

Exemple of Bioethics legislation (Algerian case)

The legal sphere appears to be a privileged meeting place for external influences. First of all, Algerian law has been subjected to the triple pressure of French law, whose legislation was shown in the third chapter of the first part, and of Muslim law, whose intervention will be seen in the following chapter, which describes the situation of Muslim bioethics and biolaw in Algeria, and of custom. We will then look at the legislative legal framework for bioethics issues, in order to come up with recommendations and proposals after a few opinions on these issues, facilitating the introduction of suitable legislation, by filling in the gaps and inadequacies.

1. Situation of Muslim bioethics and biolaw in Algeria :

In order to understand the situation of biodroit in Algeria, it is essential to research its concepts in the various legal instruments that may exist in our country, with reference to the supreme legal norms of the State, those of the Constitution and of Muslim law. The control of Islam over the State continued after Algeria gained independence. In the name of a nationalism conceived on the basis of Arab-Islamic references, the Algerian state pursued an interventionist policy in Islamic and, more broadly, religious matters.

1. The presence of the legal principles and concepts of biodroit in the Algerian constitution:

As we have mentioned, the guiding principles of biodroit recognise a more or less important legislative place in Algerian positive law, in particular the constitution of the Algerian republic, which is open towards bioethics by a lack and a deficiency of its direct quotations, contrary to some others as for example the case of Ireland and Switzerland.

1.1. Human dignity :

From our vision of our Constitution, we found that dignity was defined as a value closely linked to the human person. So any form or manner of violence, whether physical or moral, is considered to be prohibited, because it diminishes this human value, which the State should protect by guaranteeing against all those who try to harm the integrity of the person, in accordance with the human rights cited in articles 3, 4 and 5 of its famous 1948 declaration. What's more, these rights and fundamental freedoms are guaranteed by the Constitution, which states that they are the common heritage of the Algerian people.

1.2. Individual freedom :

In the Western tradition, the notion of human rights is intimately linked to that of fundamental freedoms, because these freedoms constitute a tool and a condition for asserting human rights in the event of their infringement.

Since individual freedom is considered a fundamental freedom, and is therefore guaranteed by the Constitution as we have seen, it is also defended by individuals or associations, through the intervention of criminal law, which has a repressive role in the event of an offence.

It was felt that freedom of opinion and knowledge are inviolable, and this can be seen and equated with consent to a medical act; i.e. it can only be obtained after the patient has been fully and clearly informed, without any influence or submissive intervention by a third party. Legally, the relationship established between a patient and his or her doctor is a contract for medical care, specifically binding these two particular individuals. The patient has the right to accept or refuse what the doctor recommends and imposes. This freedom of the patient is a fundamental ethical requirement, a corollary of the duty to inform set out in the previous article. Informing the patient is in fact the prerequisite for his consent, and the consequence that he derives from this information, this right to consent and to refuse, is a fundamental right in the context of the right to autonomy for every individual.

Privacy is known to be inviolable and protected by law, so the guarantee of secrecy of private communication in all its forms, in particular secrecy, is essential.

The latter represents a sacred ethical principle, since it was cited in the Hippocratic oath. The formula remains the benchmark: the protection of confidentiality is general and absolute, and there is no need to prove intent to harm. The aim of the law is to ensure the trust that is essential in medical practice. It responds to age-old reasoning: no care without confidence, no confidences without trust, no trust without secrecy.

1.3. Family and social rights :

The family enjoys and benefits from the right to protection by the State and society, and this protection must be respected by all the freedoms of each and every person, and it must be unequivocally affirmed that everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including medical care and the necessary social services.

This may involve asking whether family law, traditionally governed by legislative standards (mainly contained in the Civil Code), has now become the subject of constitutional, written or, above all, case law standards.

This would bring us back to the now classic debate on the constitutionalisation of branches of law, and in particular the constitutionalisation of civil law.

2. The Algerian High Islamic Council:

When it was set up, the High Islamic Council was not presented as a specific institution that should refer to medical ethics. Its creation was not part of a process of constructing fundamental human rights. In particular, it is responsible for encouraging and promoting *ijtihad*, giving its opinion on matters submitted to it in the light of religious prescriptions, and submitting a periodic report on its activities to the President of the Republic. It is made up of 15 members, including a chairman, appointed by the President of the Republic from among the country's leading experts in the various sciences.

