LEGISLATIVE POSITION OF GENETIC INVENTIONS

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Abstract

Intellectual property is the main engine of development. The world has known many developments that have contributed to the progress of the features of social, economic and cultural life. However, the most prominent of his revolutions is what is happening now, which called the technological revolution and the inventions and innovations generated by it. The most important and most dangerous thing is biology technology, known as biotechnology, which poses a major challenge with the rules and constraints it imposes on the various scientific, economic, ethical and legal levels, in addition to the great importance that biotechnology provides in various fields of life (agricultural, health, food, medical( Industrial and environmental). From this point of view, the idea of granting patents for this type of organism crystallized.

Keywords: genetic inventions, patents, living organisms, laws, legislative protection

INTRODUCTION

He was from fruit Development technological and technical that create patterns from inventions did not Prepare minor on That inventions traditional but rather I got over it to deal with genes and genes genetic for objects live different Its names animal and humanity and vegetarianism and even Biology minute, and this is overlap between technological and genes genetic create inventions Same a stamp biological Release on her inventions genetic or innovations vitality or inventions Biotechnology. So that this merge between means or ways Technology And between genes genetic shares in finding pattern from innovation and invention Taking invades markets for its actors products Same character genetic on level development output animal and agricultural and development treatments vitality and appearance this Type from inventions that fall in Basis existence and its source on genes Hereditary present originally, and he what to open The Door Before legislation legal at work on finding System legal to protect her goes along with nature its origin and scope applied.

THE IMPORTANCE OF THE STUDY

lie Importance search to attention legislator Iraqi in legislation Comparison to protection Theme right the person inventor in invention, from during protection inventions genetic And a statement systems legal that permit And protect This is amazing inventions genetic, where that This is amazing legislation it interest rights inventors and motivate inventor, as well development and organize the rules legal that help this the person inventor Toward creativity, And who will push it Necessarily to Do More from Effort and time to reach to inventions New in the time that note in it more interest Countries industrial Grand at work technology and invention genetic and geometry genetic techniques vitality, And you do This is amazing Countries put Organization legal social by providing all avenues And requirements physical And morale Before inventors, And who Grant for them the field to do and search technological and invention genetic.

RESEARCH OBJECTIVE:

Aim to this search to me:
- Statement Legislative position of inventions Genetics and their protection
- To set texts legal in legislation Comparison that I took up protection Theme inventions genetic
- Endorsement texts legal in national legislation and compare them with regard to protection inventions genetic
RESEARCH PROBLEM AND ITS HYPOTHESES

Than no doubt in it that Endorsement systems legal by providing protection Legislative for inventions genetic. Aim to in a form Basic to to encourage spirit invention and creativity I have all staff in area research technological and geometry genetic, And I cared all Countries attention. Especially find Organized legal Means protected inventions genetic and keep on rights owners proceeding from relevance Grand in progress Scientific and economic, unless that this Type from inventions modern relatively antiquities stand varying from protection This is amazing inventions for his privacy And for being erected on genes objects Alive, some Of which permit Grant innocence invention. For some Species inventions genetic her business Shan any innovative last, any Complete protection on according to System innocence invention as in the states United American and some the other Grant innocence invention for a part from this Type from inventions prevent Section the other Like the law French And the Egyptian And the last taken stand neutral film states on this Type from inventions Like the law Iraqi and on this Basis will be done study position legislation Comparison western and patriotism in all from France And America And Egypt Iraq, where And it must from investigation equation balanced to save rights inventors in patents invention, which be a result their efforts and their thinking.

RESEARCH RANGE:
We will follow in this research Two approaches:-

THE FIRST: THE METHOD COMPARATIVE:- any Comparison between legislation Iraqi and legislation Egyptian and legislation French And legislation American, And that to work group from comparisons between phenomena related by searching scientific, to get acquainted on Face likeness In what between This is amazing legislation, as well Face the difference also, And therefore He is ahead an opportunity to get acquainted on all something mysterious related Apparently And we can interpreted With all ease.

SECOND: curriculum descriptive Analytical:- And who We do in it description phenomena and analysis texts legal related subject search, And solve it in The answer on questions that Located in circle search scientific, to reach to Results and proposals.

RESEARCH PLAN
We swear this search to Two demands:

FIRST-REQUIREMENT: We take up in it position legislation western in all from France And America from protection inventions genetic.

SECOND-REQUIREMENT: We take up in it position legislation national in all from Egypt And Iraq from protection inventions genetic.

THIRD- REQUIREMENT

THE POSITION OF WESTERN LEGISLATION ON GENETIC INVENTIONS
To clarify the position of comparative Western legislation on genetic inventions, we have chosen the French legislation as a legal system for the Latin systems, while we have chosen the American legislation to indicate the position in the Anglo-Saxon and American systems, and we examine the position of the two laws as follows:

FIRST SECTION
GENETIC INVENTIONS IN FRENCH LEGISLATION
To research genetic inventions in French legislation, it is necessary to find a specific definition of this type of invention first, by reviewing the legal texts, jurisprudential opinions, and judicial rulings that were issued in their regard, and then searching secondly in the legal position for them in order to reach the most important texts and rulings in French legislation that were issued to protect Genetic inventions.

FIRST: THE DEFINITION OF GENETIC INVENTIONS IN FRENCH LEGISLATION
By examining the French legislation and the opinions of jurisprudence in France, we find that the French legislator tried to put a brief definition in which he specified the meaning of the invention in Article 14-611 of Law No. 597-92 issued on July 1, 1992, as it stated that the invention, “Invention means an innovative activity.” When it is not achieved thanks to the state of technology available to the professional in his work, and when the state of technology does not include the
documents stipulated in the third paragraph of Article 611-11, these documents are not taken into account in the assessment of the inventive activity.\(^{1}\)

It is clear that this definition is characterized by ambiguity and extreme brevity, as it sufficed to describe the invention as an inventive activity, while stipulating that it is independent of the degree of scientific progress of the technology used, in order for the activity to achieve the innovative character.

