

Curriculum Vitae

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Name: Hongjie Yuan
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Education:

March, 2004 Ph.D., Akita University School of Medicine, Akita, Japan;
July, 1997 Master of Medicine, Norman Bethune University of Medical Sciences,
China;
July, 1994 MD, BaoTou Medical College. BaoTou, China.

Other Experience and Professional Memberships:

2005 Member, American Society for Biochemistry and Molecular Biology, U.S.
2004 Member, Society for Neuroscience, U.S.
2002 Member, Society for Physiology, Japan.
2002 - 2004 Research Assistant, Department of Physiology, Akita University School of
Medicine. Japan
2000 - 2002 Teaching Assistant, Department of Physiology, Akita University School of
Medicine. Japan
1997 - 1999 Resident Physician, Department of Neurology, Hospital of BaoTou Medical
College, China.

Scholarships and Honors:

2003 - 2004 Rotary International Scholarship;
1995 - 1996 University Scholarship for Excellent Graduates, Bethune University of
Medical Sciences;
1990 - 1994 College Scholarship for Excellent Students, BaoTou Medical College;

Journal Publications:

- 14: **Yuan H**, Hansen KB, Traynelis SF. The amino terminal domain of the NR2 subunit controls channel open probability of N-methyl-D-aspartate receptors. *Manuscript in preparation.*
- 13: **Yuan H**, Vance K, Low CM, Junge CE, Traynelis SF. The Serine Protease Plasmin Cleaves the Amino Terminal Domain of the NR2A Subunit and Relieves the Tonic Zinc Inhibition of the N-methyl-D-aspartate Receptors. *Manuscript in preparation.*
- 12: Mannaioni G, Orr A, Hamill CE, **Yuan H**, Pedone K, McCoy K, Junge C, Lee CJ, Yepes M, Hepler J, Traynelis SF, Plasmin potentiates synaptic NMDA receptor function in hippocampal neurons through activation of PAR1. *J Biol Chem.* Manuscript in revision.

- 11: Mannaioni G, **Yuan H**, Lee CJ, Traynelis SF. A starring role for astrocytes. *Physiology News*. Manuscript in press.
- 10: Erreger K, Geballe MT, Kristensen A, Chen PE, Hansen KB, Lee CJ, **Yuan H**, Le P, Lyuboslavsky PN, Micale N, Jørgensen L, Clausen RP, Wyllie DJ, Snyder JP, Traynelis SF. Subunit-specific agonist activity at NR2A-, NR2B-, NR2C-, and NR2D-containing N-methyl-D-aspartate glutamate receptors. *Mol Pharmacol*. 2007 Oct;72(4):907-20.
- 9: Hamill CE, Caudle WM, Richardson JR, **Yuan H**, Pennell KD, Greene JG, Miller GW, Traynelis SF. Exacerbation of dopaminergic terminal damage in a mouse model of Parkinson's disease by the G-protein-coupled receptor protease-activated receptor 1. *Mol Pharmacol*. 2007 Sep;72(3):653-64.
- 8: Hansen KB, **Yuan H**, Traynelis SF. Structural aspects of AMPA receptor activation, desensitization and deactivation. *Curr Opin Neurobiol*. 2007 Jun;17(3):281-8.
- 7: Lee CJ, Mannaioni G, **Yuan H**, Woo DH, Gingrich MB, Traynelis SF. Astrocytic control of synaptic NMDA receptors. *J Physiol*. 2007 Jun 15;581(Pt 3):1057-81.
- 6: Dravid SM, Erreger K, **Yuan H**, Nicholson K, Le P, Lyuboslavsky P, Almonte A, Murray E, Mosely C, Barber J, French A, Balster R, Murray TF, Traynelis SF. Subunit-specific mechanisms and proton sensitivity of NMDA receptor channel block. *J Physiol*. 2007 May 15;581(Pt 1):107-28.
- 5: **Yuan H**, Erreger K, Dravid SM, Traynelis SF. Conserved structural and functional control of N-methyl-D-aspartate receptor gating by transmembrane domain M3. *J Biol Chem*. 2005 Aug 19;280(33):29708-16.
- 4: Chen PE, Geballe MT, Stansfeld PJ, Johnston AR, **Yuan H**, Jacob AL, Snyder JP, Traynelis SF, Wyllie DJ. Structural features of the glutamate binding site in recombinant NR1/NR2A N-methyl-D-aspartate receptors determined by site-directed mutagenesis and molecular modeling. *Mol Pharmacol*. 2005 May;67(5):1470-84.
- 3: **Yuan H**, Yamada K, Inagaki N. Glucose sensitivity in mouse substantia nigra pars reticulata neurons in vitro. *Neurosci Lett*. 2004 Jan 30;355(3):173-6.
- 2: **Yuan H**, Yamada K and Inagaki N. Multiminute oscillations in mouse substantia nigra pars reticulata neurons in vitro. *Neurosci Lett* 2004, 355:136-40.
- 1: Yamada K, Ji JJ, **Yuan H**, Miki T, Sato S, Horimoto N, Shimizu T, Seino S and Inagaki N. Protective role of ATP-sensitive potassium channels in hypoxia-induced generalized seizure. *Science* 2001, 292:1543-1546.

