22 genes linked to increased intelligence

Genome-wide association studies—GWAS, for short, [...] search for differences in people's genetic makeup—their "genotypes"—that correlate with differences in their observable traits—their "phenotypes." In a GWAS recently published in Nature Genetics, a team of scientists from around the world analyzed the DNA sequences of 78,308 people for correlations with general intelligence, as measured by IQ tests.

The major goal of the study was to identify single nucleotide polymorphisms—or SNPs—that correlate significantly with intelligence test scores.

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Of the over 12 million SNPs analyzed, 336 correlated significantly with intelligence, implicating 22 different genes. One of the genes is involved in regulating the growth of neurons; another is associated with intellectual disability and cerebral malformation. Together, the SNPs accounted for about 5% of the differences across people in intelligence.

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Of course, intelligence is not solely the product of DNA—and no scientist studying intelligence thinks otherwise. The environment has a major impact on the development of intelligence, or any other psychological trait. All the same, knowledge gained from molecular genetic research may one day be used to identify children at risk for developing serious intellectual deficits, and for whom certain types of interventions early in life may reduce that risk.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Intelligence and the DNA Revolution