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Legal and Procedural Rules for DNA in Jordanian and Qatari Law

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Abstract

The technological, scientific, and technological development is what distinguishes our current age, especially in the biological field, and its ability to develop techniques in scientific knowledge, as in the last years a tremendous revolution was caused by the biological development that went along with the technological development, which led to rapid progress. The latter opened wide areas for issues not seen by mankind before, as well as a change in the practice of medicine such as those related to the biological heritage of organisms, and genetic heritage was a field of global controversy over the legitimacy of genetic technologies, and fingerprinting has developed astonishing development so the fingerprint is not confined to the fingerprints, ears, and teeth, and fingerprinting is still advancing with amazing speed to achieve a match between real and legal reality to achieve justice, and this is what the researchers demonstrate from its conceptual and legal framework.

Keywords: DNA, law, concept.

Introduction

Genetic fingerprints are one of the manifestations of the Almighty Creator's miracle in creating man. They are a divine personal card, deposited by God in man's limbs, as they contain many lines and features that cover the tips of his fingers, the palms of his hands, and the soles of his feet from his birth until a period after his death. In addition, specialized scientists have begun to look forward to trying to find modern techniques that can be used alongside fingerprints to determine a person's identity, and hence efforts have begun to be intensified in what is called genetic fingerprinting or DNA fingerprint. Today, forensic medicine has determined the characteristics of individuals by analyzing specific human samples, such as hair and saliva. It is possible, through the use of laboratory methods, to analyze the human cell and decode it to draw the human genetic map.

After the physical structure of the two parts of DNA, which is the code that carries the most minute details of human life, was discovered by the scientists "James Watson and Frass Crick" in 1953, the scientist "Alec Jeffrey" proved in London in 1985 that each person has the genetic fingerprint that distinguishes him from other people and does not identical except in the case of identical twins.

This modern scientific discovery has been used in many areas of life, including proof in criminal and civil cases, as it is one of the most important contemporary scientific techniques for detecting crimes and knowing the identity of people. It is an important piece of evidence in cases of a criminal nature, such as murder and rape, by examining the various effects of the crime. Genetic fingerprinting is of great importance in cases of a

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civil nature, such as cases of proving lineage, determining filiation, and cases of missing persons.

Although the issue of genetic fingerprinting entails important results, both objective and procedural, especially in terms of its types and the development of means of its application and then the areas in which it can be used, as it is used as a basis for acquittal and conviction in cases presented to the courts, it is important to stop at clarifying the concept of genetic fingerprinting and defining its characteristics. Its importance and its legal and adaptation are essential before starting the fields of applying genetic fingerprinting, the extent of its legitimacy, and the controls and authority of its use.

Therefore, this study sought to investigate the concept of genetic fingerprinting by defining it and explaining its characteristics, features, and the extent of its importance among the means of proof (the first topic), then searching for its legal nature (the second topic).

The first topic

DNA concept

The discovery of the genetic fingerprint, or what is called the genetic fingerprint or DNA, is considered the discovery that achieved a scientific revolution, and it is one of the most important scientific means of knowing the identity of people through their genetic characteristics and taking it as a strong presumption for ruling in criminal cases such as murder and rape, or cases involving a civil dispute, such as cases proving filiation. Determining lineage, immigration issues, and missing persons. In this research, we will discuss the definition of the genetic fingerprint and its characteristics in the first requirement, then explain its importance and the most important areas of its use in the second requirement.

The first requirement

Definition of genetic fingerprint and its characteristics

Understanding genetic fingerprints requires defining it first, then presenting the elements that distinguish genetic fingerprints that make it an essential tool in achieving personality.

The first section - Definition of the genetic fingerprint: The researchers discuss both the linguistic and terminological definitions of the genetic fingerprint

First: linguistic definition

Genetic fingerprinting is a descriptive compound of two words: "fingerprint" and "genetic".