This national institution deals with all matters relating to Islam, helping to correct misperceptions, religious orientation and the dissemination of the

Islamic culture with a view to promoting it within and outside the country. Since its creation, it has issued a fatwa authorising the dissection of cadavers for training and research purposes and the donation of organs for healing purposes since 1985, under the presidency of Sheikh Ahmed Hamani, and another authorising abortion in 1998 for women who were victims of rape during the internal armed conflict in certain extreme cases where it was medically established that the woman's life was seriously threatened as a result of the pregnancy.

3. Muslim bioethics law :

Now that Revelation has been completed, the challenge is to take into account both the requirements here below and the scriptural sources, namely the Koran, which sets out the rules, values and standards, and the Sunnah, which explains them in situations in accordance with the teachings of our Prophet (peace be upon him blessings sur lui). The expansion of Islam led many jurists (Fouqaha) to develop jurisprudence (Fiqh) generalising sharia or Islamic law to all aspects of public and private life. This effort by jurists is called IJTIHAD and is based on legal procedures of varying degrees of strength.

a- consensus (IJMA)

b - analogical reasoning (QIYAS) c -

personal opinion (RAY)

These steps lead to a legal decision: the FETWA, which is binding on believers and the authorities.

Return is thus made to the theory of the source foundations of Muslim law (al-fiqh), and its creative conceptual dynamics, by virtue of the ijtihād, to think the patent reality. When circumstances dictate, can be exceptionally admitted, this principle can be summed up in the words "necessity makes the law" (ad-darûrat tubîhu al- mahdûrât).

It consists of distinguishing five higher ends (maqâsid) that the believer must preserve: religion or Islam (dîn), life or the soul (nâfs), filiation, and so on.

or descent (nasab), reason or dignity ('aql), and property or ownership (mâl). It is therefore possible not to comply with certain prescriptions when they run counter to the higher interests that should above all be preserved

3.1. Cloning :

Regarding the permissibility of this practice, the majority of the members of the Islamic fiqh academy concluded, after discussion, that **cloning is permitted in the case of plants and animals, but that it is forbidden in the case of human beings.**

Applying cloning techniques to human beings would create extremely complex and insolvable social and moral problems. This is why human cloning cannot be authorised. Most Muslim authors are opposed to reproductive human cloning, but they seem to accept therapeutic human cloning under certain conditions, which are unfortunately poorly defined .

3.2. Medically assisted reproduction :

Muslim ethics do not permit the use of medically assisted procreation techniques, using cells other than those of the spouses themselves. It is therefore not possible to donate sperm, eggs or embryos, neither if the donor is anonymous nor if the donor is known. Islam emphasises the protection of filiation ("*an-nassab*"), and only recognises legitimate filiation. Islam considers that the foetus does not receive the divine spirit until the 120th day of gestation (4 months of pregnancy). Artificial intervention on embryos is therefore permitted before this date. IVF and pre-implantation diagnosis for therapeutic purposes pose no problems. Freezing is permitted, but with destruction of the embryos after the birth of the child born from IVF

3.3. Organ, tissue and cell removal and transplantation:

In the same way as with blood transfusion, organ donation has been permitted since several fatwas and rulings were issued (**Table-2**), the first of which dates back to 1952. It specifies the conditions that must be met by any organ transplant to ensure its religious legitimacy, namely: medical commitment to ~~to~~ vital necessity of the procedure. The concept of brain death is recognised. In the case of living donation, this is the assurance that the removal of the organ will not result in a handicap for the donor. The assurance of the donor's wishes and those of his or her heirs, as well as the fact that the procedure is free of charge, but on certain conditions:

3.3.1. On a living person:

The Sharia has always called for the principle of social solidarity. If the organs or parts of the human body can be of (therapeutic) interest to another human being, the removal will be legally permitted, because this gesture amounts to cooperation between Muslims in the performance of good deeds and piety in order to serve a social interest, which is the safety of the members of Muslim society. The levy is subject to the following rules:

1. The donor must be in full possession of his faculties to be able to make such a decision alone.
2. He or she must be an adult.
3. It has to be done voluntarily, without any outside pressure.

