

## Thousands of genes contribute to height

It's no secret that if your dad is tall and your mother is tall, you are probably going to be tall. But fully understanding the genetics of height has been a big order for scientists.

Researchers on Sunday unveiled what they called the biggest such study to date, analyzing genome data from more than a quarter million people to identify nearly 700 genetic variants and more than 400 genome regions relating to height.

How tall or short a person becomes is estimated to be 80 percent genetic, with nutrition and other environmental factors accounting for the rest. The world's people on average have become taller over the past few generations because of factors including improved nutrition.

Many genes pinpointed in the study, published in the journal *Nature Genetics*, are probably important regulators of skeletal growth, but were not previously known to be involved, the researchers said.

Some were related to collagen, a component of bone; a component of cartilage called chondroitin sulfate; and growth plates, the area of growing tissue near the ends of the body's long bones.

The researchers said there is much more to learn.

"We've found the genetic variants – the pieces of DNA that vary from person to person – that account for 20 percent of the genetic component to normal variation in height," said geneticist Timothy Frayling of Britain's University of Exeter.

"This compares to a situation in 2007 when we knew absolutely nothing about the genes and regions of the human genome involved in normal height differences despite everyone knowing height is very strongly genetic."

**Read full, original article:** Tall tale: scientists unravel the genetics of human height