N° 2 - AUGUST 2020

CREANDO FAMILIAS

Genetics is the basis of Assisted Reproduction

Diet and lifestyle habits to improve fertility

Reproduction International Group

Covid-19

Editorial
Dr. José Jesús López Gálvez
CEO of the UR Group

How can I not mention the health situation caused by the Covid-19 pandemic. This infection is here to stay; and this means that we are faced with new medical circumstances, which we have to adapt to and overcome. Hopefully it will change our daily lives as little as possible. And the most important part of our life project is to form a family.

What I mean to say is that although we have to take measures to contain it with regard to assisted reproduction techniques, we know that it is not passed on through the gametes (eggs and sperm) and that they are safe techniques. The risk of contamination from the gametes and embryos in the IVF laboratories is minimum or non-existent, due to the numerous washing processes involved in the culture and cryopreservation protocols. Although there are no studies on this, it is assumed that neither sperm, nor the eggs, nor the embryos are recipients for the SARCS COV2 and therefore they cannot be infected.

According to the existing data there is no greater risk of having a miscarriage or pregnancy loss in the early stages for pregnant women who are infected with Covid 19. **There is no clear evidence of the intrauterine transmission of Covid 19**, so it is highly unlikely that this type of infection can cause birth defects. Cases of premature births and delayed growth have been reported in pregnant women infected with Covid 19. It is therefore logical to continue on with preventive and protection measures such as using face masks, washing surfaces and social distancing between people. That is the most important thing.

Logically in order to create a bio safe environment in our facilities, not only for patients but also for all the members of staff, as well as the aforesaid containment measures (background, medical history, taking core body temperature, shoe covers, face masks, washing hands, etc…) all our personnel has undergone a PCR test, the results of which must be negative so that they can carry on working in our units. A PCR test is also carried out before the egg retrieval in the IVF and logically if the result is positive we recommended not carrying out the technique.

In view of all this what I want to convey is that if we take all these measures **we must stop being afraid of making the biggest dream that exists come true: having a healthy child at home.** So we look forward to seeing you with the same reliability, safety, experience and professionalism at our centres of the UR International Group.

HLA Grupo Hospitalario

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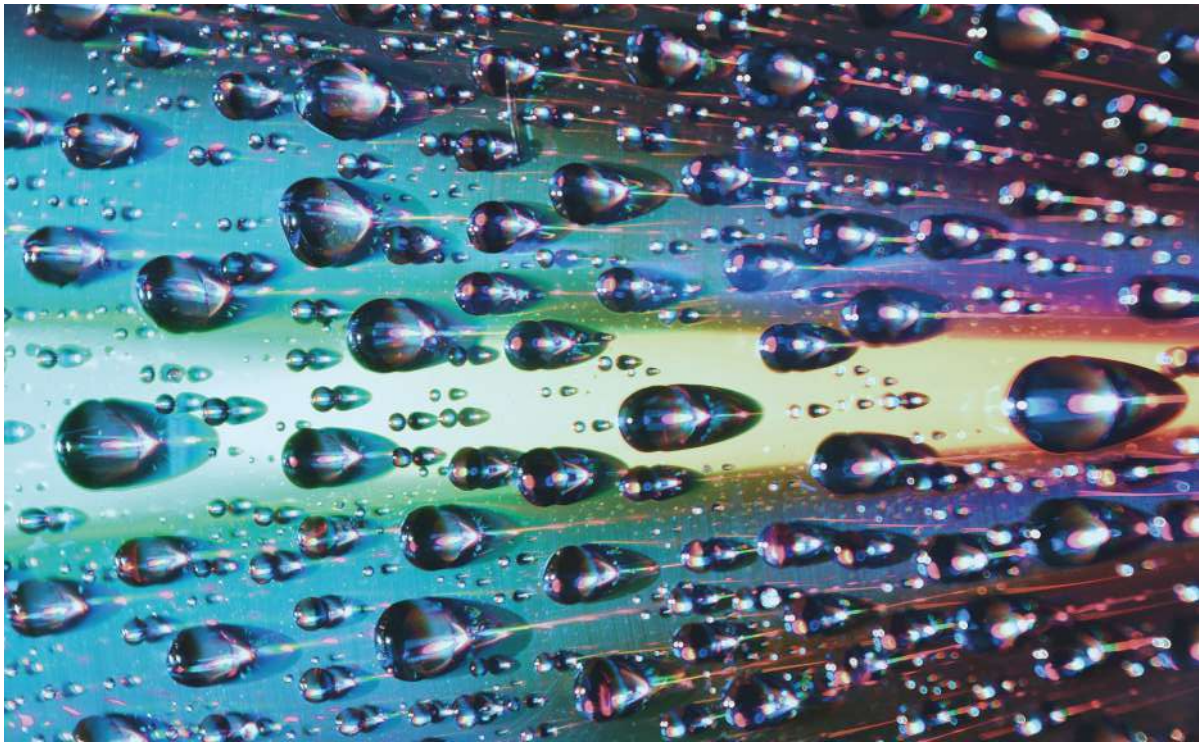