4. The organ donated must not be vital, and its survival and good health must not depend on it.

5. Sex organ transplants are prohibited.

3.3.2. On a deceased person :

As far as the certainty of the donor's death at the time of the removal is concerned, religious ethics entrusts the removing doctor with the entirety of his moral responsibility before God, and before mankind, so that his soul and conscience are clear. He operates only on an organism, which cannot in any possible way return to life. It is permissible to remove an organ from a dead person in order to graft it into the body of a living person, if his survival depends on this operation, or when it is necessary to ensure an essential function of his organism. This operation requires the consent of the deceased, his or her legitimate heirs after death, or the consent of the Muslim authority if the deceased is unknown and/or has no heirs.

Table-1: Main rulings and Fatwas on organ donation and transplantation .

Year	Source	Fatwa
1952	Sheikh Makhloof Hassanin (Grand Mufti Egypt)	Cornea
1959	Sheikh Maamon H. (Grand Mufti Egypt)	Cornea
1966	Hureidi H. (Grand Mufti Egypt)	Organs
1969	International Islamic Conference (Malaysia)	Organs
1972	Higher Islamic Council (Algeria)	Organs
1973	Sheikh Khater (Grand Mufti Egypt)	Skin
1977	Jordanian Supreme Court	Organs
1978	Saudi Grand Ulema	Cornea and brain death
1979	Sheikh Gad al-Haq	Organs and cadavers
1980	Kuwait	Organs
1982	Saudi Grand Ulema Decision No. 99	Organs
1986	III ^{ème} conference of Muslim jurists	Brain death
1988	IVth Conference of Muslim Jurists	Organ trafficking
1988	Sheikh Tantawi M (Grand Mufti Egypt)	Trade in organs
1990	Decision no. 6/7/58 of the Muslim jurists	Embryos; nerve cells
1994	Oman	Living donors and cadavers
1994	Al Azhar	Cadaver; living donors
1995	British Islamic Council	Living donors and cadavers
1995	Dr Al Qaradawi Y	Cadaver; xenotransplant

3.4. Human experimentation and clinical trials :

For the Muslim religion, every human being is worthy of being sacred, of being protected with dignity; this will be the case until he himself breaks this dignity and the inviolable nature of his protection by committing some crime that legitimises his indictment.

Therapeutic trials in humans are authorised subject to certain conditions:

- The person concerned must be fully responsible; persons who are partially or totally irresponsible, even with parental consent, must be excluded from the trials.
- The explicit consent of the person concerned must be obtained without any coercion (e.g. prisoners).
- The trial must not be carried out in return for any financial consideration.
- The trial must be free of prejudice.

3.5. Termination of pregnancy and prenatal diagnosis :

Scholars believe that the life of the embryo is legally considered, and therefore inviolable, from the moment of implantation, i.e. from the moment the embryo is attached to the uterine wall. "*He created man from a bond 'alaqa'* (bond: 2)".

This happens around six days after fertilisation. Before this moment, the life of the embryo has no consideration.

Before the insufflation of the soul (i.e. before 120 days for the majority) : For the majority of scholars, abortion is forbidden before the insufflation of the soul . The only exception is if there is a serious risk to the pregnant woman's health. In this case abortion may take place, based on the principle of imperative necessity of the general rule as an exception; a decision that favours the mother as her death would create a greater negative impact on the family, of an unborn person who does not yet possess social ties.

The Islamic point of view on in utero diagnosis was also explained. In its invasive tests, this diagnosis is usually indicated when there are strong presumptions of

the existence of a congenital malformation. Confirmation of the diagnosis leads to a decision to perform an abortion, which is authorised according to the fatwa issued by the Council of Islamic Jurisprudence of the Islamic World League at its 12^{ème} session (10-17 February 1990) in Mecca [Appendix 12]. However, the latter may only be performed before four months (for certain fouqahas), i.e. before the insufflation of the soul (nafkh errouh). All fouqaha jurisconsults agree that the violation of the life of the embryo requires financial compensation ("ghurra"), the amount of which is fixed, according to the opinion of all fouqahas of all schools, at half the 10^{ème} of the "diya" (price of blood).

