


## DNA DATABASES AND POSSIBLE VIOLATIONS OF HUMAN RIGHTS: THE STATE OF AFFAIRS IN SERBIA REGARDING EUROPEAN STANDARDS

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### Abstract

DNA profiling and the storage of DNA samples and profiles in DNA databases can be widely used for forensic purposes. However, even though DNA profiling enables faster and simpler crime solving or the elimination of suspicion, its application is also associated with significant risks of limiting human rights through the violation of confidentiality of personal data. Hence, a balance should be made between the use of DNA profiling to achieve social interest, on the one side, and the protection of individual rights, on the other. The article is devoted to the analysis of the compliance of the Serbian positive legal framework with European and international standards in the context of DNA profiling for forensic purposes. The goal of the paper is to give certain recommendations of general importance, and especially recommendations regarding possible amendments to Serbian law. Also, standards deriving from the practice of The European Court of Human Rights have been singled out, which boil down to the fact that DNA profiling and data storage should be defined by a precise and sufficiently detailed legal framework that must be based on legitimate goals and must be consistent with the preservation of democratic values in modern society.

**Key words:** DNA database, crime, right to privacy, Serbia, European Court of Human Rights.

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## ДНК РЕГИСТРИ И ЗАШТИТА ЉУДСКИХ ПРАВА: ПРИЛИКЕ У СРБИЈИ И УСКЛАЂЕНОСТ СА ЕВРОПСКИМ СТАНДАРДИМА

### Апстракт

Издавање и чување ДНК профила може бити веома значајно у контексту вођења кривичног поступка и сузбијања криминалитета. Међутим, и поред тога што ова технологија омогућава брже и једноставније доказивање, односно елиминисање сумње, њена примена је повезана и са значајним ризицима од угрожавања људских права путем повреде тајности личних података. Отуда треба пронаћи баланс између употребе ДНК профилисања у општем интересу и заштите личних права. Чланак је посвећен анализи усклађености српског позитивноправног оквира са европским и интернационалним стандардима у контексту законите употребе ДНК у форензичке сврхе. Циљ рада јесте да се дају одређене препоруке у погледу измена и допуна српског законодавства. Такође, издвојени су стандарди конципирани у пракси Европског суда за људска права, који се у најкраћем свде на то да ДНК профилисање и чување података у бази треба да буду дефинисани прецизним законским оквиром, засновани на легитимном циљу и усаглашени са очувањем демократских вредности у савременом друштву.

**Кључне речи:** ДНК регистар, кривично дело, право на приватност, Србија, Европски суд за људска права.

### INTRODUCTION

DNA analysis has a wide range of applications in genetic research, historical studies and medical science, as well as in the prevention and detection of crime. In addition to the fact that DNA profiling enables the detection of crime suspects, it also facilitates the prompt and safe elimination of suspicion, thus reducing the risk of unjustified convictions of innocent persons (Parven, 2013, p. 42). Therefore, it is not surprising that during the last decades the question of establishing national and international DNA databases has been raised in order to achieve great goals.

The first case that was solved using DNA profiling was recorded in 1986 in the United Kingdom of Great Britain and Northern Ireland (hereinafter: UK; Panneerchelvam & Norazmi, 2003, p. 22). The first national DNA database was created in 1995, also in the UK, under the acronym NDNAD (Martin, Schmitter & Schneider, 2001). The United States soon followed the example of the UK, so that, by the end of the 20th century, there were DNA databases for sex and violent offenders. Thereafter, the list of crimes for which DNA profiling is mandatory has been constantly expanding (Kaye, 2001, p. 180; Rothstein & Carnahan, 2001, p. 129). However, just as the application of DNA profiling can bring numerous benefits, problems arise in connection with the violation of various human rights, primarily in the domain of protecting privacy and family life. Also, one should be aware that the public's enthusiasm for forensic DNA

testing is highly influenced by the messages from the media emphasising the “infallible capacity” of DNA testing to catch criminals (Machado & Silva, 2019).