The fingerprint is a colloquial word that means a mark, and fingerprint is from basama - bsma. That is, a seal with the tip of his finger, and it is derived from the word "basm" (with the letter "ba"). That is, the gap between the little finger and the ring finger, and it is said that not a time separated you, nor a span, nor a threshold, nor a fingerprint, and a leg or garment with a fingerprint: thick .

It is an authentic Arabic word, meaning the difference between the two fingers (the little finger and the ring finger) or the thickness and density, and a new meaning was born from it that was approved by the Arabic Language Academy in Egypt, which is the effect of sealing with the tip of the finger after applying it with a special substance resembling black ink to print fine lines on the fingertips when they touch things. This imprint is called a fingerprint.

As for "genetic", it comes from the source of inheritance, and it is said that so-and-so inherited money, and from it he inherited and inherited; That is, it came to him after his death. In the hadith (the Muslim does not inherit from the infidel) he bequeathed to so-and-so, meaning he made him one of his heirs.

It is related to the science of genetics, which investigates the transmission of the characteristics of an organism from one generation to another and the explanation of phenomena related to the method of this transmission.

Accordingly, the term genetic imprint can be defined in language as the mark or trace that is transmitted from parents to children or from origins to descendants, according to specific laws that can be learned .

Second: The legal and scientific definition of genetic fingerprinting

The genetic fingerprint can be defined terminologically by presenting the various legal and scientific definitions of the genetic fingerprint, as well as the legal ones.

1. Definition of Islamic jurisprudence: Considering that genetic fingerprinting is a new matter, there is no precise definition for it in Islamic jurisprudence. However, this does not prevent an attempt to develop a definition for genetic fingerprinting, as the Islamic Jurisprudence Council of the Muslim World League defined it in its sixteenth session held in Mecca Al-Mukarramah. During the period from 21-10-1422 AH corresponding to 5-10-2002, it is the genetic structure that indicates the identity of every specific human being, and it is a method characterized by accuracy to facilitate the task of forensic medicine, which can be taken from any human cell such as blood, saliva, semen, or urine. Or something else, and genetic fingerprinting represents justice, as it is a means of preventing injustice, restoring rights, and preserving lineage.

The legal policy is based on justice and truth, so it was considered strong and conclusive evidence. In this regard, Ibn al-Qayyim says, "The rulers and governors still extract rights by reasoning and signs, and if they appear, they do not provide testimony that contradicts them or acknowledge them."

2. The scientific definition of the genetic fingerprint: The genetic fingerprint, DNA fingerprint, or DNA is a modern scientific technology characterized by accuracy, and to know its scientific truth, one can refer to genetics and genetic guidance, where human creation begins with a single cell whose origin is a sperm from the father carrying (23 chromosomes) and an egg. The mother carries 23 chromosomes. After fertilization, they become one cell with 23 pairs of chromosomes attached to it (girls). The latter carries all the information responsible for creating a complete human being, half of whose characteristics come from the father and the other half from the mother. Therefore, it is possible to theoretically differentiate between all people. Based on genetic codes or codes that differ between humans, it is unlikely that the genetic code will be identical in two people, except in the case of identical twins .

This is called DNA because it is always present in the nuclei of the cells of all living organisms, and the three letters DNA are an abbreviation of the scientific name Ribonucleic Acid Deoxy, which is the element that makes up the genetic characteristics of humans .

Therefore, some have defined it as the genetic makeup resulting from the DNA examination of one or more genetic marker systems. It can also be defined as the genetic pattern consisting of repetitive sequences throughout DNA of unknown function, and these sequences are considered unique and distinctive for each individual.

Although this definition included defining the nature of the genetic fingerprint and highlighted its role in distinguishing between individuals, it overlooked its role in the field of scientific and medical research, in which studies have proven its success.