And if we go towards the jurisprudential position, we find that there are serious attempts to define the invention, as Professor / Jacinth Martel believes about the idea of invention during the period from the sixteenth to the twentieth century, that the definition of invention has evolved during successive historical periods, and in view of the major literary intellectual currents, Especially with the emergence of different theories of creativity and innovation in different fields.\(^{2}\)

The jurist Jean-Marc Mousson Jean-Marc Mousseron, Defline the invention as, "a technique solution to a technical problem to the available technique menas That Can Be uses more than once"\(^{3}\). From this definition it becomes clear to us that the simple idea is not sufficient, then to describe the invention, as the invention is represented in the innovations that the mind excels at, and empties a tangible technical result\(^{4}\).

While Professor / Patrick Mibay believes that it is not possible to put a narrow definition of the invention because that means, according to his opinion, the exclusion of a number of technological innovations from the description of the invention\(^{5}\).

As for Mr. Patrick TavoroPatrick Tafforeau, he defined the invention as, “an applied technical mental innovation that allows the solution of a technical problem, in contrast to literary and artistic creativity, simple discoveries, scientific theories, computational methods, plans, principales et méthodes, and the présentation of information”\(^{6}\). From this last definition, it becomes clear to us that the invention is an applied scientific innovation related to the existence of a technical problem, as it is the available solution to it, and it also removed from the description of the invention simple ideas and literary creativity.

**SECOND: THE POSITION OF FRENCH LEGISLATION ON GENETIC INVENTIONS.**

The French legislator gave protection to genetic inventions genetics Taking into account, of course, the conditions for granting a patent, as the French legislator stipulated in Article 611-10 of the Intellectual Property Code, amended by Law No. 2008-766 of August 4, 2008, a number of conditions that must be met. In the invention, in general, to be protected by the grant of a patentbrevet d’invention, where it states:“It is possible to grant patents for new inventions that reveal innovative activity, making them a field for industry, in all technological fields. Among the areas of invention, within the meaning of the first paragraph of this article, are:

- Discoveries, scientific theories and computational approaches:
- Cosmetic innovations:
- Plans, principles and methods for engaging in intellectual activity in the field of gambling or in the field of economic activities, and computer programs:
- Definition words for information...”\(^{7}\).

\(^{(1)}\)Art. 611-14 of loi 92-597 1992-7-1, prevoit que, “One invention is considérée as impliquant une inventive activity si, for a homme de métier, elle ne découle pas d'une manière évidente de l'état de la technique.\(^{8}\)


\(^{(3)}\) P. Tafforeau et C. Monnerie, Droit de la propriété intellectuelle, 4ème ed., Gaulino, 2015, n° 450, p. 380 ; (“One solution technique is applicable to a problematic technique, thanks to Moyen’s methods of repetition”).

\(^{(4)}\) Ibid., p.380.

\(^{(5)}\) M’Baya, Notion d'éthique dans la brevetabilité des inventions: A comparable droit étude, Mém.deMontréal, 2009, p.18.

\(^{(6)}\) P. Tafforeau, Droit de la propriété intellectuelle, ed. Gaulino, 2017, p. 57

\(^{(7)}\)Art. 611-10 modifié par Loi n° 2008-776 of 4 ao
From this article, it becomes clear to us that the legislator requires the granting of a patent, and then legal protection, the existence of an invention, modernity, and inventive activity, and that this invention opens the way for industrialization. Thus, legal protection extends to genetic inventions, of which, of course, are human genes, if they are associated with a useful technical result and open the way for industrialization.\(^\text{(1)}\) The French legislator issued Law No. 2004-1338 of December 8, 2004 related to the protection of biotechnological inventions \(^\text{(2)}\).

A part of French jurisprudence confirmed that the human genome could be a subject of invention, as through this genome a person can be identified and distinguished, and it also allows the manufacture of a personal product that allows identifying genetic diseases that a person may be exposed to in the future.\(^\text{(3)}\). And if it is possible to achieve congruence between the genetic invention and the genetic discovery, but it is necessary that there be human intervention, and therefore, the discovery can turn into an invention, when human intervention plays an important role in the achieved result.\(^\text{(4)}\).

And he has first French legislator protected genetic inventions by granting a patent, with regard to all biological matters that reveal the existence of an invention, and therefore, the scope of protection extends to all biological matters, as Article 613-2-3 of the Intellectual Property Law stipulates, as amended. By Law No. 2016-1087 of August 8, 2016 on: “The protection conferred by a patent on a biological material by virtue of the invention, and specific properties, extends to every biological material obtained by means of reproduction or multiple application, and to which the same property falls.”\(^\text{(5)}\).

While the French legislator guaranteed the same protection for genetic information, through the patent, and expanded the scope of protection to extend to all issues that include genetic information, as Article 613-2-2 of the same codification and amended by Law No. 1170-2014 issued on October 13, 2014 stipulates Subject to the reservation regarding Articles 613-2-1 and 611-18, the protection prescribed by means of a patent extends to every product that contains genetic information, or is contained in genetic information, and the genetic information is included in it, and it performs a stated function….”\(^\text{(6)}\).

However, the French legislator, on the other hand, did not apply this protection in some cases, when the genetic information, the subject matter of the patent, was exposed to a sudden event, or an accident, in seeds, or multi-applied plant materials, plants and parts of plants.\(^\text{(7)}\).

