

Study of the Legal Certainty of Organizing and Proving Based on DNA Tests in the Process of Investigating General Criminal Offenses in Indonesia

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Abstract. The field of science and technology has undergone a rapid transformation in Indonesia. Nevertheless, legal certainty to regulate and prove investigations based on DNA tests in the context of common crimes remains elusive, thus hindering the speedy resolution of such offenses in the daily lives of individuals. With the formulation of the problem of how legal certainty in organizing and proving DNA test-based investigations in the process of investigating general crimes in Indonesia? How is legal reform in realizing legal certainty in the implementation and DNA test-based evidence in the process of investigating general criminal acts in Indonesia? This research uses a normative juridical research method, using a statutory approach and an analytical approach. The result of this research is that rapidly developing technology poses new challenges for law enforcement. So, it is necessary to have legislation that can accommodate various developments in the DNA test method.

Keywords: Crime Law, DNA Test, Legal Certainty

1 Introduction

The digital age has brought about a profound transformation in almost every aspect of human life, with technology being the main driver of the change. One of the most prominent technological advancements is the development of DNA testing. DNA testing has opened the door to a deeper understanding of human genetics, individual health, and family history. However, in the face of the ubiquity of DNA testing in the digital age, the need for legal certainty has become even more pressing.

It is important to recognize that the use of DNA testing carries far-reaching consequences, both in terms of individual privacy and in the context of social justice. First of all, DNA testing has the potential to reveal highly sensitive information about individuals, such as genetic disease risk, ethnic origins and family relationships. Without adequate legal protection, there is a risk that this data could be misused, both by private entities and by governments, for unethical purposes, such as discrimination or unfair decision-making. Furthermore, the use of DNA testing also carries significant implications in the context of the legal system, especially in terms of identification and law enforcement. While DNA testing can be a highly effective tool in upholding justice, its use must be strictly regulated so as not to infringe on individuals' human rights. For example, there are concerns that the use of DNA tests by law enforcement agencies could lead to unfair racial or genetic profiling, as well as spark controversies regarding data

privacy and the use of genetic information in legal proceedings. Law not only functions as a set of binding rules and regulations, but also as an instrument that directs human behavior and interactions in society.[1]

An act is considered a crime or a violation of the law when it violates the provisions stipulated in the laws of the Republic of Indonesia and endangers recognized legal interests. By regulating prohibitions and providing criminal sanctions for such violations, the law functions to provide legal protection for these interests, as well as providing a foundation for the enforcement of justice in society. Thus, the law has a very important role in maintaining order, justice and security in social life.[2]

Criminal acts are actions that are prohibited by law, with the prohibition accompanied by certain criminal threats or sanctions. Violation of the prohibition can result in a person being subject to criminal sanctions, so it can also be said that a criminal act is an act that is prohibited and punishable by law.[3] A criminal offender is someone who fulfills all the elements of an offense specified in the law, both subjective elements and objective elements. The status of the perpetrator of a criminal offense does not depend on whether the decision to commit the criminal act comes from himself or is influenced by a third party.[4]

Science and technology have undergone tremendous development in recent times, along with the multidimensional globalization that has hit all parts of the world, including Indonesia. This phenomenon has implications for the increasing quality and quantity of crime modus operandi, including those often published in various mass media ranging from violence, theft, sexual abuse, rape, to murder.[5] Scientific proof carried out through DNA testing is part of the development of science and technology. The place where DNA is found is in the cell, which means the cell is the smallest unit of life and cannot be divided again. Cells are also considered a micro-factory that receives raw materials in the form of amino acids, carbohydrates, fats and minerals to be processed and the results are taken as material for life and the rest is discarded. In essence, every living thing has DNA content contained in the cell, where the largest part of the DNA is found in the nucleus, especially in chromosomes.[6]

Nucleic acids are present in almost all living cells that function to store and transfer genetic information precisely to synthesize proteins that are unique to each cell. In the cell nucleus chromosomes are DNA in the form of double strands or double helix. When there is division of the cell nucleus, the chromosomes also divide and so does the DNA molecule. DNA is not only found in chromosomes but can also be found in the cytoplasm and mitochondria.[6] Some new things that use the most recent DNA tests are how police officers are able to reveal the perpetrators of murder crimes based on the match of DNA samples found at the crime scene. The technique of using DNA testing is especially helpful in proving criminal acts, especially those related to violence, such as murder, persecution, rape, and other criminal acts.[7] In Indonesia, the DNA profile database in one laboratory is still being developed by the Police Medical Center. The DNA database system has a feature to calculate DNA similarities between close relatives who have a direct blood relationship that is derived.

