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ГЕНЕТИЧЕСКИЕ БАЗЫ ДАННЫХ КАК ИНСТРУМЕНТ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ РАССЛЕДОВАНИЯ

В статье рассматривается роль централизованных Аннотация: генетических баз данных в ходе расследования преступлений на примере успешного использования базы данных ДНК Великобритании. B ней этические рассматриваются правовые проблемы, u такие как конфиденциальность и безопасность данных, а также предлагаются законодательные меры для генетической регистрации групп высокого риска. В исследовании подчеркивается необходимость баланса между потребностями безопасности и правами личности.

Ключевые слова: генетическая база данных, расследование преступлений, анализ ДНК, национальная безопасность, защита данных, правовое регулирование.

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GENETIC DATABASES AS A TOOL TO IMPROVE THE EFFICIENCY OF INVESTIGATION

Abstract: The article examines the role of centralized genetic databases in improving crime investigation, citing the UK's successful DNA database as an example. It addresses legal and ethical challenges, such as privacy and data security, and proposes legislative measures for genetic registration of high-risk groups. The study emphasizes balancing security needs with individual rights.

Key words: genetic database, crime investigation, DNA analysis, national security, data protection, legal regulation.

The current geopolitical and social situation is characterized by increasing such threats as organized crime and terrorism. In this regard, there is a need to develop and implement innovative methods to counter these challenges. In the context of this problem, the idea of creating a centralized national database of genetic information, which could become a powerful tool in the fight against crime, is being actively discussed.

For example, the UK already has the national forensic Deoxyribonucleic Acid Database, which contains information on more than 7 million people (approximately 10% of the total population of the country). The use of this database has shown good results. On average, the crime detection rate increased by 60%, while the detection of less serious offenses increased by 3-4 times [1, p. 150].

In her article, A. A. Fayzullina gives the following definition of such a database: 'A DNA database is a set of computer files containing certain information. These materials are used to determine polymorphism (changes in the genetic code of DNA) by applying all kinds of variable marker signs that may belong to a certain person or polymorphism recorded in the material evidence found at the crime scene' [2, p. 250].

The development and successful use of a database of human genetic information in the process of solving and investigating crimes serve two important purposes. Firstly, they significantly improve the work of the preliminary investigation bodies making it faster, more orderly and more efficient. Secondly, such databases help to reduce the number of errors that may occur during the trial.

A. V. Kulaevsky states that DNA technology can help solve crimes. However, there are some problems such as legal issues, ethical aspects, the risk of data leakage, the possibility of falsification as well as the lack of a unified system for exchanging information between different departments. In order to solve these problems, it is necessary to eliminate legal gaps, protect data, establish inter-agency coordination, and take into account ethical issues. A. V. Kulaevsky believes that expanding genomic registration could improve policing. However, he advises using the experience of other countries carefully to avoid negative consequences [3, pp. 111-118].

F. G. Aminev, A. V. Chemeris, and S. V. Khomutov support this point of view recommending the introduction of comprehensive genomic registration to combat crime. In their opinion, the creation of a single database of DNA will reduce the level of offenses, increase the efficiency of investigations and speed up the process of identifying criminals.

To protect data, the authors propose to use information encoding in a secure way emphasizing the importance of technical and legal protection of personal data of citizens. They also propose to adopt a federal law 'On comprehensive genomic registration' and create a Federal Center for Genetic Information [4, pp. 505-511].

According to research by scientists, the creation of a single database containing the genetic information of most citizens of the country can contribute to more effective crime detection. However, as mentioned earlier, this can also lead to certain negative consequences.

In the Russian Federation, in accordance with Federal Law No. 643-FZ of 29 December 2022 'On Amendments to the Federal Law 'On State Regulation in the Field of Genetic Engineering', the National Database of Genetic Information, i.e. a state information system in the field of genetic information, is planned to be created. This system will function to ensure national security, protect the life and health of citizens, sovereignty in the storage and use of genetic data, as well as the exchange of information contained therein between the federal state bodies, state bodies of the constituent entities of the Russian Federation, local authorities and other owners of genetic data when they interact in the area of genetic engineering.

However, this law does not specify exactly how the data obtained will be used for national security and protecting life and health of people. Perhaps the law implies the use of this database in the field of crime investigation, but there is no direct indication of this. Moreover, this Federal Law proposes to use genetic data only of those citizens whose data have already been available in the database.

To solve this problem, we propose the following amendments to Federal Law No. 86-FZ of 05 July 1996 'On State Regulation in the Field of Genetic Engineering'.

Firstly, certain categories of citizens are proposed to be obliged to submit their genetic data. These categories include suspects, accused and convicted of serious and particularly serious crimes as well as persons entering law enforcement agencies, the armed forces and other structures related to national security. Additionally, the possibility of voluntary providing genetic material by citizens when applying for a passport or other identity documents with their written consent may be considered.

Secondly, the law should establish that the National Database of Genetic Information will become a single center of such information for various government departments including the Ministry of the Interior, the Federal Security Service, and the Investigative Committee. For the effective functioning of this database, uniform technical standards for data exchange should be developed to ensure a high level of security and prevent information isolation between bodies.

Thirdly, the law should contain a provision stating that one of the goals of creating the National Database of Genetic Information is to identify persons involved in terrorism and organized crime as well as those posing a threat to national security. The creation of a genetic profiling system for potentially dangerous groups of people will not only help with investigating crimes but also make this database an effective crime prevention tool.

The experience of the UK shows that modern methods of DNA analysis open up new opportunities for improving the effectiveness of law enforcement agencies. The creation of a national genetic database will improve crime detection, prevent offending and speed up the identification of individuals associated with terrorism and organized crime. However, when implementing such initiatives, it is important to strike a balance between national security and protecting human rights.

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