



THE UNIVERSITY *of* EDINBURGH

## *News Release*

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**UNDER STRICT EMBARGO UNTIL: 18.00 BST WEDNESDAY 01 JULY 2015**

### **Humans evolved to be taller and faster-thinking, study suggests**

People have evolved to be smarter and taller than their predecessors, a study of populations around the world suggests.

Those who are born to parents from diverse genetic backgrounds tend to be taller and have sharper thinking skills than others, the major international study has found.

Researchers analysed health and genetic information from more than 100 studies carried out around the world. These included details on more than 350,000 people from urban and rural communities.

The team found that greater genetic diversity is linked to increased height. It is also associated with better cognitive skills, as well as higher levels of education.

However, genetic diversity had no effect on factors such as high blood pressure or cholesterol levels, which affect a person's chances of developing heart disease, diabetes and other complex conditions.

Researchers from the University of Edinburgh examined individuals' entire genetic make-up. They pinpointed instances in which people had inherited identical copies of genes from both their mother and their father – an indicator that their ancestors were related.

Where few instances of this occur in a person's genes, it indicates greater genetic diversity in their heritage and the two sides of their family are unlikely to be distantly related.

It had been thought that close family ties would raise a person's risk of complex diseases but the researchers found this not to be the case. The only traits they found to be affected by genetic diversity are height and the ability to think quickly.

The findings suggest that over time, evolution is favouring people with increased stature and sharper thinking skills but does not impact on their propensity for developing a serious illness.

The study is published in the journal *Nature* and was funded by the Medical Research Council.

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Dr Jim Wilson, of the University of Edinburgh's Usher Institute, said: "This study highlights the power of large-scale genetic analyses to uncover fundamental information about our evolutionary history."

Dr Peter Joshi, of the University of Edinburgh's Usher Institute, said: "Our research answers questions first posed by Darwin as to the benefits of genetic diversity. Our next step will be to hone in on the specific parts of the genome that most benefit from diversity."

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