3. The legal definition of the genetic fingerprint: Although some laws stipulate the genetic fingerprint in their internal legislation, and approve its use in the courts as evidence of denial and proof in the civil and criminal fields, they can't define its concept, leaving the matter to jurisprudence.

However, the Qatari legislator, in Law No. 9 of 2013 containing the genetic fingerprint, departed from this rule and defined the genetic fingerprint due to the specificity and modernity of this concept to seek to remove confusion and ambiguity from a procedural standpoint and facilitate the work of the courts in the field of its use.

Whereas, concerning the text of Article One of the First Chapter of Law No. 9 of 2013 containing genetic fingerprinting, it stipulates "the biological characteristics or genetic pattern of highly variable non-coding sites in chromosomal DNA that result from DNA analysis of biological samples, which is fixed and unique between each person." It only occurs in cases of identical twins."

The Qatari legislator was not limited to defining the genetic fingerprint only but included within the same article definitions of some terms related to the definition by explaining what is meant by genetic fingerprint data, as well as what is meant by chromosomal DNA, a biological sample, and a biological trace.

As well as a stipulation of the so-called available technical means, which are genes or genes, as well as chromosomes, in addition to the genome, the genotype of the mitochondria, and the genotype of the male chromosome .

What is clear from the definition of the Qatari legislator, as well as the various jurisprudential legislations of genetic fingerprinting, especially the Arabic ones, is that they give great importance to it due to its specificity and the urgent need for it, especially in the field of proof. However, it remains necessary to give a precise legal framework for the use of genetic fingerprinting, as well as to protect the privacy of the procedures for carrying it out and the body that issued the asylum decision. To it, and provide adequate legal protection for the results obtained and use them following what the law allows, and the genetic fingerprint remains some characteristics that distinguish it from other evidential evidence.

Section Two: Characteristics and advantages of genetic fingerprinting

Biomedical research has shown that genetic fingerprinting has a set of characteristics and advantages that make it distinct compared to other evidence. The most important of these characteristics are the following :

• The incompatibility and similarity between each individual when analyzing the genetic fingerprint, and is impossible among six billion people, except in the case of twins whose origin is one egg and one sperm. Therefore, the genetic fingerprint is considered a strong presumption of denial and proof that does not accept doubt in most courts in Europe and America.

• The genetic fingerprint is characterized by the multiplicity and diversity of its sources, which makes it possible to create this fingerprint from any liquid human waste (blood, saliva, semen) or tissues (meat, bone, skin, hair), and thus it is present in all cells of the body except red blood cells.

• The resistance of DNA to factors of decomposition, putrefaction, and other climatic factors such as heat, cold, humidity, and drought for long periods, so that a genetic fingerprint can be obtained from ancient and modern antiquities, and the possibility of forging DNA is impossible. For these reasons, these analyzes have been widely adopted due to their strength.

• The genetic fingerprint appears in the form of broad lines that are easy to read and save in the computer in a form that is easy to refer to. This prompted some countries to create special files to store all information related to the genetic fingerprint of suspects, as samples are taken from the crime scene, which are the remains of the suspect or the victim, to detect the crime. • The use of genetic fingerprinting allows the discovery of hundreds of crimes that have been recorded against an unknown person. Perhaps one of the most famous crimes whose name has been linked to genetic fingerprinting is the case of Dr. Sam Shepherd, who was convicted of killing his wife by beating her to death in the year 1955. The curtain came down on it in January 2000 after genetic fingerprinting determined his innocence and conviction. family friend.

• DNA is characterized by being a means of proving that people, if the DNA is analyzed properly, carry all the characteristics, characteristics, diseases, aging, and age that a person will have, since the meeting of the father's sperm with the mother's egg and the occurrence of pregnancy. The genetic fingerprint is also present in all cells of the body since the first moment of the formation of a human fertilized egg, and it remains stable even after death for hundreds of years .