The issue toward which this research is directed is the existence of a collision between two conflicting interests connected to collecting and keeping DNA profiles. On the one hand, there is a need for the comprehensive and extensive use of DNA profiling. On the other hand, there is the danger of violating human rights. The focus of the study is the need to reconcile the two main considerations of the mentioned issue. In this context, the author was interested in the compatibility of the Serbian positive legal framework related to the forensic use of DNA techniques with European standards. The author dealt with the case law of the European Court of Human Rights by applying an analytical-synthetic approach through the systematic analysis of individual court cases, so that the results thus obtained were then synthesised into general conclusions and recommendations.

#### *DNA PROFILING – THE PROS AND CONS*

In the available literature, one often finds attitudes that focus on the positive aspects of DNA profiling, emphasising that those who obey the law have no reason to be concerned about their DNA profiles being stored in an official database. Moreover, a considerable number of scientists advocate for the creation of universal DNA databases that would store the DNA profile of every citizen immediately after birth. By doing so, the fear of discrimination against any group of people would be eliminated and forced confessions would become practically impossible, considering that no one could be misled if the police had his or her DNA profile (Tuazon, 2021, p. 16). It is interesting that the stated opinions had a significant impact on the development of the existing DNA databases, in view of the fact that at first only the DNA profiles of murderers, rapists and perpetrators of the most serious crimes were stored in these databases, and that the DNA profiles of persons convicted of crimes that cannot be characterised as heinous were also included in these registers only later on (Parven, 2013, p. 45).

However, the voices of those who realise that there are also arguments that do not speak in favour of establishing immense DNA databases can be heard. The basic contra argument concerns the fact that, at the current moment, the future possibilities of using and abusing DNA profiles, and especially DNA samples, cannot be foreseen. As the laws of many countries create significant opportunities for obtaining DNA samples, citizens are not sufficiently aware of the fact that their most personal data no longer has to belong only to them (Buha, 2018; Joh, 2011, p. 670). Moreover, the retention of DNA profiles and samples does not have

to concern only the protection of the privacy of the person whose DNA profile is in question, but the protection of the privacy of their relatives too. Certain theorists have also suggested that genetic-based crime control strategies might include, in the future, mandatory genetic screening in order to identify individuals predisposed to certain behaviours (Maschke, 2008, p. 49).

Another type of problem concerns the complexity of DNA profiling because it can only be performed by trained experts, so it is questionable whether judges, and especially jurors, are capable of critically evaluating evidence derived from forensic-genetic analysis, or if they simply have to trust the testimony of experts (Andrejević, 2012, p. 300). This problem becomes especially relevant in situations where forensic experts themselves cannot agree on whether the DNA evidence speaks of guilt or innocence (Lynch et al., 2008, p. 21). It should also be borne in mind that DNA was originally aimed at identifying and excluding suspects by comparing their DNA to biological traces found at the crime scene, and that, on the contrary, in recent years it has become increasingly important as a tool used to generate suspects by searching for a link between the biological material collected from a crime scene to a DNA profile stored in a DNA database (Machado & Silva, 2019; M'Charek, Hagendijk & Vries, 2013, p. 543). In addition, different types of exploitation of DNA open up the problem of potential political abuses and the constant expansion of possibilities for covert surveillance (Nelkin & Andrews, 1999, p. 690). Even police experts point out that there is a significant risk that the public will stop supporting DNA profiling, as the possibilities for keeping DNA profiles increase (Wallace, 2006).

It is stated in the available literature that DNA profiling can be problematic from the point of getting to know the origin and ancestors of a given person, which also implies the possibility of discovering predispositions for the development of hereditary diseases (Parven, 2013, p. 46). Especially controversial is forensic DNA phenotyping, which refers to the prediction of a person's externally visible characteristics regarding appearance, biogeographic ancestry and age by DNA analysis. Apart from the mentioned problems, there is also a risk of a certain violation of bodily integrity through forced DNA sampling. The issue of large financial costs that would be produced in order to create and maintain universal DNA databases is also significant (Rothstein & Talbot, 2006, p. 154).