Factors that influence SEMEN QUALITY

Elisa Moya
UR HLA Vistahermosa

Over the years, concern about semen quality has increased due to the decline in the seminal parameters established by the WHO. Although this decrease in values does not imply infertility, it translates into challenges to get pregnant.

The most common test to identify semen quality is a spermiogram, which measures:

- **Volume** and **pH**
- **Sperm concentration** in ejaculates (it should be >15M/mL)
- **Sperm motility** (above 32% motility)
- **Vitality** (over 58% live sperm)
- **Morphology** (at least 4% of sperm with normal morphology)

In addition to this test, there is a series of complementary tests for a deeper analysis such as diagnostic capacitation, sperm fragmentation, or sperm FISH.

Which factors affect low semen quality?

OBESITY

Testosterone is an essential hormone, stimulating the testicle for spermatogenesis, which is the formation of sperm cells. When there is a high amount of adipose tissue, testosterone levels drop and estradiol levels peak, which inhibits spermatogenesis. A recent study published in the official journal of the American Society of Andrology, proved that men with a body mass index of over 25 kg/m2 present less mobile sperm cells in their ejaculates.

AGE

The relevance of women's age for reproduction is well known, however it is little known in the case of men. The effect of men's age on semen quality and reproductive function is controversial, since there is no universal definition for advanced paternal aging. Although it is true that if the man does not present a significant stop in spermatogenesis, as in the case of women and menopause, it has been observed that physiological aging of the masculine reproductive system can be manifested in different ways:

1. Aging increases oxidative stress and this could cause cell damage, including DNA damage.

2. With increasing age, semen volume progressively drops. This is due to aging of seminal vesicles, which produce the fluids that transport the sperm generated within the testes.

3. A reduction of sperm motility has also been proven with the passage of years.

SMOKING

Cigarettes include nicotine, alkaloids, amines, ketones, and other toxins. These compounds have alsobeen detected in seminal plasma, since they cross the blood-testicular barrier, influencing semen quality directly.

A study developed by the University of Saarland (Germany) has shown that men who smoke over a pack of cigarettes per day have 14% les protamine than non-smokers. Protamines are the proteins needed for sperm to work properly. They are located in the nucleus where DNA is concentrated and they protect them from possible damage and mutations. Protamine is essential for the creation of semen, wherefore its drop directly affects semen quality.

DIET AND LIFESTYLE HABITS to improve fertility

Nuria Santamaría Mollá
UR HLA Mediterráneo

During a fertility consultation, patients often ask about the most important factors that can affect their fertility, and whether it can be improved if they modify their lifestyle habits. Although **the age of the woman continues to be one of the most important factors**, it is not the only one. Diet and lifestyle habits are increasingly regarded as key influencing factors in the fertility levels of both men and women.

A healthy and balanced diet, and a decrease in the consumption of trans fats (baked products and fried foods), with a reduced consumption of animal proteins (especially in the form of red meat, sausa-

ges, etc) and an increase of vegetable proteins (legumes, nuts, soy, etc), are healthy habits that can help increase the chance of pregnancy. Taking a vitamin supplement that contains folic acid, iodine and DHA is also recommended, because these nutrients are considered to be beneficial to fertility. However, this should always be done under the supervision of a specialist. Additionally, **moderate physical activity** done regularly is also beneficial**,** as it maintains body weight, improving reproductive health.

