Stem Cells: A Comparative Legal and Ethical Analysis of Usage Restrictions under Algerian Medical Law and Islamic Jurisprudence

الخلايا الجذعية: تحليل قانوني وأخلاقي مقارن لقيود الإستخدام وفقًا للقانون الطبي الجزائري والفقه الإسلامي

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Abstract:

The growing use of stem cells in the treatment of incurable diseases and organ transplantation raises serious legal and ethical concerns. The foremost among them is the possibility of contravening the principles of bodily integrity and the prohibition of commodifying the human body. This research aims to analyse the legality of stem cell utilisation under Islamic jurisprudence, Algerian medical law, and comparative legal systems. To that end, it identifies the main legal challenges associated with stem cell research, explores ethical considerations drawn from religious and legal traditions, and evaluates whether existing legal texts adequately address these developments. The scope includes Islamic legal principles, relevant Algerian laws, and international legal texts that deal with biomedical innovations from a comparative point of view. The analysis reveals substantial legislative inadequacies and interpretative ambiguities, indicating that current legal frameworks often fail to accommodate rapid advancements in medical technology. The study concludes by underscoring the imperative to amend and harmonise national legislation with ethical and religious principles to ensure the responsible use of stem cells and the preservation of human dignity.

Keywords: Stem Cells; Ethical Concerns; Islamic Jurisprudence; Legal Frameworks; Medical Advancements; Medical Law.

ملخص:

يشهد الاستخدام المتزايد للخلايا الجذعية في علاج الأمراض المستعصية وزرع الأعضاء جدلاً قانونياً وأخلاقياً، خاصة لاحتمال تعارضه مع مبدأ حرمة الجسد ومنع تسليعه. يهدف هذا البحث إلى تحليل مشروعية هذا الاستخدام وفقاً للفقه الإسلامي، والقانون الطبي الجزائري، والأنظمة القانونية المقارنة. ويتناول أبرز التحديات القانونية والأخلاقية المرتبطة بأبحاث الخلايا الجذعية، مستعرضاً الأسس الدينية والقانونية، ومقيّماً مدى كفاية النصوص الحالية لمواكبة التطورات البيوطبية. يكشف التحليل عن قصور تشريعي وغموض تفسيري، مما يبرز الحاجة إلى مراجعة شاملة للمنظومة القانونية. ويخلص البحث إلى ضرورة تعديل التشريعات وتوحيدها بما ينسجم مع المبادئ الأخلاقية والدينية، لضمان استخدام مسؤول لهذه التكنولوجيا، مع الحفاظ على كرامة الإنسان.

الكلمات المفتاحية: الخلايا الجذعية؛ المخاوف الأخلاقية؛ الفقه الإسلامي؛ الأطر القانونية؛ التطورات الطبية؛ القانون

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Introduction:

The human body did not enter the legal domain directly until the second half of the twentieth century. Advances in medical and scientific knowledge enabled the use of the human body as a source of biological spare parts to preserve the health and lives of patients. Initially, such interventions included corneal and skin grafting, kidney transplantation, and other human organ transplantation. However, recent progress in medical and biological sciences, coupled with the growing pursuit of knowledge regarding human development and remedies for previously incurable diseases—driven by human activity and technological innovation—has led to several discoveries, the most notable of which is stem cells. These cells constitute the foundation of human organs and are responsible for their growth and development.

Despite the remarkable success of stem cell research in treating previously incurable diseases—rendering it a promising alternative to traditional medical procedures such as organ transplantation and grafting, which continue to face practical and legal challenges—this scientific progress has necessitated closer interaction between medicine and law. Given that medicine is a rapidly evolving natural science, propelled by technological breakthroughs, it has become imperative for legislators and Islamic legal scholars to engage in careful jurisprudential analysis to comprehend the implications of stem cell use and to define the legal and ethical boundaries governing their application.

This study aims to fill that gap by offering a systematic comparative analysis that connects Islamic legal scholarship with contemporary Algerian medical legislation, providing both theoretical insight and practical recommendations to regulate stem cell applications in a way that respects Islamic values and supports scientific advancement.

As stem cells represent a milestone discovery in medicine in recent years, the work under discussion addresses two fundamental issues of understanding. While it requires a comprehension of the current state of affairs, it primarily necessitates an appreciation of the obligations associated with their use. Consequently, the first step is to grasp the medical, biological, and technical aspects of stem cells and to understand these aspects as fully as possible—apprehending their reality.

Subsequently, the task is to examine the ethical and legal obligations surrounding stem cells through the perspectives of both Islamic jurisprudence and positive law with regard to this contemporary medical issue. This will be undertaken by addressing the following legal and ethical questions:

To what extent is the use of stem cells permissible within the boundaries of medical treatment and the inviolability of the human body? What are the limits and regulatory frameworks governing their application under Islamic jurisprudence and Algerian medical law?

In our endeavour to contribute to the clarification and resolution of this issue, we aim to conduct an analytical, foundational, and comparative study. We will first seek to understand and discuss stem cells from a medical perspective, emphasising the necessity of their use, particularly in light of obstacles arising from certain legal principles that may restrict their application. Thereafter, we will delineate the legal framework governing their use within Islamic law by citing the opinions of Islamic juristic authorities and provide an analysis of the legal limits of their use in the context of modern medical practice.

Section I: Stem Cells: Between the Need of Medical Treatment and the Duty to Show Respect to the Human Body

The subject of stem cells involves significant scientific complexities, making it impossible to cover all technical and scientific details within a modest study such as this. Instead, it is a topic that requires discussion in specialised conferences and research theses. Accordingly, we will present the most significant facts about stem cells, briefly explaining what they are, how they are obtained, and their sources from a medical perspective.

Additionally, we will examine the key legal principles that may conflict with a physician's use of stem cells in treatment, as well as the potential implications for the human body, whether as the recipient or the donor of the cells.

A) Stem Cells from a Medical Perspective

Understanding the concept of stem cells, their function, specialization, and how they can transform into other organs in the human body enables us to uncover many of the secrets behind the formation, creation, and development of the human being. This can only be achieved by addressing the medical definition of stem cells and their significance, as well as examining their sources and methods of extraction.

1. The Definition and Significance of Stem Cells

The Jordanian legislator defined a stem cell in Article 2 of Regulation No. 51 on Stem Cells as:

"A pluripotent, undifferentiated, and unspecialised cell capable, under specific and defined conditions, of continuing to divide and differentiating into specialised cells that form the building blocks of tissues and organs."