Therefore, through all of these characteristics, it is possible to link the accused to the crime, such that the criminal can't evade justice under the pretext of the lack of evidence, as he must leave some trace at the crime scene, and that trace must convict or acquit its owner when analyzed genetically.

The second requirement

The importance of genetic fingerprinting and its uses

Genetic fingerprinting is the most important contemporary scientific technique for detecting crimes and knowing the identity of people. It is an important piece of evidence in cases of a criminal nature, by examining various traces (the first section). Genetic fingerprinting is also of great importance in cases of a civil nature, such as cases of proving lineage, determining filiation, and cases of missing persons. (Section Two).

The first section: The importance of genetic fingerprinting in the criminal field

The issue of criminal proof is one of the biggest challenges facing the authorities concerned with combating crime at all levels. Therefore, the authorities work to benefit as much as possible from scientific evidence because of the important role it plays in identifying the identity of criminals or victims, whether in current or previous cases that were registered against unknown persons. Through the material traces found at the scene of the accident, including biological traces, and among that scientific evidence is the genetic fingerprint, which can be used in the criminal field, as the applications of genetic fingerprinting in the criminal field became known very quickly, enabling a high degree of criminal proof to be achieved by identifying the nature of the effect and linking it. Between the accused and the crime, after making a DNA fingerprint, because the sharing or similarity of DNA between individuals is not possible, as previously mentioned, and this is the secret of the strength of the genetic fingerprint. Every human being has his genetic characteristics from his birth, and they remain with him until his death, and he is not similar at all to anyone else. Another person, even if he is his brother except identical twins from a single egg. Studies and research have proven that the possibility of two people having the same appearance of the DNA genetic makeup is very small. Thus, Eric Lander considered that DNA is the verifier of identity because it carries all the basic characteristics required, and perhaps it is the most important crimes for which genetic fingerprinting is useful in revealing the truth about their perpetrators are theft, murder, rape, and sexual crimes. These crimes are considered the most revealing of the truth of their perpetrators through genetic fingerprinting as evidence of guilt or innocence, as the perpetrator leaves any human remains of himself at the crime scene or on the victim's body in the form of blood contaminants as a result of a wound caused by violence or when An attempt to escape, seminal pollutants, saliva pollutants from cigarette butts or cups, food remains, traces of human hair or human skin under the fingernails of the victim. From all of these traces, a DNA fingerprint can be made and the accused can be linked to the crime through these traces.

Regarding rape crimes in particular, Professor Alik Jafri says, "The method for conducting genetic fingerprinting has been described in detail, in addition to proving that traces of blood and sperm found on cotton clothes can be used after four years. He predicted that genetic fingerprinting will revolutionize the field of identifying people accused of rape and others."

In addition to other crimes, such as drug crimes and other crimes in which genetic fingerprinting played a major role in revealing their truth.

Section Two: The importance of genetic fingerprinting in the civil field

Genetic fingerprinting technology can be used as a method with guaranteed results in civil fields. Perhaps the most important thing that can be addressed in this field is the case of proving lineage, which is considered one of the most important issues that is considered the actual field of genetic fingerprinting. The case of proving lineage: The issue of proving lineage has remained for a long time within the traditional framework until scientific discoveries appeared, such as blood analysis and then genetic fingerprinting. These discoveries brought about a significant and tangible change in the outlook on the subject in various legislations. Some judges took the initiative to employ them in a certain way, and then special laws for genetic fingerprinting. Genetic matters, as well as what the Jordanian Personal Status Law stipulates about them. Concerning the texts of the Jordanian Personal Status Law No. 15 of 2019, it left the field open for the judiciary to adopt the means it deems appropriate so that the judge did not oblige a specific method such as genetic fingerprinting and others, leaving the field open for what may be discovered in the future.

Taking into account the spirit of the times and the development of time, and since genetic fingerprinting is widespread and has reached a high degree of accuracy, and the error rate is almost non-existent, it has become the approved method in Legislative courts.