The problems of future abuses cannot be solved by giving informed consent for future DNA sample processing due to the fact that citizens would have to have extensive knowledge to be able to understand the risks that the future holds. Finally, the available literature points out that the possibilities of using DNA samples and profiles largely depend on the level of technological progress in a given country, so that it is al-

most impossible to design universal solutions (Mitrović, 2016, p. 1458; Sarkar & Adshead, 2010, p. 249).

It should also be emphasised that researchers have noticed an important difference between the use of a DNA profile and DNA sample in solving a particular crime at a given moment, on the one hand, and the permanent storage of a DNA sample and DNA profile, on the other (Parven, 2013, p. 62). The key problems arose precisely because DNA technology was introduced into forensic science for the purpose of solving specific crimes, and then various other possibilities for the use of DNA began to be discovered.

#### *THE SERBIAN LEGAL FRAMEWORK AND DNA PROFILING IN THE CONTEXT OF CRIMINAL PROCEDURE*

With the entry into force of the Criminal Procedure Code, Official Gazette of the Republic of Serbia, no. 72/11, 101/11, 121/12, 32/13, 45/13, 55/14, 35/19, 27/21 and 62/21, the rules regarding the possible uses of DNA profiling in the context of criminal proceedings were defined in more detail, although the Criminal Procedure Code from 2001 had also contained certain solutions regarding forensic analysis (Nikač, 2019, p. 126). The current Criminal Procedure Code, Art 140, specifies that the collection of a buccal swab can be performed without the consent of the suspect, given that it previously only covered the “taking of a blood sample and ‘other medical procedures.’” Furthermore, to eliminate suspicion, a buccal swab may also be taken from the victim, or other persons found at the scene of the crime without their consent, acknowledging the fact that the act of taking a sample must be done by a professional, and only with an order of the public prosecutor or the court.

In addition to taking DNA samples to identify suspects and solve crimes, the Criminal Procedure Code provides for the conditions under which the forensic registration of certain categories of convicted persons is carried out. Thus, as a part of the decision to impose a prison term, the court may order that a sample for forensic-genetic analysis be taken from: offenders who have been sentenced to a prison term of more than one year for a premeditated crime; and sex offenders and persons who have been ordered to undergo mandatory psychiatric treatment, under Art. 142. It should be emphasised that when it comes to sex offenders convicted of crimes against minors, a DNA sample must be taken and their DNA profile is to be permanently stored, in accordance with the Law on Special Measures for the Prevention of Criminal Offenses against Sexual Freedoms against Minors, Official Gazette of the Republic of Serbia, No. 32/13, also known as Marija’s Law.

The Criminal Procedure Code does not deal with issues related to the storage and the periods during which DNA samples and DNA profiles

are to be kept, and only states that these issues will be dealt with by other regulations.

The Law on the National DNA Database, Official Gazette of the Republic of Serbia, no. 24/18, entered into force in 2018 as the first legal document in Serbia to define the storage of DNA profiles.<sup>1</sup> The law deals with the process of introducing a national DNA database whose data is to be used for criminal proceedings and for determining the identity of missing or unknown persons and corpses, pursuant to Art. 1. This law regulates issues related to the processing of data obtained through forensic-genetic analysis, and states that DNA analysis is a forensic-genetic analysis of biological material, carried out for criminal proceedings or identity determination procedures. A DNA profile is data that represents the result of DNA analysis, while a biological sample is any biological material of human origin that can be linked to an offense, or a sample taken for identity determination.

Pursuant to Art. 4 of the Law on the National DNA database, the DNA register is established and managed by the Ministry of Internal Affairs and by the competent forensic service. The data can only be processed in order to achieve the purpose for which it was initially collected. The above implies that the processing of data in order to establish the physical, biochemical, physiological or psychological characteristics and specific hereditary characteristics of a person is not allowed. Data from the DNA database can be exchanged and shared with international organisations and foreign states, in accordance with relevant laws and international agreements.