Regarding German law, stem cells are defined in Article 3 of the 2010 Act on the Protection of Embryos with respect to the import and use of human embryonic stem cells ("Stem Cell Act") as follows:

"Stem cells are all human cells that possess the ability to proliferate through cell division in a suitable environment to produce cells with different specialisations. Embryonic stem cells are pluripotent stem cells derived from embryos created outside the body and not used for pregnancy. Embryonic stem cell lines comprise all embryonic stem cells that are maintained in culture or stored under refrigerated conditions.[1]"

The origin of stem cells lies in a single cell, namely the fertilised egg, formed by the fusion of sperm and ovum. The cell comprises three components: the cell membrane, the cytoplasm, and the nucleus[2]. Cells differ in their chromosome count and are classified into two categories: somatic cells, which contain 46 chromosomes, and germ cells, which constitute the sperm in men and the ovum in women, each with 23 chromosomes—22 autosomes and 1 sex chromosome. Generally, the cell serves as the basic building block for tissues and organs[3].

Stem cells are not visible to the naked eye but can be observed under a microscope. They are the fundamental units of life and are present in all living organisms, with the exception of certain viruses[4]. They represent the smallest forms of life, exhibiting shapes ranging from fixed to variable. All cells undergo degeneration and regeneration, except for nerve cells, which do not regenerate once damaged[5].

Stem cells[6] are defined as cells with the potential to transform into any type of cell in the body, depending on specific environmental conditions in the laboratory. They are undifferentiated and incomplete, characterised by their capacity for differentiation through multiple and successive cellular divisions into a wide array of mature, specialised cell types, such as bone, skin, or muscle cells. One of their primary functions is to continuously repair and replace damaged somatic cells, which is why they are often referred to as "master cells" or "magic cells" in the Western world.

Stem cells occupy a central role in the treatment of incurable diseases and represent a promising alternative to traditional organ transplantation and grafting. Gene therapy was first applied in 1990 by physicians French Anderson and Michael Blesse, who treated a three-year-old girl with adenosine deaminase (ADA) deficiency, a disorder responsible for the complete breakdown of immune defences[7].

The birth of "Javier" in October 2008 in Spain sparked significant controversy among both supporters and opponents of the procedure. This birth was not natural but deliberately orchestrated through in vitro fertilisation (IVF), specifically to attempt to treat his seven-year-old brother, "André," who was suffering from one of the most severe forms of anaemia. Upon Javier's birth, the

umbilical cord blood, which contains cells capable of differentiating into specialised cell types—commonly referred to as stem cells—was extracted and transplanted into André's bone marrow after it had been emptied.[8]

Additionally, stem cells can be used to develop drugs and vaccines that target viruses, bacteria, or other infectious agents through genetic engineering. These are administered to individuals to stimulate their immune system to produce antibodies that will protect them from infection upon exposure to the respective pathogens. Among these, perhaps the most widely used is the hepatitis B vaccine[9].

However, alongside the extraordinary applications of stem cells for disease treatment—due to their plasticity, ability to develop into any cell type in the body, potential limitless availability, and clinical accessibility for therapeutic purposes—there are considerable challenges. One such challenge is the difficulty in controlling stem cells to generate the specific type of cell required for treatment. Moreover, there is a possibility that stem cells could be rejected by the patient's immune system due to genetic differences, resulting in transplant failure. Furthermore, this issue has sparked significant ethical and religious debates, particularly among those who oppose research on human embryos.[10]

2. Sources and Methods of Extracting Stem Cells

It is widely recognised that human organs are generally classified into two primary categories: vital organs, which are prohibited from being donated or transplanted under both Islamic law and positive legislation due to their essential role in sustaining life—such as the heart, liver and cornea—and non-vital organs, which are not indispensable to human survival, such as the kidney, and which may be legally and ethically donated or transplanted, provided that the relevant legal and religious conditions are observed. While the extraction and identification of such organs generally pose no major difficulties, the situation differs considerably regarding stem cells[11].

As previously noted, these cells constitute the foundational building blocks of all bodily organs and represent one of the great biological mysteries. Therefore, it is essential to examine their sources and the methods by which they can be procured.

2.1. Sources of Stem Cell Extraction

Biomedical science has already identified a variety of potential sources from which stem cells can be derived, most significantly:

- **Human Embryos[12]**: These may include embryos that have spontaneously miscarried or excess embryos from medically assisted conception (in vitro fertilisation)[13]. They are five days to two weeks old and are richest in undifferentiated cells capable of developing into any type of cell found in virtually all humans[14].

- **The Adult Human Body**: Stem cells may also be obtained from adult tissues, most importantly bone marrow. However, this presents challenges: the procedure is painful, often requires general anaesthesia, and yields only a limited number of cells. Blood is another source, although it similarly provides only a small quantity of stem cells[15].

- **Umbilical Cord Blood**: Blood retained in the placenta and the umbilical cord after birth contains a significant number of embryonic stem cells. These cells can differentiate into any cell type present in the human body and bloodstream, rendering them particularly valuable[16].

2.2. Techniques Used to Obtain Stem Cells

Since stem cells were discovered and their prominent role in human development and healing became known, medical and biological scientists have devoted considerable effort to developing new methods to isolate them. The most notable techniques are:

The James A. Thomson Method: This method, developed at the University of Wisconsin–Madison, represented a significant milestone in February 1998, when Dr Thomson successfully isolated embryonic stem cells for the first time[17]. He derived them directly from the inner cell mass

of human embryos at the blastocyst stage[18]. These cells were cultured in vitro, producing continuous stem cell lines. Subsequently, some of these cells differentiated into various types of tissue[19].

The Gearhart Technique: Under the supervision of Dr Gearhart at Johns Hopkins University, this procedure involves deriving embryonic stem cells from foetal tissue obtained from embryos that have been aborted with the voluntary consent of donors who had opted for pregnancy termination. The extracted cells were taken from the area destined to develop into gonads (testes or ovaries), known as germ cells. These also led to the establishment of sustained lines of embryonic stem cells[20].

Therapeutic Cloning Method: This method relies on the transfer of somatic cell nuclei. It involves taking a natural animal ovum and removing its nucleus, then extracting a nucleus from a somatic cell (other than that ovum and sperm cell) and fusing it with the enucleated ovum. The result is a new cell distinguished by its ability to develop into a complete living organism; therefore, it is considered a fully functional cell.

For example: "Let us suppose that a child suffering from leukaemia has a cell extracted—specifically, the nucleus of a fibroblast forming part of his connective tissue located beneath the skin. This nucleus would then be transferred into an enucleated ovum, derived from his mother, his sister, or any other woman willing to contribute to his treatment. In this way, an artificially created non-identical reproductive cell would be produced. Let us further assume that, under this procedure, it becomes possible to generate a line of healthy cells, tissue, or even an organ required by the patient. The latter would then benefit from a remarkable transplant."[21]

3. Legal Principles Governing the Use of Stem Cells in Medical Treatment

The therapeutic use of stem cell treatments by physicians can only be deemed lawful when it complies with a set of fundamental legal principles that govern any interference with the human body[22]. A violation of these principles constitutes a breach of the doctor's legal duty and, consequently, engages their legal responsibility[23]. The most important among these principles are the right to physical integrity and the prohibition against treating the human body as an object of commercial transactions[24].

