



# Deoxyribo Nucleic Acid (DNA) in the Alquran Perspective

Nahyulia Liza Utari<sup>1</sup>, Elis Marini<sup>2</sup>, Achyar Rahman<sup>3</sup>, Buchari<sup>1</sup>, Zulkarim<sup>1</sup>

<sup>1</sup>STAI Pengembangan Ilmu Al-Qur'an Sumatera Barat, Indonesia

<sup>2</sup>Al-Azhar University, Egypt

<sup>3</sup>Al-Ahgaff University, Yemen

✉ [nahyulializautari@gmail.com](mailto:nahyulializautari@gmail.com) \*

## Article Information:

Received May 16, 2024

Revised June 28, 2024

Accepted July 17, 2024

**Keywords:** *Deoxyribo Nucleic Acid (DNA), science, nutfab, Alquran*

## Abstract

Biological facts have been mentioned in the Alquran, which was revealed over 1400 years ago and is proven correct by scientists today. This study focuses on implicit and explicit interpretations of human creation, biological development, and genetic concepts. By using a multidisciplinary approach that combines the maudhu'i method of interpretation, scientific and genetic approaches, as well as textual, intertextual, and contextual interpretation techniques. This study found a connection between *Deoxyribo Nucleic Acid* (DNA) and the Alquran that is implied in the concept of “*nutfab*”. The analysis shows that the Alquran mentions various fluids involved in the fertilization process, including sperm, poured fluid, hated fluid, and mixed fluid. This research emphasizes the role of *Deoxyribo Nucleic Acid* (DNA) as the “master key” that controls human physical and mental functions, and its interaction with the environment in activating certain genes. *Deoxyribo Nucleic Acid* (DNA) is understood as the “blueprint of life” that stores biological information and plays an important role in the transmission of hereditary traits.

## INTRODUCTION

With the advancement of time and the development of science and technology, many scientific studies and discoveries by scientists in various fields have succeeded in revealing the scientific wonders of the Alquran (Afnii, 2023; Athar, 2019). The Alquran is a book that inspires every believer to prove what is in it. The Alquran answers every human ignorance of dead-end knowledge. One of the amazing wonders that Allah SWT created is humans (Fitriani et al., 2024; Karim et al., 2024). Many things can be revealed from humans themselves, one of which is the process of human creation, this is mentioned in the Alquran surah Al-Mu'minin verse 14 below.

ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظْمًا فَكَسَوْنَا الْعِظْمَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فِتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ

## How to cite:

Utari, N. L., Marini, E., Rahman, A., Buchari, B., Zulkarim, Z. (2024). *Deoxyribo Nucleic Acid (DNA) in the Alquran Perspective*. *International Journal of Multidisciplinary of Higher Education (IJMURHICA)*, 7(3), 118-129. <https://doi.org/10.24036/ijmurhica.v7i3.221>

## E-ISSN:

2622-741x

## Published by:

Islamic Studies and Development Center Universitas Negeri Padang

*Meaning: "Then, the semen We made into something hanging (blood). Then, that which hangs down We made into a lump of flesh. Then, a lump of flesh We made into bones. Then, We wrapped the bones with flesh. Then, We made it into another creature. Glory be to Allah, the best of creators" (QS. Al-Mu'minun: 14)*

Biological facts have been mentioned in the Alquran which was revealed more than 1400 years ago which is proven correct by scientists today (Jasmi et al., 2013). Given the broad definition of biology that includes humans, animals and plants that can be broken down into many more specialized branches of science such as embryology, botany, zoology and so on (Ali, 2019). The Alquran makes the drop of semen as a period between human growth. Semen exists after human beings exist. That is an undeniable fact. However, it is an amazing fact that needs to be contemplated. Thus the great human being with all his elements and attributes is actually distilled in that one drop of semen. Starting from the phase of a drop of semen to the phase of a clot of blood, namely when the male semen cell meets the female egg cell (Mukhlis, 2022; Wahid, 2020).

Science has developed rapidly, especially in the field of molecular biology (Atika et al., 2023; Mahrani, 2021). One of the most important discoveries in this field is *Deoxyribo Nucleic Acid* (DNA), which is the main genetic material in all living things. *Deoxyribo Nucleic Acid* (DNA) according to the USA National Human Genome Research Institute (2011) is "is a molecule called *Deoxyribo Nucleic Acid* (DNA), which contains the biological instructions that make each species unique. *Deoxyribo Nucleic Acid* (DNA), along with the instructions it contains, is passed from adult organisms to their offspring during reproduction" (Alwi et al., 2017). *Deoxyribo Nucleic Acid* (DNA) is a molecule that contains carbon, phosphorus, nitrogen, hydrogen and oxygen atoms. *Deoxyribo Nucleic Acid* (DNA) is protected in the cell nucleus and contains genes to carry out all body functions.

The structure of *Deoxyribo Nucleic Acid* (DNA) was introduced by James Watson, an American scientist and Francis Crick, a British scientist in 1953 (Sirajuddin et al., 2024). Until the end of the 19th century, no geneticist could explain about *Deoxyribo Nucleic Acid* (DNA) and genes while the Alquran has told the concept of genetic design long before modern science proved it. By identifying the structure of *Deoxyribo Nucleic Acid* (DNA), the molecule of life, Francis Crick and James Watson revolutionized biochemistry and won the Nobel Prize (Saudale, 2020).

