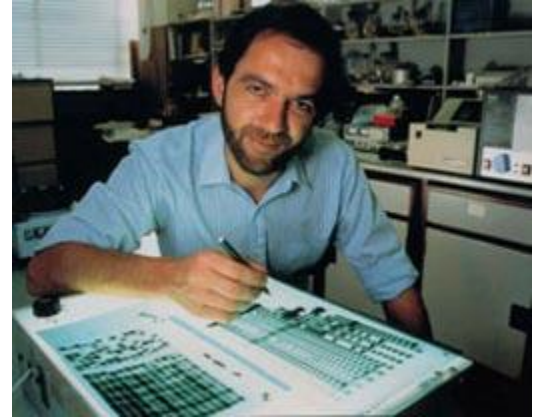


UK DNA database needs overhaul

Inventor of DNA fingerprinting welcomes a ruling that will keep the innocent out of genetic databases.

Asher Mullard

The European Court of Human Rights ruled recently that it is a violation of human rights to keep innocent people's DNA in a national DNA database. As a consequence, the UK government has been urged to remove up to 1 million individuals from their database. Nature News talked to Alec Jeffreys, who developed DNA fingerprinting, about his thoughts on the recent ruling.



Alec Jeffreys, the inventor of DNA fingerprinting. University of Leicester

What do you think of the recent ruling by the European Court of Human Rights?

I'm delighted. The original conception of the UK national DNA database was as an intelligent tool for solving unsolved case work and for identifying repeat offenders. Subsequent [legislation] enabled the police to start retaining DNA from people who had been arrested but had not been convicted of any offence. I've seen reports that up to 1 million innocent people now populate that database.

The point [the European Court of Human Rights] is making is that DNA carries information not just on yourself, but also on family relationships. So, it's an invasion of privacy and of family life. I totally agree. They also made the point that it stigmatizes branches of society. The innocent people are not a random cross-section of British society — they are strongly biased towards juveniles, towards ethnic minorities and so on.

What are your biggest concerns about the use of criminal DNA databases in the UK?

By far the most serious one was England, Wales and Northern Ireland being allowed to retain entirely innocent people's DNA. I've felt that was a dangerous route, a route that could lead to erosion of public confidence and sympathy with the database. The other area, which again has not been properly covered by any legislation, is the area of familial searching, whereby if you can't find your suspect in the database, you try and find a close relative — someone with a DNA profile that is pretty similar. That raises all sorts of really quite thorny issues, not only to inculcate yourself, but to inculcate a relative as well.

Our legal system works on the presumption of innocence, and retaining innocent people's DNA seems to imply a presumption of future guilt. We are actually undermining the most fundamental philosophy of how we bring about justice in this country.

The criminal database should be for criminals, and innocent people should be removed [from the database] — it's as simple as that.

Should we still collect DNA from convicted criminals?

Yes. Criminals re-offend, that is well established. And not to have that information on the database, not to have the ability to re-apprehend [criminals] should they re-offend, that would be totally irresponsible.

The database has been fantastically successful. If [the police] have a crime scene DNA sample, there is a better than 50% chance that [they] can identify the suspect simply by looking them up on the database. And, the database has already enjoyed very considerable public support. Even the most extreme libertarians have never really argued against databasing criminal DNA.

Did you foresee any of these problems when you developed DNA fingerprinting?

It has been nearly 25 years now [since we developed DNA fingerprinting], and my view at the time was that this would be a very specialized technology of essentially last resort. I never expected to be in the situation now, where the most common forensic test to be carried out is the DNA test. It's not the technology of last resort, it's the technology now of first resort.

Do you have any regrets about having developed this technology?

No, not in the slightest. There have been many many thousands of cases where DNA has given us very fast leads.

Equally important, there have been many cases of exoneration. [The Innocence Project](#) in the United States is a classic case in point. Through post-conviction testing, over 200 long-term prisoners have now been shown to be innocent and have been freed, including some on death row.

Of the various uses of DNA fingerprinting, that's the one that really hits the spot for me. I've actually met one of these death row people, and it was pretty emotional stuff.