3.1. The Temporary Suspension of the Principle of Physical Integrity: A Necessary Condition for the Use of Stem Cells

The right to physical integrity forms an essential component of the most fundamental of all human rights: the right to life. It constitutes an integral element of the juridical protection afforded to the human person and serves as a sine qua non for safeguarding the individual's capacity to act physically and physiologically through the faculties bestowed upon them by the Creator. Its legal recognition is unequivocal and indisputable, given its vital role in enabling human beings to fulfil their social functions with dignity and autonomy[25] .

Some legal scholars have defined the right to physical integrity as "the legally protected interest of the individual in ensuring that their body continues to perform all its functions normally and naturally, without any interference—even in the minutest of these functions—whether temporary or permanent, and without deviation from the natural processes through which the body operates according to the laws of nature."

It follows from this definition that the right to physical integrity comprises three interrelated aspects:

First, the individual's right to maintain their level of health and physical well-being;

Second, the right to preserve the physical substance of their body from unlawful interference or harm; and

Third, The right to physical integrity is adequately safeguarded under the law, particularly in the context of medical treatment. Within the Algerian legal system, this right is enshrined in the

Constitution. Article 39 of the 2020 Algerian Constitution[26] stipulates: "The State guarantees the inviolability of the human person. Any physical or moral violence, or any violation of human dignity, is prohibited." Constitutional protection is further reinforced by civil legislation. Article 47 of the Algerian Civil Code[27] clearly provides: "Anyone illegally harmed in a right inherent to their personality may seek to halt the harm and be compensated for any damage incurred[28]."

In addition to these general legal guarantees, ethical obligations specific to medical practice are also codified. Article 6 of Executive Decree No. 92/276, which constitutes the Algerian Code of Medical Ethics[29], imposes on physicians the duty to ensure respect for the life and dignity of the human person.

The French legal framework similarly upholds the sanctity of bodily integrity. Article 16, paragraph 1, of the new French Civil Code of 1994 provides that "everyone has a right to respect for their body. The human body is inviolable and cannot be subjected to infringement[30]." This article establishes a fundamental principle of French medical law, namely the requirement to obtain the informed and voluntary consent of the patient prior to any medical intervention involving interference with their body.

Therefore, although stem cell therapy offers immense promise for the treatment of numerous life-threatening conditions, its use must be carefully balanced with the requirement to respect and protect the individual's physical integrity. Achieving this balance often necessitates a restricted and well-reasoned exception to the principle of bodily inviolability, which must always be applied under the strictest ethical and legal safeguards[31].

However, despite the general principle affirming the inviolability of the human body and the obligation to respect its physical integrity, there are circumstances in which a derogation from this principle is permitted—albeit exceptionally—on grounds of medical necessity or urgent therapeutic need. In such circumstances, acts that would otherwise be unlawful under both legal and ethical principles can be justified by the existence of a higher interest, namely the restoration or protection of health[32]. Even in the absence of medical necessity as strictly defined, the fundamental needs of the dying may acquire a status akin to necessity, thereby rendering admissible that which would otherwise be prohibited[33].

Accordingly, medical treatment cannot be administered by a physician unless there is a legitimate medical necessity. Moreover, such treatment must be preceded by the informed, explicit, and voluntary consent of the individual concerned—the holder of the right to physical integrity—without which any medical intervention constitutes an unlawful infringement of that right.

In addition, any physician who proceeds without obtaining the patient's proper consent is liable under civil law and may be compelled to compensate for the injury arising solely from the absence of valid consent, irrespective of whether a separate medical error has occurred. Moreover, the physician may be held criminally liable for any harm caused to the body of the patient or donor if that harm results from professional negligence or misconduct, as provided under Article 413 of Law No. 18-11 on Public Health.

Consequently, the use of human organ transplantation—whether for therapeutic or experimental purposes—must be strictly limited to cases where such procedures represent the sole means of preserving the life or physical integrity of the recipient[34]. At the same time, the extraction of stem cells must not, under any circumstance, expose the donor to any form of risk[35]. Accordingly, where a physician intends to obtain stem cells from umbilical cord blood, it is imperative that the pregnant woman's informed consent be obtained during pregnancy. She must be fully apprised not only of the potential benefits associated with stem cell therapy but also of any foreseeable risks, particularly those arising from the use of non-sterile delivery instruments, which may lead to infection and thereby compromise her physical integrity[36].

3.2. The Application of the Principle of the Inalienability of the Human Body in the Context of Stem Cell Use

Given that the right to bodily integrity constitutes both a constitutional and legal entitlement—one that is inviolable and inherently linked to the essence of human personality—it follows that the human body falls outside the realm of financial transactions. Indeed, bodily integrity does not fit within the conventional legal classification of rights as either real or personal, for it is not derived from any legal source or cause but rather constitutes an intrinsic attribute of legal personality[37]. Consequently, the human body cannot be subject to contractual dealings, nor can it be lawfully commodified[38].

Furthermore, under dominant religious and moral conceptions, the human body does not belong to the individual but is held in trust and ultimately belongs to God Almighty. Therefore, human organs are not considered "property" in the legal sense, and their destruction does not trigger compensatory valuation as with other types of property. Instead, religious legal texts prescribe specific blood money or retributive sanctions in the event of bodily harm or loss. Accordingly, it is impermissible for an individual to dispose of or sell any part of their body in a manner that would result in its destruction, impairment, or severe harm[39].

Exceptions to this rule may, however, be justified on grounds of medical necessity. In such circumstances, the broader purpose of preserving public health or achieving a therapeutic objective—such as saving a life or alleviating suffering—is sufficient to justify a temporary departure from the general prohibition. This aligns with the jurisprudential principle that "necessities render the prohibited permissible.[40]" The legal rationale is that conduct originally forbidden may be permissible under utmost necessity, but only to the extent required for the individual in need, without extending permissibility to others for whom no need exists[41].

In light of these considerations, the Algerian legislature has codified this principle, permitting exceptions solely for therapeutic purposes and in pursuit of the common good. Specifically, the application of stem cells, organs, or other human tissue is permitted only when this medical intervention constitutes the sole available means to save the life of the recipient or maintain physical integrity[42]. This exception is encapsulated in Article 355 of Law No. 18-11 on Public Health. Moreover, the permitted use of body parts must not endanger the donor's life and must be conducted on a non-remunerative basis, thereby reinforcing the fundamental principle that the human body must not be commodified for trade[43].