The Constitutional Court, in Decision Number 46/PUU-VIII/2010, ruled that Article 43, Paragraph 1, of the Marriage Law is conditionally unconstitutional insofar as it is interpreted to eliminate civil relationships with males proven by science and technology, as well as other legal evidence, to have a blood relationship as a father. This has led to a change in the meaning of the article in question, namely an affirmation that an unmarried child not only has a civil relationship with its mother and mother's family, but that the father and/or father's family also

have a civil relationship with the child, provided that it can be proven through scientific means and/or other evidence in accordance with the relevant law that the individual in question is the biological father of the child.[8] Evidence based on science and technology is evidence through DNA. Although the results of DNA tests are written evidence that is realized from expert testimony, the execution of the implementation of DNA tests is not an easy matter, because in the process of carrying out DNA tests, there is an element of availability of men who are suspected of being biological fathers to carry out DNA tests, given that the execution of bodies in the civil field in Indonesian regulations does not yet exist, so that even though there is a court decision requiring men who are suspected of being biological fathers of extra-marital children to carry out DNA tests, but there are no regulations that force them, it is certain that the problem of proof will drag on and may never be proven.[9]

Provisions regarding the use of urine tests are regulated in Article 75 letter 1 of Law Number 35 of 2009 concerning Narcotics which states that: "To carry out an investigation, BNN investigators are authorized to carry out urine tests, blood tests, hair tests, deoxyribonucleic acid (DNA) tests, and/or tests of other body parts." According to the explanation of Article 75 letter 1 of Law Number 35 Year 2009, it states that: "investigators can carry out all of these tests, but in reality, of the various types of tests which are a way to prove someone uses narcotics, the investigator only will do one of these tests. "The test that is often carried out by investigators and is considered representative of all the tests above is the urine test."

In this study, the researcher wants to examine 2 (two) problem formulations with the background that has been described, namely 1. How is legal certainty in the implementation and proof based on DNA tests in the process of investigating general criminal acts in Indonesia? 2. How is legal reform in realizing legal certainty in the implementation and proof based on DNA tests in the process of investigating general criminal acts in Indonesia?

2 Method

This type of research uses normative juridical research methods, using a statutory approach and an analytical approach.[10] With primary legal material, namely the Criminal Procedure Code, which is then analyzed through grammatical interpretation and teleological interpretation.[11]

3 Discussion

3.1 Legal Certainty in the Implementation and Evidence Based on DNA Tests in the Investigation Process of General Crimes in Indonesia

Legal certainty theory states that the law should be clear, predictable and consistently applied so that individuals can anticipate the consequences of their actions and feel confident that legal decisions will be applied fairly. In the context of DNA test use, legal certainty is particularly important as these tests involve the collection, storage and use of highly sensitive genetic information. Without a clear legal framework, individuals may feel uncertain about how their genetic data will be used and protected. This can create adverse uncertainty, especially in terms of privacy and security of personal information.

Strong and clear regulations on the use of DNA testing can provide the necessary legal certainty for individuals. For example, regulations governing who can access genetic data, how it can be used, and when it must be deleted or destroyed can provide clear guidance for individuals on their rights and obligations regarding their genetic information. In addition, legal certainty is also important in the context of social justice and human rights protection. With clear regulations in place, law enforcement agencies can be directed to use DNA testing fairly and ethically, avoid racial or genetic discrimination, and ensure that individuals' human rights are respected and protected. However, it is important to remember that legal certainty should not come at the expense of innovation and scientific progress. Overly stringent regulations may hinder the development of new technologies and discoveries relating to DNA testing. Therefore, in designing the regulatory framework, it is important to strike the right balance between the protection of individual rights and scientific progress. According to Gustav Radbruch, law has three aspects, namely justice, finality and legal certainty.[12]

