CACNA1C variant in methamphetamine induced depression

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Methamphetamine is a psychostimulant drug effecting to the central nervous system. The symptom of amphetamine-induced depression causes from withdrawal. Recently, the study of genome wild association showed that A-allele of rs 1006737 within CACNA1C (calcium channel, voltage-dependent, L type, alpha 1C subunit) is a risk factor for major depressive disorder and schizophrenia. The aimed of this study was to investigate an association of CACNA1c rs 1006737 polymorphism with depression in methamphetamine users and healthy people. Case and control groups were interviewed by diagnostic interview for genetic studies (DIGS THAI version). Genomic DNA was prepared from lymphocytes according to standard protocol. The single nucleotide polymorphism CACNA1C rs 1006737 were genotypes using determined by a TaqMan allelic discrimination assay. The results showed that Gallele was dominant for both groups. No association for CACNA1C rs 1006737 polymorphisms in methamphetamine induced depression was found. Our results suggest that CACNA1C may not play a role in methamphetamine induced depression.

Biography

Doungjai Buntup has completed Ph.D. in Neuroscience, Mahidol University in 2001. After his Ph.D., he became a Lecturer at the M.A. (Addiction Studies), ASEAN Institute for Health Development, Mahidol University, Thailand. His research interest is in the field of neuroscience and addiction. Currently, he is working on drug seeking behavior and methamphetamine users supported by Mahidol University grant for young researcher.

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