

## Summary

This study concerns the characterization of chromosomes with hybrid genes for Hb Lepore-Washington (44 chromosomes), for Hb Lepore-Baltimore (5 chromosomes), for Hb P-Nilotic (8 chromosomes), and for Hb Kenya (7 chromosomes) by determining a relatively large number of restriction enzyme polymorphism. Two, and possibly three, different Hb Lepore-Washington chromosomes were identified by specific haplotypes, while the haplotype of the Hb Lepore-Baltimore chromosome had its own characteristic pattern. A likely conclusion is that the crossovers leading to the formation of these chromosomes have occurred as independent events within the populations. Chromosomes with the  $\delta\beta$ -Lepore-Washington hybrid gene maintained specific characteristics (such as increased Hb F levels in heterozygotes, and high or low  $^G\gamma$  values in this Hb F) which have been observed in normal individuals with chromosomes having comparable haplotypes. Only one haplotype was observed for each of the chromosomes carrying either the  $\beta\delta$ -P-Nilotic hybrid gene or the  $^A\gamma\beta$  hybrid gene of Hb Kenya.