Research related to *Deoxyribo Nucleic Acid* (DNA) has been done in Indonesia, such as *Deoxyribo Nucleic Acid* (DNA) as inheritance of traits in the perspective of the Alquran, for example *Deoxyribo Nucleic Acid* (DNA) and sibling relationships, as well as the opinions of experts regarding *Deoxyribo Nucleic Acid* (DNA) tests to determine blood relations and inheritance of similar traits. Then *Deoxyribo Nucleic Acid* (DNA) as a determinant of lineage in the perspective of Ibn Taymiyyah. The next research is related to the understanding of the hadith about the skin gene from the perspective of the *Deoxyribo Nucleic Acid* (DNA) part of the hadith that functions in skin cells, and makes the hadith the main study and scientific perspective. Previous studies almost all discussed the process of human creation, inheritance of traits, *Deoxyribo Nucleic Acid* (DNA) of animals, hadith views, and fraternal relationships (Man & Muhammad, 2023; Minarno, 2013; Sulisno & Danang Dwi Prasetyo, 2022). Meanwhile, this research focuses on the existence and meaning of *Deoxyribo Nucleic Acid* (DNA) itself in the Alquran and its role in human life.

## METHODS

This research uses qualitative research by collecting data from existing literature or books. Using a multidisciplinary approach that combines the maudhu'i method of interpretation, scientific and genetic approaches, as well as textual, intertextual, and contextual interpretation techniques (Baharuddin et al., 2015; Newby et al., 2009; Rahman, 2013; Syafril et al., 2021; Engkizar et al., 2022). The multidisciplinary approach means that the author combines several disciplines, in this case tafsir (especially the maudhui method that focuses on certain themes in the Alquran), scientific approaches, and genetics. Then, the interpretation techniques used are textual (describing the text directly), intertextual (comparing with other texts), and contextual (understanding the text in a broader context). The researcher quotes and relevant to the research topic, then reviews and summarizes the information obtained from the literature (Ahmad et al., 2019; Syafril et al., 2021; Aslati et al., 2024; Yaumas et al., 2023).

## RESULT AND DISCUSSION

A scientist named Gregor Mendel compiled genetic laws in 1865. This date marks the beginning in the field of genetic science. It is thus a point of departure to history in the field of science when the field of genetics begins to receive attention as one of the important branches of science. This is mentioned in the Alquran in surah al-Kahf, verse 65. What is interesting is that surah al-Kahf is the 18th surah in the Alquran. If you read the order of this verse in the Alquran, it can be arranged as verse 18:65, which is the same year of the beginning of the field of genetic science as mentioned here.

فَوَجَدَا عَبْدًا مِّنْ عِبَادِنَا آتَيْنَاهُ رَحْمَةً مِّنْ عِنْدِنَا وَعَلَّمْنَاهُ مِمَّا لَدُنَّا عِلْمًا ٦٥

Meaning: “Then they both met a servant among Our servants, whom We had granted mercy from Us, and taught him knowledge from Us” (QS. Al-Kahfi: 65)

The letters D-N-A (*Dal-Nun-Alif* in Arabic-marked with a line in this passage) appear frequently next to each other in verse 65, verse Al-Kahf. These letters that appear consecutively frequently cannot be found anywhere else in the verse of the Alquran other than in this verse. In this verse alone, the letters *Deoxyribo Nucleic Acid* (DNA) appear three times in a row. This is another miracle of the Alquran considering that it is only recently that the term *Deoxyribo Nucleic Acid* (DNA) has been adopted by the world of science. In this surah, *Deoxyribo Nucleic Acid* (DNA) is mentioned seven times. Likewise with *Ribo Nucleic Acid* (RNA). *Ribo Nucleic Acid* (RNA) is a single thread that will form *Deoxyribo Nucleic Acid* (DNA). Like *Deoxyribo Nucleic Acid* (DNA), *Ribo Nucleic Acid* (RNA) is also mentioned seven times in this surah. The appearance of these two letters in the same number in this surah is another proof that this molecule has been mentioned in the Alquran hundreds of years ago (Jasmi, 2013).

However, the letters D-N-A (د-ن-ا) found in this surah do not have any meaning, but these letters refer to the phrase *عَبْدًا - عِبَادِنَا - لَدُنَّا*. In *عِبَادِنَا*, the word *عِبَادٌ* is attributed to *نَا* for tashriif (glorification). The word *عِبَادِنَا*, comes from the word *عَبْدٌ*, which means “servant” or “worshipper”. In the plural *عِبَادٌ* means “servants”. Furthermore, the word *عِبْدِنَا*, literally comes from the word *عَبْدٌ* which means “on the side” or “near”. So the word *عِبْدِنَا*, means “on our side” which indicates that something comes directly from Allah. Finally the word *لَدُنَّا*, a letter derived from the word *لَدُنْ* means “on the side of” or

“directly from”. So, (لَدُنَّا) means “our side” (Zuhaili, 2016).

While the word *Deoxyribo Nucleic Acid* (DNA) that the author wants to discuss is *Deoxyribo Nucleic Acid* (DNA) which is the smallest cell in living things, especially humans. *Deoxyribo Nucleic Acid* (DNA) is very tiny and hidden in cells. Human *Deoxyribo Nucleic Acid* (DNA) is found in the nucleus of almost every cell of the body. *Deoxyribo Nucleic Acid* (DNA) is the genetic material that carries genetic information from one generation to the next through sperm. In the sperm, *Deoxyribo Nucleic Acid* (DNA) encodes the genetic information that will be transferred to the embryo when fertilization occurs. *Deoxyribo Nucleic Acid* (DNA) is indeed in every cell nucleus. However, the author will discuss human *Deoxyribo Nucleic Acid* (DNA), because humans (Adam) did come from the ground, but our origin is sperm (Awaluddin et al., 2023). So, the sperm contains *Deoxyribo Nucleic Acid* (DNA) that will combine with the egg's *Deoxyribo Nucleic Acid* (DNA) to form a new zygote. Scientists say that *Deoxyribo Nucleic Acid* (DNA) is the blue code of life. The word *Deoxyribo Nucleic Acid* (DNA) does not exist in the Alquran, but because *Deoxyribo Nucleic Acid* (DNA) is in the sperm to form a new zygote, the word sperm in the Quran is *nutfah*.

