

Are peoples DNA sequences their business and nobody elses?

The confidentiality of a persons DNA is a complex matter that, were it to be put in the hands of a governing body or organization, would have to be dealt with with the utmost discretion and care. In my opinion the choice of sharing this information would be highly subjective from one person to the next. Personally, if I knew my DNA information was going to be handled with thorough caution by a trustworthy authority, I would have no problem contributing to a database, national or otherwise. Certainly, the DNA sequences of a large group of people would be extremely useful to the establishment in charge of such information. In this essay I will explain my thoughts on the privacy of a persons DNA in relation to criminality, abuse of this information and criticisms and defenses for having a worldwide database of DNA sequences.

I believe that on committing a crime a person forfeits their right to keep their DNA sequence private. I consider the fact that the probability of a person re-offending in America is 67.5% as justification for recording a persons DNA details. In America, the UK and many other countries a persons DNA or fingerprints are recorded on committing an offense. This helps governments considerably in identification of criminals in cases of criminal recidivism. It could be argued that if more petty crimes require fingerprinting and DNA to be given that the government could become Orwellian in how it deals with its citizens. I do not think this is the case, I think that a national database of criminal DNA could only be beneficial to a government, and would not harm the freedom of a nations citizens. As is said on homeoffice.gov.uk of the National DNA Database, the database helps to quickly identify offenders, make earlier arrests, secure more convictions and provide critical investigative leads for police investigations, all of which I think are great advantages of having a DNA database, at the very least for criminals.

A danger involved in establishing a national or universal DNA database is the likelihood of abuse of this information by a third party, or even by the organization holding the information. The fidelity of a human being on any matter is never guaranteed, and I think one might be taking a large risk placing their trust in an authority for this purpose. The knowledge of the DNA sequences of a population is a powerful resource, and as has been seen throughout history, power can corrupt. The authority over the DNA database could be bribed or blackmailed into sharing this information with a third party. Insurers could use the database to check a persons psychological and health predispositions, and thus make their clients premiums higher based on this information. I think the knowledge of an opponents biological, psychological and health predispositions would be very useful to a politician during a campaign, or to an employer when deciding between two candidates for a job. This, of course, is abuse of the information, and a definite disadvantage to creating a DNA database.

I think a universal DNA database would have abounding benefits for the medical world. For example, the database could be used for predicting the possible prevalence of inherited diseases such as cystic fibrosis, muscular dystrophy or hemophilia in the population. The development of multifactorial and polygenic disorders such as diabetes, multiple sclerosis and asthma would also be easier to predict. The predictions would be used to prepare the medical world for dealing with these disorders. The database could also be used to identify biologically and geographically suitable donors of organs and blood required for transplants and transfusions. The suitable donor could then be contacted and asked if they would like to donate. From a non-medical perspective, the database could be viewed as a global census. I think it would be a brilliant tool for mapping trends in populations, for instance the ratio of girls to boys born in a given year or the ratio of brown eyes to blue or green, etc. Also, the database would be an invaluable resource for anyone interested in genealogy. One could locate their close relatives worldwide. Were a database established future generations would be able to access specific details of their ancestry.

Another advantage of founding a DNA database is the large-scale employment that would be provided in the maintenance of the database. That said, a problem arises when it comes to deciding who should be appointed authority over the database. Furthermore, the creation of the DNA database would be a drain on government funds which could be spent in other important areas such as health and education. On top of all of this is the fact that creating a universal DNA database would be an enormous, time-consuming task. I think it would be near impossible to get a DNA sample from every single human being on earth.

In my opinion under no circumstances can the DNA of a person be used for any purpose without the consent of the owner. It would be unethical. As the process of cloning continues to progress, scientists will want to experiment with the cloning of humans. A DNA database would be a very useful resource under these circumstances. The problem with this would be if a successful clone was made using DNA from the database without consent of the owner. How would the owner feel about there being an exact copy of their biological selves? This is why I think it would be immoral.

I remain undecided on whether a person's DNA sequence is their business and nobody else's. Certainly, a DNA database would be a great tool, but I think the disadvantages of such a thing outweigh the advantages slightly. If a person wants to contribute their DNA details voluntarily to a database they should be free to do so. However, I think that law-abiding people should retain their right to keep their DNA sequences private.

Sources of reference material:

www.ojp.usdoj.gov/bjs/ - Bureau of Justice Statistics web page, U.S. Department of Justice

http://en.wikipedia.org/wiki/Introduction_to_genetics

<http://www.homeoffice.gov.uk/science-research/using-science/dna-database/> - UK Home Office web page