On the contrary, **both obesity and being underweight** are detrimental to fertility, with lower rates of pregnancy among women who have a body mass index greater than 30 or less than 20. Being overweight causes changes in the endocrine and metabolic systems that decrease fertility and can cause obstetric complications in the event of pregnancy. While being underweight is associated with ovarian dysfunction (irregular periods) and amenorrhea (an abnormal absence of menstruation), as well as obstetric complications.

Stress is another factor that can cause a decrease in fertility. Women who have high levels of anxiety and stress, experience lower pregnancy rates and are more likely to suffer a miscarriage. In men stress results in a decrease in levels of testosterone, libido, sexual performance and it can potentially alter spermatogenesis.

The consumption of tobacco is one bad habit that affects fertility. Due to the large number of toxic components it contains the risk of infertility is doubled, because it directly affects gametogenesis and influences seminal quality, causing damage to sperm DNA. However, most of the negative effects of tobacco on reproduction are reversed after a year without smoking.

Excessive caffeine consumption also seems to cause a reduction in fertility for both men and women, so it is recommended not to exceed two cups of coffee per day. Other compounds such as excessive amounts of alcohol can vary the levels of prolactin in women or affect seminal quality in men, which can result in erectile dysfunction.

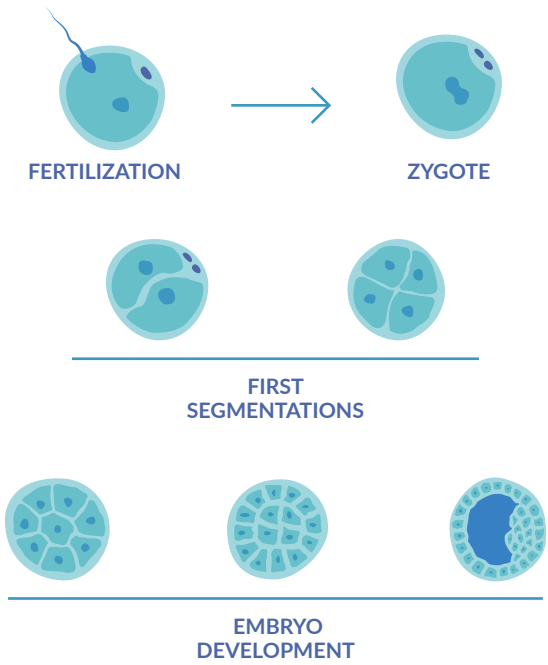
Lastly, **environmental pollutants** (pesticides, dioxins, or carbon-based solvents such as toluene or benzene), are harmful to the body, reducing reproductive capacity, modifying the hormonal balance and affecting male fertility. Working in a hot working environment (furnaces, steelworks, etc.) can have a negative affect. This is because as the temperature of the testicles increases, the living conditions of the sperm are altered. This is why, if you are trying to get pregnant, it is important that you and your partner remember that changing some bad life habits for healthier ones can be the first step on the road to achieving success.

GENETICS
is the basis of Assisted Reproduction

Joaquín Rueda
Director of the Genetics Unit
at HLA Vistahermosa

Pregnancy is the most wonderful human adventure that we can ever go on and although it is an everyday occurrence, it never ceases to amaze us from many standpoints, including the purely biological one. There are numerous biological players involved in having a viable pregnancy, which are the cells and the molecules and they must work perfectly; the fundamental factor of each one of the processes is the dialogue established between cells through molecules, which are known as proteins. And the genes, which are located in the nucleus of the cell, have to provide specific instructions so that the cells produce the proteins.

Therefore, when it comes to "Genetics" we mean the genes, their structure, any possible gene alteration and the consequences that this has on the functions of the human body. If genes are altered, they can change the proteins and impair the aforesaid dialogue between cells. Moreover, half the genes are passed on to the descendants of an individual.