Article 5 of the Law on the National DNA Database defines all types of data stored in the registry. Thus, the registry contains: a database of DNA profiles determined from indisputable biological samples; a database of DNA profiles determined from contested biological samples and a database of DNA profiles determined in criminal proceedings submitted from all DNA laboratories in the Republic of Serbia. The database of DNA profiles determined from indisputable biological samples contains: the DNA profiles of persons on whom forensic registration was performed; the DNA profiles of persons convicted of sexual offenses against minors; the DNA profiles submitted by relevant authorities within the

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<sup>1</sup> The Proposal of the Law on amendments to The Law on national DNA database is currently in the procedure before the National Assembly of the Republic of Serbia. Among other issues, the amendments should enable the classification of DNA data according to categories of persons participating in criminal proceedings (suspects, accused, convicted persons and victims), as well as provide more detailed rules on DNA data storage periods. One of the amendments foresees that the DNA profile taken in order to eliminate suspicion will be retained for 30 years after the collection of the DNA sample.

framework of international cooperation; and the DNA profiles established for the purpose of suspicion elimination. Therefore, when it comes to the categories of persons whose DNA profiles are stored, the database is not limited only to suspects and convicted persons, but houses the data of a wider range of subjects.

When it comes to the processing of data in the national database, public prosecutors and courts may request a search of the National DNA Database in order to compare the DNA profile obtained by DNA analysis with the data already stored in the database. This request is submitted in written form, and exceptionally orally with the obligation to submit a written request later, and the request must be acted upon without delay, in the sense of Art. 7 of the Law on the National DNA Database.

When it comes to data storage in the DNA database, the Law on the National DNA Database does not regulate the details of this issue. Thus, the Law on Records and Data Processing in the Field of Internal Affairs, Official Gazette of the Republic of Serbia, no. 24/18, defines: the processing of personal data, the rights and protection of the rights of the person whose data is processed, the types and content of records, data exchange, storage, protection and supervision of data protection, as well as other issues (Art. 1). This law stipulates that everyone is entitled to be informed whether their personal data is being processed and what processing operations are being performed.

When it comes to the terms in which personal data is stored, the Law on Records and Data Processing in the Field of Internal Affairs, in Art. 45, stipulates that the data related to the persons to whom the forensic identity determination was applied are kept for three years, except when the forensic identity determination was carried out for the purposes of forensic registration. However, data related to forensic registration is kept for 60 years. Also, samples of biological origin and samples for forensic-genetic analysis are kept until the absolute statute of limitations of criminal prosecution for the specific crime expires. On the other hand, for criminal offenses that cannot become statute-barred due to their special character or international conventions which refer to it, data generated by DNA analysis, as well as DNA samples, are stored permanently.

The Law on Records and Data Processing in the Field of Internal Affairs did not provide for special rules or procedures on protecting and deleting personal data. Namely, the provisions of the law governing the protection of personal data in general are to be applied, pursuant to Art. 6 of the Law on Records and Data Processing in the Field of Internal Affairs. The Law on the Protection of Personal Data, Official Gazette of the Republic of Serbia, no. 87/18, provides legal means that citizens can use in cases when their rights have been violated. Thus, everyone has the right to file a complaint with the Commissioner for Information of Public Importance and Protection of Personal Data, while the provisions of the

law regulating inspection supervision are applied accordingly in the complaint procedure. Citizens also have the right to judicial protection.

Therefore, in Serbia, at the moment, there is no special procedure for the deletion of DNA profiles and there is no possibility of an administrative or other similar review of the necessity of the DNA data retention.