The Alquran describes the liquid enabling fertilization to take place in terms which it is interesting to examine: First, “Sperm”, as described in the Alquran surah Al-Qiyamah verse 37 below.

أَلَمْ يَكُ نُطْفَةً مِّن مَّنِيٍّ يُُمْنَىٰ

Meaning: “Was he not a drop of sperm emitted (in lowly form)”

Second, the “poured out liquid”: Human beings were created from a liquid that was poured out as explained by Allah in the Quran Surah At-Thariq verse 6 below.

خُلِقَ مِنْ مَّاءٍ دَافِقٍ

Meaning: “He is created from a drop emitted”

Third, the “despicable liquid”, described by Allah in Surah As-Sajdah verse 8 and Surah Al-Mursalat verse 20. The adjective “despised” (مُؤْتَمِنٍ) would, it seems, be interested not so much on account of the nature of the liquid itself, as more the fact that it is emitted through the outlet of the urinary tract, using the channels that are employed for passing urine.

ثُمَّ جَعَلْنَا نَسْلَهُ مِنْ سُلَالَةٍ مِّن مَّاءٍ مَّهِينٍ

Meaning: “Verily We created Man from a drop of mingled sperm, in order to try him, so We gave him (the gifts), of Hearing and Sight”

One drop of semen is made up of thousands of life essence. One life essence among them fertilizes the nipple of the egg located in the woman's womb and then the two fuse and attach to the wall of the womb. In this nipple fertilized with semen, in one very small spot hanging on the wall of the womb, are collected all the characters of the future human being. This includes the shape of his body, high or low, fat or thin, handsome or ugly. It also contains the characteristics of his mind and soul, inclinations and talents. It is not unexpected that the small and lowly point is the forerunner of the creation of a perfect and complete human being, where one human being is different from another human being so that there are no two humans in this world who are exactly the same as each other (Qutbh, 2003). In the hadith also found the factors that cause the resemblance of children.

عَنْ أَبِي هُرَيْرَةَ؛ أَنَّ أَعْرَابِيًّا أَتَى رَسُولَ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ فَقَالَ يَا رَسُولَ اللَّهِ! إِنَّ امْرَأَتِي وَلَدَتْ غُلَامًا أَسْوَدَ. وَإِنِّي أَنْكَرْتُهُ. فَقَالَ لَهُ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ "هَلْ لَكَ مِنْ إِبِلٍ؟" قَالَ: نَعَمْ. قَالَ "مَا أَلْوَانُهَا؟" قَالَ حُمْرٌ. قَالَ "فَهَلْ فِيهَا مِنْ أَوْزُقٍ؟" قَالَ: نَعَمْ. قَالَ رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ "فَأَتَى هُوَ؟" قَالَ: لَعَلَّهُ، يَا رَسُولَ اللَّهِ! يَكُونُ نَزْعُهُ عِرْقٌ لَهُ. فَقَالَ لَهُ النَّبِيُّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ "وَهَذَا لَعَلَّهُ يَكُونُ نَزْعُهُ عِرْقٌ لَهُ"

Meaning: "Abu Hurairah reported that a Bedouin came to the Messenger of Allah and said, "O Messenger of Allah, my wife gave birth to a black boy, and I denied it." The Prophet said to him, "Do you have a camel?" He replied, "Yes. He said, "What color is it?" He replied, "Red." He continued, "Are any of them blackish in color?" He said, "Yes." The Prophet said, "Where do you think it comes from?" He replied, "Perhaps some of his descendants are black, O Messenger of Allah." The Prophet said, "Likewise with (your son) it may be from heredity as well" (HR. Muslim)

With regard to the above hadith, Muhammad ibn Salih al 'Usaimin said;

فدل هذا على أن للوراثة تأثيراً ولا ريب في هذا... أن للوراثة تأثيراً في خلق الإنسان وفي خلقته

Meaning: "The above Hadith shows that genetics affects offspring, and there is no doubt about this...genetics affects the character and physical condition of offspring..."

The smallest unit of all living things is the cell, genes determine the function of the cell, and genes work according to a principle (Immler, 2018). This proves that all living things start from a single cell. Genes are the blueprints of our lives, the key elements that allow life to pass from one generation to the next, and cells are the basic unit of all living things (Murakami, 2012; Wibawa, 2020).

This smallest unit is located in sperm, sperm has a variety of usur, namely: i) The glands annexed to the urinary tract: Cooper's or Mery's glands secrete a stringy liquid and Litre's glands give off mucous. ii) The prostate gland: this secretes a liquid which gives the sperm its creamy texture and characteristic odour. iii) The seminal vesicles: these organs are reservoirs of spermatozoons and are placed near the prostate gland, they also secrete their own liquid but it does not contain any fertilizing agents. iv) The testicles: the secretion of the male genital gland contains spermatozoons, which are elongated cells with a long flagellum, they are bathed in a serofluid liquid (Bucaile, 1997). Inside the testes is the nucleus. And the cell nucleus contains Deoxyribo Nucleic Acid (DNA), which is a substance called gene.