B) The legal conditions for the use of genetic engineering in the medical field

The advent of high-tech scientific and medical advances—among which stem cell technology has been particularly groundbreaking—has precipitated significant ethical, religious, and legal controversies. The therapeutic potential of stem cells has raised complex issues that challenge mainstream moral values and legal standards. In response to these developments, Islamic jurists and legal scholars have been compelled to act swiftly and diligently to address this novel biomedical phenomenon. Their objective has been to delineate the permissible boundaries of stem cell research and use, and to establishregulatory frameworks that medical professionals must observe in practice. In this context, the ensuing discussion will examine the religious and ethical boundaries of stem cell use from an Islamic jurisprudential perspective, followed by an analysis of the legal framework regulating such activities.

1. Islamic Jurisprudential Conditions for the Use of Stem Cells

Having previously examined the nature of stem cells, their scientific value in treating a range of intractable diseases, and the procedures and sources by which they may be obtained, it is now essential to consider the religious and ethical issues associated with their use. Of particular concern are practices such as abortion, cloning, and the disposal of surplus human embryos resulting from in vitro fertilisation procedures, all of which may be interlinked with stem cell technologies. These

practices raise significant moral questions, especially in light of the sanctity of human life under Islamic law.

Given the growing complexity, prominence, and expanding applications of stem cell research, it has become necessary to examine the positions adopted by Islamic scholars, who have demonstrated a commendable degree of responsiveness and intellectual diligence[44]. Through the organisation of scholarly conferences and symposia, jurists have undertaken rigorous ethical and legal evaluations of these biomedical issues. Their objective has been to issue a definitive Islamic legal ruling determining the permissibility or prohibition of various stem cell-related activities.

This scholarly discourse is intended not only to articulate the moral stance on stem cell use within the framework of Islamic legal maxims but also to provide clear and binding guidelines for medical practitioners. In this way, religious oversight ensures that any medical intervention involving stem cells is conducted within a framework of legal and ethical legitimacy, consistent with both divine law and the overarching principles of human dignity and welfare[45].

The Islamic Fiqh Council of the Muslim World League, in its third resolution issued during the seventeenth session held in Makkah Al-Mukarramah from 13 to 17 December 2003, addressed the use of stem cell technology[46]. In this resolution, the Council affirmed that the use of such technology is permissible, provided that its purpose is therapeutic or intended for legitimate medical research. The resolution specified **acceptable sources from which stem cells** may be derived, including, but not limited to:

- Adult donors, with informed consent and provided that no harm is caused to them.

- Minors, where consent is provided by their legal guardians for a legitimate medical interest and without causing harm.

- Placental tissue or umbilical cord blood, with the consent of the parents.

- Spontaneously aborted foetuses, where the abortion is legally and religiously sanctioned and subject to parental consent[47].

- Surplus embryos from in vitro fertilisation (IVF) procedures, provided that such embryos exist, are voluntarily donated by the parents and are strictly not used in any unlawful or illegitimate pregnancy.

Conversely, the Council also identified **prohibited sources for obtaining stem cells**, again by way of example rather than limitation. These include:

-Electively aborted foetuses, where the abortion has been performed intentionally without a medically or religiously valid justification.

- Deliberate fertilisation between donor gametes, such as the combination of an ovum and sperm from donors outside the framework of lawful marriage.

- Therapeutic cloning, which the Council deemed impermissible[48].

From the foregoing resolution, it is evident that the permissibility of using stem cell technology is strictly contingent upon its therapeutic utility or its application in lawful and non-harmful scientific research. This conclusion is consistent with Resolution No. 67 (5/7) issued by the International Islamic Fiqh Academy during its session held in Jeddah, Kingdom of Saudi Arabia, from 9 to 14 May 1992[49]. That resolution explicitly authorised the use of stem cells for medical treatment, given that treatment is generally sanctioned under Islamic law and serves one of its higher objectives, namely the preservation of human life[50].

Moreover, the resolution emphasised that where medical research involving stem cells does not cause harm to adult donors, it is deemed permissible. However, the use of such techniques on minors, legally incompetent individuals, or those whose legal capacity is incomplete or lacking, remains prohibited[51].

As for **the conditions governing the permissible use of stem cells**, we shall endeavour below to clarify them based on the classification of their sources, in accordance with the decisions issued **by the Islamic jurisprudential councils:**

1.1. With respect to fertilised ova (embryos):

Resulting from in vitro fertilisation (IVF) procedures permitted under Islamic law, Resolution No. 02 of the Islamic Fiqh Council of the Muslim World League, adopted during its eighth session held in Mecca from 19 to 28 January 1989, explicitly authorises the use of this form of external fertilisation (IVF), subject to strict conditions. The resolution stipulates that the sperm must be obtained from the husband and the ovum from the wife, and that fertilisation occurs outside the body, with the developing embryo subsequently implanted into the uterus of the same wife who provided the ovum. Furthermore, such procedures must be performed within a valid marital union, which has not been dissolved by death or divorce[52]. Any fertilisation procedure other than internal insemination, in which the husband's sperm is directly introduced into the wife's uterus, is considered illegal and religiously impermissible[53].

Similarly, the Islamic Fiqh Academy of the Organisation of the Islamic Conference (OIC) endorsed the same procedure under the same conditions in its Resolution No. 44 (6/6). The resolution also addressed the issue of surplus fertilised ova, ruling that where there are more embryos than intended for implantation, they must be left untouched without medical intervention until they naturally cease to exist. The use of such surplus embryos for implantation in another woman is categorically prohibited[54].

1.2. Regarding aborted fetuses:

The 2003 resolution of the Islamic Fiqh Council permits the use of stem cells derived from spontaneously aborted foetuses, provided that the abortion was not the result of deliberate action. However, the resolution does not provide detailed regulatory criteria for such use. For this reason, it is necessary to refer to the earlier resolution issued by the International Islamic Fiqh Academy during its sixth session, held in Jeddah, Kingdom of Saudi Arabia, from 14 to 20 March 1990. That resolution explicitly sets out the conditions and legal justifications under which an abortion may occur. It affirms that foetuses may not be used as a source of transplantable organs unless the abortion was spontaneous, unintentional, and justified by a legitimate medical reason. It further provides that a foetus may not be surgically removed unless the procedure is required to save the mother's life. Conversely, if the abortion is intentional and does not satisfy these criteria, it is absolutely prohibited under Islamic law.[55]

1.3. With regard to the umbilical cord and placenta:

Resolution No. 67 (5/7), as previously cited, explicitly conditions the use of stem cells derived from these sources upon the informed consent of both parents. In this context, we endorse the view expressed by the renowned Islamic medical consultant, Dr Mohammed Ali Al-Bar, who argues that there appears to be no ethical objection to the use of stem cells from the placenta or umbilical cord shortly after childbirth[56]. His reasoning is that both the placenta and the umbilical cord are normally discarded as biological waste at childbirth, and that their utilisation for stem cell harvesting does not cause any harm or ethical infringement. Consequently, it is unlikely that the mother—or even the father—would object to the harvesting of stem cells from these sources, given the absence of potential risk or violation of personal integrity[57].