Referring to the Jordanian Personal Status Law No. 15 of 2019, it was that it takes into account modern techniques and scientific means, as it explicitly stipulates the use of these means in Article 157 which states that "a newborn is not attributed to his father except:

- In the marital bed or
- By acknowledgment or
- By evidence or
- By definitive scientific means, coupled with the marital bed .

Through this text, we can find that the Jordanian Personal Status Law left the field open for a certain means unless the end justifies the means, so genetic fingerprinting became one of the most important applications that reached accurate results, so it became the applied one.

Thus, the Jordanian Personal Status Law has welcomed the adoption of genetic fingerprinting in proving lineage because it keeps pace with scientific developments and contemporary developments and invests it in preserving lineage from loss and providing the best interest of children.

The Jordanian Supreme Legislative Court has had several decisions in matters of proving lineage by DNA, including Resolution No. 19/2017-25 dated 14/6/2017, as well as the decision of the Legislative Court of Appeal in matters of proving lineage. The matter relates to Resolution No. 2845/2018-113075 dated 10/14/2018 AD.

The second topic

Legal and legitimate adaptation of genetic fingerprinting

Genetic fingerprinting is a new scientific event in genetics. It indicates with certainty the owner of the trace left at the scene of the crime, but he is certainly not the culprit. He may have happened to be present at the moment of its commission without being the perpetrator or participant. For this reason, contemporary scholars disagreed regarding the validity of relying on genetic fingerprinting as a tool. Conclusive or inconclusive proof in criminal and civil investigation, especially after the successes it has achieved in detecting crimes and knowing personal identity. What is the legal and jurisprudential adaptation of genetic fingerprinting? This is what we are trying to answer in this study, through the following demands:

The first requirement

Legal adaptation of genetic fingerprinting

If we look at the legal adaptation of the genetic fingerprint, we find that it is one of the modern developments that has occupied many contemporary scholars. Contemporary scholars have had many opinions regarding the adaptation of the genetic fingerprint and the statement of their position on the evidence.

The proponents of the first opinion went on to say that the genetic fingerprint is a definitive presumption that does not accept such error, and Western judiciary in America and Europe adopted it as legal evidence , as the French legislator considered the DNA or genetic fingerprint to be independent evidence in criminal and civil cases. Accordingly, the French legislator has established the legitimacy of working with genetic fingerprints in the field of lineage, alimony, and criminal cases, and thus it has become routinely applied in investigations and the ruling or final decision. This is why some jurists did not hesitate to describe it as the queen of proof or the master of evidence .

While the proponents of the second opinion considered the genetic fingerprint to be presumptive evidence that does not amount to definitive evidence because it is subject to error, but rather it is a presumption that is subject to the discretion of the court. Scientific evidence and technical expertise are still not accepted as material evidence in the event of a claim to prove parentage in some Arab countries unless the parents are present. They are considered merely an aid to the judge in forming his personal belief to rule on conviction or innocence in many matters. The Egyptian and Emirati judiciaries have taken this opinion. This is because the genetic fingerprint is considered merely an opinion expressed by the forensic expert and because of the errors it may be exposed to during biological analyses.

The previous two trends are in the middle of the last opinion, which holds that the genetic fingerprint is semi-conclusive evidence for proof, as it indicates what is required with the possibility of a very rare error, so it must be taken into account in proving lineage because it is semi-conclusive .

Therefore, establishing a specific adaptation for the use of genetic fingerprinting is extremely difficult in positive law due to the actual variation in the areas of its use. In addition to being considered a means of proof in the civil and criminal fields, it is also used in scientific research, experiments, and medical treatment, and therefore the issue of its adaptation varies according to the field in which it is used and the purpose of hiring them.

Concerning Qatari legislation, Article 7 of the Genetic Fingerprint Law states: "The data stored in the genetic fingerprint database is considered authoritative in proof unless proven otherwise."