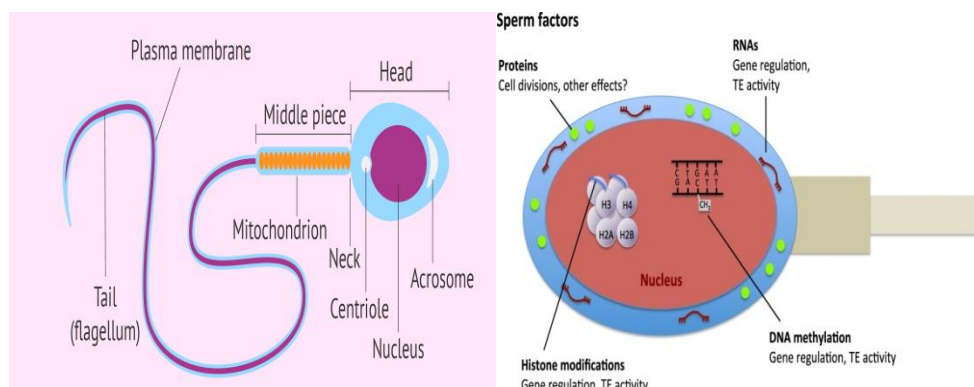


Fig 1. Sperm and cell nucleus

The author will explain more clearly the location of Deoxyribo Nucleic Acid (DNA). That is more clearly found in the words نطفة امشاج and سلالة من ماء in



Surah As-Sajdah verse 8 below.

ثُمَّ جَعَلَ نَسْلَهُ مِنْ سُلَّةٍ مِّن مَّاءٍ مَّهِينٍ

Meaning: “*And made his progeny from a quintessence of the nature of a fluid despised*”

In Ar-Razi interpretation, it states that Allah began the creation of man from clay, which is a combination of soil and water. Then He made his descendants from a kind of soft water, namely semen (sperm). So, what is meant by his descendants is an indication that the creation of descendants occurred after the creation of man from clay (Al-Razi, 1420H). Allah began the creation of Adam from dust, the descendant of Adam. The descendant is called النسل because the descendant comes out (تنسل) from its parent. مِنْ سُلَّةٍ مِّن نُّتْفَاهِ. the lowly and weak water (Zuhaili, 2016).

ثُمَّ جَعَلَ نَسْلَهُ مِنْ سُلَّةٍ مِّن مَّاءٍ مَّهِينٍ then Allah SWT made human offspring reproduce through the mixing of male nuthfah with female water containing ovum fertilized by male nuthfah. Therefore, there is a process of reproduction and maintenance of the existence of the human species from the essence of weak water and is usually considered lowly, namely semen (Zuhaili, 2016).

Maurice stated that سلاله means the essence that is released. It means one material from a whole that is the best of that material. While what is meant by hina is only the place where it comes out (Kremer, 2003; Isnawan, 2019). So, what is released is the best of the semen which is the winner for the fertilization process (Utami, 2016).

Then He made his offspring (ثُمَّ جَعَلَ نَسْلَهُ), namely his descendants, so named because they are his offspring and separated from him from (سُلَّةٍ) a lineage, meaning a summary, and its origin is that which is taken and purified by filtering from the water that is corrupting and degrading that cannot be purified which is preserved, namely semen. Then he made it equal by perfecting its organs in the womb and describing them as they should be, and the basis of its equalization is to equalize its parts, then for their sequential arrangement. and He breathed into it of His spirit He added a spirit to it, the Almighty, to honor it, like in the house of God Almighty, and the she-camel of God Almighty, and to show that it is a wondrous creation and a wonderful work. It is said: In addition, this is an indication that he has some business that has an opportunity to come before His Majesty (Ahmad, 2013).

إِنَّا خَلَقْنَا الْإِنْسَانَ مِنْ نُّطْفَةٍ آمِشَاجٍ نَّبْتَلِيهِ فَجَعَلْنَاهُ سَمِيعًا بَصِيرًا

Meaning: “*verily We created Man from a drop of mingled sperm, in order to try him, so We gave him (the gifts), of Hearing and Sight*” (QS. Al-Insan: 2)

“a drop of mixed semen,” says آمِشَاجٍ meaning that which mixes some with others. In the interpretation of Al-Khazan, it is stated that Adam was created from soil or liquid mud, then his descendants continued through the reproductive process when the male and female sperm cells met and fertilization occurred.

However, what is meant by نُّطْفَةٍ آمِشَاجٍ here is that Allah created in the sperm a mixture of the properties that exist in humans, such as hot, cold, moist, and wet. The meaning is, Allah created humans from this mixture to test them with commands and prohibitions, then Allah made them hear and see, then it is mentioned that He gave them what can be used to test, namely hearing and sight, which are examples of understanding and sharpness (Khazin, 1415H).

In the interpretation of Al-Kabir, it states that mixed sperm has two

opinions, namely: First: Ibn Abbas said; the mixing of thick white male semen with female semen. Then from the mixed sperm, it is mixed again with blood, namely menstrual blood. Because if a woman has received male semen and then becomes pregnant, then her menstruation will be interrupted so that the sperm is mixed with blood. Second: the opinion of some other people says; Allah makes the fetus mixed with the properties that exist in humans, such as hot, cold, wet and humid. This opinion is the same as that presented in the interpretation of Al-Khazan.

The stronger one is that what is meant is a mixture of male and female sperm, because Allah has characterized sperm with a mixture, and if it has become a fetus, then there is no longer a characteristic as sperm, but this argument does not reduce that what is meant is a mixture of soil, water, air and heat (Al-Razi, 1420H).

Meanwhile, according to Maurice Bucaile; The 'mingled liquids' to which the Alquran refers are specific to spermatic liquid whose complex. As we know, this liquid is composed of secretions from the following glands: the testicles, the seminal vesicles, the prostate and the glands annexed to the urinary tract (Kremer, 2003). In *Fi Zilalil Alquran* States that, *Al-Amsyaaj* Al-Amsyaaj means that which mixes, which is the mixing of the male sperm and the female egg after fertilization. The meaning of mixing is the inheritance stored in the germ, which in scientific terms is called "gene", which is plasma that carries inherited traits from a person to his fetus, from which human germ develops into a human fetus (Qutbh, 2003).