#### *THE CASE LAW OF THE EUROPEAN COURT OF HUMAN RIGHTS IN THE FIELD OF DNA PROFILING AND DNA STORAGE*

DNA profiling is directly related to the intrusion into citizens' privacy. In this context, Art. 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms (Rome, 1950, hereinafter: ECHR) prohibits the violation of the personal sphere, by stating that public authorities will not interfere in the exercise of the right to privacy unless the limitation of the right is in accordance with the law and necessary in a democratic society: in the interest of national security, public safety or economic well-being; to prevent disorder or crime and protect health or morals, and also in order to protect the rights and freedoms of others. Article 18 of ECHR is also relevant since it stipulates that, although certain limitations of human rights are permissible, the limitations may not be applied for any other purposes than those for which they have been prescribed. The stated norms are of the highest importance considering that, in contrast to the tendency to constantly expand the scope of basic human rights, there is also a tendency to derogate them (Dimovski, 2021, p. 1059).

In its decades-long practice, the European Court of Human Rights has dealt with a considerable number of petitions related to the alleged violation of the right to privacy in the context of DNA profiling. Apart from the fact that the applicants referred to the violation of Art. 8 of ECHR, several petitions also concerned the discriminatory treatment of citizens whose DNA profiles are stored in various national databases (Art. 14), as well as the violation of the right to respect the presumption of innocence (Art. 6).

In *S. and Marper v. UK*, (app. no. 30562/04 and 30566/04, judgment 4 December 2008), one of the applicants was eleven-year-old *S*, who was arrested and charged with attempted robbery, and afterward acquitted. Regardless of the outcome of the criminal proceedings, the state permanently stored his DNA profile. The second applicant, *Marper*, was arrested and charged with the harassment of his partner, but proceedings were suspended, while *Marper's* DNA profile was also stored and permanently recorded. The European Court of Human Rights decided that the right to the protection of personal data was violated. The court stated that DNA profiles, by all means, represent data of a private and sensitive nature and that DNA analysis carries a great potential for encroaching into



the most intimate sphere (S. and Marper v UK, §69, 70). Special attention should be paid to the speed of scientific progress, which inevitably speaks in favour of the fact that technologies will be further enriched, which leads to both significant societal benefits and various risks for privacy protection. The European Court of Human Rights emphasised that the storage of DNA profiles and samples does not only affect the person from whom the biological sample was taken, but potentially also their family and a wider circle of his relatives. Also, there is a significant difference between the storage of biological samples for DNA analysis and the storage of a DNA profile, given that the DNA sample undoubtedly contains a significantly larger number of personal data, but at the same time, it does not imply that the storage of the DNA profile in itself does not entail significant risks for privacy protection (S. and Marper v UK, §§72-77). The court pointed out that there must be a legal basis for keeping a DNA profile, and that the law must be directed toward a relevant and legitimate goal, but that, at the same time, restrictions on the right to privacy must be in accordance with the values of a democratic society. It was not disputed that in the UK there was a law that defined the taking and storage of DNA samples and profiles, and that it was based on a legitimate goal, which is the detection and solving of crime. However, the issue was whether restrictions on the right to privacy were necessary in a democratic society. Hence, the court concludes that it is indisputable that DNA profiles can be extremely important in detecting and solving crimes, but that this does not mean that their extensive use is acceptable in any given case. When it comes to this particular petition, the possibility of indefinitely storing the DNA profile of a suspect who has never been convicted should be considered especially carefully (S. and Marper v UK, §106). Furthermore, the court emphasised that a significant number of European countries allow the storage of DNA profiles of suspects for a limited time, primarily tying the storage period to the time required to complete the criminal proceedings. In this sense, the possibility of the permanent storage of DNA profiles of suspects for all recordable offenses is not acceptable (S. and Marper v UK, §110). Also, it is unacceptable to indiscriminately and indefinitely store the DNA profiles of both suspects and convicts, both minors and adults, regardless of whether it is a question of detecting and processing a more serious or a minor offense, and regardless of any personal characteristics and previous convictions (S. and Marper v UK, §119). In addition, the court was of the opinion that the state did not enable the application of an adequate mechanism to control the justification of storing and keeping DNA profiles in the database. Namely, there was only the possibility that high-ranking police officers, making a discretionary decision, would approve the deletion of a certain DNA profile from the database, although such cases were very rare in practice. Moreover, the deletion of the DNA profile occurred mainly in

cases when the authorities made a mistake during the entry itself (*S. and Marper v UK*, §35).

