

# All embryo chromosomes can be analysed within 48 hours and implanted in the woman on the 5th day of life

- Institut Marquès presents this week at the 24th edition of the Congress of the French Federation of the Study of Reproduction in Paris its good results when performing the Preimplantation Genetic Test (PGT) on the third day of the embryo's life.
- It proves that it is not necessary to wait until day 5th of evolution to perform this test, as most of assisted reproduction clinics do, since the results are equally effective regardless of the day on which the analysis is performed.
- The results of the PGT are obtained in just 48 hours. If this is carried out on the third day of evolution, the embryos can be transferred to the mother two days later. In this way, cryopreserving the embryos can be avoided, which reduces waiting times and costs.

Paris, September the 26th, 2019. - The Preimplantation Genetic Test (PGT) analyses the genetic or chromosomal content of embryos obtained after In Vitro Fertilisation in order to transfer to the mother's uterus the ones with no abnormalities, therefore with a better chance of getting implanted leading to a pregnancy. This technique is specially recommended for people with sterility problems due to recurrent miscarriages and also for those cases where there are severe sperm abnormalities, failures in previous treatments or undiagnosed infertility.

This procedure is an embryo biopsy that most Assisted Reproduction centres perform when it reaches the 5<sup>th</sup> day of life in the <u>blastocyst</u> stage. From that moment, it is no longer possible to keep the embryo in culture, so that it has either to be transferred to the mother's uterus or be cryopreserved. In this way, when the PGT is performed in blastocyst stage, the cryopreservation of the embryo is unavoidable while waiting for the results, which take approximately two weeks.

However, if PGT is performed during day three of the evolution, the diagnosis will be ready when the embryo reaches blastocyst stage and its cryopreservation is not necessary. In this way, the transfer can be carried out in fresh. During the **24**th **edition of the Congress of the** *French Federation of the Study of Reproduction (FFER)*, that is



being held in Paris from the 25th to the 27th of September, **Institut Marquès** has proved that the results of the <u>Preimplantation Genetic Test are equally effective</u> regardless of the day the biopsy is performed.

#### Pioneers in embryo analysis within three days of life

At Institut Marquès PGT is performed using the Next Generation Sequencing (NGS) technique by analysing all the chromosomes of the embryo. This is the most innovative method currently used in the genetic diagnosis of embryos. According to Dr Àlex García-Faura, Scientific Director at Institut Marquès "At our centre we were among the first to perform the preimplantation biopsy by analysing all chromosomes on day 3 and we have implemented this in most of the In Vitro Fertilisation treatments since, in this way, we obtain the test results with enough time to carry out the transfer to the mother's uterus of the best embryo without having to cryopreserve it".

Furthermore, the genetic testing of the embryo in its third day has other diagnostic advantages, as Dr García- Faura points out: "We are facing a significant scientific breakthrough, since performing PGT during day 5 or 6 forces to freeze or vitrify the embryo, delaying and rising the costs of the process".

### **About Institut Marquès**

Institut Marquès is a Barcelona based centre of international standing in Gynaecology, Obstetrics and Assisted Reproduction with branches in Barcelona, London, Ireland (Dublin and Clane), Italy (Rome and Milan) and Kuwait. The centre, with a wealth of experience in particularly difficult cases, helps people in more than 50 countries achieve their dream of parenthood. Institut Marquès offers the highest pregnancy success rates, with 89% per cycle in IVF with egg donation.

Leader in innovation, it conducts an important line of research on the benefits of music in the early stages of life, foetal stimulation and the male role in assisted reproduction treatments.

Institut Marquès is also involved in the research of the relationship between toxics and fertility, taking part in many initiatives that support the defense of the environment. In 2018 it started its Corporate Social Responsibility project, "The Forest of Embryos". For every child born with the help of assisted reproduction treatments, a tree is planted. Institut Marquès also supports the manifesto "Citizens for Science in Pesticide Regulation", a coalition of civil society, institutions, scientists and legal experts that demands a reform on the use of pesticides in the European Union.



### **Links of interest:**

https://institutomarques.com/en/

https://institutomarques.com/en/assisted-reproduction/special-techniques/pgd-preimplantational-genetic-diagnosis/

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