*Nutfah* is also referred to as abject water or emitted water. The first term refers to the place where the water comes out as an abject place, the genitalia, an organ that also functions to dispose of urine. The latter refers to the process of the germ entering the womb. The word *nutfah* also means a small amount of water or a drop of water, clearly describing the small amount of water that a man emits during intercourse, the small amount of water contains sperm (Rita, 2020). This abject water is interpreted as the nature of the germ because of how the sperm travel through the urethra or urinary tract. When coitus occurs, millions of spermatozoa are emitted near the uterus. But not all of them are able and worthy to fertilize the egg (Rahman, 2011).

The word *amsyaj* means mixture. Thus the use of the word *amsyaj* is more appropriate to describe the zygote cell that arises from the union of the genetic material in each male sperm and female ovum (Arib et al., 2022). The reproductive material of the male is white and that of the female is yellow, the color of the ovarian nucleus (Rita, 2020). When they have intercourse and the male chromosome material and genes are superior to the female material, a male child is created. If the female material is superior to the male material, a girl is created. This is also found in the Prophet's hadith.

حَدَّثَنَا مُحَمَّدُ بْنُ سَلَامٍ: أَخْبَرَنَا الْفَزَارِيُّ، عَنْ حُمَيْدٍ عَنْ أَنَسٍ قَالَ: بَلَغَ عَبْدَ اللَّهِ بْنَ سَلَامٍ مَقْدَمُ رَسُولِ اللَّهِ الْمَدِينَةَ وَأَمَّا الشَّبَهُ فِي الْوَلَدِ فَإِنَّ الرَّجُلَ إِذَا غَشِيَ الْمَرْأَةَ فَسَبَقَهَا مَاؤُهُ كَانَ الشَّبَهُ لَهُ، وَإِذَا سَبَقَ مَاؤُهَا كَانَ الشَّبَهُ لَهَا

Meaning: "Muhammad bin Salam narrated: Al-Fazari related to us from Humaira from Anas, who said: Abdullah ibn Salam had heard the news of the arrival of the Messenger of Allah to Madinah...The Messenger of Allah said regarding resemblance in children, if a man has intercourse with a woman, then the sperm (male) precedes the ovum (female), the child will resemble his father, while if the ovum (female) precedes, the child will resemble his mother" (Bukhari, 1437H)

From the several statements above, the author concludes that the word *سُلَّةٌ مِّن مَّاءٍ*, namely; *سُلَّةٌ* is the essence of *ماءٍ*. The meaning of water here is semen, which in the essence stores genetic information and inheritance of traits called a lineage. Usually we know it as *Deoxyribo Nucleic Acid* (DNA). Of all the water that exists, the one that will become a zygote is the best water from thousands of semen (sperm).

The author concludes that what is meant by *نُطْفَةٌ أَمْشَاجٍ* is that it begins with the mixing of the sperm itself, which is composed of secretions from glands such as the testicles, seminal vesicles, prostate, and glands attached to the urinary tract. Then after the sperm is formed, it stores all the genetic information contained in the *Deoxyribo Nucleic Acid* (DNA). Furthermore, the sperm (male) is carried, distributed, and mixed again with the ovum (female) through the reproduction process. After the two meet, the *Deoxyribo Nucleic Acid* (DNA) from both of them mixes, then forms a zygote that stores new genetic information, which is the result of the mixture of the *Deoxyribo Nucleic Acid* (DNA) of both.

*خَلَقَكُمْ مِّن نَّفْسٍ وَاحِدَةٍ ثُمَّ جَعَلَ مِنْهَا زَوْجَهَا وَانزَلَ لَكُمْ مِّنَ الْأَنْعَامِ ثَمِينَةَ أَزْوَاجٍ يَخْلُقْكُمْ فِي بُطُونِ أُمَّهَاتِكُمْ خَلْقًا مِّن بَعْدِ خَلْقٍ فِي ظُلُمَاتٍ ثَلَاثٍ ذُكِّرْكُمْ اللَّهُ رَبُّكُمْ لَهُ الْمُلْكُ لَا إِلَهَ إِلَّا هُوَ فَآ تَى تُصْرَفُونَ*

Meaning: "He created you (all) from a single person: the created, of like nature, his mate, and He sent down for you eight head of cattle in pairs, He makes you, in the wombs of your mothers in stages on after another, in there veils of darkness. Such is Allah, your Lord and cherisher to Him belongs (all) dominion. There is Godmbut He, then how are ye turned away (from your true center)? (QS. Az-Zumar: 6)

*ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظْمًا فَكَسَوْنَا الْعِظْمَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فَتَبَرَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ*

Meaning: "Then We made the sperm into a clot of congealed blood, then of that clot We made a (foetus) lump, then We made out of that lump bones and clothed the bones with flesh, then We developed out of it another creature. So blessed be Allah, the best to create!" (QS. Al-Mu'minin: 14)

The Alquran describes the development of the fetus in the womb in stages, from semen to a clot of blood, bones and flesh. This is in line with modern understanding of how *Deoxyribo Nucleic Acid* (DNA) regulates cell growth and differentiation during fetal development.

DNA plays an important role in the inheritance of traits from parents to offspring. The Alquran alludes to this inheritance of traits by reminding us that human beings are created from offspring that come from one self. Influences *Deoxyribo Nucleic Acid* (DNA) in human life is refers to the way *Deoxyribo Nucleic Acid* (DNA) affects various aspects of life. If genes didn't work, we wouldn't be able to carry out daily activities and live even for a moment. Genes control all physical and mental functions at the root, from brain and nerve work to immune function. Therefore, genes are said to be the key to the master of the body (Muhamad et al., 2015).

