

JUNO

GENETICS

**YOUR PARTNERS
in GENETIC HEALTH**

specialist in reproductive genetics

UK

USA

Spain

JUNO

Juno has developed unique algorithms, techniques and processes, with the aim of increasing the chances for a healthy pregnancy



Juno Genetics is a state-of-the-art laboratory specialising in genetic testing. Our mission is to provide clinically useful information of the highest quality for couples who are planning to start a family, patients undergoing fertility treatments, and for women who are already pregnant.

The innovative tests offered by Juno Genetics are amongst the most technologically advanced and accurate available anywhere in the world.

The cutting-edge tests provided by Juno are the result of world-class research carried out by an internationally renowned team of scientists.

+30

years of research
carried out

+1900

scientific
publications

73

researchers

4

research centers

UK USA SPAIN

3 state-of-the-art laboratories

OUR GOALS

Juno's goal is to provide innovative and efficient solutions in the field of assisted reproduction. Its services have been specially developed to:



Aid professionals working in reproductive medicine with the diagnosis and treatment of their patients by providing reliable tests that provide medically actionable information, based upon a solid scientific foundation.



Help future parents to have healthy babies, by detecting common genetic abnormalities that prevent a viable pregnancy, reducing risks of embryo implantation failure, miscarriage and abnormal pregnancies.



DNA
three letters that
define everything

JUNO
four letters that
change everything

OUR TESTS

PGT **A** Seq

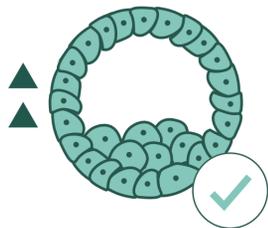
Increases the chance of a healthy birth per embryo transfer.

The best-in-class accuracy of PGT[A]Seq means an increased number of euploid embryos are correctly reported, leading to more viable embryos being transferred with higher pregnancy rates than is achieved using less accurate PGT-A methods. More embryos are reported 'euploid' using PGT[A]Seq compared to some other PGT-A methods.

- More cycles have an embryo transfer
- More cycles achieve a pregnancy



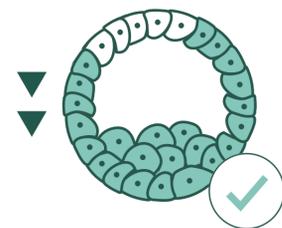
Best-in-class accuracy



A high number of euploid embryos reported



Improved clinical outcomes



Fewer embryos classified mosaic



PGTseq-A has been developed following extensive analytical and clinical validation

OUR TESTS

PGT [M] Seq

Reducing the risk of inherited disease

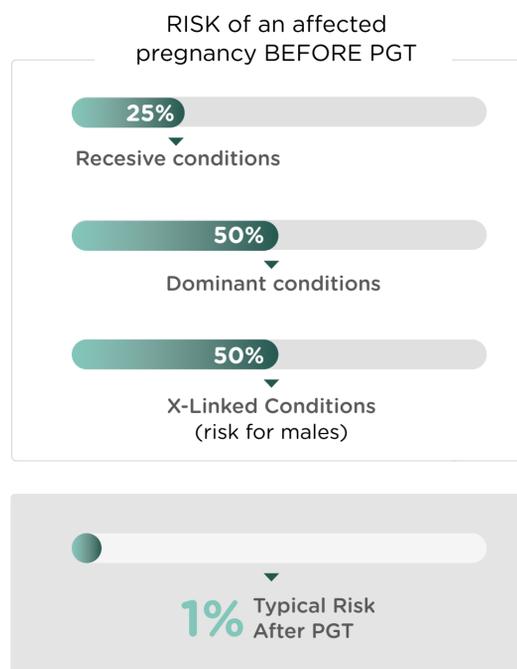
PGT[M]Seq aims to reduce the chances of transmitting an inherited disorder by avoiding transfer of affected embryos.

A small number of cells are sampled from embryos, produced using IVF technology, and analysed to predict whether a specific defective gene has been inherited. Juno typically combines more than one advanced method in order to provide highly accurate results.

Most tests are custom designed for individual patients, taking into account their unique genetics. The majority of chromosome abnormalities, responsible for most cases of miscarriage and problems such as Down syndrome, are also detected at no extra cost.



**That accuracy rates can be less in specific cases or for individual embryos.*



OUR TESTS

PGT **SR** Seq

PGT-SR (preimplantation genetic testing for structural rearrangements) is a test developed for carriers of chromosome rearrangements.

Chromosome rearrangements are formed when one or more pieces of chromosomes, the structures that contain an individual's genetic material, find themselves in an altered position. For example, one common type of rearrangement, called a 'translocation', occurs when there is an exchange of materials between two chromosomes.

1 IN
500
PEOPLE
CARRIES A
CHROMOSOME
REARRANGMENT

OUR TESTS

NEO24

Non-invasive prenatal test. We analyze all the 24 chromosomes for the peace of mind of future mothers.

Neo24 is a non-invasive prenatal test, performed with maternal blood, completely safe for the mother and her unborn child. We analyze the 24 chromosomes for the peace of mind of future mothers.

