

Mexican genomes show wide diversity

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(AP) -- The detailed new look yet at the genetics of Mexicans is showing significant diversity, a finding that could help point the way to customized drugs and identification of people prone to certain diseases.

Researchers led by Dr. Gerardo Jimenez-Sanchez studied the genes of 300 mestizos - people of mixed Indian and European background - from six states in Mexico, and one Indian population.

They found significant differences between the mestizos and such groups as Europeans, Africans and Asians, the researchers report in Tuesday's edition of Proceedings of the National Academy of Science.

A more detailed gene mapping could help doctors determine an individual's risk of developing certain diseases as well as help them find treatments that will work better for one person or another.

"It is not possible today to say [genetic variation](#) is responsible for the unique H1N1 influenza mortality rate in Mexico. However, knowledge of genomic variability in the Mexican population can allow the identification of genetic variations that confer susceptibility to common diseases, including infections such as the flu," Jimenez-Sanchez, of Mexico's National Institute of Genomic Medicine, said in a statement.

Using mathematical analysis, the researchers produced a map of the genetics of the different groups. They found that the mestizo genome includes variations that stretch from Indian to European.

The mestizos studied were from Sonora, Zacatecas, Guanajuato, Guerrero, Veracruz and Yucatan. In addition the research included 30 Zapotecos from Oaxaca.

They found genomes closer to Europeans in northern states and closer to American Indians in southern areas. Indications of African ancestry were low in most areas, though a few individuals had high levels of African genes. Mestizos from Yucatan were the only ones with a detectable Maya influence.

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