3.6. Genetic manipulation :

Any modification brought about by genetic engineering is tolerated by Islam, if its aim is to cure a disease. On the other hand, modifying an entire organism is formally forbidden, as this would mean modifying a divine creature.

Islam approves of the use of genetic fingerprints to establish parentage or, in court, in the search for proof of guilt or innocence.

The verse informs that God ironizes all the animals for the interest of the man, the successor of God in their earth, so that it can fill, and that it is a proof on the contingency of its authorized and legal interest of all these organisms. This comes from the first decision regarding the benefit of Muslims of genetic engineering issued by the Academy of Islamic Jurisprudence of Saudi Arabia. The use of supply and means of genetic engineering is permitted in the fields of agronomy, and animal husbandry on the condition of the content of all precaution for the purpose of avoiding any harm even in the long term, on human or animal environment, and legal slaves are guaranteed to stamp the door before anything that is harmful to mankind and their environment.

3.7. Euthanasia and end of life :

Since life, in its unity, identity and vocation, is a gift from God, no one has the right, for any reason whatsoever, to end it, even at the request of the patient or in the event of the ineffectiveness of the remedies to be administered, without incurring eternal damnation. From this point of view, the doctor is neither the prolonger nor the shortener of existence.

On the one hand, medicine is first and foremost an instrument of life; on the other hand, the doctor himself is merely the effector, through his knowledge, of the divine will:

"the doctor heals, it's god who heals" . .

Euthanasia, with its deliberate decision to deliver a patient to death by active or passive means, remains a religious prohibition and the word, coined by Bacon, no longer refers to a philosophically prepared death, but to a scientifically perpetrated death.

The table below summarises the positions taken by Islam in the field of bioethics.

Table-4: Islamic positions on bioethics .

Voluntary termination of pregnancy		Possible up to the one hundred and twentieth day of pregnancy and only for medical purposes.
PMA	IA	Permitted in only one case -IAC- where the spouse is legally married.
	FIVETE	Legitimate when the fertilised egg comes from the union of the ovum of a woman and the ovum of a man. woman and her husband's sperm.
Surrogate mother		Illegal if the surrogate mother is a stranger to the couple Legal if the surrogate mother is a co-wife, in the case of polygamy
Prenatal diagnosis		Diagnosis must be made early and, if there is a risk, therapeutic abortion may be performed. before the hundred and twentieth day of pregnancy
Genetic manipulation		Permitted in the case of somatic cells (epidermal stem cells, etc.) Illegal in the case of hereditary germ cells, which could alter the species.
Organ transplants		Possible in most Muslim countries and within the framework of the legislation specific to each country
Therapeutic overkill and euthanasia		No one is authorised to end their own life or that of a third party. The apostolate of the physician is to save human life and reduce suffering.

2. Algeria's legal framework and legislation on bioethics.

After highlighting a few comparisons between legal aspects, which are linked to the legal and legislative framework in terms of bioethics in Algeria. In the relevant part of the problem, we look more closely at the reaction of the Algerian legislator to the various bioethical issues, starting with organ transplants (1), moving on to termination of pregnancy (2), then experimentation on human beings and clinical trials (3), medically assisted procreation (4), and prenatal diagnosis (5), then genetically modified organisms (6), and finally euthanasia (7).

1. Organ, tissue and cell removal and transplantation :

The legislator deals with this question in law no. 85-05 of 1985 and law no. 90-17 of 1990 relating to public health [165], in which he cites four principles, in particular: firstly, that the procedure is free of charge, as stated in article 161. Secondly, consent; this is essential in both cases of sampling, in the presence of two witnesses, and must then be given to the director of the establishment and the head doctor of the department after having been informed by the doctor of the possible risks; this principle may be revoked at any time without justification. Thirdly, health safety; when the donation cannot be made to people suffering from illnesses likely to affect the health of the donor or recipient. Fourthly, anonymity; when the identity of the donor and that of the recipient cannot be revealed to the donor's family.

Organ donation should only be carried out by doctors and the need for it should be decided by a medical committee set up for this purpose in each of the 09 health establishments authorised to carry out corneal, kidney and liver removal and transplantation in Algeria.