Book chapters:

- 2: **Yuan H**, Geballe MT, Traynelis SF (2007) Structure and Function of NMDA receptors. in "Glutamate Receptors" Eds M Ehlers and J Hell, Humana. Manuscript in press.
- 1: Dravid SM, **Yuan H**, Traynelis SF. AMPA receptors molecular biology, pharmacology. In "The New Encyclopedia of Neuroscience" edited by Larry R. Squire. Elsevier (2007) Manuscript in press.

Abstracts:

- 19: **Yuan H**, Hansen KB, and Traynelis SF. (2007) The amino terminal domain of the NR2 subunit controls channel open probability of N-methyl-D-aspartate receptors. The 37th Annual Meeting Society for Neuroscience (Nov. 3-7, San Diego, CA).
18. **Yuan H**, Junge CE, Low C-M, Traynelis SF. (2006) Cleavage of N-terminal domain of the NR2A subunit by plasmin relieves tonic zinc inhibition of the N-methyl-D-aspartate receptor. The 36th Annual Meeting Society for Neuroscience (Oct. 14-18, Atlanta, GA).
17. Woo D, **Yuan H**, Kristensen A, Traynelis SF, Cheong E, Lee CJ (2006). Sniffer-patch quantification of Ca²⁺-dependent release of glutamate at submicromolar concentration from mouse cortical astrocytes. The 36th Annual Meeting Society for Neuroscience (Oct. 14-18, Atlanta, GA).
16. **Yuan, H**, Erreger, K, Dravid S., and Traynelis, SF. (2005) Single Channel Properties and Differential Effect of Channel Blockers after MTSEA-Modification of A7C Mutant NMDA Receptors The 35th Annual Meeting Society for Neuroscience (Nov. 12-16, Washington, DC).
15. Hamill CE, Goldshmidt A, **Yuan H**, Gearing M, Rees HD, Traynelis SF (2005) Expression and localization of protease-activated receptors in human basal ganglia. The 35th Annual Meeting Society for Neuroscience (Nov. 12-16, Washington, DC).
14. Yamada, K, **Yuan, H**, Miki, T, Seino, S and Inagaki, N. (2005) Metabolic susceptibility of GABAergic neurons in substantia nigra pars reticulata. The 82nd Annual Meeting the Japan Society for Physiology. (May 18-10, Sendai, Japan).
13. **Yuan, H**, Erreger, K, Le, P, and Traynelis, SF. (2004) Covalent modification of an engineered cysteine in M3 locks open NMDA channels. The 34th Annual Meeting Society for Neuroscience (Oct. 23-27, San Diego).
12. **Yuan, H**, Yamada, K and Inagaki, N. (2003). Multi-minute oscillations of neuronal firing rate in the substantia nigra pars reticulata in vitro. Joint Meeting, Symposium on "ABC proteins" and The 5th Conference on ABC Proteins and Ion Channels. – From Gene to Disease-. (Jan. 24-26, Kyoto, Japan).
11. Yamada, K, **Yuan, H**, Miki, T, Seino, S and Inagaki, N. (2003) Protective roles of KATP channels in hypoxia-induced generalized seizure. Joint Meeting, Symposium on "ABC proteins" and The 5th Conference on ABC Proteins and Ion Channels. – From Gene to Disease-.(Jan. 24-26, Kyoto, Japan).
10. **Yuan, H**, Yamada, K and Inagaki, N. (2003). The slow oscillatory activity of spontaneous firing rate in GABAergic neurons in substantia nigra pars reticulata. The 36th Annual Meeting of Northeast Physiological Society of Japan. (Oct. 4-5, Iwate, Japan).