And as such, patents filed on products containing genetic information, for example, genetic counters, or molecules, give their holders special rights that extend to every biological material containing patented genetic information. For example, in 2002 the European Patent Office granted

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\(^\text{(2)}\) Ne sont pas considérées as me des inventions au sens du premier alinea du present article notamment:

a) Les couvertes mean that les scientific theories and les mathematical methods ; b) Esthetician creations; c.

d) Les présentations d’informations (…).”, available on the site, \text{http://www.légifrance.gouv.fr}.


\(^\text{(3)}\) CHAVANNE (A.), et autres, Droit de la propriété industrielle, op. cit., p.153

\(^\text{(4)}\) V. en ce sens, OST (V.), « Les brevets portant sur les inventions biotechnologiques », op.cit., p. 139.

\(^\text{(5)}\) Art. 613-2-3 modifié by Loi n° 2016-1087 of August 8, 2016, prior to this, “La protection conferée par un brevet relatif à une matière biologique dotée, du fait de l’invention, de propriétés déterminées s’étend à toute matière biologique obtenue à partir de cette matière biologique by reproduction ou multiplication et dotée de ces memes propriétés.”, available on the site, \text{http://www.légifrance.gouv.fr}.

\(^\text{(6)}\) Art. 613-2-2 modifié by Law n° 2016-1170 of October 13, 2014, previously published, “Sous réserve des dispositions des articles L. 612-2-1 et L. 611-18, the protection conferred by a brevet on a product containing genetic information or consistant of a genetic information that is end to end with all the product incorporation and also the information génétique is contenue and exerce the function indication. (…)” available on the site, \text{http://www.légifrance.gouv.fr}.

\(^\text{(7)}\) «Cette protection ne s’applique pas en cas de présence fortuite ou accidentelle d’une information génétique brevetée dans des semences, des matériels de multiplication des végétaux, des plants et plantes ou parties de plantes ». 
a patent for a seedling Biosciences, for a company in the United Kingdom, which has invented a method that allows the scientific composition of Brassica cultivars to be grown, thanks to traditional selection methods.

And a number of companies challenged the invalidity of the patent, and these companies argued that the patent should be revoked, based on the fact that biological methods cannot be covered by patent protection, according to Article 53-b of the European Patent Convention. Henceforth, Article 612-2-3 of the Intellectual Property Law restricted the protection granted by means of such patents.

It is clear that the French legislator has established a tight system for the protection of genetic inventions, whether it is related to the human, animal, or plant genome, as he worked to define the scope of protection in a lot of accuracy, and on the other hand, he excluded everything that could be mixed with the innovation covered by the patent, as detailed in Article 613-10 of the French Intellectual Property Code.

SECOND SECTION
GENETIC INVENTIONS IN US LEGISLATION

The United States of America is considered one of the first countries in which the initiative to take an interest in genetic inventions has grown and many patents have been granted for this type of invention. Therefore, we examine genetic inventions in the American legislation by searching for a specific definition for them first, and then searching for the position of the American legislation to protect them secondly.

FIRST: THE DEFINITION OF GENETIC INVENTIONS IN US LEGISLATION

While the position of the American system came from defining the invention, as the US patent law defined the invention as “everyone who discovers or invents a new and useful method, product, or machine, or a new and useful improvement” (3). As for the American jurisprudence position, and after research, we find that it defined the invention as “any tool, a specific component, a specific factory, or anything that can be used in an industry or developed by man.” Likewise, a part of the jurisprudence itself defined it as “a new material, machine, process, or use,” new human evolution (4).

SECOND: THE POSITION OF US LEGISLATION ON GENETIC INVENTIONS.

The United States of America has contributed to the embodiment of the principle. The patentability of a living organism from a long time ago, by establishing legal texts recognizing the possibility of obtaining patents for living organisms, just as the US Patent Office previously granted the French inventor (Louis Pasteur) a patent on a microorganism regarding a special and abstract yeast in the fungus of the disease, which is what is known pasteurization method (5).

According to Article 1 of the US Patent Act issued in 1790, a patent may be granted for any person who is a citizen of the United States of America discovers or invents any new and useful device or machine or a new composition of materials or manufactures a useful machine or develops or improves any of the foregoing if its conditions are met in accordance with to provisions Law. It is clear from the above text that patents may be granted for discovery and for all inventions in all technological fields, including biotechnology. US law does not accurately distinguish between inventions and discoveries, and it follows from this that some companies, which operate in the field

