

Association Analysis and International Comparison of Responsible Gene Concerning Human Salt and Food Intake

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Summary

Various factors would be relate to the behavioral pattern of the food preferences. It might be explained that some examples are formed in the growth environment like the family, and others could mainly be decided by the genetic background such as sense of tastes and the constitutions. It is known to relate with the genome about some of articles of taste such as alcohol in the dining habit. We expanded the range of the investigation, to the nutrient intakes such as salinities and carbohydrate, based on the questionnaire data.

We used 5,000 or more questionnaire data of healthy people collected in the Cohort Study of Tohoku Medical Megabank Project, and investigated the relation between the food preference and the single nucleotide polymorphism, and also tried to explain these relation from the side of metabolism and epidemiology. We were able to discover the loci that showed a strong relation in the salinity preference, and have been understood that the minor allele frequency of the loci relates to the salinity intakes by an international comparison. Moreover, it was confirmed that a lot of related gene was mapped to the carbohydrate and lipid metabolizing, when relations with the metabolic pathway were investigated based on the loci.