

# Genetics of intelligence

## Robert Plomin and his research

Towards the end of 1997, **Robert Plomin** announced that he had found a gene for intelligence . Plomin's team researched a group of Iowa children (a group of particularly gifted children, selected from across America on the basis that their school performance is close to genius, meet every summer in the state of Iowa (their IQ is around 160) and found one on the long arm of the sixth chromosome . a sequence that often differed from other people's sequences, the sequence lies in the middle of a gene called **IGF2R** , one form of the gene is about twice as common in superintelligent Iowa children as in the rest of the population- the result is highly unlikely to be accidental. The protein encoded by the IGF2R gene provides intracellular transport of phosphorylate lysosomal enzymes from the Golgi apparatus and from the cell surface to lysosomes.

## Relationship between IQ and genes

IGF2R is a gene remotely related to the proteins that burn sugars, so another study is relevant - people with a high IQ are more efficient at using glucose in the brain . When people with a high IQ learn to play Tetris , they show a greater decrease in glucose consumption when they exercise in the game than people with a low IQ.

## Body symmetry and IQ

People with a higher IQ have a more symmetrical body. This means that they were exposed to less developmental stress during pregnancy or childhood, or rather, they were more resistant to this stress. The inheritance of IQ does not have to be caused by direct genes for intelligence, but by indirect genes for resistance to toxins and infections (genes that work in interaction with the environment).

## Flynn effect

Political scientist James Flynn noticed in the 1980s that IQ was steadily rising at an average rate of three points per decade in all countries. This may be due to improved children's nutrition. When 2 Guatemalan villages received protein supplements for several years, which they could take as much as they wanted, the IQ of children, measured ten years later, increased significantly. However, IQ values are still growing just as fast in well-nourished Western countries. The reason may be the current oversaturation of ingenious visual patterns - movies, posters, photographs.

## Links

- ws:Genetika inteligence

## Reference

- RIDLEY, Matt. *Genom : životopis lidského druhu v třidvaceti kapitolách*. 1. edition. Praha : Portál, 2001. pp. 71-82. ISBN 80-7178-507-5.