(1) Art. 53 b) Varieties of animals or animal races mean that the procédés essential biologiques d’obtention de vegetales or animals, this disposition ne s’ application pas aux procédés microbiologiques et aux produits obtenus par ces procédés (…)”, available on the site, http://www.epo.org
(3) Article 35 VSC101 Inventions patentable . “Whoever invents or discovers any new and useful process, machine, manufacturing, or composition of matter, or any new useful improvement there may obtain a patent therefor, subject to the conditions and requirements of this title” united states code title 35 patents.
(4) Khaled Yahya Al-Sabaheen, the condition of novelty (confidentiality) in the patent (a comparative study between the Egyptian and Jordanian legislation and international agreements, 1st edition, Dar Al-Thaqafa for Publishing and Distribution, Amman, 2009 AD, p. 25.
(5) Dr. Muhammad Ali Al-Arian, Innovation as a condition for the issuance of a patent between subjective and objective criterion, New Alexandria University House, 2011 AD, p. 204.
of biotechnology, use patents granted to them under US law, even if the latter does not meet the legal conditions necessary for granting the patent, with the aim of preventing the publication of scientific information. The US judiciary has approved the principle of patentability for biotechnological methods and methods that rely on the use of living organisms if the legal conditions for granting a patent are met. As for the extent to which a patent can be granted to nature's products, the US judiciary decided that a patent should not be granted to living organisms because these organisms exist in nature, and therefore they are considered discoveries found in nature and not an invention. The judiciary has adopted this view despite the absence of legal texts to decide principle inadmissibility of granting a patent for living organisms. On the contrary, the US Patent Office refused to grant a patent for the living organisms themselves based on the text of the article USC Sec 25 did not decide the principle of the permissibility of protecting living organisms, just as these organisms exist in nature, and therefore it is not an invention, but rather a discovery that may not be protected by a patent grant. Thus, the American judiciary has differentiated between an invention that may be protected by a patent and a discovery for which the legal conditions for granting a patent are not met (2). Whereas the United States of America had, in the legislative aspect, several attempts with the aim of protecting inventions in the vital field, the last of which was the development of a draft law of 1929, which was approved on May 13, 1930. This law allowed the protection of new plants through a special type of patent, which is the plant patent, according to this law. Provides protection for new and distinctive plants that are reproduced through These provisions were applied, especially to ornamental plants, from the aforementioned year 1970, during which the United States issued the Plant Variety Protection Act, which granted protection to new plant varieties that are reproduced by sexual reproduction. The scope of protection included the results of research on plant genetic resources, seeds and organs. reproduction (3).

As the subjection of living organisms to the patent system found its legal basis for the first time in the law of the United States of America, which represented a qualitative transfer in the allocation of genetic resources, and patents related to plant possession were considered as distinct legal systems, and the United States of America was not satisfied with approving the patent on the plant field only, but it introduced it to the field of microorganisms, as it opened the way for the clearance of genetically modified organisms (OGN) (4). Then the Patent Law was issued in 1952 and is currently in force to stipulate that a patent may be granted for any person who discovers or invents any new and useful means, mechanization, or a new composition of materials, or manufactures a machine, or develops and improves any of the above if its conditions are met in accordance with to provisions the law (M/35 of the Patents Act).

Although there are no explicit texts defining the principle of non-patentability of living organisms, the US Patent Office has adopted this principle and refused to grant a patent for living organisms on the grounds that the patent law did not provide for the patentability of living organisms, and this principle also applies to living modified organisms. Genetically or genetically, although they are not considered discoveries, nor are they considered products of nature, because the genetic modification that humans perform on these organisms takes them out of the circle of natural

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1) Dr. Fawaz Saleh, Granting the patent in the field of research on stem cells, "a comparative legal study", Damascus University Journal of Economic and Legal Sciences, Vol. 25, No. 1, 2009, p. 208.
3) Ben Katat Khadija, International Legal Protection of Genetic Resources Against Biopiracy, PhD thesis, Abdelhamid Ben Paris Mostaganem University - Faculty of Law and Political Science, Law Sciences, Algeria, 2020, p. 35.
4) Sonya Morales, La conciliation en droit international entre l'appropriation du vivant vegetal et le multilateral system d'acces et de partage des avantages elabore par le Traite international sur les ressources phytogenetiques pour l'alimentation et l'ariculture, Aspects juridiques de la valorization des denrees alimentaires , Op. Citt, p. 63.
products and brings them into the circle of industrial products. Despite this, it is not subject to the granting of a patent because genetic modification has occurred on living organisms, and there is no legal text that permits the granting of a patent for living organisms (1). The same applies to living organisms found in nature, even if an industrial application is discovered for them, which is not subject to a patent because they are prepared by discoveries, not inventions.

Although the US judiciary has agreed with the Patent Office in this regard, it has disagreed with it regarding the extent to which patents can be granted to living organisms, as it decided that a patent may be granted to organisms when the conditions required by law to grant a patent are met, based on the fact that a patent may be granted in all fields of technology, including biotechnology, without distinction as to whether the patent applies to living organisms or to others. As for the extent to which a person may be subject to patent protection, some biotechnology companies have applied for patents for inventions related to embryos. These companies have faced intense pressure from human rights groups, which made the US Congress intervene and issue on January 23, 2004 legislation called "Weldon Amendment" stating that the human body and fetuses are not subject to the grant of a patent.

However, the American judiciary distinguishes between discoveries and inventions, so it does not permit the granting of a patent to the first and allows it to be granted to the second when the necessary legal conditions are met. It also differentiates between methods and methods of biotechnology that depend on living organisms and products of nature (living organisms), so it is permissible to grant a patent for methods and methods without granting it to products of nature, even if a modification was made to the latter, given that this modification was made to living organisms. That is, it is permissible to grant a patent for industrial methods that depend on living organisms without granting the patent to the living organisms themselves, even if a person intervened and changed their characteristics or functions by modifying their composition, altering their composition, or changing the composition of the genes that are used. Carry around (2).

The bottom line despite the conflict between the judiciary and the US Patent Office, it can be concluded that the American legislature did not include explicit texts stipulating the possibility of granting patents to living organisms, but it also did not set texts that prevent the possibility of their acquittal, and therefore it is possible to benefit from the facts and by granting the innocence it allows the protection of genetic inventions and can be granted a patent in this regard, similar to other national legislation.