This law didn't refer to it in the Family Law, so it gave the genetic fingerprint a value in proving lineage, and it did not determine its relationship with other evidence, and it has no absolute authority. The law did not specify its status about other means of proof in both the Criminal Law and the Family Law, but it accepted it as a presumption or considered proof of proof that can be refuted by something else. There are no limits to its use, as the cases mentioned elsewhere in the law related to genetic fingerprinting are not exclusive, and the absence of a clear legislative position on genetic fingerprinting makes it among the judicial evidence.

As for the permissibility of a conviction based on the genetic fingerprint alone concerning the principle of the criminal judge's freedom to be convinced, the evidence under the legislation that adopts the legal evidence system differed in terms of its value of proof and was not sufficient alone to convict, but when the personal conviction of the criminal judge took precedence over the system Legal Evidence: All evidence has become acceptable in proof, including evidence. It has absolute freedom to reach the truth from any derived legal evidence .

In application of this, Article 121 of the Qatari Code of Criminal Procedure stipulates: "The judge shall rule on the case according to the belief that it has formed with complete freedom. However, it may not base on any evidence that was not presented before in the session." Accordingly, the judge, based on the principle of the criminal judge's freedom of conviction, may base his conviction judgment on the genetic fingerprint as a presumption or evidence.

As for the position of the Jordanian judiciary, it does not differ much from the position of the Qatari judiciary and the rest of the Arab legislation. The Jordanian Court of Cassation decided that "the court has the authority to evaluate the evidence."

In this formulation, Article 147 of the Jordanian Code of Criminal Procedure stipulates that the judge has complete freedom to extract the correct fact of the case, and for that, it has the right to take the evidence of which it is convinced and to subtract what is less than that . It also has the right to divide the single piece of evidence and take from it what agrees with the rest of the evidence and is comfortable with it and reject what is not. Without that, as a result, it does not have conclusiveness at the level of significance, neither from a legal nor from an applied standpoint. Accordingly, from the above, the genetic fingerprint has a role in justifying the judge's taking of some measures against the accused in the stages of trial and issuing the decision, and it also has a role in weighing the contradictory evidence presented. In the criminal case .

The second requirement

Forensic adaptation of genetic fingerprinting

The jurisprudential adaptation of the genetic fingerprint does not differ from the legal adaptation. The resort to the genetic fingerprint, or what is known as DNA, is an appeal to the presumption of similarity and genetic storage, which is known as "de-ethnicity," which Islamic law adopted. Therefore, a part of Islamic jurisprudence went to consider fingerprints. Genetic evidence is an original and independent piece of evidence that is suitable for basing a ruling on criminal matters and matters of lineage. This is consistent with the position of jurisprudence and various international legislations . The researchers will discuss the legal adaptation of genetic fingerprinting in hudud crimes and retribution first, then in the field of proving lineage.

The first section: on hudud crimes and retaliation

While the majority of modern jurists, the Fiqh Academy of the Muslim World League and the Jurisprudence Symposium emanating from the Islamic Organization for Medical Sciences, see the invalidity of genetic fingerprinting to rule on conviction or acquittal in hudud crimes and retaliation. It was stated in Article 1 of the decision of the Council of the Fiqh Council of the Muslim World League in its decision issued at its sixteenth session held in Mecca for the period between 10/5/2002 that: (It is not legally prohibited to rely on genetic fingerprinting in criminal investigation and to consider it as a means of proof in crimes. There is no legal punishment or retaliation for the statement (Avoid the punishments with suspicions), and this achieves justice and security for society and leads to the criminal receiving his punishment and the accused being acquitted, this is an important goal among the legislation law goal.

The Council's exclusion of genetic fingerprinting in cases in which there is legal punishment or retaliation was for two reasons. The first is that punishment and retaliation are only proven by testimony or acknowledgment and no other means of proof according to many jurists. For example, it is not permissible to prove adultery using genetic fingerprinting, since there are four things in adultery. Witnesses out of Islam's concern for violating people's honor, and the second because there is suspicion, as the genetic fingerprint is implicit, not definitive, evidence .