1.1. On the living person :

The law states that the removal of tissues or organs may only be carried out on living persons if it does not endanger their life and if it represents the only means of preserving the life or physical integrity of the recipient,

of course after consent, preceded by information from the doctor for both the donor and the recipient. If the recipient is unable to give his consent, one of the members of his family may give it in writing, in order of priority father, mother, spouse, child, brother or sister; if the recipient is a minor or a legally incompetent person, consent is given by the father or, failing that, by the legal guardian.

The practice is also prohibited for minors, people incapable of discernment and people suffering from diseases that can be transmitted between the donor and the recipient.

1.2. About the deceased :

The removal of tissues and organs from deceased persons for transplantation purposes may only be carried out after the death has been medically and legally certified, the documents for which are set out in order no. 35 of 30/11/2002, by a forensic doctor, who must not be part of the team carrying out the transplant, and at least two doctors who are members of the establishment's committee. Their conclusions are recorded in a special register, and according to defined scientific criteria, as follows:

1. Total absence of consciousness and spontaneous motor activity.
2. Abolition of all brain stem reflexes.
3. Total absence of spontaneous ventilation verified by a hypercapnia test.
4. Two electroencephalograms interpreted by two different doctors.

After the death has been declared, the sample may be taken if the deceased expressed his or her consent during his or her lifetime, otherwise the procedure is prohibited. If the deceased did not express his consent during his lifetime, it is essential to obtain the consent of one of his family members, in the same order as that of the recipient, or the guardian, if the deceased had no family. It should not be forgotten that the taking of samples in the way of a forensic autopsy is prohibited.

The removal of kidneys and corneas is recommended without consent, if it is not possible to make contact in time with one of the family members or the legal representative of this person, or if the recipient's life is threatened. This threat must be established by the transplant medical committee.

2. Termination of pregnancy :

The Algerian legislator's position on the issue of abortion was very clear: it was a ban backed up by repression, except in certain cases, which we will show shortly.

Article 304, 309 of the Penal Code states that abortion is the act of acting to expel the product of conception, the punishment for which varies according to the qualitative characteristics of the offence; when the abortion is carried out by the woman herself, she is punished by six (6) months' to two (2) years' imprisonment and a fine of two hundred and fifty euros.

(250) to one thousand (1,000) DA.

When this offence is committed by a third party or attempted to be committed on a woman, whether consented to or not, the perpetrator must be punished by imprisonment for between one (1) and five (5) years and a fine of between five hundred (500) and ten thousand (10,000) dinars. The penalty may also be increased to ten (10) to twenty (20) years' imprisonment if the offence is likely to cause death. In all cases, the guilty party may also be banned from residing in France, in accordance with Art. 12 of the CPA.

The only cases in which abortion is authorised and not punished are cited in articles 308 of the Criminal Code and 72 of the Public Health Code, and that was for therapeutic reasons.

It is

-i.e. that which aims to prevent and preserve the health of the mother, if it is in a state of peril, and threatened (whether physical or psychological, which may be unbalanced by the issue of a medical opinion on the results of a prenatal diagnosis interpreting the presence of a genetic disease, or embryonic malformations being the cause of a disability). The right to life of the foetus is abrogated in favour of that of the woman, provided that the abortion is carried out by a doctor in a specialised facility, following a joint medical examination with a specialist doctor .

3. Human experimentation and clinical trials :

The legislator has clearly defined its position on clinical trials in law 90-17 of 31 July 1990, through the obligation to respect the moral and scientific principles that govern medical practice, and that they are subject to the free and informed consent of the subject or, failing this, of his legal representative. This consent is required at all times, but it does not, with the opinion of the CNESS, relieve the trial sponsor of its civil liability. It should also be noted that trials with no therapeutic purpose are subject to the opinion of the CNESS.

Decree no. 387 of 31 July 2006 on clinical trials began by setting out the definitions relating to the subject of the trial. Consent is obtained after the investigator has informed the persons concerned about the trial, based on its duration, methodology, objective and the benefit/risk dilemma for the trial subject, who may thus be in a position to interrupt the trial, even after it has been obtained, and about his or her right to refuse to take part in research or to withdraw consent at any time. On another point, Art. 23 states that consent may be obtained if it is impossible to provide written confirmation by a third party, provided that the third party is completely independent of the investigator and the sponsor.