THE SECOND REQUIREMENT

THE POSITION OF ARAB LEGISLATION ON GENETIC INVENTIONS

In order to stand at the position of Arab legislation on genetic inventions, we have chosen the position of Egyptian law, as it is considered one of the modern Arab legislations in the field of intellectual property. To find out the provisions that we can draw from its legal texts and their ability to protect this type of invention, we examine each of the two positions separately as follows:

FIRST SECTION

GENETIC INVENTIONS IN EGYPTIAN LEGISLATION

To discuss genetic inventions in the Egyptian legislation, we find that it takes a hesitant position to grant protection to it, so we show it by finding a definition for it first, and then stating the position of the Egyptian legislation for genetic inventions second.

FIRST: DEFINING GENETIC INVENTIONS IN EGYPTIAN LEGISLATION

We did not find within the provisions Egyptian legislation a direct and specific definition of the concept of invention, but we note that a definition can be reached from the same law when it specifies in its text the conditions that must be met in the invention in order for it to be patentable; Where it was stipulated that: "Patents are granted in accordance with the provisions of this law for every industrially applicable invention that is new and represents an innovative step,

1) Dr. Hanan Abdulaziz, previous reference, p. 198.
2) Dr. Hanan Abdulaziz, ibid., p. 199.
whether the invention is related to new industrial products, innovative industrial methods, or a new application of known industrial methods.” However, a part of jurisprudence it was considered, through the context of the previous text, that the Egyptian legislator confused the definition of the invention on the one hand, and the conditions and forms of the invention on the other hand (1).

While we find Egyptian jurisprudence tended towards finding a definition of the invention, an opinion in jurisprudence was defined as: “a new innovative idea that did not exist before that can be used in industry in a way that adds something new to the prior industrial art more than what can be applied to the usual news in the industrial field (2).

And as an embodiment of this, the judiciary in Egypt tended to give its opinion on the definition of the invention, so the Egyptian Supreme Administrative Court defined the invention in one of its decisions as: the idea that went beyond the development of the usual industrial art (3).

SECOND: THE POSITION OF EGYPTIAN LEGISLATION ON GENETIC INVENTIONS

The Egyptian legislator expressed his explicit desire, in Law No. 82 of 2002 on intellectual property, to exclude the human body from the field of patents, by reviewing the legislative article that stipulates this, which indicates that the Egyptian legislator did not only mention the principle of exclusion in general, but also included a detailed list Among the elements excluded from the patent are: organs, tissues, living cells, natural biological materials, DNA, and the genome (4).

Exclusion stems from innocence mainly in Egyptian law. For reasons moral as far as they are legal reasons and at the same time it is not possible to patent these elements in their natural state such as organs, cells, tissues, and natural biological materials, Because she Just discoveries according to the Egyptian intellectual property law, and the existence of legal protection for the human body in the Egyptian civil code, especially its inability to be subject to the right of ownership as one of the things that are by nature outside the scope of trade (5).

The Egyptian legislature also excluded plant and animal inventions from protection, as it expressly stipulated that patents may not be granted to plants and animals, whatever their degree of scarcity or strangeness, as well as methods that are biological in their basis to produce Plants or animals, but there is an exception for non-microorganisms and the biological methods used in their production, while everything related to plant innovation is excluded from the scope of the patent (6).

The Egyptian legislator singled out special protection for items Plants and related breeding and vital innovations are embodied as follows: “Enjoy protection in accordance with to provisions This law refers to plant varieties derived in the Arab Republic of Egypt or abroad, whether they were obtained in a biological or non-biological way, whenever they are registered in the special register. by varieties botanicals that confer the right of protection” (7).

Such disputes were not brought before the Egyptian judiciary in light of the exclusion of animals from the scope of patent protection. None The degree of their rarity or strangeness, as well as the ways in which they are biological to produce In application of this, it is not for the one who came up with an invention or to apply for a patent for it, Because he often rejects the latter, and dismisses the forms of such animals (8).

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2) Somaya Daoud, Biohacking in the Light of the TRIPS Agreement and Biological Diversity, Master Thesis, Al-Hajj Al-Khidr University, Batna, 2015, p. 18.


4) Article (2/5) of the Egyptian Intellectual Property Protection Law No. 82 of 2002 AD.

5) Article (81) of the Egyptian legalization of 1998 AD.

6) Article (2/4) of the Egyptian Intellectual Property Protection Law No. 82 of 2002 AD.

7) Article (189) of the Egyptian Intellectual Property Protection Law No. 82 of 2002 AD.

In application of this, any new invention in these excluded elements cannot be patented by its owner. Because it is one of the vital areas necessary for human life, and it contributes to the continuous progress in these areas, which is why it is preferable for inventors not to monopolize in these cases what they have reached in order to ensure the progress of humanity (1).

It is worth noting that the Egyptian legislator under the old Law No. 132 of 1949 did not deal with microorganisms with protection, as is the case with most developing countries, and the position of the Egyptian legislator appears more clearly through the judicial side as follows. The advisory opinion of the State Council: regarding the legal extent of registering strains, bacteria, viruses, fungi, vaccines, sera, and methods of preparing or using them in other products of animal strains (bacteria, viruses, fungi, vaccines, sera) and methods of preparing or using them in other products on the basis of the disclosure of the invention as a writing.

But if the invention is related by anyone Microorganisms or using them and the public could reach them, the aforementioned description is not sufficient to guarantee the disclosure of the invention, which led to the request of many countries in such cases to deposit a sample of microorganisms with a specialized institution, but the office does not have the equipment to handle the microorganisms that Preserving them and delivering samples requires technical expertise and special devices, and Egypt is not a member of the Bo Treaty Dapestdated 284/1977 regarding international recognition deposit Microorganisms for purposes The procedures related to patents are not available in terms of laboratories and means of preservation, and this type of invention coincides with a continuous increase. Because Represents the technology of the times.

