



Can't figure out genetics? Here's a handy guide

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Advertising expert joins project to explain science in plain English

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The ability to study our genes, the basic units of heredity, is transforming medicine. However, researchers have discovered a major stumbling block: only a tiny percentage of the British public understands even the simplest of terms used in genetics. Many assume the term genomics has something to do with gnomes, recent research has revealed.

The problem - which threatens to blunt the impact of genetics-based medicine - has triggered a project, to be launched this week, which aims to combine the talents of scientists, social researchers and advertising experts to make the laws of genetics easily comprehensible. "Genetic information is not only important to individuals but also to their relatives," said genetic counsellor Anna Middleton, a founder of the Socialising the Genome project. "But people lack the terms to talk about [it]."

Middleton's project involved discussions with groups across the country: members of a choir, a council estate residents' group, a Women's Guild branch, a curry club and parents from a London school. She asked what the words DNA, gene and genomics meant to them.

The answers she received were startling. "A gene was recognised as something that ran in families, while DNA was mainly concerned with crime scenes, I was told. As for genomics, it was suggested several times that genomics probably had something to do with gnomes," said Middleton.

It was an intriguing observation. But what really surprised Middleton were the numbers in each group whose lives were touched by genetic conditions, yet knew so little of the terminology.

"One person had a genetic eye condition, another had a genetic skin condition, one woman had a sister who was a carrier of the BRCA-1 gene that predisposes to breast cancer and another woman had three sisters who had all contracted ovarian cancer.

"All were leading lives that were touched by genetic conditions, but they lacked the language or the knowledge to talk about them. It made me realise that we in the genetics world don't tend to meet people who are totally unconnected with [us] very often. We are lacking a common language."

In a bid to develop a common language, Middleton approached advertising executive Julian Borra, whose campaigns have included the Churchill Insurance nodding dog. He, too, was concerned about the lack of communications in the field. "A chasm exists between the world of academia and the sciences, and that of the everyday person in the street," said Borra, who now works at the Thin Air Factory.

The collaboration has produced six animations that can be watched at the website of the Socialising the Genome project, which is funded by the Wellcome Trust, the Wellcome Genome Campus, and by Genomics England, the Department of Health company set up to sequence the genomes of patients with cancer and other conditions in England.

The website will be launched this week and Middleton and her team want the public to rate the little videos they have prepared.

One illustrates how genes are shuffled, like cards, when male and females mate; another demonstrates how we can search for glitches that predispose us to disease in our DNA; one even has a little gnome with a rod who fishes for pieces of DNA among all the genes that make up a person's genome - it was too good to resist, said Borra - while another reassures viewers that having your DNA dumped at a crime scene is the stuff of TV drama and nothing else.

Viewers will be asked which video is most helpful in understanding genetic issues. "We want individuals to rate the videos and let us know which they found mostly useful in understanding genetics and which helped them best to talk to about the subject," said Middleton.

"Genetics is going to be more and more important in dealing with disease in this country and we have got to help people understand what might be said to them when they talk to their doctors or their families."

Socialising the Genome at genetube.org

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