*هُوَ الَّذِي خَلَقَكُمْ مِّن نَّفْسٍ وَاحِدَةٍ وَجَعَلَ مِنْهَا زَوْجَهَا لِيَسْكُنَ إِلَيْهَا فَلَمَّا تَغَشَّاهَا حَمَلًا خَفِيًّا فَحَمَلَتْ بِهِ فَلَمَّا آتَقَلَّتْ دَعَا اللَّهَ رَبَّهُمَا لَإِن آتَيْنَا صَالِحًا لَّنُكُونَنَّ مِنَ الشَّاكِرِينَ*

Meaning: "it is Who created you from a single person, and made his mate of like nature, in order that he might dwell with her (in love). when they are united, she bears a light burden and carries it about (unnoticed). when she growsnheavy, they both



*pray to Allah their lord, (Saying): if Thou givest us a goodly child, we vow we shall (ever) be grateful” (QS. Al-Araf: 189).*

أَلَمْ يَكُ نُطْفَةً مِّن مَّنِيٍّ يُنْمَىٰ

Meaning: “*Was he not a drop of sperm emitted (in lowly form)*” (QS. Al-Qiyamah: 37)

ثُمَّ كَانَ عَلَقَةً فَخَلَقَ فَسَوَّىٰ

Meaning: “*Then he was a clinging clot, and Allah created his form and proportioned (him)*” (QS. Al-Qiyamah: 38)

*Deoxyribo Nucleic Acid (DNA)* controls fetal development through genetic information that directs the formation of tissues and organs at each stage. The Alquran mentions that Allah created humans with certain traits. In the context of science, these traits are passed on through *Deoxyribo Nucleic Acid (DNA)* from parent to child. *Deoxyribo Nucleic Acid (DNA)* contains the genetic code that determines a person's physical and biological traits.

*Deoxyribo Nucleic Acid (DNA)* plays a crucial role in human life by providing the instructions necessary for growth, development, and reproduction. It contains the genetic code that makes each person unique and is responsible for coding proteins essential for various bodily functions. The Alquran emphasizes that human beings are created perfectly and through a carefully orchestrated process. *Deoxyribo Nucleic Acid (DNA)*, which is the “blueprint” of life, plays a role in ensuring that every living thing has a unique and perfect genetic structure according to Allah's will. *Deoxyribo Nucleic Acid (DNA)* ensures that each individual human being is created with unique traits and abilities, according to the genetic destiny determined from the beginning of creation.

*Deoxyribo Nucleic Acid (DNA)* is considered the blueprint of life. This is because it contains all the set of information and instructions which are needed for the growth and development of an organism. The genetic codes are converted into proteins that regulate the different processes of life. These codes undergo transcription and translation timely that produces the required genetic material and proteins in the newly formed cells. The nucleus is the blueprint center that possesses all the instructions required for the development of all cells in the body. *Deoxyribo Nucleic Acid (DNA)* is inherited from parents to offspring, which contains all the genetic information that decides how the shape, size, and development of cells and organisms will occur. Every organism contains genetic material which is passed on from generation to generation. It can be *Deoxyribo Nucleic Acid (DNA)* in higher organisms (Salk, 2018).

## CONCLUSION

*Deoxyribo Nucleic Acid (DNA)* reflected in Quranic verses shows that there are verses in the Quran that implicitly or explicitly describe concepts related to *Deoxyribo Nucleic Acid (DNA)* or genetics. There are some interpretations or theories that attempt to connect Alquranic verses with modern knowledge of genetics. However, these are usually metaphorical or scientific interpretations based on contemporary understanding, rather than on the literal text of the Alquran itself. Maurice Bucaile said, the Alquran mentions the fluids that make fertilization possible, namely: sperm (نُطْفَةً), a

liquid poured out (مَاءٌ دَافِقٌ), a despised liquid (مَاءٌ مُهِينٌ), mixtures or mingled liquids (أَمْشَاجٌ).