The rapid development of technology allows the police as one of the law enforcers to solve a case faster, this is due to the application of DNA technology or deoxyribonucleic acid is a nucleic acid that compiles genetic information in living things. DNA exists as a very long double chain (double helix), containing pieces of genes as the smallest unit controlling traits and morphological characteristics such as skin color, hair type, finger shape and special traits in humans. Forensic identification examination is the first examination carried out, especially in cases of crime where the victim is unknown, although identification can also be carried out in non-criminal cases such as accidents, victims of natural disasters and war, and paternity cases (determining parents). Biologically, victim identification examinations can be carried out by odontology (teeth), anthropology (body features), blood type and DNA prints. DNA prints are a description of the pattern of DNA pieces from each individual.[6]

There are two meanings of legal certainty, namely general certainty, which makes individuals know the actions that are allowed and not allowed to be carried out, as well as legal certainty in the nature of legal security for individuals from the arbitrariness of the Government because with the existence of general rules, individuals can know the things that are allowed to be imposed or carried out by the State against individuals.[13] Furthermore, the concept of legal certainty encompasses four key elements. Firstly, the law must be positive and based on facts that occur in people's lives. Secondly, the law must be clearly formulated to prevent confusion in meaning or interpretation. Thirdly, the law must not be subject to frequent changes. Finally, legal certainty is achieved when these four elements are present.[14]

There are no provisions that specifically regulate the use of DNA tests in the Criminal Procedure Code, so the issue of legality is subjective and requires interpretation.[15] Before discussing further about the use of DNA tests as evidence at trial, many thoughts and reviews indicate that DNA tests are directly related to clue evidence. In the collection of evidence to prove a criminal offense, mentioned in the valid evidence according to Article 184 paragraph (1) of the Criminal Procedure Code are witness testimony, expert testimony, letters, clues, and defendant's statement.

The implementation of the legal power of using DNA test results as evidence in the process of investigating general criminal offenses in Indonesia, which is based on the principle of expediency, provides various significant benefits for the criminal justice system. The use of DNA tests strengthens evidence in investigations, accelerates the identification of suspects and victims, and prevents law enforcement errors by providing strong evidence of a person's involvement in a crime. Evidence through DNA testing can be categorized as evidence whose

authenticity is quite accurate, so there is no need to doubt it. In fact, its authenticity is sometimes stronger than other evidence, such as confessions, testimonies and oaths. Because it is not uncommon to find that in many cases confessions and testimonies often occur under fear, because of pressure and threats to him and it does not at all describe the true confession.[16]

The results of the deoxyribonucleic acid test (DNA test) may not be utilized as sufficient preliminary evidence in determining a suspect for subsequent criminal prosecution against him/her, according to Article 1 paragraph 14 of the Criminal Procedure Code. This is because the phrase "preliminary evidence" as it pertains to determining a suspect must be interpreted in accordance with Article 184 of the Criminal Procedure Code. In this context, the requisite evidence consists of at least two pieces, accompanied by an examination of the potential suspect. Furthermore, DNA test results as evidence at trial must be corroborated by other evidence to justify punishment for the convicted individual. This is due to the stipulation in Article 183 of the Criminal Procedure Code, which states that a sentence must be imposed on the accused upon the proof of two valid pieces of evidence. The conviction of an individual is based on the conviction that a criminal act in fact occurred and that the individual in question is guilty of the crime in question.

Based on the negative theory of evidence, limitative evidence is determined in the law and how to use it is also bound to the provisions of the law. In a limited statutory system or also known as a negative statutory system as its core formulated in Article 183, it can be concluded as follows:[17] The ultimate goal of evidence to decide a criminal case, which if it meets the evidentiary requirements can impose a sentence; The standard of proof for imposing punishment.

