Clare Cooper looks at humankind's obsession with genealogy and heritage

Searching for roots

The desire to know our roots is very strong, almost instinctive. Around the world people are seeking knowledge of their origins – ancient ancestors, forefathers of recent centuries or immediate family. We all belong to one, huge human family, yet we seem to need a sense of belonging to a certain group or place. We seek a sense of who we are and where we belong. But deep down, what are we really searching for?

Searching for ancestors

The Genographic Project, launched in April 2005 by the National Geographic Society and IBM, is a five-year genetic anthropology study to map the ancient human migrations across the continents. It aims to collect DNA samples from hundreds of thousands of people including indigenous populations, using ten research centres around the world.[1] Project director and population geneticist Spencer Wells considers that humans descended from an African ancestor who lived about 60,000 years ago. The study of the subsequent migratory routes, he says, needs to be done before our geographic and cultural diversity is lost. He bases his evidence on Y chromosome studies, which propose more recent dates than mitochondrial DNA data for early man. The Genographic Project also hopes to determine the world's oldest populations and the origins of differences between human groups. Using random mutations as genetic markers, the origin of a new lineage may be found and possibly traced to a geographical location. Assumptions are made about the rate at which mutations accumulate, in order to create a time scale. The team of researchers may well find more questions than answers as the project develops.

Most researchers estimate a common African ancestor 150,000 years ago, as first put forward by Cann and Wilson using mitochondrial DNA data.[2] Watson and Berry agree with Wells that early man travelled via the coast of South Asia to Australia, colonising the continent 60,000 years ago.[3] The Americas were reached much later, perhaps 12,000 years ago, by a small group of individuals. Only two major classes of Y chromosome sequences have been detected in the Amerindians; mitochondrial DNA variations are more extensive though, indicating a small founding population with more women than men.

Studies in European populations have shown unexpected results. For example, the male chromosomes of the Basques are almost identical to those of the Welsh. It is postulated that they are both the direct descendants of the earliest Europeans of 50,000 years ago.[4] However, the autosomal chromosomes and mitochondrial DNA of Welsh people hardly differ from those of the English, indicating that English men have not been drawn into Welsh society as English women have.

Searching for family

Besides extensive population studies such as the Genographic Project, much research is being done on a smaller, local scale. A visit to the UK's Family Record Centre in London will reveal a crowd of people from far-off countries eagerly and carefully searching for documented evidence of their British ancestors. They seek a place and a people group from which they came, not always realising that, for example, with 64 great great great great grandparents, their roots go far and wide. Nevertheless, it can be very satisfying to research recent generations, even if it may raise more questions than answers.

When a desire for knowledge of ancestry is thwarted by modern clinical interventions and legislation, the resulting emotions can be overwhelming. Barry was 18 when his mother told him he was conceived by donor insemination. Initial shock gave way to curiosity: Barry started searching for information about his biological family. He discovered two half-siblings but knows there could be many more. 'I do think wanting to know where you come from is a right. And although, unlike many people in my position I'm not opposed to donor insemination, the doctors who advocated it as a problem-free solution to infertility were mistaken.'[5] Concerns about genetic bewilderment, and feelings of distress and loss have led to the April 2005 change in UK law. Now anyone who donates their eggs or sperm must give identifying information including their name and date of birth, to be made available to any child born from the donation if they request it after reaching the age of 18.[6] The new law though will not help Barry.

Searching for significance

So why do we have such deep longings to know our roots? Is it in fact because we want to know that we have significance, that we matter and are loved? Human beings gain a huge amount of security and love by belonging to a supportive family unit, but ultimately our sense of significance should stem from the discovery of humankind's ultimate origin - we are loved and created beings, made in our Creator's image.[7]

> *'You come from the Lord Adam and the Lady Eve', said Aslan. 'And that is both honour enough to erect the head of the poorest beggar…*
>
> *CS Lewis, Prince Caspian*

The Bible assures us that whoever seeks God will find him.[8] And he who finds God and eternal life through Jesus Christ becomes part of a huge extended family: 'a great multitude that no-one could count, from every nation, tribe, people and language, standing before the throne and in front of the Lamb'.[9]

***Clare Cooper** is CMF Medical Secretary*

references

1. *www.nationalgepgraphic.com/genographic/about.html*
2. Cann RL *et al. Nature* 1987; 325:31-36
3. Watson JD, Berry A. *DNA: the secret of life*. London: Arrow, 2003:252-253
4. Jones S. *Y: the descent of men*. London: Abacus, 2002:190-191
5. *The Times* 2004, 25 April. *www.timesonline.co.uk*
6. *www.hfea.gov.uk/forpatients*
7. Genesis 1:26-27
8. Matthew 6:33
9. John 10:10; Revelation 7:9