## REFERENCES

- Afnii, S. A. (2023). Al-Quran Sebagai Sumber Ilmu Pengetahuan. *Al-Murabbi: Jurnal Pendidikan Islam*, 1(1), 97–112. <https://doi.org/10.62086/al-murabbi.v1i1.167>
- Ahmad, I. (2013). Kitab Tafsir. *Beirut*, 2.
- Ahmad, M. H., Razak, R., Saharudin, N. S., Mohd Nasir, B., & Baharuddin, A. S. (2019). Analisis Awal Terhadap Isu-Isu Kebolehterimaan Asid Deoksiribonukleik DNA Sebagai Bahan Bukti di Mahkamah Syariah (Preliminary Analysis of Admissibility Issues of Deoxyribonucleic Acid DNA as Evidence in Syariah Court). *UMRAN - International Journal of Islamic and Civilizational Studies*, 6(2–2). <https://doi.org/10.11113/umran2019.6n2-2.392>
- Al-Razi, F. (1420). *Tafsir Al-Kabir* (Vol. 30).
- Al-Razi, Fakhr. (n.d.). *Tafsir Al-Kabir* (Vol. 30).
- Ali, N. (2019). Urgensi Bioetika Dalam Perkembangan Biologi Modern Menurut Perspektif Islam. *Jurnal Binomial*, 2(1), 64–85. <https://ejournals.umma.ac.id/index.php/binomial/article/view/186>
- Alwi, E. A. Z. E., Anas, N., Samori, Z., Yaacob, Z., Taib, W. R. W., Razali, M. H., & Saany, S. I. A. (2017). A review of human genome project (HGP) from ethical perspectives. *International Journal of ADVANCED AND APPLIED SCIENCES*, 4(12), 125–132. <https://doi.org/10.21833/ijaas.2017.012.023>
- Arib, J. M., Khairiyah, N., Suryadinata, M., & Mokodenseho, S. (2022). The Inheritance of Human Traits in the Qur'an Based on the Scientific Interpretation of Zaghlūl Rāghib Muhammad an-Najjār. *AL QUDS : Jurnal Studi Alquran Dan Hadis*, 6(2), 863. <https://doi.org/10.29240/alquds.v6i2.4199>
- Aslati, Agustar, A., Silawati, Arisman, & Arafah, S. (2024). Utilizing Science and Maqāid al-Sharī'ah in Resolving Contemporary Issues of Islamic Family Law. In *Al-Manabij: Jurnal Kajian Hukum Islam* (Vol. 18, Issue 1). Jurnal Kajian Hukum Islam. <https://doi.org/10.24090/mnh.v18i1.10571>
- Athar, M. (2019). Bukti Kebenaran Al-Qur'an Dalam Berbagai Bidang Ilmu Pengetahuan. In *Ta'dib: Jurnal Pendidikan Islam dan Isu-Isu ...* (Vol. 17, Issue 1, pp. 83–111). <https://doi.org/10.37216/tadib.v17i1.204>
- Atika, N. F., Maryam, R., & Yarni, L. (2023). Perkembangan Masa Prnatal. *Scientica: Jurnal Ilmiah Sains Dan Teknologi*, 1(3), 117–127. <https://doi.org/10.572349/scientica.v1i3.401>
- Awaluddin, R. Z. S., Zuhri, A., & Rambe, U. K. (2023). Interelasi Teori Evolusi Manusia dan Tafsir Al-Mishbah: Pemahaman Mendalam tentang Penciptaan Manusia. *AL QUDS : Jurnal Studi Alquran Dan Hadis*, 7(3), 549. <https://doi.org/10.29240/alquds.v7i3.6559>
- Baharuddin, A. S., Ruskam, A., & Yacob, A. R. (2015). The role of forensic biology in realising maqasid al-shariah. *Sains Humanika*, 4(1), 9–15. <https://doi.org/10.11113/sh.v4n1.544>
- Bucaile, M. (1997). *The Bible, The Alquran, and Science "La Bible, Le Coran Et La Science*. Pannel.
- Bukhari. (1437). Kitab Shahih Bukhari. Publisher: Atat Al-Alam - Ensiklopedi Sahih Al-Bukhari. Juz 3.
- Engkizar, E., Kaputra, S., Mutathahirin, M., Syafril, S., Arifin, Z., & Kamaluddin, M. (2022). Model Pencegahan Konflik Antarumat

- Beragama Berbasis Kegiatan Masyarakat. *Harmoni*, 21(1), 110-129.
- Fitriani, Hasyim, M. F., Razi, F., & Abdulfatah, F. (2024). Tabiat Manusia Dalam Al- Qur'an, Perumpamaan Lalat dan Tafsir Surah Al-Hajj ayat 73 Ṭaṭṭāwī Jauharī. *Indonesia Journal of Humanities and Social Sciences*, 5(2), 729–748. <https://doi.org/10.33367/ijhass.v5i2.5499>
- Immler, S. (2018). The sperm factor: paternal impact beyond genes. *Heredity*, 121(3), 239–247. <https://doi.org/10.1038/s41437-018-0111-0>
- Jasmi, K. A. (2013). Penciptaan Manusia dari Perspektif al-Quran. In *Published in Malaysia by Penerbit UTM Press* (First). <http://eprints.utm.my/41083/>
- Jasmi, K. A., Ahmad, A., & Jamarluddin, I. A. (2013). Al-Quran dan biologi. *Penciptaan Manusia Dari Perspektif Al-Quran*, 49–73. [http://eprints.utm.my/41065/2/KamarulAzmiJasmi2013\\_AlQuranBiologi.pdf](http://eprints.utm.my/41065/2/KamarulAzmiJasmi2013_AlQuranBiologi.pdf)
- Karim, D. A., Nurcahyati, N., Hasan, A. R., & Iskandar, N. M. (2024). Rahasia Amsal Dalam Al-Qur'an. *Al Muhafidz: Jurnal Ilmu Al-Qur'an Dan Tafsir*, 4(1), 117–136. <https://doi.org/10.57163/almuhafidz.v4i1.94>
- Khazin. (1415). *Kitab Tafsir al-Khazin*. First Edition. Beirut.
- Kremer, A. (2003). What is the Origin of Obligation? *Human Affairs*, 13(1), 34–43. <https://doi.org/10.1515/humaff-2003-130105>
- Mahrani, N. (2021). P'jaz Al-Qur'an dan Relevansinya dengan Perkembangan Ilmu Pengetahuan dan Teknologi. *Hikmah*, 18(2), 131–149. <https://doi.org/10.53802/hikmah.v18i2.127>
- Man, N. A. N., & Muhammad, R. A. (2023). Penggunaan Analisis Asid Deoksiribonukleik (DNA) Sebagai Alat Pembuktian Kes: The Usage of Deoxyribonucleic Acid (DNA) as Evidence. *Journal of Ifta and Islamic Heritage*, 2(2), 1–31.
- Minarno, E. B. (2013). Bioetika Dalam Perspektif Islam Sebagai Pengawal Perkembangan Biologi Modern. *ULUL ALBAB Jurnal Studi Islam*, 11(2), 198–208. <https://doi.org/10.18860/ua.v0i0.2408>
- Muhamad, N. H. N., Abu, F., Tonggak, B., Aminudin, N. I., & Ghani, F. A. (2015). Kejuruteraan genetik menurut perspektif Islam. *Sains Humanika*, 4(2), 53–58. <https://doi.org/10.11113/sh.v4n2.563>
- Mukhlis. (2022). Fase-Fase Perkembangan Manusia dalam Islam dan Relevansinya terhadap Pemikiran Muhammad Izzuddin Taufiq. In *TILA: Jurnal Pendidikan Islam Anak Usia Dini* (Vol. 2, Issue 2, pp. 236–256). <https://doi.org/10.56874/tila.v2i2.966>
- Murakami, K. (2012). *The Miracle of the DNA, Cetakan ke dua*. PT Mizan Pustaka.
- Muslim, M. S. (n.d.). *Kairo: Issa al-Babi al-Halabi & Co Press* (M. F. A. Baqi (ed.)).
- Newby, D. T., Marlowe, E. M., & Maier, R. M. (2009). Nucleic Acid-Based Methods of Analysis. In *Environmental Microbiology* (pp. 243–284). Academic Press. <https://doi.org/10.1016/B978-0-12-370519-8.00013-4>
- Qutbh, S. (2003). Tafsir Fi Zhilalil. In *Jakarta: Gema Insani* (Vol. 8). Darusy-Syuruq.
- Rahman, M. (2011). Integrating Lessons From The Qur'an and Hadith in Teaching Molecular Biology. *Revelation and Science*, 01(03), 75–84. <https://doi.org/10.31436/revival.v1i03.41>
- Rahman, T. (2013). Production and Consumption of Genetically Modified Food: An Islamic Perspective. *Revelation and Science*, 3(01), 1–10. <https://doi.org/10.31436/revival.v3i01.82>
- Rita, O. (2020). Penciptaan Manusia Dalam Perspektif Al-Qur'an Dan Sains. In *Jurnal Islam dan Sains*. <https://doi.org/10.31219/osf.io/95d7y>
- Salk scientists. (2018). Early life experiences influence DNA in the adult brain -