The use of DNA tests in an investigation has often been carried out both in criminal and civil cases or outside the law such as in identifying victims of fire victims who have been charred and are no longer recognizable. Currently, the term DNA test is very familiar to the Indonesian people. In the context of positive law, DNA testing is included in the *Visum et Repertum* process, which in the structure of legal evidence according to the law, is categorized as letter evidence. However, in its development, the *Visum et Repertum* can act as clue evidence, in accordance with the provisions stipulated in Article 188 paragraphs (1) and (2) of KUHAP. When considering that initially the *Visum et Repertum* is based on a doctor's testimony against a person, it can be concluded that in the process there are elements of evidence in the form of witness testimony. Thus, the *Visum et Repertum*, which is part of the written evidence, can be a source of additional evidence in the form of clues.[18]

Article 188 paragraph 1 of the Criminal Procedure Code confirms that a clue is an act or circumstance, either between one another, or with the criminal act itself, indicating that a criminal act has occurred and who the perpetrator is. Then in the next paragraph it is emphasized that the clues referred to in paragraph 1 can only be obtained from witness testimony, letters, and testimony of the defendant. Based on this article, can the results of DNA examination be classified as clue evidence. Fuady classifies it as clue evidence. Fuady further argues:[19]

"Using DNA tests as evidence in criminal procedural law in Indonesia can be done with multipurpose evidence in the form of indicative evidence, even though it has various weaknesses, which can be used as a breakthrough for judges in criminal cases. On this page, the existence of DNA results can be evidence of guidance for judges in making decisions in these criminal cases. The judge can obtain evidence of the instructions through witness statements, letters, or the defendant's statement. Thus, in witness statements, documentary evidence, or the defendant's statement in a case, the judge can use it as indicative evidence. The judge must also remember

that DNA evidence has been proven to be accurate, even far more precise than conventional models of evidence, such as witness evidence. Therefore, the judge no longer needs to ignore this DNA test evidence. The use of DNA evidence testing as evidence is by the KUHAP system, which requires the judge's wisdom and accuracy based on his conscience in assessing the evidence, as determined by Article 183, paragraph 3 of the KUHAP.”

Legal certainty prioritizes the existence of the regulation itself, regarding the regulation there must be a value of justice and the value of benefit in it is something that is outside the value of prioritizing legal certainty.[20] However, it should be noted that the legal certainty contained in the legislation is not solely placed in its form as written law, but in order to ensure the legal certainty of a legislation in addition to fulfilling other conditions, namely clear in its formulation, consistent in its formulation both internally and externally, the use of appropriate language and easy to understand.[21]

The Indonesian National Police is one of the institutions that plays an important role in handling criminal cases, of course in exercising its authority it needs regulations that regulate matters, including the implementation of the use of DNA tests. Regulations regarding the implementation of the use of DNA evidence in the general criminal investigation process in Indonesia must be based on the principle of legal certainty. This includes the provision of clear legal provisions regarding the procedures for sample collection, DNA analysis, data storage, and the provision of strict authority to law enforcement officials. Appropriate operational standards, regulation of the use of DNA data, and sanctions for violations also need to be clearly regulated in the regulation. Thus, regulations that are in accordance with the principle of legal certainty will create a fair, transparent and trustworthy system in law enforcement in Indonesia.

3.2 The Philosophy of Law Perspective in Realizing Legal Certainty for DNA Test-Based Administration and Proof in General Crime Investigations in Indonesia

The Philosophy of Law is a branch of legal science that explores how legal objectives can be achieved. This aligns with the goals of the Republic of Indonesia as outlined in the Preamble of the 1945 Constitution, specifically in the fourth paragraph, which mentions “...participating in the establishment of a world order based on freedom, eternal peace, and social justice.” According to Gustav Radbruch, law has three purposes: certainty, justice, and utility for society, whether it is written or unwritten. States continuously strive to ensure justice and legal certainty to protect and guarantee the rights of their citizens. The concept of justice is broad and requires a philosophical approach to understand its causes, origins, sources, and the essence of legal objectives. This philosophical thinking is crucial.

