# Ancestry attracts, but love is blind

November 20 2009

People preferentially marry those with similar ancestry, but their decisions are not necessarily based on hair, eye or skin colour. Research, published in BioMed Central's open access journal *Genome Biology*, shows that Mexicans mate according to proportions of Native American to European ancestry, while Puerto Ricans are more likely to settle down with someone carrying a similar mix of African and European genes.

Neil Risch, from the University of California, San Francisco, worked with a team of researchers to study the effects of ancestry on partner choice in Mexicans and Puerto Ricans living in their own countries or in the USA. The subjects came from The Genetics of Asthma in Latino Americans (GALA) study, conducted by Risch's UCSF colleague, Esteban Gonzalez Burchard. Risch said, "Latin America provides a unique opportunity to study population structure and non-random mating , due to the historical confluence of European, Native American and African racial groups over the past five centuries. We found that assortative mating, that is partner choice based on a shared ancestry, is very common in these populations".

Quite how our DNA influences our desires remains mysterious. Risch and his colleagues did not find that geography or socio-economic status could explain the ancestral influence on romance, and factors like hair, eye and skin colour individually only had a minor role. According to Burchard, "Certainly physical characteristics, such as skin pigment, hair texture, eye color, and other physical features are correlated with ancestry and are likely to be factors in mate selection. However, the spouse correlation for these traits and the correlation of these traits with

ancestry were actually below what would be required to fully explain the phenomenon".

The researchers not only found similar ancestry patterns between the pairs of spouses, they also found the imprint of many generations of such assortative mating in the genomic architecture within each individual, in that there were non-random associations of genes whose frequency differed between the original ancestral populations.

More information: Ancestry-related assortative mating in latino populations, Neil Risch, Shweta Choudhry, Marc Via, Analabha Basu, Ronnie Sebro, Celeste Eng, Kenneth Beckman, Shannon Thyne, Rocio Chapela, Jose R Rodriguez-Santana, William Rodriguez-Cintron, Pedro C Avila, Elad Ziv and Esteban Gonzalez Burchard, Genome Biology (in press), genomebiology.com/

Source: BioMed Central (news : web)