

Distribution of Selected Single Nucleotide Polymorphisms in the Brahmin, Rajput and Bania Populations of Jammu District of Jammu and Kashmir, North India

Anu Raina, S. M. S. Chahal*, Dheeraj Jamwal, Manju Bala and Isha Angroiya

Department of Human Genetics, Punjabi University, Patiala 147 002, Punjab, India

KEYWORDS Caste Populations. DNA Markers. Genetic Structure. Genetic Affinities

ABSTRACT A total of 461 randomly selected unrelated subjects belonging to three selected caste populations of Jammu district of Jammu and Kashmir (J&K) viz., the Brahmin, Rajput, and Bania were typed using standard PCR-RFLP technique for a battery of five SNPs (Single Nucleotide Polymorphisms) namely NAT2, ADH2, PSCR, T2, and ALAD. The objective of the present study was to characterize these populations genetically and assess the degree of genetic differentiation and genetic affinities among them. The results revealed that the present caste populations were moderately differentiated ($G_{ST} = 0.0105$). The genetic distance analysis demonstrated that the Rajput and Bania were in close genetic affinities while the Brahmin population was somewhat distant. In conclusion, the present investigation documented the underlying genomic uniformity in the people of the Jammu district.