Therefore, the Patent Office in Egypt refused to accept this type of invention, especially since the current law did not explicitly provide for this type of invention and did not mention it. A request was made to find out the legality of registering the aforementioned patent applications, and in response to that, the Fatwa Department stated that according to Article The first and the second, of Law No. 132 of 1949 that it The legislator has entrusted the granting of a patent for each new innovation, provided that it is capable of industrial use, whether it is related to industrial products, industrial methods or liquids, or a new application of known industrial methods or means, and that the applications submitted for legal protection request for the registration of strains, bacteria, viruses, fungi or vaccines Or the mothers It is not included in the industrially exploitable innovations, but rather in the related chemical inventions with food Or medical drugs or pharmaceutical compounds, and therefore no patent is allowed on them with the possibility of granting a patent for the methods of their preparation if they are manufactured by special chemical methods or processes. Patents for the registration of strains in application of the text of Article (2/ b) In Law No. 132 of 1949 AD, and therefore the patent is granted for the method only and not for the microorganisms themselves (2).

In light of the new Egyptian Law No. 82 of 2002, the Egyptian Intellectual Property Rights Protection Law surrounded microorganisms with protection. As it appeared from the text of the article The first granted a patent, according to provisions This law is for every industrially applicable invention that is new and represents a creative step, whether the invention is related to new industrial products, innovative industrial methods or means, or a new application of known industrial methods or means.

The industry concept in this regard includes related chemical products with food Pharmaceutical chemical products, microorganisms and processes microbiological Micro and non-biological to produce Plants and animals, better in the final formulation and so appeared In the text of the first and second articles One of the provisions of the Intellectual Property Rights Protection Law No. 82

1) Dr. Samiha Al-Qaloubi, Industrial Property, 10th edition, Dar Al-Nahda Al-Arabiyya for Publishing and Distribution, 2016, p. 139.

of the year 2002 and which states Every industrially applicable invention is new and represents a creative step, whether the invention is related to new industrial products, innovative industrial methods, or the application of known industrial methods. A patent is also granted for exploitation for every modification, improvement, or addition to an invention for which a patent has previously been granted, if conditions are met. Novelty, creative step, industrial applicability while the second article states that patent is not granted as follows Q/4 Plants and animals, whatever their degree of rarity or exoticism, as well as methods that are essentially biological to produce Plants or animals other than microorganisms and non-microbiological methods to produce Plants and animals, from the above appears from the text of the article The legislator expanded protection without obligation, where he referred to the concept of industry to includes biological processes to produce plants, although Article (273/ (b) of the TRIPS Agreement mostly excluded biological methods to produce Plants or animals, and the legislator also dealt in this article with microorganisms as an industrial concept (1).

It is worth noting that the Egyptian legislator prohibited the human genetics from being the subject of a patent, as we mentioned earlier, but he did not object to protecting the method used to reach knowledge of the uses of human genes or their applications as a subject of a patent in Egyptian law, because protection, like a patent, here is for the method used to know Applications of human genes and this is inconsistent With the provisions for the protection of inventions or discoveries stipulated in the Egyptian law.

SECTION -TWO

GENETIC INVENTIONS IN IRAQI LEGISLATION

The Iraqi legislator takes a neutral position in granting protection to genetic inventions. Therefore, we try through this section to explain the definition of genetic inventions in the Iraqi legislation first, and then explain the legal position regarding them secondly.

FIRST: DEFINING GENETIC INVENTIONS IN IRAQI LEGISLATION

As for the position of legislation and jurisprudence in Iraq, we find that it created a definition of the patent, whether at the level of legislation or jurisprudence. The Iraqi Patents, Industrial Designs, Undisclosed Information, Integrated Circuits, and Plant Varieties Law No. (65) of 1970, amended in Article (1/fourth), defined the invention as: Any creative idea reached by the inventor in any of the technical fields and related to a product or manufacturing method that practically leads to solving a specific problem in any of the fields (2).

While the Iraqi jurisprudence definition of invention came as: “Every new creative idea capable of industrial application related to either a new industrial product or new industrial methods or a new application of known industrial methods (3).

As for the Iraqi judiciary, we find that it did not know the invention, and no cases were presented to it for this type of invention, unlike the Egyptian judiciary, which explained what is meant by the invention. Regarding this type of invention, and also despite the fact that the invention on living matter has become acceptable to them.

The definition came genes As: “pure information about a person that distinguishes him from others”, it is a biological means of identifying an individual’s personality, and for this reason it can be considered as personally identifiable information and as health-related information (4).

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1) Dr. Abdul Rahim Antar Abdul Rahman, d. Muhammad Abd Mubarak, previous reference, p. 236.
2) The Patents, Industrial Designs, Undisclosed Information, Integrated Circuits, and Plant Varieties Law No. (65) of 1970, which stipulates in Article 1, Paragraph 4 thereof, that an invention “is every new innovation capable of industrial exploitation, whether it is related to new industrial products or innovative methods and means.” (81) for the year 2004, amending the previous law, and in it the invention states: “Any creative idea reached by the inventor in any of the technical fields and related to a product or manufacturing method that practically leads to solving a specific problem in any of the fields.
Through the above-mentioned definitions of law, jurisprudence and judiciary, it appears to us that there is a consensus that the concept of invention is based in general on the fact that it represents every new innovation that was not known in the past, but that is capable of industrial exploitation on the ground and that this innovation is related to the image that we see and flows into the form of the final product or by means and methods that enabled access to her. As for genes, we note that legal jurisprudence tried to define them as information and a message or a container for this information pertaining to the organism, which is transmitted from one gene to another, and with it determines its characteristics and identity and expresses its health and has the ability to be modified, altered or transferred. From one organism to another, and through this, in our humble role, we can reach a definition in which we show the genetic invention as (it is every new innovation that focuses on the genes of living organisms to modify their genetic material to become more developed and meet human needs by modification, change, transfer and merging to be in the form of a final product that has not been previously known).