1.4. As for therapeutic cloning:

The extraction of stem cells through therapeutic cloning is strictly prohibited, regardless of the intended purpose, whether medical or experimental. This absolute prohibition arises from the significant ethical and religious concerns associated with the practice, including its deviation from the divine framework of human creation. The Islamic Fiqh Academy articulated this position unequivocally in Resolution No. 94 (2/10), adopted during its tenth session in 1997[58]. This stance was subsequently reaffirmed by the symposium of the Supreme Council for Islamic Affairs[59],

convened in June and again in August 1998, both of which condemned the practice on theological and ethical grounds[60].

1.5. Concerning adult individuals and minors:

As provided in Resolution No. 67 (5/7) of the Islamic Fiqh Academy, the use of any form of medical treatment, including stem cell therapy, is conditional upon the explicit consent of the individual concerned. Accordingly, to proceed with stem cell-based treatment or the extraction of stem cells from a competent adult, it is essential that the individual provides informed and explicit consent. In the case of individuals with diminished legal capacity, such as minors or those who are legally incapacitated, consent must be obtained from their legal representative, and it must be demonstrated that the intervention confers a significant medical benefit to the individual concerned.

1.6. With regard to other potential sources:

With respect to alternative sources of stem cells, the Islamic Fiqh Academy has adopted a balanced position, permitting some sources while prohibiting others, without claiming to provide an exhaustive list of all permissible or forbidden sources. In doing so, the Academy has deliberately left the possibility open for using stem cells from additional sources, provided that their use serves a legitimate therapeutic or research purpose. Two conditions must, therefore, be satisfied.

First, there must be a genuine medical need or therapeutic benefit, such as the treatment or prevention of a serious disease, which would justify the use of the technique.

Second, there must be a careful and ethical assessment of harms and benefits, ensuring that the procedure does not cause disproportionate harm to the individual and does not violate the sanctity and dignity of the human body[61]. This approach reflects the recognition that medical science is an evolving discipline and that future breakthroughs may identify additional ethically acceptable sources for stem cell harvesting.

2. The legal conditions for the use of genetic engineering in the medical field

Upon examining the stance of Algerian lawmakers regarding the application of stem cells in genetic screening and therapy, it becomes evident that no specific legal text directly addresses this matter. This lacuna is likely due to the relatively recent emergence of the technology. Nevertheless, stem cell-based diagnosis and therapy remain subject to the general legal framework provided under Article 7 bis of the Family Code[62], particularly concerning prenuptial medical screening. It is noteworthy that the legislator did not specify which diseases must be screened under this provision, leaving it to medical professionals to determine the relevant conditions based on their clinical judgement.

It is noteworthy that Algeria has witnessed several therapeutic interventions using stem cells. Among these is the procedure carried out at the “Marie Curie” Hospital in Algiers, as well as the treatment performed at the “1st November 1954” Hospital in Oran, which was successful: on 18 February 2012, haematopoietic stem cells were transplanted into a 33-year-old man suffering from acute leukaemia. Additionally, 150 autologous transplant procedures have been performed by the Bone Marrow Transplant Department at the Oran healthcare facility, which was recently further equipped with a cord blood bank to obtain the cells required for stem cell transplantation procedures.

Moreover, Algeria recorded 557 successful kidney and stem cell transplants in 2021, as reported by the Minister of Health during his supervision of the opening of the scientific meeting dedicated to evaluating organ, tissue, and cell transplantation activities, with the participation of specialists in the field. Specifically, 223 successful kidney transplants and 334 stem cell transplants were registered during the same year, despite the suspension of surgical medical activities due to the COVID-19 pandemic[63].

For the first time, the Algerian legislator regulated the use of stem cells, referred to as "human cells," within the Health Law issued in 2018, in the first section of Chapter Four of Title Seven under the heading: "Provisions relating to the removal and transplantation of human organs, tissues, and cells." It should be noted that the term "human cells" was not provided for in the repealed Health Protection and Promotion Law No. 11-18 of 1985.

With respect to stem cell therapy, these procedures are governed by the provisions of Article 355 of the Health Law, which states, "The removal of human organs or the transplantation of human tissues or organs is prohibited, except for therapeutic or diagnostic purposes and in accordance with the conditions specified in this law." Accordingly, if a patient is requested to provide a cell from their body or to transfer it to another person for purposes other than treatment, such as experimental research, and this procedure is carried out, the individual concerned would bear legal responsibility[64].

The primary justification for a physician's action is to treat the patient for a legitimate medical purpose, which is why such actions are permitted. However, if the physician acts for reasons other than the treatment or diagnosis of the patient, they would be held legally liable. Consequently, if a physician is requested to extract a cell from an individual or to transfer it to another person for non-therapeutic purposes, such as research, and proceeds with the procedure, they would be subject to legal consequences. Furthermore, if it is established that the transfer of stem cells from a donor could endanger the health of either the patient or the donor, the physician must refrain from performing the procedure, or they will face both civil and criminal liability[65].

To apply genetic engineering or stem cell therapy for therapeutic purposes, the Algerian legal framework has established a distinct set of legal controls, extending beyond the general rules applicable to other medical or surgical procedures. These include possession of a valid medical licence, compliance with scientific standards of medical practice, and obtaining the patient's informed consent. The principal legal provisions are as follows:

2.1. That there is no other means of treatment available:

This requirement is reinforced in Article 355 of Health Law No. 18-11, which provides that human organs may not be removed, nor tissues or organs transplanted, except for therapeutic or diagnostic purposes. Such procedures may only be undertaken if they constitute the sole available method to treat or preserve the patient's life or to safeguard their physical well-being, without endangering the patient's life or the health of the donor[66]. It must also be ascertained that the donor (the source of the cells) is free from any infectious disease that could be transmitted alongside the stem cells. This principle is further emphasised in Articles 360, 361, and 364 of the Health Law[67].

2.2. Formality and legal capacity:

The general rule governing medical contracts is that they are consensual in nature and may be concluded orally[68]. However, for procedures involving significant risks, Algerian law imposes strict formalities to safeguard both the legality of the procedure and the protection of patients.

Under Article 360 of Health Law No. 18-11, a donor must provide informed consent before the president of the competent regional court, who is required to verify that the consent was given voluntarily and in accordance with the law. Subsequently, an expert panel[69] issues an opinion regarding the authorisation[70], followed by verification to ensure the validity of the consent and the legality of the procedure. Importantly, the donor may withdraw consent at any stage of the process without the need for additional formalities.

Where the organ or cell is to be obtained from a deceased person, Article 362 requires both medical and legal confirmation of death in accordance with recognised scientific standards. Removal is permitted only if the deceased did not express opposition to donation during their lifetime. In the absence of an explicit objection, the family must be consulted in accordance with the hierarchy set out in Article 326, paragraph 3; if no relatives are available, the deceased's legal representative may provide consent.