We have **20,000 genes grouped on 46 DNA molecules known as chromosomes**, which are organized in pairs. Twenty two of these molecules are the same in men and women and there is only one pair that is different; in women this pair is said to be two chromosomes called XX and in men they are called XY. We inherit one from our mother and another one from our father, but not all siblings inherit the same member of each pair of chromosomes from each parent and that is why we are so different within the same family. When the woman produces the gametes –eggs and the man produces the sperm -, each of them will have only one member of each pair of chromosomes and for this process to occur, molecules called hormones, which are also composed of proteins and are therefore controlled by the genes, have to be stimulated. Genetic alterations can occur in this process, which prevent the genesis of a healthy embryo.

After fertilization, which is the fusion of the sperm and an egg, a new cell is formed called the zygote that starts to divide into what is known as the pre-embryo and later the embryo. In just a few days it splits many times into many cells, so by day 5 the embryo has hundreds of cells and it is called a blastocyst, because a cavity has already formed inside it. From this day onwards, a new dialogue is established between the blastocyst and the uterus, which allows the embryo to adhere to the wall of the uterus, in a process known as implantation. In the first few days and weeks after fertilization, sometimes cell division fails, which results in abnormal cells that are often incompatible with life. That is why; it is quite common that flaws in the gametes or alterations in the cell divisions in the embryo result in an early miscarriage. **There are genetic factors behind many of these alterations in the gametes or the embryo.** Nowadays, having plenty of genetic tests available we can identify the causes of these in the woman or the man, and select the embryos that do not have genetic alterations, so that the likelihood of giving birth to a healthy boy or girl is greater. The growing knowledge of human genetics and the evolution of technology mean that clinical genetics is revolutionizing modern medicine. In the field of Assisted Reproduction this fact is especially important, which is why it is essential to have a good group of geneticists in the assisted reproduction team to get the most successful results.

IMPORTANCE OF GENETICS in reproductive medicine

José Andrés Avilés Martí

If we were asked **why genetics is so important in reproductive medicine?** The answer would be very simple: because it helps reproductive medicine professionals and patients in every stage of the treatment, from the very first appointment to when the baby is born.

There is a genetic explanation behind almost 20% of fertility problems. During the first appointment with a fertility specialist, the patient is usually asked to undergo tests to find out whether there is a genetic factor that explains the problem suffered by a couple or not. One of them is **Karyotyping**, which enables us to study the chromosomes and their structure, to therefore detect chromosomal abnormalities that cause infertility. When it comes to women, these chromosomal disorders can lead to repeated miscarriages, ovarian failure or implantation failure, and with regard to men, serious alterations in the semen quality or infertility due to azoospermia. Other additional tests include the test for hereditary thrombophilia in women and the sperm FISH analysis, the Y chromosome microdeletion screening study and the sperm DNA fragmentation test in men.

Carrying out genetic tests also enables us to establish a diagnosis of the embryo before it is implanted into the mother's uterus. Carrying out Preimplantation Genetic Testing for Aneuploidy (PGT-A) enables us to select the embryos that are not affected by chromosome abnormalities, while the Preimplantation Genetic Testing for monogenic diseases (PGT-M) enables us to identify embryos that are free of a certain inherited disease.

Even for couples who do not have fertility problems, genetics helps them have a healthy baby. According to research, **2-3% of couples are at risk of having offspring that are affected by inherited diseases**, which is why it is important to carry out tests that enable us to determine which parent is the carrier of a certain pathogenic mutation. So whenever the donation of gametes is required, basic screening will be carried out on the donor to make sure they are not a carrier of the same genetic variants. This procedure, which is called genetic pairing or matching, reduces the risk of passing on genetic disorders to descendants.

During pregnancy, the non-invasive prenatal test (NIPT) that can be carried out from tenth week of pregnancy, enables us to study the fetal genetic material present in maternal blood, to determine whether there is a high risk of the fetus having Down Syndrome, Edwards Syndrome or Patau Syndrome, among others.

Whenever any genetic test is carried out at the international UR group clinics, genetic advice is always supplied by the professionals of the Genetics Unit at Vistahermosa. They provide the families affected by a genetic disorder or who might be at risk of having one with information, so that they can take informed decisions about the treatment that is going to be administered thereafter.

