng XC, Whitfield-Gabrieli S, Williamson P, Windischberger C, **Zang YF**, Zhang HY, Castellanos FX, Milham MP. Toward discovery science of human brain function. *Proc Natl Acad Sci U S A*. 2010 Mar 9;107(10):4734-9.
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- Cao Q, Sun L, Gong G, Lv Y, Cao X, Shuai L, Zhu C, **Zang Y**, Wang Y. The macrostructural and microstructural abnormalities of corpus callosum in children with Attention Deficit/Hyperactivity Disorder: A combined morphometric and diffusion tensor MRI study. *Brain Res*. 2010 Jan 15;1310:172-80.
- Cao X, Cao Q, Long X, Sun L, Sui M, Zhu C, Zuo X, **Zang Y**, Wang Y. Abnormal resting-state functional connectivity patterns of the putamen in medication-naïve children with attention deficit hyperactivity disorder. *Brain Res*. 2009 Dec 15;1303:195-206.
- Zou Q, Wu C, Stein EA, **Zang Y**, Yang Y. Static and dynamic characteristics of cerebral blood flow during the resting state. *Neuroimage*. 2009 Nov 15;48(3):515-24.
- Li S, Han Y, Wang D, Yang H, Fan Y, Lv Y, Tang H, Gong Q, **Zang Y**, He Y. Mapping Surface Variability of the Central Sulcus in Musicians. *Cereb Cortex*. 2010 Jan;20(1):25-33.
- Yan H, Zuo XN, Wang D, Wang J, Zhu C, Milham MP, Zhang D, **Zang Y**. Hemispheric asymmetry in cognitive division of anterior cingulate cortex: a resting-state functional connectivity study. *Neuroimage*. 2009 Oct 1;47(4):1579-89.
- Kiviniemi V, Tuomo S, Remes J, Long X, Juha N, Marianne H, Juha V, Irma M, Isohanni M, **Zang Y**, Osmo T. Functional segmentation of the brain cortex using high model order group PICA. *Hum Brain Mapp*. 2009 Dec;30(12):3865-86.
- Yan C, Liu D, He Y, Zou Q, Zhu C, Zuo X, Long X, **Zang Y**. Spontaneous brain activity in the default mode network is sensitive to different resting-state conditions with limited cognitive load. *PLoS ONE*. 2009 May 29;4(5):e5743.
- Zou QH, Long XY, Zuo XN, Yan CG, Zhu CZ, Yang YH, Liu DQ, He Y, **Zang YF**. Functional connectivity between the thalamus and visual cortex under eyes closed and eyes open conditions: a resting-state fMRI study. *Human Brain Mapping*, 2009 Sep;30(9):3066-78.
- Zang ZX, Han ZZ, **Zang YF**. Effects of hand clasping and arm folding on academic performance. *Neural Regeneration Research*. 2008 Aug 3(8):914-7.
- Wang J, Wang L, **Zang Y**, Yang H, Tang H, Gong Q, Chen Z, Zhu C, He Y. Parcellation-dependent small-world brain functional networks: A resting-state fMRI study. *Hum Brain Mapp*. 2009 May;30(5):1511-23.

- Wu T, Long X, **Zang Y**, Wang L, Hallett M, Li K, Chan P. Regional homogeneity changes in patients with Parkinson's disease. *Hum Brain Mapp. Hum Brain Mapp.* 2009 May;30(5):1502-10.
- Cao Q, **Zang Y**, Zhu C, Cao X, Sun L, Zhou X, Wang Y. Alerting deficits in children with attention deficit/hyperactivity disorder: Event-related fMRI evidence. *Brain Res.* 2008 Jul 11;1219:159-68.
- Zou QH, Zhu CZ, Yang Y, Zuo XN, Long XY, Cao QJ, Wang YF, **Zang YF**. An improved approach to detection of amplitude of low-frequency fluctuation (ALFF) for resting-state fMRI: Fractional ALFF. *J Neurosci Methods.* 2008 Jul 15;172(1):137-41.
- Long XY, Zuo XN, Kiviniemi V, Yang Y, Zou QH, Zhu CZ, Jiang TZ, Yang H, Gong QY, Wang L, Li KC, Xie S, **Zang YF**. Default mode network as revealed with multiple methods for resting-state functional MRI analysis. *J Neurosci Methods.* 2008 Jun 30;171(2):349-55.
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- Wang L, Zhu C, He Y, **Zang Y**, Cao Q, Zhang H, Zhong Q, Wang Y. Altered small-world brain functional networks in children with attention-deficit/hyperactivity disorder. *Hum Brain Mapp.* 2009 Feb;30(2):638-49.
- Zhu CZ, **Zang YF**, Cao QJ, Yan CG, He Y, Jiang TZ, Sui MQ, Wang YF. Fisher discriminative analysis of resting-state brain function for attention-deficit/hyperactivity disorder. *Neuroimage.* 2008 Mar 1;40(1):110-20.
- Tian L, Jiang T, Liang M, **Zang Y**, He Y, Sui M, Wang Y. Enhanced resting-state brain activities in ADHD patients: A fMRI study. *Brain Dev.* 2008 May;30(5):342-8.
- Wu T, **Zang Y**, Wang L, Long X, Li K, Chan P. Normal aging decreases regional homogeneity of the motor areas in the resting state. *Neurosci Lett.* 2007 Aug 23;423(3):189-193.
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- Sun L, Jin Z, **Zang YF**, Zeng YW, Liu G, Yang L, Seidman LJ, Faraone SV, Wang YF. Differences between Attention-deficit Disorder with and without hyperactivity: A 1H-magnetic resonance spectroscopy study. *Brain Dev*. 2005, 27:340-4.
- Lu YL, Jiang TZ, and **Zang YF**, Single-Trial Variable Model for Event-Related fMRI Data Analysis, *IEEE Transactions on Medical Imaging*. 2005, 24:236-245
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- Jiang TZ\*, Yong He Y\*, **Zang YF\*** and Weng XC. Modulation of functional connectivity during the resting state and the motor task. *Human Brain Mapping*, 2004, 22:63–71. (\*: Equal contribution)
- Lu YL, Jiang TZ and **Zang YF**, Split-merge based region growing method for fMRI activation detection, *Human Brain Mapping*, 2004, 22(4):271-9.
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