The identity of the donor must not be disclosed to the recipient, and the recipient's identity must not be disclosed to the donor's family. Organ removal that would interfere with a forensic autopsy is strictly prohibited, and in such cases, the autopsy must take precedence.

With regard to recipients, consent is generally required in writing, in the presence of the chief physician and two witnesses. If the recipient is incapable of providing consent, a family member—such as a parent, spouse, child, or sibling—or a legal representative may do so on their behalf, as stipulated in Article 364. In certain circumstances, written consent may be waived if expressed verbally in the presence of the chief physician and two witnesses. Furthermore, where the recipient cannot provide consent and the family or legal representative is unavailable, the chief physician and two witnesses must certify that any delay would endanger the recipient's life[71].

Before any operation is performed, consent must always be obtained from the patient or, where applicable, from the patient's guardian or legal representative, in accordance with the final paragraph of Article 364 of the Health Law and Articles 44 and 52 of the Code of Medical Ethics. Such consent can only be given after the treating physician has fully informed the patient or their representative of all potential medical risks.

Algerian law prohibits organ or cell donation by minors, individuals lacking discernment, those without legal capacity, and adults whose medical conditions may pose risks to themselves or the recipient. The treating physician is obliged to inform potential donors of all associated medical risks, and donors may withdraw consent at any time without formal procedures.

A distinctive feature of Health Law No. 18-11 permits the removal of blood-forming organs from a minor donor solely for the benefit of a sibling. In exceptional circumstances, where no alternative treatment is available, this may be extended to other close relatives—such as a cousin, niece, or nephew—provided that informed consent is obtained from both parents or the legal representative[72].

2.3. Stem cell transactions are free of charge:

In line with the principle that the human body must not be treated as an object of commercial transaction, the Algerian legislator, in Article 358 of the Health Law, explicitly states: "The removal and transplantation of human organs, tissues, and cells shall not be the subject of a financial transaction."

Furthermore, Article 363 of the same law provides that "The identity of the deceased donor shall not be disclosed to the recipient, nor shall the recipient's identity be disclosed to the donor's family." Moreover, under the second paragraph of Article 363, the legislator expressly prohibits the physician who has confirmed the donor's death from participating in the team responsible for transplanting the organ into the recipient. This, in our view, aims to eliminate any potential suspicion of undue influence or pressure on the donor prior to death to consent to organ donation[73].

This principle is reaffirmed in Article 367, which obliges medical practitioners involved in the removal or transplantation of human organs or tissues not to receive any remuneration for performing such procedures[74].

2.4. That the use of stem cell procedures be carried out in an authorised establishment:

The Algerian legislator further stipulates that organ and tissue transplantation procedures must be carried out exclusively in hospitals duly authorised by the minister responsible for health to perform such operations. These hospitals operate under the supervision and oversight of the National Organ Transplant Agency, which is responsible for their regular evaluation[75]. They must also ensure that their medical and technical organisation, as well as their hospital coordination mechanisms, comply with the standards required to obtain and maintain this authorisation[76]. Moreover, pursuant to Article 357 of the Health Law, the legislator permits the establishment of a specialised structure within healthcare institutions, entrusted with the preservation of human tissues and cells.

2.5. Penalties for Violating the Regulations on Organ, Cell, and Tissue Transplantation:

The Algerian legislator has established sanctions for violations concerning the removal and transplantation of human organs, tissues, and cells. Under Articles 430 and 431 of the Health Law, any breach of these provisions—including the unlawful removal of organs or tissues from minors or individuals lacking legal capacity—is punishable pursuant to Articles 303 bis 16 to 303 bis 20 of the Penal Code[77].

Criminal liability extends to physicians who contravene the legal requirements governing organ and tissue removal or transplantation. Through Law No. 90-01, the Penal Code criminalises the unlawful removal of organs from living or deceased individuals, even with consent, and prohibits the extraction of tissues or cells for financial gain.

Specifically, Article 303 bis 16 penalises the receipt or intermediation of organs for material or other benefits with three to ten years' imprisonment and fines ranging from 300,000 DZD to 1,000,000 DZD[78]. Article 303 bis 17 imposes imprisonment of five to ten years and fines of 500,000 DZD to 1,000,000 DZD for removing organs from living individuals without consent or from deceased individuals in breach of legal requirements.

Moreover, the Health Law criminalises advertising for organ, tissue, or cell donation with personal or organisational gain, prescribing six months to one year imprisonment and fines between 200,000 DZD and 400,000 DZD[79]. Collectively, these provisions aim to prevent unethical practices and ensure that organ and tissue procedures are conducted strictly in accordance with the law.

Conclusion:

In conclusion, this study demonstrates that the legislator has framed human organ transplantation and implantation within a set of legal provisions; however, it has neglected to regulate emerging medical practices, including stem cell procedures. The absence of specific legislation governing their use creates a legislative gap, necessitating recourse to broader legal texts governing medical practice, medical experimentation, and organ transplantation. This gap inevitably generates a range of legal issues that must be addressed and resolved. Therefore, we propose the following measures:

- The urgent enactment of a law addressing the ethics of medical and biological research (bioethics), in line with recent medical developments, particularly regarding stem cells and organ transplantation and implantation. This legislation should define the contexts in which these techniques may be applied, whether for therapeutic purposes or experimental research. The provisions should explicitly reference Shari'ah principles and the decisions of Islamic jurisprudential councils, ensuring that physicians and researchers adhere to Shari'ah, legal, and ethical standards in safeguarding the human body.

- The immediate revision of health protection legislation and the Medical Ethics Code to incorporate provisions prohibiting the manipulation of human embryonic cells, except when aimed at therapeutic purposes or the development of treatment methods, in full compliance with recognised scientific principles and ethical standards, without any financial compensation.

- The explicit inclusion of the term "stem cells" alongside provisions related to human organ transplantation and implantation in the Penal Code, thereby closing legislative gaps that could impede the prosecution of individuals involved in the trafficking or manipulation of these cells.

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[1] Harrach Chamseddine & Aissa Zahia, The Use of Surplus Embryos in Human Embryonic Stem Cell Research: A Comparative Study. Journal of Law and Society, 11(2), 2023,University of Ahmed Draia, Adrar, Algeria, pp. 4–5.

[2] Mervat Mansour Hassan Abdullah, The Legitimacy of Scientific Medical Experiments on Stem Cells, Journal of Legal and Economic Research, Faculty of Law, Mansoura University, Issue 48, 2010, Egypt, footnote 1, p.459.