Optimal vitamin D levels IMPROVE SUCCESS RATES

Rocío López Rodríguez
UR HLA Jerez Puerta del Sur

Will I be able to get pregnant? Will I ever hold my baby? What can I do? What should I take? When it comes to seeking help in achieving that much-desired pregnancy, couples ask themselves many questions. One of these is which supplements they should take to make the treatment work as best as possible and increase their chances of success.

All couples know that it's important to take enough folic acid and iodine and their benefits; but in recent years, new supplements have emerged, which we know less about: zinc, inositol, evening primrose oil, flax oil, vitamins E, and D. **A good level of vitamin D is linked to higher implantation rates, better pregnancy rates, and lower risk of miscarriage.**

And having optimal vitamin D intake is vital to ensuring your baby's health and proper growth.

Vitamin D is a fat-soluble vitamin that works as a metabolic regulator: it helps calcium absorption, keeps blood pressure stable, and helps insulin absorption from cells. But there is evidence linking it to problems in male and female fertility. **Women with vitamin D levels below 20 ng/ml have been observed to achieve fewer pregnancies.** Patients with pre-existing problems, like diabetes, obesity, polycystic ovary, or endometriosis also improve their results when they have optimal vitamin D levels. Patients with low ovarian reserve are also more responsive to treatments when they have more than 20 ng/ml of vitamin D.

In pregnancies, its deficit has been linked to an increased risk of preeclampsia, gestational diabetes, and metabolic syndrome. But this not only affects women, **as men must also have sufficient levels of vitamin D** for the process to go better. The lack of vitamin D in men is associated to poor semen quality in terms of morphology and motility. Moreover, treatments with vitamin D in males and blood levels above 20 ng/ml may increase the production of testosterone, the male hormone related to fertility.All this shows us the importance of controlling the levels of vitamin D before and during reproduction treatments.

There are currently a large number of women with insufficient levels of vitamin D in the blood, some of them related to liver disease, obesity, or celiac disease. There are two types of vitamin D: **D2 or ergocalciferol**, which we take obtain through food sources; and **D3 or cholecalciferol**, which our skin produces thanks to sunlight.

Ergocalciferol is obtained by consuming fatty fish, like mackerel, tuna or salmon, and also eggs, dairy, mushrooms or cow liver, among others. We produce cholecalciferol by exposing ourselves to UV rays. Approximately 90% of our body's vitamin D is obtained this way, so exposure to the sun is important, with the necessary precautions. The recommendation is to sunbathe between 20 and 30 minutes a day.

But **what's the right amount?** Values between 20 and 29 ng/ml indicate deficiencies. Values above 30ng/ml are sufficient. **And between 40 and 60ng/ml are optimal levels of vitamin D**. Levels above 150ng/ml cause vitamin D poisoning and risk of hypercalcemia.

Due to the benefits and assistance it brings to couples in reproductive treatments, obtaining and maintaining optimal levels of vitamin D helps them carry a pregnancy to term and have a healthy baby to bring home.

VITAMIN D

D2 ERGOCALCIFEROL

THROUGH FOOD SOURCES

- Fatty fish: mackerel, tuna, salmon
- Eggs
- Dairy
- Mushrooms
- Cow liver

D3 CHOLECALCIFEROL

THROUGH UV RAYS

- Exposing ourselves to UV rays. Approximately 90% of our body's vitamin D is obtained this way

At what age should I FREEZE MY EGGS if I want to delay motherhood?

Juan Íñiguez
UR IMED Valencia

In recent years, the age at which women decide to be mothers has increased markedly. Today, the average age in which a woman has her first child is 32 in Spain. Delayed motherhood is influenced by a number of factors, like social, family, or economic, however, this may lower your chances of getting pregnant with your own eggs. The Convention for the Protection of Human Rights and Fundamental Freedoms provides for the right of any woman or man to start a family, but also in today's society, then when is something widely accepted as an act of individual freedom. Article 3 of the Organic Law 2/2010, Sexual and Reproductive Health states that "in the exercise of their rights to freedom, privacy and personal autonomy, everyone has the right to freely adopt decisions affecting their sexual and reproductive life".