In *S. and Marper v. UK*, the European Court of Human Rights disagreed with the government's position that the mere fact that the DNA profile is stored in the database does not affect human rights. The government pointed out that if there is never an overlap between the DNA profile stored in the database and the DNA profile originating from a certain crime, there will never be an intrusion into the privacy of a person who has been forensically registered. On the contrary, the European Court of Human Rights pointed out that regardless of the absence of data processing in the future, the mere storage of one's personal data already represents an invasion of inviolable human rights (*S. and Marper v UK*, §121).

A recent case before the European Court of Human Rights, *Gaughran v UK* (app. no. 45245/15, judgment 13 February 2020), involved a male from Northern Ireland who was convicted of driving under the influence of alcohol. The applicant admitted the offense, and was fined and banned from driving for twelve months. Two months after the end of the proceedings, his lawyer requested that the DNA profile of his client be removed from the DNA database, considering the trivial nature of the crime. The state's response to this request was negative considering that the law prescribes the mandatory forensic registration of all persons who have been convicted of a recordable crime, which serves a very important purpose of detecting and suppressing crime. Furthermore, the government emphasised that DNA profiling has a deterring effect on offenders, and that it has been known that convicted persons often reoffend within one or two years, which also justifies the mandatory registration and permanent storage of a DNA profile (*Gaughran v UK*, §62). The European Court of Human Rights took the opinion that the permanent storage of the DNA data of a person who was driving under the influence of alcohol represents an inappropriate and too extensive limitation of the right to privacy. Even though the Government emphasised that every state has a certain freedom in defining the need for the detention of personal data, in accordance with the specific needs of the given state, the court was of the opinion that the limitations went too far. Despite the fact that the DNA profile is kept only in the cases of conviction for non-trivial crimes, the legislator still did not enable the evaluation of the distinction between very different types of crime. Thus, the court concludes that the state cannot automatically store the DNA profiles of all persons convicted of a certain broadly defined category of offense. It is also necessary to precisely prevent the storage of the DNA profile after the death of the person who was profiled. As for the state's claims that DNA profiling enables a more effective fight against crime, such a position cannot be evaluated as a justification for the extended storage of DNA profiles. If one would take into account only the fact that DNA profiling can be useful,

then this would justify taking a DNA sample and the DNA profiling of all citizens, which cannot be accepted as an adequate solution (Gaughran v UK, §89). Furthermore, the European Court of Human Rights did not accept the state's explanation that a more substantial DNA base is needed to shed light on cold cases, specific to Northern Ireland and its political and historical context, considering that such an argument by itself cannot nullify the obligation to respect the right to privacy. Even when solving complex cases, the state must use means that will not call into question the respect for human rights (Gaughran v UK, §93).

In *Aycaguer v. France* (app. no. 8806/12, judgment 22 June 2017), the applicant refused to give a sample in order to store a DNA profile in the national DNA database, also known as FNAEG. Aycaguer was previously convicted of intentional violence against a person exercising public authority. The applicant took part in the protest of agricultural workers, during which he hit a policeman with an umbrella, without causing him any injuries, and was sentenced conditionally to two months of imprisonment, and, since he subsequently refused to consent to a buccal swab, he was fined 500.00 EUR. Aycaguer appealed to the French court, but the court ruled that there were no grounds to refuse DNA sampling. The applicant pointed out that the database was first created to store the DNA profiles of sex and violent offenders, and that it later on expanded so that it could store DNA profiles of other offenders, including persons convicted of trivial offenses. He also stated that, given the nature of the offense of which he had been convicted, it was disproportionate to store his DNA profile for 40 years. The government pointed out that the law precisely stipulates when DNA profiling is mandatory, and stressed that the database is used only to detect and solve crimes, as well as that there is no possibility of unauthorised access (*Aycaguer v. France*, §§29-32). Nevertheless, the European Court of Human Rights found that there came to an excessive limitation on the right to privacy. Namely, although the state has the right to decide when DNA profiling should be carried out, it cannot be performed regardless of the gravity of the offense. Also, it is unacceptable that all DNA profiles are stored for the same period. Even though there was a legal basis for the mandatory DNA profiling of perpetrators of certain categories of offenses, in practice there should be a clear distinction between the collection of personal data of persons convicted for sexual crimes and terrorism, on one side, and crimes such as striking an unnamed police officer with an umbrella, on the other (*Aycaguer v. France*, §43). Also, it is necessary to have an appropriate mechanism for the supervision of DNA profile storage, which did not exist in France at the time (*Aycaguer v. France*, §45).

