

**The UK National DNA
Database: balancing crime
detection, human rights and
privacy**

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Overview

- What is special about DNA?
- The Police National DNA Database
- Balancing privacy, human rights and crime detection
- Conclusions

What is special about DNA?

- DNA and fingerprints (unlike iris scans) are left wherever you go.
- DNA can reveal who you are related to and (some) other information about some people (e.g. if you have a genetic disorder).
- Context: expansion and linking of databases (both police and health) and increasing use of new technologies.

The police National DNA Database

- 2.5 million individuals - expanding to some 5 million
- 3.7% of population (compared to 0.57% in EU, 0.48% in USA).
- Includes people convicted of a wide range of crimes (from serious violent crimes to minor public order offences)
- Includes many people who have never been convicted or charged with any offence

What is on it?

- Barcode number (linked to sample, stored by lab)
- Arrest summons number (linked to Police National Computer)
- Name, date of birth, appearance, ethnic appearance, gender
- police force, lab, type of sample, test type
- DNA profile (STR profiles)
- Unlike the PNC, records are permanent.

How is it used?

- Used to provide intelligence information only (database matches are not used in court).
- Not necessary where there is a known group of suspects for a crime: benefit is in identifying unknown suspects ('cold hits').
- Used for genetic research and 'familial searching' as well as matching profiles to crime scenes.
- DNA routinely collected on arrest for any recordable offence, although DNA is not usually relevant to crime being investigated.

Key questions

- What information should be kept, how should it be used, who should make decisions, what controls are needed?
- Who should be on it and for how long?

Should DNA samples be kept?

- The DNA profile (a string of numbers on the database) contains very little genetic information.
- The DNA samples (kept permanently linked to the profile) contains unlimited amounts of genetic information.
- Not needed to prevent miscarriages of justice: a fresh samples is always taken from the defendant for use in court.
- The Human Genetics Commission has concluded that the reasons for retaining individuals' samples are 'not compelling'.

Should the Database be used for research?

- Research without consent breaches usual ethical standards
- Includes controversial genetic research: linking profiles with ethnicity
- Poor science: e.g. ethnic categories/representativeness
- Currently no ethical oversight
- Partly driven by commercial interests (as is sample retention)

New technologies & techniques

- Familial searching can reveal cases of non-paternity: no published rules on when it should be used
- Attempts to predict characteristics from DNA at the scene of a crime: often based on poor evidence of predictive value
- Upgrading the database to include more genetic information (SNPs)?
- ‘On the spot’ DNA profiling?
- In general: lack of independent assessment or debate of scientific/ethical merits

Governance, oversight & debate

- Needs more independence: lay input recommended by Lords & Commons Sci & Tech Committees & Human Genetics Commission.
- Conflicting roles of the Forensic Science Service (Custodian, supplier, research user and decision-maker about uses)
- Lack of transparency/independent assessment (ethics & science)
- Most recent legislative change proposed & agreed during first week of Iraq war

Creating a permanent list of suspects

- Since April 2004, everyone arrested for a recordable offence (in England & Wales) is kept permanently on the database: first permanent list of everyone arrested.
- Offences include being drunk & disorderly; taking part in an illegal demonstration; begging.
- Arrest Summons Number may be included on the proposed National Identity Register.
- List could be used to restrict rights & freedoms (e.g. US visa applications)

Exacerbating discrimination?

- Ethnic bias in the ‘list of suspects’: New Scientist calculates that 1/3 of black adult males are on the database
- Collection of samples before charge allows entry to be arbitrary & unfair
- Likely to exacerbate discrimination in the criminal justice system

Errors & exonerating the innocent

- DNA evidence is not foolproof.
- Scene of crime samples in particular may be contaminated, degraded, and misinterpreted (especially if mixed). Human errors (e.g. sample mix-ups) will occur.
- Need for corroborating evidence.
- Expanding databases could lead to an over-reliance on ‘cold hits’.
- Increased potential for ‘framing’ of suspects?
- Need for a UK “Innocence Project”.

GeneWatch's views

- Safeguards: destroy individuals' samples once an investigation is complete; collect samples after charge not arrest (except for a specific investigation); end genetic research without consent; improve governance and assessment of new technologies.
- Implement recommendations for an evaluation of effectiveness and public debate about who should be on it and for how long. Rules on *retention* are needed to balance crime detection and privacy/rights.

Conclusions

- The UK National DNA database is expanding: it is no longer a ‘criminal’ database.
- This trend is being copied internationally.
- Better safeguards could be introduced without compromising its role in tackling crime.
- More public debate is needed about who should be on these databases and for how long.