Health professionals should inform society of the harmful effect of age on female fertility. Patients should be properly informed of the risks and benefits of egg vitrification. This is why the preservation of fertility should be offered as a preventive measure, although potential users should also be informed of this technique and know that the process does not come with a guarantee of success, and that the degree of success is closely age-related. For the success of a good fertility preservation program, information will be a key factor.

At what age should you preserve your eggs?

While there is no specific age to vitrify oocytes, we should take into account that there is no record of live births produced from oocytes vitrified over the age of 45 and very few over the age of 42, therefore it would not be advisable to vitrify oocytes over this age, 36 being the age limit at which the best results may be obtained.

What number of oocytes should be vitrified?

There is no ideal number, but this will also be determined by the woman's age. According to some studies in women under the age of 35 with 10 to 15 oocytes, nearly 85% succeeded in achieving pregnancy. From the age of 36, with a similar number, we'd be looking at a 35% success rate.

How long can they stay frozen?

The cryopreservation of oocytes is carried out through a freezing technique called vitrification, and this consists of an ultrafast freezing that prevents the formation of ice crystals. This way, oocytes can remain cryopreserved indefinitely, and once devitrification occurs, survival rates are usually quite high, above 80%, although again here, the quality of the oocyte is also related to age, and it will limit the success rate.

EGG DONATION: The solution

Manuel Lloret Ferrándiz
Head of UR HLA La Vega

***Egg donation** has become the solution for many women who cannot use their own eggs to have children.*

Despite it being one of the most recent techniques of Reproductive Medicine, it is being ranked among one of the best answers for many women who want to experience the joy of motherhood. **In vitro fertilization with donor eggs enables any woman to get pregnant**, regardless of her age, the absence of ovaries or ovarian failure. The excellent results obtained by this assisted reproduction technique opens up a wide range of possibilities for the female population. The egg donation is used in the absence of ovaries, ovarian failure due to menopause or when the egg quality is very low even if the ovaries still work, basically from the chromosomal point of view. These circumstances are the cause of many in vitro fertilization (IVF) cycles failures.

Genotype and phenotype compatibility

The donor has a key role in egg donation treatment. Egg donation is a process that is governed by law and strict medical selection criteria has to be followed to guarantee the compatibility and the maximum genotype and phenotype affinity.

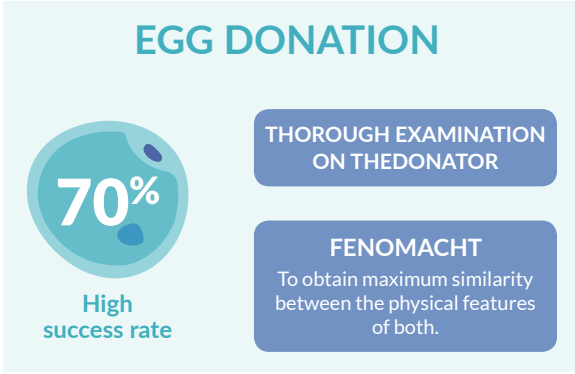
The egg donor has to be of legal age and **younger than 35**, which guarantees the maximum egg quality, and she has to undergo various medical and psychological tests to determine her state of health and her family medical history.

At the fertility centers of the UR International Group **we carry out a thorough examination** to determine the hormone status of the young woman who is donating her gametes, as well as to make sure she doesn't have any possible infectious diseases such as hepatitis, HIV, syphilis, etc. Karyotyping is another basic test that can be carried out to make sure there is the right number of chromosomes in the eggs, which chromosomally speaking, guarantees oocytes that are free of any chromosomal abnormalities that might be passed on to the descendants.

The egg donor gives her consent to the egg donation by means of signing a legal document, where **she also states that she waives the right to know the** identity of the recipient. As for the recipient, she is only allowed to know essential information about the donor, such as the basic medical history, physical features, age and blood group, so that the anonymity is maintained at all times. To find the most compatible profiles we use the Fenomacht technique, which is a matching or pairing process between the donor and the recipient to obtain **maximum similarity between the physical features of both.**

Coordinating cycles

The egg donation process with fresh eggs takes about two and a half months, which is enough time to find the donor and coordinate the cycles between the donor and the recipient. It is a simple process and it is usually a very positive experience, **with a high success rate of almost 70%**. Thanks to the high probabilities of this assisted reproduction treatment, at our centers we advocate the transfer of just one embryo, because the other quality embryos obtained in the same cycle can be frozen, to have more children in the future.