Gustav Radbruch delineated four fundamental aspects concerning the concept of legal certainty: Firstly, the law must be positive, indicating that legislation constitutes positive law. Secondly, the law must be grounded in facts, signifying its foundation in reality. Thirdly, facts must be clearly articulated to prevent misinterpretation and ensure straightforward implementation. Lastly, positive law should not undergo easy alteration. Radbruch's perspectives underscore that legal certainty revolves around the assurance of the law itself. Legal certainty emanates from the law, particularly from legislation. Therefore, according to Radbruch, positive law governing societal human interests must be adhered to, even if perceived as unjust.

The Philosophy of Law holds significant importance in shaping notions of justice and certainty, especially within Indonesia's legal framework. Legal regulations crafted within a

normative framework should actively pursue the objectives of the law, ensuring societal protection and justice. Being a nation governed by law, as articulated in Article 1, Paragraph 3 of the 1945 Constitution, all actions must align with the existing laws of the land.

Indonesia, with its civil law system, maintains the provision of legal assurances or certainty within its legal framework. This is exemplified in Article 1, Paragraph 1 of the Indonesian Penal Code, which stipulates that "No action can be penalized except under the authority of criminal law within existing legislation prior to the commission of the act." This provision underscores the significance of having legal regulations or norms governing every conduct or behavior of its populace.[6] Consequently, their entitlements are assured and safeguarded. This is referred to as the principle of legality or legal certainty. Historically, the notion of legal certainty was not particularly emphasized in Indonesia's legal practice.[22] Nonetheless, as the constitutional framework progressed, there arose a necessity to embrace the principle of legality introduced by the Dutch, subsequently enshrined in the nation's constitution.

The law serves as a mechanism to regulate society and facilitate transformative processes within it. In contemporary society, community members consciously utilize the law not only to reinforce prevailing norms and behaviors but also to steer society towards desired goals, abolish obsolete customs, and foster the development of new behavioral patterns, among other objectives.[20] Utilizing the law for instigating societal transformation is intricately linked to the notion of governing social and economic affairs within the community. Law enforcement endeavors are conducted to uphold legal certainty, order, and safeguarding amid the contemporary era of modernization and globalization. The effectiveness of these endeavors hinges on the cohesive integration of all facets of legal existence with the authentic values upheld by a civilized society. Recognizing law enforcement as an integral component of the criminal justice system is crucial, as it involves multiple stakeholders, including the community, in pursuing these aims.[23]

The validation of criminal acts in court is governed by formal jurisdiction, where the legitimacy of evidence heavily relies on the formal regulations governing it. In connection with the formal regulations concerning valid evidence, as mentioned earlier, it is evident that DNA test outcomes are not encompassed within them. Presently, the utilization of DNA test outcomes as evidence in Indonesia's judicial proceedings is perceived to possess secondary probative significance, hence necessitating supplementary corroboration from other evidentiary elements. DNA test outcomes have not yet attained the status of evidence capable of facilitating the identification of perpetrators of criminal acts.[24]

Amid the intricate challenges encountered by Indonesia's criminal justice system, particularly in the probe of common criminal offenses, it is imperative to thoroughly comprehend how DNA technology has been employed and the hurdles encountered in its application. DNA technology has emerged as a pivotal instrument in upholding justice and ascertaining culpability in criminal activities. Nevertheless, its integration in Indonesia confronts various impediments. Notably, there is a deficiency in requisite infrastructure and equipment to conduct DNA tests efficiently. Furthermore, insufficient comprehension and training among law enforcement personnel hinder the assimilation of this technology into the criminal investigative process.

Scarce resources and deficient inter-agency coordination also impede the effective utilization of DNA tests within Indonesia's criminal justice framework. Conversely, DNA technology presents substantial potential for enhancing precision and justice in legal

proceedings. By acquiring a deeper comprehension of how DNA tests can be aptly employed in investigating common criminal offenses, it becomes feasible to pinpoint suitable remedies to surmount the encountered obstacles and enhance the criminal justice system.

