

Gene geography of Chile. Regional distribution of American, European and African genetic contributions Geografía génica de Chile. Distribución regional de los aportes genéticos Americanos, Europeos y Africanos

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Background: The geographical distribution of genes plays a key role in genetic epidemiology. The Chilean population has three major stem groups (Native American, European and African). **Aim:** To estimate the regional rate of American, European and African admixture of the Chilean population. **Subjects and Methods:** Forty single nucleotide polymorphisms (SNP's) which exhibit substantially different frequencies between Amerindian populations (ancestryinformative markers or AIM's), were genotyped in a sample of 923 Chilean participants to estimate individual genetic ancestry. **Results:** The American, European and African individual average admixture estimates for the 15 Chilean Regions were relatively homogeneous and not statistically different. However, higher American components were found in northern and southern Chile and higher European components were found in central Chile. A negative correlation between African admixture and latitude was observed. On the average, American and European g