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**GENETIC ALCOHOL SENSITIVITY AS AN INDICATOR OF MENTAL DISORDERS**

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**Objective:** To evaluate the association between genetic alcohol sensitivity (*ADH1B* and *ALDH2* polymorphisms) and mental disorders.

**Method:** A total of 1945 prefectural civil servants were screened and interviewed regarding their mental disorders by the Mini-International Neuropsychiatric Interview. The mental disorders include major depressive disorder, dysthymia, suicidal risk, manic episode, panic disorder, agoraphobia, social phobia, specific phobia, obsessive-compulsive disorder, general anxiety disorder, alcohol dependence/abuse, substance dependence/abuse, anorexia nervosa, anorexia bulimia, and PTSD. Genomic DNA was extracted from blood samples. TaqMan<sup>®</sup> SNP genotyping assays were used for the following (gene, SNP, assay ID): *ADH1B*, rs1229984, C\_2688467\_20; *ALDH2*, rs671, C\_11703892\_10. Logistic regression analysis was used to evaluate those genetic polymorphisms and mental disorders adjusting for sex, age, and job rank.

**Results:** Alcohol sensitivity was genetically classified into five domains according to the combination of *ADH1B* and *ALDH2* genotypes (type A, B, C, D and E). Preliminary analysis using 497 samples showed that low alcohol sensitivity (type A and B combined) was significantly associated with alcohol dependence/abuse (OR 2.71, 95% CI 1.44-5.10) compared to high sensitivity (type C, D, and E combined). Low alcohol sensitivity also showed non-significant modest association with any mental disorders except alcohol-related disorders (OR 1.99, 95% CI 0.72-5.48).

**Conclusions:** Low alcohol sensitivity might be associated with mental disorders, especially with alcohol-related disorders. Since the analysis has not been finished yet, the complete results will be shown in the congress.