During the trial, any adverse effect on a research subject must be reported by the sponsor to the Ministry of Health.

The decree emphasises the category of people who should be partially excluded from clinical trials, such as minors, except in cases where there is a direct benefit to their health. Otherwise, pregnant women and mothers who breastfeed their children, provided that the study or research is not useful to knowledge of the phenomena of pregnancy and breastfeeding, and does not entail any possible serious risk to their health. Persons deprived of their liberty and patients in a state of emergency should be totally excluded; the sponsor of the trial is entitled to compensation for the harmful consequences for persons who may or may not benefit directly from the trial, even if their consent has been withdrawn, provided that in the first case, the sponsor must be able to prove that the damage is not attributable to its fault.

The clinical trial cannot be a profitable procedure for the subjects taken part in the experiment, apart from the reimbursement of the costs incurred by the person loaned to the clinical trial.

The clinical trial project must be submitted for the prior opinion of the ethics committee, which has a period of one (1) month from the date of submission of the dossier, whose creation is submitted by the Ministry of Health in each health region, and whose headquarters are established within the public health establishment. Despite its composition, it may call on any competent person. Its advice comes for the protection of people before and after the period of research, their work and activities are supervised by the unit of control of clinical trials attached to the Directorate of Pharmacy of the Ministry of Health.

5. Medically assisted reproduction :

The Algerian legislator enshrined the right to MAP in article 45 bis of order no. 05-02 of 27/02/2005 of the Algerian family code, for the two spouses making up the couple only in artificial insemination, which is only one technique, and thus ignored its position on other techniques (IVF, ICSI).

The last clause was logically incompatible with the practice of artificial insemination, since it stated that the wife's egg must be used to the exclusion of any other person. It should be remembered that the eggs extracted in this technique are not needed, only the sperm, which is introduced directly into the uterus at the same time; it could be argued that gamete donation is prohibited.

He also mentioned that GPA is prohibited through the use of artificial insemination in a surrogate mother, but he did not mention his position on GPA after IVF.

The new provisions aim to facilitate procreation. They are not intended to override the institution of marriage and the filiation that flows from it. The fact remains, however, that the legal framework for this new procreation technique remains inadequate and, above all, laconic. There are a number of issues to be addressed, including consent to MAP. The provisions of the Code and the law in Algeria provide no clarification.

5. Prenatal diagnosis :

This issue, dealt with in article 69 of the health law, is ambiguous and lacks any real understanding of what exactly is involved, in particular the technical definition of this diagnosis.

Algeria is lagging far behind on this issue. "Apart from pregnancies that present a mortal danger to the mother, IMGs are strictly prohibited by Algerian law, as stipulated in articles 304 to 307 of the Penal Code", he said, adding that "no concrete measures have been taken in Algeria concerning antenatal diagnosis".

6. Genetically modified organisms :

The situation in Algeria is turning very much towards plants. During the debate on the draft law on seeds and plants, the Minister for Agriculture, Saïd Barkat, reaffirmed that GMOs would be banned from cultivation in Algeria until such time as it became clear that GMOs would have no negative impact on the health of Algerians. By signing the Biosafety Protocol, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, ratified and signed by Algeria on 25 May 2000, and by participating in various processes and projects, Algeria has already taken steps to establish a national biosafety framework. In addition, a decree issued by the Ministry of Agriculture on seeds and seedlings prohibits the import, distribution, marketing and use of genetically modified plant material.

We know that Algeria is now equipped, thanks to the reference laboratory for the detection of GMOs for human and animal consumption set up within the Biotechnology Research Centre (CRBT) in Constantine. Our country has the capacity to analyse and test seeds modified by human intervention, and to rule on their use. Scientific institutions and research bodies may, at their request, be authorised to introduce, hold, transport and use genetically modified plant material for analysis and research purposes.

7. Euthanasia (active euthanasia) :

The word euthanasia means a good death, a gentle death without suffering, and not, as the modern meaning would have it, "an act or omission that deliberately causes the death of a patient who is suffering unbearably or experiencing unbearable degradation". Under current law, and in the absence of any specific legislation, Algerian law treats the issue of (active) euthanasia in its Criminal Code as equivalent to murder or even assassination. There must be a material element: the use or administration of substances likely to cause death; the offence is constituted whether or not the result is achieved, and a moral element: the intention to cause death.