In the case of *Peruzzo and Martens v. Germany* (app. no. 7841/08 and 57900/12, judgment 4 June 2013), two applicants, both multiple offenders, complained about the storage of their DNA profiles. At the time

when the DNA analysis was requested, no criminal proceedings were pending against them, so the reason for the DNA profiling was the detection and solving of possible future crimes. Peruzzo was convicted of multiple drug-trafficking offenses and Martens was convicted for several violent crimes. Despite the applicants opposing the DNA analysis, the German court found that there is a significant risk that they could reoffend in the future, as a result of which DNA profiling is justified and necessary. The Criminal Procedure Code (Strafprozessordnung), at that time, stipulated that DNA profiling could be carried out both as part of ongoing criminal proceedings and for future criminal proceedings. The forced collection of DNA samples is only possible in the case of the commission of serious crimes, when there is a risk of reoffending, and only on the basis of a court decision (*Peruzzo and Martens v. Germany*, §20). According to German law, DNA profiles are stored only as long as there is a legally justified reason, and afterward, they are to be destroyed. The European Court of Human Rights established that there was a legal basis for DNA profiling, given the sufficiently clear and precise provisions of the Criminal Procedure Code. What could be disputed is whether the limitation of the right to privacy is justified given the values of the modern democratic society. The court estimates that there was no extensive limitation of the right to privacy because DNA profiling is allowed: in the case of a conviction for a serious crime, in the case of a repeated conviction for a crime of a certain gravity, and in the case where personal circumstances and circumstances related to the crime indicate a high risk of reoffending (*Peruzzo and Martens v. Germany*, §44). In addition, in Germany, the court is obliged to review, at periods not longer than ten years, whether stored DNA data is to be corrected or deleted. The applicants also complained that storing a DNA profile for the purpose of conducting future criminal proceedings represents a denial of the presumption of innocence pursuant to Art. 6 of the ECHR. However, the European Court of Human Rights stated that there can be no question of a violation of this presumption, because, at the time of DNA profile storage, there were no criminal proceedings against the applicants (*Peruzzo and Martens v. Germany*, §54).

### *CONCLUSION AND RECOMMENDATIONS*

The European Court of Human Rights has designed certain standards related to DNA profiling in the context of criminal proceedings. Those standards imply that DNA analysis and the storage of DNA profiles can only be performed with a relevant legal basis, whereby the language of the national law must be unambiguous and precise. Apart from the fact that DNA profiling, and especially the storage of DNA profiles, should have some basis in domestic law, at the same time, it must serve a legitimate aim and be necessary in a democratic society. Therefore, a cer-

tain restriction of human rights can be tolerated only in the presence of important reasons that can be qualified as more significant than the individual interests of citizens. Without any doubt, the fight against crime represents an interest of great social importance and a pressing social need. However, despite the existence of a legal basis for DNA profiling and a legitimate aim, the collection and storage of DNA data must not take on an extensive character.

When it comes to DNA profiling and DNA storage in a national DNA database in Serbia, we could say that this matter is aligned with international and European standards, but that there is room for additional improvement. Thus, in Serbia, there is an adequate legal basis for DNA profiling which concerns the need for efficient criminal proceedings. Also, the Law on the National DNA Database provides a legal basis for the storage of DNA profiles. Nevertheless, what can be problematic in Serbia are the terms by which DNA profiles are stored, as well as the absence of review mechanisms of the legality and the justification of prolonged storage of the DNA data.

