

Blue-eyed people have a single ancestor

by UPI

COPENHAGEN, Denmark - Researchers in Denmark tracked a genetic mutation showing that people with blue eyes have a single, common ancestor. Hans Eiberg of the University of Copenhagen and his team examined mitochondrial DNA and compared the eye color of blue-eyed individuals in countries as diverse as Jordan, Denmark and Turkey. "Originally, we all had brown eyes," Eiberg said in a statement. "But a genetic mutation affecting the OCA2 gene in our chromosomes resulted in the creation of a 'switch,' which literally 'turned off' the ability to produce brown eyes." The switch, which is located in the gene adjacent to OCA2 does not, however, turn off the gene entirely, but rather limits its action to reducing the production of melanin in the iris -- effectively "diluting" brown eyes to blue. Variation in eye color from brown to green can be explained by the amount of melanin in the iris, but blue-eyed individuals only have a small degree of variation in the amount of melanin in their eyes, Eiberg explained. "From this we can conclude that all blue-eyed individuals are linked to the same ancestor," Eiberg said. "They have all inherited the same switch at exactly the same spot in their DNA."

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