It is with this in mind that Art. 260 of the CPA defines poisoning as any attempt on a person's life through the use of substances that can cause death more or less rapidly, regardless of how the substances were used or administered, and regardless of the consequences, and that Art. 261 of the same code imposes the death penalty on anyone guilty of murder, parricide or poisoning. In other words, whatever the motives, active euthanasia is normally prohibited in Algeria.

Chapter 3: Opinions and proposals on Algerian bioethics laws.

As mentioned in the first chapter of the first part, the law influences bioethics. On the other hand, bioethical and ethical reflection plays a primordial role in the development of a relevant legal framework in this field, a fact which has prompted us to take similar action and to recommend proposals and recommendations, subdividing bioethical issues into two classes, the first of which brings together those relating to the beginning of life (1), and the second those relating to the human body .

1. Questions related to the beginning of life :

The question of the status of the embryo will be raised and addressed , followed by our proposed recommendations on medically assisted procreation , embryo research , prenatal diagnosis and termination of pregnancy .

1.1. Perspectives and status of the human embryo :

If the human embryo has no legal status, it is because the question of its nature has not been settled, in other words, because the legislator does not know what an embryo is.

The embryo is not a thing (object of law), in particular a non-trivial material, because "non-trivial material" means nothing. A material cannot be commonplace, or vice versa, insofar as it always remains valueless in itself. It is the way it is used that gives it a greater or lesser value. Nor is it a person (subject to the law) because to attain this status, the person must be "born alive and viable". From then on, the central question becomes that of the threshold of humanity, and breaks down as follows:

- 1) When does the embryo cease to be an object and become a subject?
- 2) Does this transition take place simply through the passage of time and the genetic programme, or is it the result of an intervention outside the embryo?

1.1.1. Scientific position :

We now know that everything needed for embryonic development and its progress is contained in the fertilised egg. This individual is a human being because it has the karyotype. For embryologists, the term embryo should only be used once the segmentation phase has been completed. The seven-day threshold corresponds to a biological reality:

- Before the seventh day: pre-implantation embryo: the embryo is a cluster of dividing cells. It is not one and indivisible, since it can divide and give rise to several identical embryos: it is therefore not an individual in the etymological sense of the term;
- Seventh day: implantation: for some, this is the beginning of embryonic life.

1.1.2. Concept of becoming a potential person through an intervention outside the embryo:

We find that the Muslim position is the closest to logic, because it is based on the conception of animation, and scientific data, and we can conclude that from the word of Allah -'Azzawa Jal- in the Quran, according to the first Quranic passage quoted (23:12-14) considers that the creation of the fetus passes through seven stages: fine clay, drop of sperm, blood clot, flaccid mass, bone, flesh, other creation (23:12-14) .

God (Allah) said:

"We created man from a piece of clay, then We made from it a drop of sperm in a solid repository. Then We made the sperm into an adhesion, and from the adhesion We created an embryo, and from the embryo We created bones and clothed the bones with flesh. Then We transformed it into a completely different creation. Glory be to Allah, the Best of Creators! S23 V12 to14.

and in the Sunnah, it is reported according to ibn Mas'oud -May Allah be pleased with him- that the Prophet -Prayers and blessings of Allah upon him- said:

"Surely, each of you, when he is created in his mother's womb, is at first for forty days a drop of sperm (Noutfa), then becomes an adhesion ('Alaqa) for a similar length of time, then finally

during the same period of time, becomes an embryo (Moudgha). Then the angel is sent to him, who breathes in the soul, and he is ordered to fulfil four commandments, namely to write down: the means of living (of the new being), the end of his existence, his actions, and finally his future misfortune or happiness.

It is on this basis, observed in reality, that rules have been established concerning the recognition of paternity and obligation. The Koran also uses the term *nafs* in the same sense as *ruh*. All scholars agree that the infusion of the spirit into the embryo takes place four months after intercourse, and the embryo actually begins to move in the womb at the time of alimony. It is also for this reason that the waiting period has been set at four months and ten days, as this period ensures that the woman is not pregnant. The vital spirit is what gives life to man. It is an emanation of the divine order, as this verse indicates: "And they ask you about the soul - say: 'The soul is the order of my Lord'. And you have been given little knowledge". (Sura 17, verse 85).