Also, in Serbia, extensive periods have been set for the storage of DNA profiles. Although high-ranking police officers are responsible for ensuring the legality of storing and manipulating DNA data, the procedures according to which they act have not been elaborated on. It should also be borne in mind that when it comes to those convicted of sex crimes against minors, their DNA profiles are permanently stored, and no mechanism of re-examination is foreseen. The possibility of long-term storage of not only DNA profiles of convicted persons but also other persons connected with certain crimes is also problematic.

In order to harmonise the Serbian positive legal framework with European standards, all issues related to the National DNA database and DNA profiling should be resolved within a single legal document. Furthermore, specific time limits should be determined in relation to the storage of DNA profiles of different categories of persons. It is necessary to define a mechanism for controlling the actions of high-ranking police officers in the domain of keeping DNA profiles and samples, considering that it is a very sensitive and complex matter. Also, procedures for correcting errors in the DNA database should be defined, as well as procedures governing the deletion of data that is no longer needed.

With all of the above, measures should be taken in Serbia to familiarise the wider public with the importance and functions of DNA profiling, as well as the dangers that could arise from the uncontrolled management of DNA databases, given that it is a topic that, despite its enormous social importance, has been completely neglected.

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## **ДНК РЕГИСТРИ И ЗАШТИТА ЉУДСКИХ ПРАВА, ПРИЛИКЕ У СРБИЈИ И УСКЛАЂЕНОСТ СА ЕВРОПСКИМ СТАНДАРДИМА**

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### **Резиме**

Прогрес науке омогућио је широку примену ДНК профилисања у области откривања и процесуирања кривичних дела. Међутим, осим значајних преимућстава, апликовање ове технологије доноси незанемарљиве ризике по поштовање људских права и слобода. Отуда општа и научна јавност све чешће говори о томе да ДНК технологија омогућава инвазију у приватност грађана, с обзиром да се путем анализе ДНК узорка може прибавити обиље најличнијих података, попут оних о пореклу и родбинским везама, до оних о генетски преносивим болестима. ДНК профилисање креира могућност за вршење надзора над активностима грађана, који несвесно и свакодневно на различитим местима остављају биолошки материјал подобан за ДНК анализе. Иако се неретко истиче да онај ко не крши закон нема разлога да се прибојава увида у сопствене одлике и поступке, ипак треба поставити питање зашто је потребно да јавне власти располажу обиљем врло личних података. Такође, када се, с правом, истиче да ДНК технологија омогућава поуздано детектовање осумњичених за најопаснија кривична дела, не треба губити из вида ни то да она није непогрешива.

Како Европски суд за људска права већ неколико деценија пресуђује о питањима у вези са оправданошћу и законитошћу чувања ДНК профила и узорака у националним ДНК регистрима, аутор је настојао да издвоји кључне стандарде који су се издвојили у пракси ове институције. Тако издвајање и чување ДНК профила мора бити базирано на релевантном и довољно прецизном пропису који је усмерен ка остваривању циљева од општег друштвеног значаја. Уз наведено, ограничавање приватности грађана не сме попримити екстензивне размере, док дуготрајније чување личних података не може да се односи на широко дефинисане групе лица, већ само на осумњичене и осуђене за тешка кривична де-

ла. Такође, неприхватљиво је неселективно вишедеценијско или чак временски неограничено складиштење ДНК профила и узорака, при чему су државе дужне да дефинишу ефикасне механизме за периодично реevalуирање оправданости даљег чувања личних података.

Анализирајући позитивноправни оквир у Србији, аутор закључује да је он, у одређеној мери, усклађен са релевантним европским стандардима. Додатно усаглашавање са европским тековинама изискивало би прописивање јасних дистинкција при чувању ДНК профила и узорака различитих група грађана, као и прецизније одређивање надлежности и процедура за периодично и редовно преиспитивање законитости и оправданости пролонгираног чувања најличнијих података.