

Ethical concerns in DNA analysis

Pia Simone Menezes

DNA that acts as an inherent part of every living being is present in every living cell except RBCs. DNA is largely responsible for the way we are present physically and mentally. DNA testing is quite tedious and a complicated process that is heavily dependent on probability as it involves storage, extraction and quantisation. A slight misstep can lead to faulty readings, most of which could go undetected. Moreover, the environment and the handler can also modify the genes or the enzyme actions thus affecting results. It has several limitations and space for error. Thus, despite its wide range of uses and development over the years, DNA fingerprinting has various ethical concerns. Several issues regarding handling genetic data revolve around ownership and consequent use and misuse. Ownership of genetic information refers to the ethical responsibility of the testers and their handling of the DNA sample entrusted to them. People fear that handing over their DNA sample would hinder their privacy since many researchers, entrepreneurs, marketers, etc. can use the information provided by their DNA (such as disease profile, their past, present and future family relationships, ancestry, and so on) for their work or to implement marketing strategies. Moreover, the implications of the test results can affect their lives and even pave way for discrimination based on genetic correlation. On the other hand, the inclusion of people of various ethnicities has helped develop our evolutionary map, paving the way for unifying people through their common ancestry. Advocacy groups have made suggestions in grouping and collecting data and resolving discrepancies in the labs. As a measure to safeguard a citizen's genetic information, the European Union has generally blocked moves to extend and retain DNA, going ahead to make a ruling that data must be destroyed if the person is not convicted. From the above, we can understand that the need for setting a limit to DNA analysis and determining the extent and right to seek such information is vital.

Keywords: DNA, Analysis, Genetic information, Ethical concerns, Data, Genes, DNA fingerprinting

Citation:

Pia Simone Menezes. Ethical concerns in DNA analysis. The Torch. 2021. 2(16). Available from:

<https://www.styvalley.com/pub/magazines/torch/read/ethical-concerns-in-dna-analysis>.