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Anthropological Perspective of the Single Nucleotide Polymorphisms in the NPY and DRD2 Genes among the Socio-Economically Stratified Populations of Andhra Pradesh, India

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ABSTRACT We report single nucleotide polymorphisms (SNP) at the two sites each of NPY and DRD2-*Taq1* loci among the 28 populations from southern parts of Andhra Pradesh, India. The average allele frequency at these sites in these populations categorized into upper, middle and lower ranking castes, Muslims and tribes were also carried out in order to test if there is any trend in the allele frequency of some of these SNPs that are implicated in alcoholism. This was felt important as some of these hierarchical low ranking groups and tribes traditionally are known for addictive behavior, especially to alcohol, as against the prohibitive norms among most of the higher ranking castes. The trend in average allele frequency although suggests some association with these traditional behavioral patterns, the case control studies are required before inferring the exact nature of this association. The bivariate plot between the NPY-C and *Taq1*A1 mean allele frequencies in the 28 populations and the lack of significant association between the genotypes of these two SNPs at the individual level rules out any possibility of co-adaptation between these two alleles, despite both being somewhat implicated in alcoholism.