[3] Saleh Fawaz, The Ethical, Religious, and Legal Aspects of Conducting Stem Cell Research, Shari'a and Law Journal, College of Law, United Arab Emirates University, Issue 25, January 2006, United Arab Emirates, p.379.
See also: Third Resolution of the Islamic Fiqh Academy of the Muslim World League, issued during its seventeenth session held in Mecca from 13 to 17 December 2003, concerning stem cell technology, Journal of the Islamic Fiqh Academy, 2nd edition, 2014, Mecca, pp.33 et seq.
[4] Ahmed Dawod Ruqayya, op. cit., p.66.
[5] Saad ibn Abdulaziz ibn Abdullah Al-Shuwairikh: Provisions of Genetic Engineering, 1st ed., Dar Kunooz Ishbiliya for Publishing and Distribution, Kingdom of Saudi Arabia, 2007, p.25.
[6] Stem cells literally mean "the trunk" rather than "the roots." This is also based on the etymology of the term, as a single trunk gives rise to many branches, leaves, flowers, and fruits, all of which are different yet originate from the same trunk. Similarly, in the case of stem cells, a single cell can give rise to multiple tissues and diverse cell types.
Mervat Mansour Hassan Abdullah, op. cit., p.459.
[7] Genetic Material Modification Doping, Introduction to Gene Therapy, Part 2, AMPD Languedoc Roussillon, Hôpital Lapeyronie, February 2013, p.1.
[8] Yekhlef Abdelkader, Compensation for Damages Resulting from the Uses of Genetic Engineering in Light of the Rules of Civil Liability of Physicians, Master's Thesis, University of Abou Bekr Belkaid – Tlemcen, 2016, p. 43.
[9] For more details on the benefits of stem cells in disease treatment and drug discovery, see: Mohammed Ali Al-Bar, Stem Cells and Ethical and Fiqh Issues, paper presented at the Conference on Genetic Engineering between Sharia and Law, held from 5 to 7 May 2002, College of Sharia and Law, United Arab Emirates University, Vol. II, May 2002, pp.911 et seq.
[10] Anas Mohamed Abdel Ghafar, The Legal Framework for the Use of Stem Cells (A Comparative Study between Civil Law and Islamic Jurisprudence), Dar Al-Kutub Al-Qanuniya Publishing and Dar Shatat, 2014, pp. 148–149.
[11] Merouk Nassreddine, Issues Arising from Human Organ Transplantation and Transfer Operations, Algerian Journal of Legal & Administrative Sciences, vol. 37, 1999, p. 15.
[12] The process of extracting cells from these embryos is very costly and unethical, as it encourages women to undergo abortion for the purpose of selling embryos. See: Saleh Fawaz, op. cit., p.389; Anas Mohammed Abdel Ghafar, op. cit., p.137.
[13] Sofiane Imran, Ethical Issues of Stem Cell Technology, Rawafid Journal for Studies and Research in Social and Human Sciences, Vol. 8, No. 1, 2024, University of Ain Temouchent, Algeria, p. 321.
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[16] Saleh Fawaz, op. cit., pp. 202–203; Anas Mohammed Abdel Ghafar, op. cit., p.137; Mervat Mansour Hassan Abdullah, op. cit., footnote 1, p.474.
[17] Belhadj Al-Arabi, op. cit.,p.230.
[18] Anas Mohammed Abdel Ghafar, op. cit., p.155.
[19] Saleh Abdel Aziz Al-Karim, What are Stem Cells?, Science & Faith Journal, No. 3,April 2009, p. 28.
[20] Saleh Abdulaziz Al-Karim, op. cit., p.29.
[21] Sofiane Imran, op. cit., p. 321.
[22] Belhaj Al-Arabi, op. cit., p.231.
[23] Saleh Abdulaziz Al-Karim, op. cit., p.29; Anas Mohammed Abdel Ghafar, op. cit., p.155.

[24] Belhadj Al-Arabi, op. cit., pp. 227–228, 231.
[25] Anas Abdel Ghafar, op. cit., p. 47.
[26] Constitution of the People's Democratic Republic of Algeria, 2020, Official Gazette, No. 82.
[27] Ordinance No. 75-58 concerning the Civil Code No. 75-58 concerning the Civil Code, as amended and supplemented by Law No. 05-10, 2005, Official Gazette, No. 44, art. 47.
[28] As stated by the Islamic Fiqh Academy of the Muslim World League in its fifteenth session held in the Sultanate of Oman from 6 to 11 March, in Resolution No. 142 (8/15): "The physician is liable if they undertake a medical procedure without the patient's consent or that of their legal representative." See: Ali Filali, Patient Consent to Medical Procedures, Journal of Legal, Administrative, and Political Sciences, University of Algiers, Dar Al-Hikma for Printing and Publishing, Vol. 36, No. 03, 1998, Algeria, p.40; Belhaj Al-Arabi, Sharia and Ethical Limits of Medical Experiments on Humans (A Comparative Study), n.p., D.M.J., Algeria, 2011, p.31.
[29] Executive Decree No. 92-276 concerning the Code of Medical Ethics, 1992, Official Gazette, No. 52.
[30] Claude Allègre, Gérard Blandin et al., "Science, Ethics, and Law, in Nicole M. Le Douarin & Catherine Puigelier (eds), Science, Ethics, and Law (Paris: Odile Jacob Publishers), 2007, pp. 19–20.
[31] Ahmed Sharaf eddin, The Sharia Rulings on Medical Practices, 2nd ed., n.p., n.d., 1987, p.31.
[32] Anas Mohammed Abdel Ghafar, op. cit., pp.51–52.
[33] Youssef Bouchi, The Human Body and the Impact of Medical Development on Its Criminal Protection (A Comparative Study), PhD Thesis, University of Abou Bekr Belkaid, Tlemcen, 2013, p. 59.
[34] Health Law No. 18-11 of 2 July 2018, Official Gazette of the People's Democratic Republic of Algeria, No. 46, 2018, art. 355.
[35] Article 360 of Health Law No. 18-11.
[36] Anas Mohammed Abdel Ghafar, op. cit., pp.51–52.
[37] Yekhlef Abdelkader, op. cit., p.81.
[38] Claude Allègre et al., op. cit., p. 19 et seq.
[39] Anas Mohammed Abdel Ghafar, op. cit., pp.52.
[40] Medical necessity is defined as "the compulsion to lift a legal obligation in order to avert an actual or anticipated harm under certain conditions." It has also been defined as "exceptionally severe health situations in which committing an act normally prohibited by Sharia is permissible to prevent a harm or extreme hardship." For a more detailed explanation of the concept of medical necessity, see: Ahmed Dib, The Theory of Medical Necessity in Islamic Jurisprudence and Its Contemporary Applications (A Foundational and Applied Study), Master's Thesis, Faculty of Sharia and Economics, Emir Abdelkader University for Islamic Sciences, Constantine, 2013–2014, pp.71–72.
[41] Health Law No. 18-11, art. 413.
[42] This is in line with what Islamic Sharia encourages in order to preserve the five essentials: religion, life, intellect, progeny, and property. See: Ahmed Dib, op. cit., p.93.
[43] Yekhlef Abdelkader, op. cit., p. 21.
[44] Mohammed Ali Al-Bar, Mohammad Ali Al-Bar, "Stem Cells and Ethical and Fiqh Issues," in Genetic Engineering Between Sharia and Law Conference, UAE University, 5–7 May 2002, vol. II, pp.947 et seq.
[45] Belhadj Al-Arabi, op. cit., p. 141 et seq.
[46] See: Third Resolution of the Islamic Fiqh Academy, op. cit., pp.33 et seq.
[47] Harrach Chamseddine & Aissa Zahia, op. cit., p.8-10.
[48] Mohammed Ali Al-Bar, op. cit., p.940.
[49] For details contained in this resolution, see: Belhaj Al-Arabi, op. cit., pp.141 et seq.
[50] Mohammad Ali Al-Bar, op. cit., p. 940.

