

Genetic loci assigned for musical aptitude in Finnish families

Researchers from Finland and USA have identified one major and several potential loci associated with musical aptitude in the human genome. The results raise an interesting question about common evolutionary background of music and language faculties.

Molecular and statistical genetic studies in 15 Finnish families have shown that there is a substantial genetic component in musical aptitude. Musical aptitude was determined using three tests: a test for auditory structuring ability (Karma Music test), and the Seashore pitch and time discrimination subtests.

The study represents the first systematic molecular genetic study that aims in the identification of candidate genes associated with musical aptitude.

The identified regions contain genes affecting cell extension and migration during neural development. Interestingly, an overlapping region previously associated with genetic locus for dyslexia was found raising a question about common evolutionary background of music and language faculties. The results show that musical aptitude is likely to be regulated by several predisposing genes/variants.

“The identification of genes/genetic variants involved in mediating music perception and performance would offer new tools to understand the role of music in human brain function, human evolution and its relationship to language faculty”, says the leader of the study, Dr. Irma Järvelä from the University of Helsinki.

Source: University of Helsinki

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