

FREQUENCY DISTRIBUTION OF THE MAO-A PROMOTER POLYMORPHISM IN A MALE POPULATION SAMPLE

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Functional allelic variation in the transcriptional control region of monoamine oxidase A (MAO-A) gene has been associated with anxiety- and aggression-related behavior in humans. The MAO-A gene is localized in the X chromosome, and the promoter functional polymorphism is characterized by nucleotide repetitions in tandem. The lower activity of MAO-A, due to the transcription of variant alleles, was associated with the development of aggressive behavior in maltreated male children in a large birth cohort study. The objective of this work is to evaluate the distribution of alleles frequencies of MAO-A promoter polymorphisms in a male population sample from Rio and São Paulo, which belongs to different ethnic groups. The ethnic classification of the male population is being achieved by the analysis of mitochondrial DNA and Y chromosome haplotypes. The DNA samples are submitted to PCR for the MAO-A promoter and for HVI and HVII region, from mitochondrial DNA. The Y haplotypes are obtained using 16 STRs markers. Preliminary results for MAO-A: 5 repetitions: 0,275; 4: 0,400; 3,5: 0,175 and 3: 0,100, respectively. Paternal lineage: 29,4% was related to West Europe; 5,9% to West Asia and 64,7% was not found in the Y-Chromosome haplotype reference database. The maternal lineages shows that most of the white males are related to Africans and Europeans.

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