[51] See in this regard: the two resolutions issued by the Islamic Fiqh Academy—First Resolution No. 67 (5/7) concerning the ruling on treatment, and Resolution No. 03 regarding stem cell technology; Belhaj Al-Arabi, Sharia and Ethical Limits of Medical Experiments, op. cit., pp.141 et seq. and pp.149 et seq.

[52] See: Resolution No. 02 issued by the Islamic Fiqh Council in its seventh session, op. cit., pp.161 et seq.; Mohammed Ali Al-Bar, op. cit., p.950.

[53] For a more detailed discussion on abortion for medical reasons, see: Fourth Resolution issued by the Islamic Fiqh Academy of the Muslim World League in its twelfth session held in Mecca from 10 to 17 February 1990, Journal of the Islamic Fiqh Academy, op. cit., pp.277 et seq.

[54] Mohammed Ali Al-Bar, op. cit., p.950.

[55] Islamic Fiqh Academy, Res. No. 67 & No. 03; see Belhadj Al-Arabi, Sharia and Ethical Limits of Medical Experiments, op. cit., pp. 141 et seq., 149 et seq.

[56] ibid., p.940.

[57] Ordinance No. 05-02 dated 27 February 2005, amending and supplementing Law No. 84-11 dated 9 June 1984, concerning the Family Code, Official Gazette, No. 15, 2005, art. 7.

[58] The Academy also called for the formation of specialized scientific committees comprising experts as well as scholars of Sharia and law, to establish ethical guidelines in the field of genetic engineering and biological sciences, for their adoption and monitoring in Islamic countries, so that the Islamic world would not remain dependent or subordinate in these scientific fields. See: Yekhlef Abdelkader, op. cit., p.52, footnote 5.

[59] Moussa Qarouni, Moussa Fattahine, Philosophical Problems of Genetic Research, Philosophical Approaches Journal, Vol. 8, No. 1, 2021, University of Abdelhamid Ben Badis – Mostaganem, Algeria, p. 90.

[60] ibid., p.52.

[61] See in this regard: the two resolutions issued by the Islamic Fiqh Academy—First Resolution No. 67 (5/7) concerning the ruling on treatment, and Resolution No. 03 regarding stem cell technology; Belhaj Al-Arabi, Sharia and Ethical Limits of Medical Experiments, op. cit., pp.141 et seq. and pp.149 et seq.

[62] It provides that marriage applicants must submit a medical certificate, dated no more than three (3) months prior, proving that they are free from any disease or condition that could pose a risk incompatible with marriage.

[63] Ben Ouda Sanoussi, Mediterranean Journal of Law and Economics, vol. 9, no. 2, 2024, University of Abou Bekr Belkaid, Tlemcen, Algeria, pp. 45–46.

[64] Yekhlef Abdelkader, op. cit., p.41.

[65] Articles 359(2) and 413 of Health Law No. 18-11.

[66] Moussa Qarouni, op. cit., p. 90.

[67] Article 364 of the Health Act provides that "the transplantation of human organs, tissues, or cells may only be carried out if it constitutes the sole means of preserving the recipient's life or physical integrity…" Meanwhile, Article 360 stipulates: "The removal of organs, tissues, or cells from a living person for the purpose of transplantation is prohibited if it endangers the donor's life"…
Furthermore, Article 361 provides that "the removal of human organs, tissues, or cells from minors or legally incapacitated persons while alive is prohibited, as is the removal of organs or tissues from living persons suffering from diseases that could compromise the health of the donor or the recipient…".

[68] The Algerian legislator, in Article 69 of the Civil Code, provides that the expression of will may be made verbally, in writing, or by a gesture customarily recognised, and it may also be conveyed through conduct that leaves no doubt as to the intention of its author. Furthermore, the expression of will may be implicit if the law does not require it to be explicit or if the parties have not agreed that it must be expressed explicitly.

[69] Article 360 of Health Law No. 18-11.

[70] The final paragraph of Article 360 refers to the fact that the formation, composition, and organisation of the conduct of the expert examination shall be governed by specific regulations.
[71] Khodir Abdelkader, Judicial Decisions in Medical Liability, Vol. I, Houma Printing, Publishing and Distribution House, Algiers, 2014., 2014, p. 92.
[72] Article 360-361 of Health Law No. 18-11; Article 43 of Code of Medical Ethics.
[73] See Article 363, paragraph 2 of Health Law No. 18-11.
[74] Health Law No. 18-11, op. cit., arts. 363, 367.
[75] See Articles 5, 6, and 7 of Executive Decree No. 12-167 dated 5 April 2012, establishing and regulating the National Agency for Organ Transplantation, J.O., No. 22, 2012.
[76] Article 366 of Health Law No. 18-11.
[77] It should be noted that the legislative gap that previously existed before the enactment of Law No. 09-01 amending the Penal Code has been addressed. This gap particularly concerned the penal aspect, as on many occasions the judiciary was unable to impose legal sanctions on those promoting or engaging in these serious acts.
The law also clarified issues previously raised under Article 161 of the repealed Health Protection and Promotion Act. Among these, Professor Nasreddine Marrouk questioned the legal position in a scenario where a person sells an organ or a cell from their body to save someone from death, and the surgeon refuses to perform the operation. He asked whether the surgeon could be held liable for failing to provide assistance (Marrouk, Nasreddine., Problems Raised by Human Organ Transplantation and Transfer Operations, Journal of Legal, Administrative and Political Sciences, University of Algiers, Vol. 37, No. 3, 1999, p. 21.
Our answer to this is in the negative—especially following the enactment of Law No. 09-01 amending the Penal Code. Under this law, and particularly Article 303 bis 20, the surgeon would be considered as aiding in the commission of a crime by virtue of their profession. Furthermore, Article 303 of this law obliges that "anyone who becomes aware of the commission of a crime must report it, even if bound by professional secrecy". Physicians, of course, are among the professionals bound by confidentiality in the performance of their duties.
[78] See Article 303-bis 16 of the Penal Code.
[79] See Article 432 of Health Law No. 18-11.

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