

Motoko Maekawa

Position

Research Scientist
Laboratory for Molecular Psychiatry
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Education

2006: Ph.D. Tohoku University School of Medicine, Japan
Field of study: Developmental Neuroscience (Prof. Noriko Osumi)
2002: M.D. Tohoku University School of Medicine, Japan
Field of study: Medicine

Work Experience

2008-present: Research Scientist, Laboratory for Molecular Psychiatry, Brain Science Institute, RIKEN (Head. Takeo Yoshikawa)
2006-2008: Researcher, Department of Ultrastructural Research, National Institute of Neuroscience, Japan (Director. Shigeki Yuasa)

Award

2008: Prize for Encouragement (Japan Brain Science Society)
2006: President Award (Tohoku University)

Membership of Academic Societies

Society for Neuroscience
The Japan Neuroscience Society
The Japanese Society of Biological Psychiatry
Japan Brain Science Society

Publications

2009

- 1) Maekawa M, Iwayama Y, Nakamura K, Sato M, Toyota T, Ohnishi T, Yamada K, Miyachi T, Tsujii M, Hattori E, Maekawa N, Osumi N, Mori N, Yoshikawa T. (2009) A novel missense mutation (Leu46Val) of PAX6 found in an autistic patient. **Neurosci Lett.** 462(3):267-71.
- 2) Iwayama Y, Hattori E, Maekawa M, Yamada K, Toyota T, Ohnishi T, Iwata Y, Tsuchiya KJ, Sugihara G, Kikuchi M, Hashimoto K, Iyo M, Inada T, Kunugi H, Ozaki N, Iwata N, Nanko S, Iwamoto K, Okazaki Y, Kato T, Yoshikawa T. (2009) Association analyses between brain-expressed fatty-acid binding protein (FABP) genes and schizophrenia and bipolar disorder. **Am J Med Genet B Neuropsychiatr Genet.** 2009 Jun 24. [Epub ahead of print]
- 3) Meerabux JM, Ohba H, Iwayama Y, Maekawa M, Detera-Wadleigh SD, Delisi LE, Yoshikawa T. (2009) Analysis of a t(18;21)(p11.1;p11.1) translocation in a family with schizophrenia. **J Hum Genet.** 54(7):386-91.
- 4) Maekawa M, Namba T, Suzuki E, Yuasa S, Kohsaka S, Uchino S. (2009) NMDA receptor antagonist memantine promotes cell proliferation and production of mature granule neurons in the adult hippocampus. **Neurosci Res.** 63(4):259-66.
- 5) Maekawa M, Takashima N, Matsumata M, Ikegami S, Kontani M, Hara Y, Kawashima H, Owada Y, Kiso Y, Yoshikawa T, Inokuchi K, Osumi N. (2009) Arachidonic acid drives postnatal neurogenesis and elicits a beneficial effect on prepulse inhibition, a biological trait of psychiatric illnesses. **PLoS One.** 4(4):e5085.
- 6) Namba T, Maekawa M, Yuasa S, Kohsaka S, Uchino S. (2009) The Alzheimer's disease drug memantine increases the number of radial glia-like progenitor cells in adult hippocampus. **Glia.** 57(10):1082-90.
- 7) Soma M, Aizawa H, Ito Y, Maekawa M, Osumi N, Nakahira E, Okamoto H, Tanaka K, Yuasa S. (2009) Development of the mouse amygdala as revealed by enhanced green fluorescent protein gene transfer by means of in utero electroporation. **J Comp Neurol.** 513(1):113-28.
- 8) Sekiguchi M, Zushida K, Yoshida M, Maekawa M, Kamichi S, Yoshida M, Sahara Y, Yuasa S, Takeda S, Wada K. (2009) A deficit of brain dystrophin impairs specific amygdala GABAergic transmission and enhances defensive behaviour in mice. **Brain.** 132(Pt 1):124-35.

2008

- 9) Yamasaki N, Maekawa M, Kobayashi K, Kajii Y, Maeda J, Soma M, Takao K, Tanda K, Ohira K, Toyama K, Kanzaki K, Fukunaga K, Sudo Y, Ichinose H, Ikeda M, Iwata N, Ozaki N, Suzuki H, Higuchi M, Suhara T, Yuasa S, Miyakawa T. (2008) Alpha-CaMKII deficiency causes immature dentate gyrus, a novel candidate endophenotype of psychiatric disorders. **Mol Brain**. 10;1(1):6.
- 10) Osumi N, Shinohara H, Numayama-Tsuruta K, Maekawa M. (2008) Concise review: Pax6 transcription factor contributes to both embryonic and adult neurogenesis as a multifunctional regulator. **Stem Cells**. 26(7):1663-72. Review.

2007

- 11) Watanabe A, Toyota T, Owada Y, Hayashi T, Iwayama Y, Matsumata M, Ishitsuka Y, Nakaya A, Maekawa M, Ohnishi T, Arai R, Sakurai K, Yamada K, Kondo H, Hashimoto K, Osumi N, Yoshikawa T. (2007) Fabp7 maps to a quantitative trait locus for a schizophrenia endophenotype. **PLoS Biol**. 5(11):e297.

2005

- 12) Maekawa M, Takashima N, Arai Y, Nomura T, Inokuchi K, Yuasa S, Osumi N. (2005) Pax6 is required for production and maintenance of progenitor cells in postnatal hippocampal neurogenesis. **Genes Cells**. 10(10):1001-14.