1.2. Medically assisted procreation :

Medically assisted procreation (MAP) refers to clinical and biological practices enabling artificial insemination and in vitro conception, embryo transfer and any technique of equivalent effect enabling procreation outside the natural process. Even if these methods of procreation are not all appreciated and sometimes authorised, scientists have succeeded in using science to solve the major problems preventing human reproduction. However, bioethical problems concerning some of these methods have remained, which is why we recommend that legislation in our country on the subject should be based, on that :

1)- MPA can only be justified in three cases:

- medically diagnosed pathological infertility in the couple.
- the risk of transmitting a particularly serious disease to the child.
- the risk of transmitting a particularly serious disease to one of the members of the couple when the child is conceived.

2)- We recommend that appropriate measures be taken to respect parentage: (for example, genetic fingerprinting), by delimiting criminal responsibilities, first and foremost those of the practitioner. The latter would be required to set up registers containing all the information needed to ascertain the identity of the couple, their legitimacy and the various stages of the MAP procedure, as well as the use made of the procreative material handled: gametes and embryos. In particular, the concentration on the extreme and punitive prohibition on donating them to another couple, or transferring them to the uterus of a woman other than the requesting couple, without forgetting to add a provision prohibiting and punishing cloning in any form (therapeutic or reproductive).

3)- Prohibit with sanctions all in vitro conception of embryos for industrial, commercial or research purposes and chimeric embryos, as well as their implantation *in utero*.

4)- Prohibit, by means of a prison sentence, any practice or trial aimed at modifying the genetic heritage of the embryo *in vitro* for non-therapeutic purposes.

5)- Authorisation of pre-implantation diagnosis in order to avoid the transmission of a disease under the condition cited above, which the birth in the couple; of a child affected by the disease desired to be avoided. Any selection of *in vitro* embryos conceived by IVF on the basis of sex should be prohibited, except in circumstances for therapeutic purposes.

6)- The legislator limits the age for women to a specific age, as a clause of right to MAP (from which natural procreation is impossible for women (menopause)).

7)- The couple's consent and information are important, and we know the role they play in the operation. The couple must make their decision in full knowledge of the facts, after having been informed of the risks involved in ovarian stimulation, multiple and ectopic pregnancies, abortion, possible accidents, the consequences for newborn babies who may be premature, the high cost of the procedure, and the modest success rate (pregnancies with at least one normal live baby), which currently stands at between 7 and 20% depending on the authors [200].

8)- Supernumerary embryos may not be kept for longer than a maximum period of five (5) years, renewable for the same period, upon presentation of a written request from the interested party. At the end of this period, without renewal of the request, or in the event of the death of one of the members of the couple, these embryos must be destroyed and the freezing process will be stopped.

1.3. Research on human embryos :

Research should only be authorised on embryos conceived by IVF, whose parents are divorced or deceased (one or both), and if the following conditions are met:

1o The scientific relevance of the research project is established.

2o The research is likely to lead to major medical advances.

3o It is expressly established that it is impossible to achieve the desired result through research that does not use human embryos, embryonic stem cells or stem cell lines.

4o The research project and the conditions for implementing the protocol comply with the ethical principles relating to embryo and embryonic stem cell research.

Ethical alternatives to research on the human embryo should be encouraged. Like treatment and research on adult stem cells, which offer medicine an ethically responsible path that respects human dignity, iPS cells are cells derived from the adult body (e.g. skin), deprogrammed and then reprogrammed to become undifferentiated. They can then be transformed into numerous types of tissue, hence their name: induced pluripotent stem cells or iPS cells [201].

1.4. Termination of pregnancy :

1.4.1. Legal perspectives on termination of pregnancy :

We agree with the Algerian legislator's position, inherited from France before 1975, which since independence has been one of prohibition and repression, and we do not consider it to be an offence against the family and public decency unless its three constituent elements are present: the legal element, the material element, and the intentional or moral element.