SECOND: THE POSITION OF IRAQI LEGISLATION ON GENETIC INVENTIONS

As for the position in Iraqi law, patent law, industrial models, undisclosed information and integrated circuits and varieties Botanical No. 65 of 1970 amended. Movie included Article 3 of it related to the cases in which the patent does not grant any reference to genes, microorganisms, or biological methods, whether they are accurate or not, and the non-biological methods used in the production of plants and animals. As long as the topic is like this, all the methods mentioned in this topic and presented for research are valid to be the subject of a patent if the rest of the conditions for granting them are completed, as a patent may be granted for biological methods (whether they are accurate or not). It is also granted for non-biological methods used in the production of plants and animals, provided that they meet the rest of the conditions for granting a patent.¹

The Iraqi law did not exclude organs, tissues, living cells, biological materials, DNA and genes from the protection granted to them under the patent system, which means that any of them may be acquitted (or protected under the patent system in force in Iraq, as long as it fulfills the other conditions stipulated in the law (law Patents, industrial models, undisclosed information, integrated circuits and plant varieties No. 65 of 1970 (amended).

In summary, the Egyptian legislator has settled that issue Controversy with the Iraqi legislator. When he authorized the granting of a patent for the non-biological methods used in the production of plants and animals, as for the biological methods used in that production. The original including that it does not accept protection under the patent system. And we are still talking about biological methods that have the ability to be accurate, that is, those methods are like accurate biological methods, which is one thing, and (general) biological methods (if you can express them) is something else. If the methods used in the production of plants and animals are by non-biological methods or micro-biological methods, they may be acquitted (or protected by the patent system) according to provisions internal laws in both Egypt and Iraq)², where the agreement aspects connected by trade from rights Property intellectual(thrips)she gave the best for states Members And who Iraq member In which to protect him Categories Botanical by one three Species from systems legal: The first: patents invention And the second: System private or unique to protect him That Categories And the third of them: Mix for the two systems aforementioned above(Subject27/Third/B trips) (³), and on this Basis We mention that legislator Iraqi gold to what

1) Dr. Akram Fadel Saeed Kassir, The Role of the TRIPS Agreement in Developing Legal Protection Systems for Microorganisms, Pharmaceuticals and Biological Technologies in Arab Legislations (A Study of Iraqi, Egyptian and Jordanian Biological and Pharmaceutical Legislation), Journal of the College of Law Al-Nahrain University, Faculty of Law, Article 16, Issue 1, Q 2016, p. 167.
2) Dr. Akram Fadel Saeed Kassir, ibid., p. 168.
3) Text of Article (3) of the TRIPS Agreement (Permissible also for countries Members that excludes from portability get on patents invention the following: (a)Methods Diagnosis and treatment and surgery necessary to process Humans or the animals; (B)the plants animals, dispute Biology minute, And roads biological in Most of them to produce the plants or the animals dispute methods And roads not biological and biological minute.not it is on the countries Members Grant
She indicated mechanism agreement trips And that on road construction System private And unique to protect him Categories Botanical and rights deductive the plants where issued legislator Iraqi Law registration and adoption And protect him Categories agricultural number15 for a year2013and outgoing from council deputies By the number(to.g/207)On 12/8/2012 and it was done bulletin with the facts Iraqi outgoing By the number(4278)in May 28th(May)For the year 2013 to rise Indeed The economist in sector agricultural And to protect him rights deductive Categories Botanical new and encourage them on innovation In what Pour for his own sake Agriculture Iraqi And to raise level output agricultural and yield obtained from him where sequence legislator in situation texts legal court to protect Categories Botanical and rights elicited it beginning in the chapter the first By definitions And clarify some concepts and phrases is meant Of which with statement in the chapter the second Tasks The Commission national Competent Issuing decisions in registration and adoption strains and varieties and hybrid agricultural new produced and introduction from project item And competence the chapter the third in How transition strain or item or Hybrid And mortgage it and booking on him all the way to dismiss the fourth in statement license exploitation strain or item or Hybrid where I overheard(Subject16F The first)from him on that it” for the elicitor that granted others license exploitation strain or item or Hybrid protégé under a contract editorial Complete register it I have The Commission provided on her in clause(Firstly)from Subject(2)from this law” and who during This is amazing Subject note Pan legislator permit inventions genetic Botanical And add she has protection especially and where pointed out in the chapter Fifth from him in provisions Concluding in Subject(17/F The first)from him on that it for the elicitor item protege Accommodation the invitation civil Before eliminate against from assaulted or transcend on his rights in strain or item or Hybrid protege According to the law And finally an act legislator in Individuals protection especially for inventions genetic Botanical To develop Agriculture and encouragement farmers on innovation and flourishing among them contribite in production amounts nutritional Botanical plug his need Of which and hey Would love if He was there addition for a breeder the animals And for my producer strains animal different and strobe and resistance for circumstances and included For this the law as a also from foundations economic and intellectual new which get up on principle protection Rights intellectual in sector agricultural and animal and include it in it as long He was section Agriculture And raising him the animals they get even in that both of them One no integral on the other in Importance economic and value nutritional And to encourage on innovation genetic animal and vegan no He is that unless from during amendment the law on road addition New Issuing new and he on that He is Law registration and adoption And protect him Categories agricultural animal, As for the position of the professional behavior instructions for Iraqi doctors Regarding human genetic innovations it stipulates that “experiments on a patient are considered a criminal act unless they are conducted for purely scientific purposes and in scientific research centers or scientific educational institutes (2), Through this, we find that the Iraqi legislature did not explicitly stipulate the genetic inventions and the permissibility of acquitting and protecting them by means of the patent, and its texts are devoid of a text on genetic inventions, as we mentioned previously, but it is permitted in the Professional Behavior Instructions for doctors to conduct research and scientific experiments that may amount to human genetic inventions that may cause the production of serums, medical and therapeutic drugs, or the creation of genes that can be replaced by damaged human genes, and so on. Nevertheless, we can discern this explicitly, considering that The Iraqi position is doomed Two principles They are the protection for types the plants As for on road patents invention or system unique feat private with this species or Bye Mix who are they. And it is returned look in provisions This is amazing the paragraph sub after Four Years from date force an agreement organized commerce Global, Dr.. Akram Fadel Saeed Kassir, ibid., p138.