- Salk Institute for Biological Studies. *Journal Science*. <https://www.salk.edu/news-release/early-developmental-experiences-influence-dna-in-the-adult-brain/>
- Saudale, fariz, zulfa. (2020). Biokimia Di Era Big Data Genomik. *Chemistry Notes*, 2(2), 21–32. <https://doi.org/10.35508/cn.v2i2.3270>
- Sirajuddin, N. T., Wiwin, W., Efendi, M. R. S., Karuwal, R. L., Monica, R. D., Sinay, H., Nursinar, S., Agustian, D. R., Puspita, E. V, Pattipeilohy, M., Daawia, & Sampe, F. (2024). *Pengantar Ilmu Biologi*. CV. Gita Lentera. <https://books.google.co.id/books?id=0PkFEQAAQBAJ>
- Sulisno, S., & Danang Dwi Prasetyo. (2022). DNA Entrepreneurship Building Melalui Pendidikan Islam (Kajian Tafsir Tematik Perspektif Tafsir al-Mishbah Karya M. Quraish Shihab). *SALIHA: Jurnal Pendidikan & Agama Islam*, 5(2), 150–169. <https://doi.org/10.54396/saliha.v5i2.355>
- Syafril, S., Latifah, S., Engkizar, E., Damri, D., Asril, Z., & Yaumas, N. E. (2021, February). Hybrid learning on problem-solving abilities in physics learning: A literature review. In *Journal of Physics: Conference Series* (Vol. 1796, No. 1, p. 012021). IOP Publishing.
- Syafril, S., Asril, Z., Engkizar, E., Zafirah, A., Agusti, F. A., & Sugiharta, I. (2021). Designing prototype model of virtual geometry in mathematics learning using augmented reality. *IOP Conference Series: Earth and Environmental Science*, 1796(1), 12035. <https://doi.org/10.1088/1742-6596/1796/1/012035>
- Utami, I. (2016). Eksistensi Tes Deoxyribo Nucleic Acid dalam Menentukan Nasab. *Medina-Te, Jurnal Studi Islam*, 14(2), 143–160. <https://doi.org/10.19109/medinate.v12i2.1178>
- Wahid, M. A. (2020). Teori Mengenai Penciptaan Manusia Dalam Hadis Nabi; Kajian Ma'Anil Hadis. *Tabdis: Jurnal Kajian Ilmu Al-Hadis*, 10(2). <https://doi.org/10.24252/tahdis.v10i2.12462>
- Wibawa, M. A. (2020). Membongkar Misteri DNA-RNA dalam Perspektif Epistemologi dan Ontologi Monistik - Teologi Atma Tattva. *Sanjivani: Jurnal Filsafat*, 9(1), 70. <https://doi.org/10.25078/sjf.v9i1.1614>
- Yaumas, N. E., Yemmaridotillah, Y., Sari, M., Nisa, F. K., Mulyawati, H., & Nasir, A. A. B. A. (2023). Student Assessment of the Personality Competence and Social Competence of Islamic Religious Education Teachers. *International Journal of Islamic Studies Higher Education*, 2(1), 28–40. <https://doi.org/10.24036/insight.v2i1.105>
- Zuhaili, W. (2016). *Tafsir Al-Munir (Eighth)* (Vol. 11). Gema Insani.
- Zuhaili, W. (2016). *Tafsir Al-Munir (Eighth)* (Vol. 8). Gema Insani.

**Copyright holder:**

© Utari, N. L., Marini, E., Rahman, A., Buchari, B., Zulkarim, Z. (2024)

**First publication right:**

International Journal of Multidisciplinary of Higher Education (IJMURHICA)

**This article is licensed under:**

**CC-BY-SA**