

ference in the level of internal genetic diversity of each population, the Moroccan from Souss being much more homozygous for HLA class II than the Algerian from Oran. This suggests that the Souss population has been more isolated than the Oranese (which may also explain its significant HW deviation), in agreement with their remote location south of the Atlas. Due to very heterogeneous geographic locations in

coastal, semi-desert, desert or mountainous areas, and different historical backgrounds and degrees of gene flow, successive immigrant populations, North African populations are apparently very diverse genetically, even among different Berber populations (9). As HLA data on North African populations are still scarce, this region would be worth investigating in future population genetic studies.

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Population: Chaouya from Morocco

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The people of Morocco speak either Arabic or the Berber language and are, in some places, bilingual. Arabic speakers outnumber Berber speakers, and live mainly in Northern Morocco and in the South on the Atlantic Coast (1). Chaouya (CH) is the name given to Berber and Arabic-speaking ethnic groups present in different regions of North Africa, including Algeria. The Chaouya population sample reported here is an Arabic-speaking population from West Morocco (the Atlantic coast), living in the Settata area. This population derives from the Zenata (8th century, Berber speakers) and Houwara (13th century, Berbers that were bilingual) populations that came

from Africa (especially Lybia) and spread throughout North Africa. Despite their common Berber origins, some Chaouya populations of the North Africa have remained Berber speaking, others became bilingual, and others became totally Arabic-speaking, as the Moroccan Chaouya.

In order to provide genetic and anthropological information with which to clarify the historical origins of this population, we collected blood samples from 99 healthy urban Chaouya volunteers in collaboration with the Institut National D'Hygiene of Rabat. Both parents and the grandfathers of the subjects belonged to the same ethnic group.

We present here a high-resolution study of Chaouya polymorphisms at the HLA-A, B and DRB1 loci. HLA class I (HLA-A and HLA-B, exons 2,3,4) and class II (HLA-DRB1) allele polymorphisms were determined by sequence typing (SBT) using Big Dye terminator chemistry and recently labeled primers (Applied Biosystems), respectively.

Until now, studies of HLA in Arabic-speaking Moroccans have been limited to one ethnic group from El Jadida (2), Arabic speakers of Berber origins, and recently to a group from Casablanca (3). Our group has previously