

## **Genetic Studies in Five Populations Samples of Himachal Pradesh and Punjab, North-West India**

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**KEYWORDS** Serum Protein Polymorphisms. Genetic Differentiation. Caste Populations. Himachal Pradesh. Punjab

**ABSTRACT** Five caste populations (Brahmins, Rajputs, Khatri, Mahajans, Kambohs) from Chamba (Himachal Pradesh) and Sanaur village near Patiala (Punjab) were typed for HP polymorphism and TF, GC and PI subtype polymorphisms. Including already published data on the distribution of red cell enzyme polymorphisms the genetic heterogeneity among these five caste populations was analyzed, which proved to be considerable concerning the polymorphic systems GC, PI, ACP 1 and GPI. Genetic distance analysis showed the existence of a clear distance pattern: Brahmins and Rajputs as well Khatri and Mahajans are found in different subclusters forming one coherent cluster, whereas Kambohs are deviating obviously from this cluster. These analyses reflect the regional and social differentiation of the five caste groups and substantiates the importance of endogamy for emergence and maintenance of genetic diversity in man.