The second section: in the field of proving lineage

In the field of proving lineage, genetic fingerprinting takes the same ruling as the Qiyafah rule, due to their involvement in the cause. By Qiyafah, what is meant is tracing traces and knowledge of the chapters of similarity of lineage, and it is a judicial presumption or indication, as some jurists call it . However, genetic fingerprinting is not used except in the absence of evidence, evidence, or acknowledgment, and it is taken from several laboratories and other conditions related to the use of genetic fingerprints for proof and identification, as a continuation of what the jurists have said regarding the conditions for accepting Qiyafa and evidence as evidence of proof.

We see that measuring the genetic fingerprint on the Qiyafah is a far-sighted measurement because the genetic fingerprint is more important in ruling than the Qiyafah because of its probative power in proving and denying lineage and because the Qiyafah relies on intuition, guesswork, and apparent descriptions to which many people may be similar.

Thus, the genetic fingerprint is considered evidence of lineage, and in the event of a discrepancy, proof, and acknowledgment are presented in the interest of the party except by denying his affiliation to his father, but it took precedence over the Qiyafah for the reasons mentioned above.

Accordingly, it can be said that the genetic fingerprint is conclusive evidence of the existence of the person who is the subject of the crime, especially given the accuracy of laboratory analyzes and the skill of their analysts. However, it is a presumptive tool in the fact that the owner of the traces is the real perpetrator of the crime. The matching of the fingerprints of the accused with the samples taken from the scene of the crime does not mean that he committed it.

As for the field of proving lineage, despite the accuracy of genetic fingerprinting in proving it, adopting it as a means of proving lineage is restricted in certain cases, which are cases that are consistent with Islamic law in preserving religion, soul, lineage, mind, and money. These are the same cases in which it is permissible to rely on Qiyafa, according to sources of legislation rulings.

Conclusion:

The discovery of the genetic fingerprint is considered of great importance as it has become a tangible fact, especially its adoption in the field of proving lineage and the criminal field. As a result of this, most of the statutory legislation, including the Qatari and Jordanian legislation, decided to consider the genetic fingerprint as an independent piece of evidence or a method of proof, and the judiciary of these countries settled on Using genetic fingerprinting as a method of proof by stipulating it in the national laws that deal with its regulation, in an attempt to give it great importance given the characteristics, especially in terms of accuracy in its results, as it is considered a conclusive argument and solid evidence through which the desired results can be reached. to it in various fields.

Recommendations:

• Given the importance of genetic fingerprinting in establishing identity and discovering a large number of perpetrators of crimes, the researchers see the necessity of developing special and precise legislation that is more organized and comprehensive for the various issues related to it and in various scientific, technical, and legal fields.

• Through the characteristics of the genetic fingerprint and the possibility of linking the accused to the crime, the criminal can't evade justice under the pretext of the lack of evidence, as it must leave some trace at the crime scene, and that trace must convict or acquit its owner when analyzed genetically, so the text must be returned. On the death penalty and retaliation, in all crimes that contain these limits and penalties, while respecting the specificity of some crimes in which punishment and retaliation are not proven except by testimony or confession.

• The Jordanian and Qatari legislators must consider the genetic fingerprint as legal evidence and a conclusive presumption that cannot be mistaken. This is what the legislator has followed in some countries of Europe and America.

• The necessity of establishing forensic science institutes specialized in teaching issues related to fingerprint science and providing specialists and the technical and material means for taking, transporting, preserving, and analyzing samples, on the one hand, and educating those working in the legal field by holding specialized courses in this field on the other hand.

• Discussing ways to benefit from genetic fingerprinting technology following the provisions of Islamic Legislation, which stipulate that innocence is established with certainty and does not disappear except with similar certainty.

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