9. Yamada, K, **Yuan, H** and Inagaki, N. (2003) Spontaneous activity in GABAergic neurons in substantia nigra pars reticulata and effect of glucose. The 36th Annual Meeting of Northeast Physiological Society of Japan. (Oct. 4-5, Iwate, Japan).
8. **Yuan, H**, Yamada, K and Inagaki, N. (2003). The oscillatory activity in GABAergic neurons in substantia nigra pars reticulata. The 80th Annual Meeting the Japan Society for Physiology (Mar. 26-29, Fukuoka, Japan)
7. Yamada K, Ji JJ, **Yuan H**, Miki T, Sato S, Seino S and N. Inagaki. (2001) Protective role of ATP-sensitive potassium channels in hypoxia-induced generalized seizure. The 31st Annual Meeting Society for Neuroscience (Nov. 10-15, San Diego, USA).
6. N. Inagaki, **Yuan H**, Miki T, Sato S, Seino S and Yamada K (2001) ATP-sensitive potassium channels: intracellular ATP sensor. The 24th Meeting Japan Society for Molecular Biology (Dec., Yokohama, Japan).
5. Yamada K, Ji JJ, **Yuan H**, Miki T, Sato S, Seino S and N. Inagaki. (2001) Effect on hypoxia-induced seizure by ATP-sensitive potassium channels in substantia nigra pars reticulata. The 38th Annual Meeting the Japan society for Clinic Physiology and The 5th Meeting the Japan Society for Molecular Physiology. (Sep. 27-30, Akita, Japan).
4. Yamada K, Ji JJ, **Yuan H**, Miki T, Sato S, Seino S and N. Inagaki. (2001) Control effects of ATP-sensitive potassium channels on hypoxia-induced generalized seizure. The 74th Annual Meeting the Japan Society for Biochemistry. (Oct. 25-28, Kyoto, Japan).
3. Yamada K, **Yuan H**, Miki T, Sato S, Seino S and N. Inagaki (2001) Control of generalized seizure by ATP-sensitive potassium channels. The 78th Annual Meeting the Japan Society of Physiology. (Mar. 29-31, Kyoto, Japan). 1PC35.
2. Inagaki N, Ji JJ, **Yuan H**, Miki T, Seino S and Yamada K (2001) The role of ATP-sensitive potassium channels in central nervous system. The 78th Annual Meeting the Japan Society of Physiology. (Mar. 29-31, Kyoto, Japan).
1. Inagaki N, Ji JJ, **Yuan H**, Miki T, Seino S and Yamada K (2001) ABC proteins and their biochemical pathology – Metabolic sensors by sulfonylurea receptors -. Annual Meeting of Japan Society for Bioscience, Biotechnology, and Agrochemistry. (Kyoto, Japan).