The ongoing advancement of information technology has dissolved global borders and instigated substantial societal transformations. This underscores the dual nature of information technology's development, contributing to societal welfare and human civilization's progression, while simultaneously serving as an efficacious avenue for unlawful activities.[25] Legal reform regarding the utilization and evidentiary basis of DNA testing in the investigation of general criminal offenses in Indonesia can be linked to the legal reform theory articulated by Prof. Dr. Mochtar Kusumaatmadja, SH., LL.M. According to this theory, legal reform should accommodate ongoing social, economic, and technological advancements while upholding fundamental legal values and principles.

In the realm of implementing and providing evidence through DNA testing in the investigation of general criminal offenses in Indonesia, legal reform needs to anticipate emerging challenges and risks stemming from scientific and technological progress. Consequently, regulations governing the utilization and evidentiary basis of DNA testing in such investigations must be responsive to the needs of contemporary society without compromising principles of justice. Moreover, legal reform should be conducted gradually and consistently, involving diverse stakeholders and considering its broader societal implications.

Law, beyond its role as a regulatory framework for compliance, also serves as a cornerstone in societal development. This perspective underscores that law not only establishes the groundwork for social cohesion but also acts as a tool aimed at molding and guiding societal conduct in accordance with established norms. In this context, legal reform assumes a pivotal role as a process that scrutinizes and reassesses existing legal provisions, with the aim of effecting necessary changes to promote efficiency, fairness, and equitable treatment based on prevailing legal principles. Hence, legal reform endeavors not only to adapt legal frameworks to evolving societal needs and circumstances but also to ensure the continued relevance and efficacy of the law in addressing the dynamic shifts in society.[26]

The theory of legal reform acknowledges the necessity of adapting to advancements in science and technology. In the context of implementing and providing evidence through DNA testing in the investigation of general criminal offenses in Indonesia, the technological support for DNA testing evidence is evolving rapidly, presenting new challenges in law enforcement, particularly in detecting criminal activity. Through legal reform concerning the implementation and evidence derived from DNA testing in the investigation of general criminal offenses in Indonesia, law enforcement can offer legal safeguards to combat criminal behavior within society.[27]

By employing the theory of legal reform, the legal system can be modernized to accommodate technological progress and address the implementation and evidence derived from DNA testing in the investigation of general criminal offenses in Indonesia. This approach allows for the identification of shortcomings or gaps in the existing legal framework, specifically regarding the implementation and evidence derived from DNA testing in the investigation of general criminal offenses in Indonesia. One significant inadequacy is the considerable cost associated with uncovering criminal offenses. Therefore, the legal framework can be reformed to better handle the implementation and evidence derived from DNA testing in

the investigation of general criminal offenses in Indonesia. Legal reform theory encourages innovative approaches in law enforcement to confront emerging challenges.

Law, when utilized as a tool for reform, can manifest in various forms, including legislation, judicial decisions, doctrinal treaties, customary practices, or unwritten legal principles.[28] Legislation stands as the primary legal tool in Indonesia due to its adherence to the civil law system rather than common law, which aligns with the nation's legal heritage. To ensure the efficacy of legislative efforts aimed at societal reform, it is imperative that such legislation aligns with prevailing societal norms. This ensures that legislation mirrors the prevalent values and norms embraced by the community. Beyond being a mere set of regulations for compliance, the law is also envisioned to act as a catalyst for societal rejuvenation. This perspective becomes apparent when observing how existing laws guide and anticipate societal conduct within the established legal framework.

In the realm of administering and providing evidence through DNA testing in the investigation of general criminal offenses in Indonesia, innovative methods like data analytics and artificial intelligence offer opportunities for more effective detection and prevention of harmful actions. Through the application of legal reform theory, the optimal administration and provision of evidence through DNA testing in the investigation of general criminal offenses in Indonesia can be achieved as part of law enforcement endeavors. By revising the legal framework concerning the administration and evidence provision via DNA testing in the investigation of general criminal offenses in Indonesia, legal reform theory can also enhance legal consciousness and adherence to existing regulations. Clear and pertinent regulations encourage compliance among businesses and individuals, reducing the likelihood of engaging in criminal conduct.