Nowadays egg donation has become one of the most popular assisted reproduction techniques, it is even catching up with In Vitro Fertilization with a woman's own eggs. The progress of society, the new life styles and women going into the job market are the main reasons why motherhood has taken second place. The eggs that are donated by a young woman, who is healthy and fertile, mean that another woman's dreams of being a mother can come true even if she has gone past the ideal time set by her biological clock to conceive.

HUMAN REPRODUCTION is not just another business

Carmen Segura
UR HLA Moncloa

The health sector has long been an area of great interest for different types of investors—not only in the United States, but also in Europe—who are part of investment funds and private equity entities (better known as venture capital). There are various reasons for this: including the shortcomings that are often associated with the public health sector, the development of new types of technological advances applied to health and, also, the general interest people take in issues related to their health and well-being.

Since 2014, the interest of investors has become more prominent. And in Spain there were several changes that occurred in the private healthcare sector: with mergers and acquisitions the result of large-scale investment from private funds. Some of this investment came from the health industry, which has prior knowledge of the sector; but a significant portion was based purely on economic criteria, with investments made in consideration of profit estimates.

The potential of Big data and artificial intelligence applied to the medical industry represents possible advances in fertility treatments. This is an area that requires substantial research and innovation, and a significant amount of investment. **New technologies promise a considerable leap forward in the field of human reproduction.** The advances that are occurring in the field of genetics, are also linked in a reciprocal manner to advances in assisted treatments for fertility.

Another area of interest for new investment is in the field of pharmacology, due to the development of new drugs. Here again we see that reproductive medicine requires crucial advances, in order to make the various drugs used in assisted reproductive treatments more effective. This is especially true for ovarian stimulation, where side effects are continually being reduced with an increase in effectiveness.

Clinical interest ahead of economic factors

The fact that the field of health, and in our case that of reproductive medicine, are of interest to investors is a big positive. This is for two reasons: because it demonstrates the productive potential of this sector, and because it is a field that is very beneficial for society as a whole. Or put in other words, it has an economic benefit as well as a social benefit. This is a point that, in my opinion, must be made very clear. However, not everyone is concerned about both of these aspects when investing in the health and human reproduction sector. This inevitably has consequences.

Human reproduction is an area where medical and emotional considerations intersect.

Although emotional concerns are inevitably a part of medical practice—as they should be—this is especially true of reproductive medicine. Additionally, the people who come to our clinics have concerns that must be addressed on the doctor-patient level. This requires a significant amount of

emotional intelligence that will make them feel more secure and help them to see an assisted reproduction treatment as a process that can make their dreams of being a mother or father a reality. However, it is not an exact science and, consequently, not every story is one of success, although fortunately this is less and less often the case.

The Spanish brand of human reproduction

Our country is at the forefront of human reproduction treatments, in terms of experience, available technology and, above all, the qualifications of our medical professionals. This is not a coincidence. We have earned this reputation thanks to the dual focus that I mentioned earlier. The profitability of an assisted reproduction clinic:

Is a result of the profound level of knowledge and commitment of its medical professionals, and the confidence investors have in them.

Now that it is becoming clear how investment funds are getting involved in this medical field, we should remember that their strategy, although legitimate, is to look for profitability in the short to medium term and then to subsequently divest with a capital gain. This is not always the case -although it is true in regards to venture capital funds-, however often clinical considerations are secondary to economic factors. And this is not a good thing. In any case it is the patients, with clear information and transparency from clinics, who know the factors that are important to them and have the ability to make a choice.

The biggest challenge facing assisted reproduction is IMPROVING THE RATE OF SINGLE BIRTHS OF HEALTHY BABIES

Luis Martínez Navarro
Director of the RU HLA Inmaculada de Granada
President of the Spanish Fertility Association (SEF).