2) See (Secondly / F / F) of the Professional Conduct Instructions for Iraqi Doctors No. (6) on 19/5/1985 issued for Article (22 / F / I) of the Iraqi Medical Association Law No. (81) for the year 1984, which stipulates: The following acts are prohibited for the purposes of this law: "Violation of laws, regulations, instructions, orders, and rules of professional conduct, especially attracting patients by means of advertising and enticement, or by using intermediaries."
Islamic Sharia as a source of Iraqi law and the rules of justice. Since there is no legislative text and custom governing genetic inventions and As stipulated in Article 1 of the Iraqi Civil Law No. (40) of 1951 \(^1\), Therefore, it can be referred to in order to derive the Iraqi position on it: The position of Islamic law came with the decision of the Islamic jurisprudential community in the second text of it on the uses of genetic engineering:

1- It is not permissible to use genetic engineering with the intention of altering the genetic structure in what is called improving the human race, and any attempt to genetically tamper with a person's personality or interfere with his eligibility for individual responsibility is prohibited by Sharia.

2- The principle of benefiting from genetic engineering in plants and animals is permissibility and permissibility, and this permissibility is subject to conditions, the most important of which are:
   - This use does not lead to immediate or delayed damage.
   - That this use be for a valid permissible purpose, without tampering or extravagance.
   - To be handled by those with experience and confidence.

3- Where genetic engineering may not be used for harmful purposes \(^2\).

It is clear from the foregoing that genetic inventions that are the result of research on genetic stem cells are considered the most important areas of biotechnology that are used in the field of medical treatment, as well as for the treatment of chronic diseases and hereditary diseases or scientific research, which is a legitimate use within the framework of the controls approved by Islamic law through the regulation of its use, which sets the boundary between legitimate use and other cases, and therefore requires the protection of genetic inventions. However, we suggest that the legislator keep pace with these modern scientific developments by enacting a law that regulates this.

CONCLUSION

by the end search by this the topic We prove what We figured mechanism from results And Proposals on syntax following:-

FIRST: THE RESULTS

1- Genetic inventions are defined as any innovation that states on the genetics of living organisms (its material genetic) to become more resistant and developed and to meet human needs! transport PCR and Merge to Text Bin the form of a previously unknown final product for medical, industrial and agricultural purposes.

2- legislator French situation System tight to protect inventions genetic, whether attached matter with the genome human, or animal or vegan, where a job on to set Domain protection much from Precision, And from hand exclude all what maybe that mingle by innovation covered innocently invention.

3- that legislator The American did not It includes texts honest states on Possibility Grant innocence inventions for objects live unless that it did not Manufactured texts prevent passport exonerate her.

4- that legislator Egyptian did not It is forbidden inventions genetic, unless that it ban that be genetic Humanity subject for innocence, But it is did not mind in protection The means used in reach to knowledge uses genetics Humanity or its applications subject to innocence invention.

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1) See Article 1 (Part 1) From the Iraqi Civil Code No. (40) of 1951 “If there is no legislative text that can be applied by the court’s wisdom according to custom, and if it is not found, then according to the principles of Islamic law that are most appropriate to the texts of this law without being bound by a specific doctrine, and if it is not found according to the rules of justice.”

2) See (Secondly P / 1/2/3) of the decision of the International Islamic Fiqh Council regarding heredity and the human genome (the genome) No. 203 (9/21) of November 22, 2013 in its session held in the city of Jeddah “Kingdom of Saudi Arabia” corresponding to 18-22 November 2013 published on the website of the International Islamic Fiqh Academy at the link: [http://www.iifa-afi-org/24/6.html](http://www.iifa-afi-org/24/6.html) Visited on 10/17/2022, at 11:26 PM, Mecca.
5. As for legislator Iraqi like that as he adverb in legislation The American did not included his texts on Possibility Grant innocence inventions for objects live as well he did not prevent it And why Means from that that it passport acquitted or block it according to all condition.

Second: suggestions

In order to activate the existing legal mechanisms that guarantee the protection of genetic inventions, we conclude the following proposals:

1. rectify Void Legislative to keep up developments and spread use Engineering genetic, where We find that legislator Iraqi did not states Frankly on inventions genetic And why take stand frankly Of which By passport acquitted and protect it or the opposite, So we call legislator by text on her on model legislation Countries advanced and developing, or legislation Law private by engineering genetic Organize innovations genetic and procedures research laboratory and knock production objects Modified Genetically.

2. Necessity finding rules legal especially protected inventions genetic especially what regard Of which That that Aims develop And to improve products industrial And agricultural And animal And pharmacological And nutritional by fate that contribute in development reality Industrial And agricultural And therapeutic That inventions.

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