Several considerations need to be taken into account in legal reform concerning the administration and provision of evidence through DNA testing in the investigation of general criminal offenses in Indonesia:[29]

- a. The concept of justice stands as a foundational pillar in the realm of pure legal philosophy. Ensuring just legal reform concerning the management and evidence provision through DNA testing in the investigation of general criminal offenses in Indonesia is imperative for all stakeholders, including victims, suspects, law enforcement officials, and the wider populace.
- b. Legal positivism underscores the significance of morality and ethics in the execution of legal principles. Thus, it is essential to verify that legal actions undertaken in cases necessitating DNA testing in the investigation of general criminal offenses in Indonesia adhere to societal moral and ethical norms.
- c. Utilitarianism highlights the importance of maximizing societal welfare. Therefore, in the context of legal reform concerning the management and evidence provision through DNA testing in the investigation of general criminal offenses in Indonesia, the application of laws should consider their impact on the security and stability of the legal system, as well as the community's overall well-being.
- d. The principle of legality holds considerable weight in legal reform, emphasizing the necessity of adherence to established laws. Legal reform pertaining to the management and evidence provision through DNA testing in the investigation of general criminal offenses in Indonesia must ensure that legal actions taken are grounded in relevant legal provisions and do not contravene principles of legality.

- e. Principles of human rights must also be factored in the integration of law enforcement efforts. It is critical to ascertain that the enforcement of laws related to the management and evidence provision through DNA testing in the investigation of general criminal offenses in Indonesia upholds the human rights of all individuals involved.

The utilization of DNA testing in probing general criminal offenses frequently underscores the tension between legal assurance and fairness within the legal system. Legal assurance, in this context, denotes the presence of tangible and quantifiable evidence, such as the reliability of DNA test outcomes furnishing unbiased data regarding an individual's implication in a crime. Conversely, fairness tends to be conceptual and subjective, particularly in appraising eyewitness accounts or defendant statements. In the investigation of general criminal offenses, the principle of fairness often takes precedence, as the law is perceived not only through the lens of legal statutes but also through moral and ethical dimensions. The adoption of DNA testing can aid in preserving an equilibrium between legal assurance and fairness by furnishing robust and impartial evidence that bolsters equitable and precise law enforcement. Nonetheless, it is imperative to acknowledge that fairness may not always be attainable solely through the application of legal assurance, as each case entails its unique context necessitating moral and ethical deliberations.

Therefore, the incorporation of DNA testing in the examination of common criminal infractions necessitates consideration of both legal certainty and fairness. Ongoing modifications and adaptations in the legal framework are indispensable to uphold the law's pertinence to societal advancements and to sustain an appropriate equilibrium between legal certainty and fairness. Consequently, the integration of DNA testing in the inquiry of general criminal offenses can serve as a potent tool in upholding this equilibrium within a dynamic and intricate contemporary society.

4 Conclusion

Based on the discussion that has been presented, the following conclusions can be drawn:

- a. There is no specific regulation related to the use of DNA tests for general criminal investigations and in its application, there are still many obstacles, so that the implementation and proof of DNA test results to deal with general crimes do not yet have legal certainty. Legislation that regulates the implementation of the use of DNA evidence in the process of general criminal investigations in Indonesia includes the *Visum et Repertum* process, which in the structure of valid evidence according to the law, is categorized as letter evidence. However, in its development, the *Visum et Repertum* can act as evidence of clues, in accordance with the provisions stipulated in Article 188 paragraphs (1) and (2) of the Criminal Procedure Code.
- b. Legal Philosophy discusses how the objectives of the law can be realized, in line with the goals of the Unitary State of the Republic of Indonesia, which emphasizes freedom, peace, and social justice. The concepts of justice and legal certainty are essential in every country to protect the rights of its citizens. Legal reform related to DNA testing in criminal investigations demands adaptation to technological advancements and the needs of modern society. Criminal prosecution using DNA testing strengthens fair and accurate law enforcement but faces challenges of infrastructure and understanding. The

importance of legal reform lies in maintaining the balance between legal certainty and justice, as well as ensuring the relevance of the law to societal developments. Thus, DNA testing can be an effective instrument in maintaining this balance in dynamic societies.

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