



Setting the Record Straight on DNA

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LETTERS TO THE EDITOR:

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Your Nov. 13 article "Differences in DNA stir fears of racism / Social critics see threat to principles of equality" raises the question as to whether genetic variation is relevant to racial stereotypes. As professional geneticists, we find it important to address the social meaning of human genetic variation discovered through recent research.

We want to emphasize that absolutely no studies have identified specific genetic variants that could define human races, levels of intelligence or other social traits. An official statement from the American Society of Human Genetics says that there is no scientific evidence for differences in intellectual ability among racial groups. To explain this concept, we note that the genome of every human consists of approximately 3 billion genetic units, or nucleotides. At least 10 million nucleotides show differences among humans. Nearly every variant is shared across all human races and ethnic groups, and the racial differences the article mentioned refer to differences in the frequency of the variants, not to their presence or absence in any one group.

In fact, when the human genome was published, it was pointed out that two random individuals from any one group are almost as different (genetically) as any two random individuals from the entire world. This means that there is a very good chance that you are more genetically different from your next-door neighbor than you are from someone from another continent or race.

In fact, the genetic differences that determine complexion or other physical traits are trivial compared to the number of genetic differences between any two of us. This wonderful genetic diversity makes all of us unique human beings. Our personalities and aptitudes are mostly shaped by environmental and cultural influences. Any human population or ethnic group consists of individuals with different genetic backgrounds. Past, and in some cases, recent history has seen many sad examples of wars and discrimination based on perceived racial or ethnic differences.

It is, therefore, very important to understand that we are all genetically unique, and there is no scientific or genetic basis for racial discrimination. Instead, we all should celebrate our uniqueness and our rich cultural diversity and focus our efforts on achievable goals, such as fostering a society that develops the best of everyone's potential.

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