Since 1990 Dr. Luis Martínez Navarro has focused his professional life on the exciting world of human reproduction. He has extensive experience of the many developments in the field resulting from innovation and research, and is implementing all the latest techniques that are practiced in the clinics where he has worked:

> **This has been and still is one of the most important professional challenges**

The director of the RU HLA Inmaculada de Granada has achieved great success throughout his professional career. But as a healthcare professional he insists that, **"nothing beats the emotion of seeing patients who have become pregnant after waiting for a long time".** The personal recognition that he has received from both institutions and colleagues is exceptional, and extends to the president of the Spanish Fertility Association. Martínez Navarro has advised that the birth boom of the 60s-70s has ended, and that Spain will see a reduction in the number of women born by around 30% in the next 10 years. And given that woman are now trying to get pregnant for the first time later in life, she maintains that "we will see older women, for whom it will be more difficult to get pregnant."

In today's society, women tend to put off motherhood until later in life, however age is a key factor that determines fertility. So it is advisable that any woman who reaches the age of 35 and is still thinking about having children, should preserve her oocytes in case they need them in the future. He goes on to emphasize that "the age of 35 is already too late, since the best results are achieved when the woman is under 35."

Apart from the social considerations that force women to have the first child when they are aged over 31-32, the complications increase when they want to expand their family. This is because the se-

cond pregnancy is attempted around the age of 35 to 37, and this presents serious difficulties. "It is **essential to preserve oocytes** to complete the family later on. This must be taken into account by both women and institutions, and fertility centers have a duty of care to make the process accessible to all women."

Improving pregnancy rates

With an increase in infertility, due mainly to the delay of maternity, the specialist highlights the remarkable advances made in the field of reproductive genetics, "which will soon allow us to achieve greater genetic security of the embryos being transferred, thanks to innovative DNA studies of the embryo. These will facilitate more selective transfers with better results."

"The most biggest challenge facing assisted reproduction is to improve the rate of single births of healthy children, with less risk for the patient and the baby, and within the shortest possible timeframe," says Dr. Luis Martínez. Hormone testing during stimulation, and morphokinetic or endometrial tests, which enable transfers to be individualized, providing an improvement in clinical results. Nowadays genetics is the field which has achieved the greatest advances in assisted reproduction, "the search for the security of using gametes without hereditary diseases, selecting embryos without genetic abnormalities, selecting the best endometrium, or which type of hormone is best for each woman, are areas that are developing and will allow us to improve the rate of healthy born children."

Spain, at the forefront of assisted reproduction in Europe

"Spain has some of the world's best assisted reproduction clinics that offer a very broad portfolio of services. Any type of technique and procedure can be carried in our country with all the necessary safeguards," affirms Dr. Martínez. In addition, "our legislation is very progressive and egalitarian in regards to the treatment of women without a male partner. This is something that does not exist everywhere, making us an attractive option to women from other countries, allowing them to get all the reproduction techniques they need here."

"Patients come to our reproduction clinics for professionalism, empathy and better prices. We provide a comprehensive service and achieve great results, meaning that we continue to experience a high volume of patients as well as a high rate of pregnancies," he states.

"Infertility has a psychological cost and impacts lives, and we need a team that understands this issue," says the expert. This is where the important work of a good team can be seen, focused above all on caring for their patients with empathy, along with the support of special units and professionals such as geneticists or andrologists, they apply effective solutions to the problems that can arise on any given day.

The director of the Reproduction Unit HLA Inmaculada of Granada highlights the characteristics that differentiate the UR International Group fertility centers, "the development of their programs within a hospital setting, providing maximum patient safety, bringing together recognized professionals with national prestige and experience in reproductive medicine, and having leading support units such as the semen bank or their genetics services.

HLA MONCLOA
HOSPITAL UNIVERSITARIO

HLA Moncloa is in the TOP10
Private Hospitals according to Monitor
de Reputación Sanitaria (MRS)

HLA Grupo Hospitalario


HLA MONCLOA
Hospital Universitario
10

ACKNOWLEDGEMENTS

Dr. Elisa Moya

Dr. Nuria Santamaría Mollá

Dr. Joaquín Rueda

Dr. José Andrés Avilés Martí

Dr. Rocío López Rodríguez

Dr. Juan Íñiguez

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There's nothing more rewarding than helping you ensure a healthy pregnancy and a healthy baby.

Dr. José López Gálvez

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