24

CHROMOSOMES

We analyse all of the foetal chromosomes

13

Genetic syndromes detected* (Neo24+)



Neo24 reduces the number of unnecessary invasive prenatal tests



The Neo24 test successfully gives results in more samples than other tests

Enables established pregnancies (from 10 weeks of gestation) to be assessed for certain chromosome abnormalities that can lead to late miscarriages or the birth of a child with serious congenital abnormalities.

Neo24 offers a high detection rate for the specific chromosome abnormalities tested and a low false-positive rate. Importantly, the non-invasive nature of the test means that it does not increase the risk of miscarriage unlike traditional invasive prenatal tests.

OUR TESTS

GENESeeker

**We detect, determine
and prevent genetic diseases**

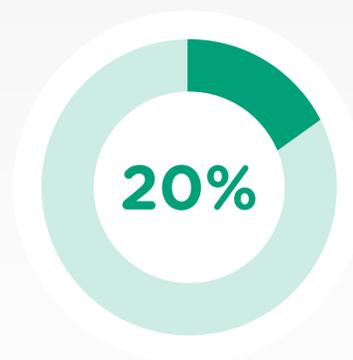
GeneSeeker harnesses the latest DNA sequencing technology to test patients for disease causing mutations. Simultaneous analysis of hundreds of genes helps identify couples who are at high risk of having an affected child.



**Inherited disorders represent 20%
of the causes of infant mortality in
developed countries.**

When used in gamete donor programs, the information provided by GeneSeeker helps to avoid combinations of donors and patients associated with a high-risk of genetic disorder.

GeneSeeker covers critical regions of the genes assessed including some areas missed by alternative tests.



OUR TESTS

POC

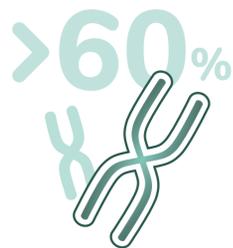
Juno Genetics offers a test that sheds light on the cause of miscarriage.

The test examines chromosomes in cells from the embryo/fetus or associated tissues, called products of conception (POC).

Testing of POC potentially provides useful information for any couples who have experienced a pregnancy loss, but may be particularly valuable for those with any of the following: a history of several miscarriages; an abnormal ultrasound prior to a lost pregnancy; a fetus affected by intrauterine growth retardation; an abnormal prenatal test result; a pregnancy loss after IVF.



25% of clinical pregnancies miscarry



At least two thirds of miscarriages are chromosomally abnormal



No false negative results due to maternal contamination

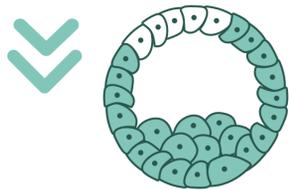


Results obtained from 99% of samples

OUR RESULTS

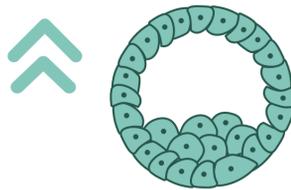
Juno achieves the best results thanks to

- 1** Utilisation of **the most advanced technology**, enabling high-accuracy analysis of a broad range of genetic abnormalities during all stages of a fertility treatment.
- 2** Research and development, with **more than 30 years of research carried out and more than 1,900 scientific publications, 73 researchers and 4 research centers.**
- 3** **Establishing the most robust processes for** ensuring delivery of the **highest quality** of genetic tests.



REDUCTION IN MOSAIC EMBRYOS

The enhanced accuracy of PGT[A]Seq prevents viable embryos from being incorrectly classified mosaic.

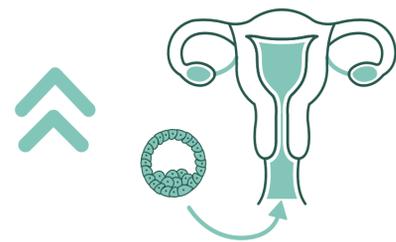


6%

MORE EUPLOID EMBRYOS REPORTED

+1,525

EXTRA EMBRYOS reported for transfer from a dataset of 25,007 embryos derived from 15 different IVF clinics



+1,525

EMBRYOS AVAILABLE to Transfer



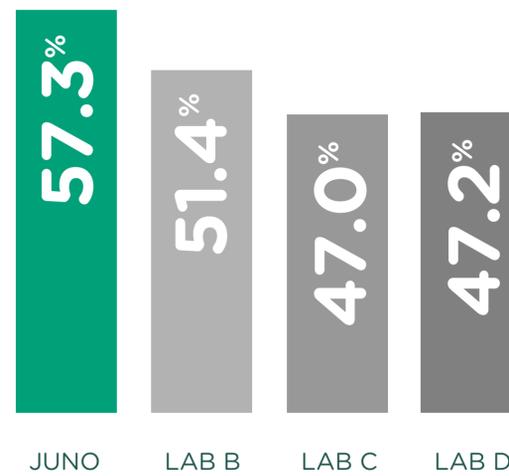
Juno Genetics is the world's preeminent center for the advancement of in vitro fertilization (IVF) diagnostics, preimplantation genetic testing, research, and education.

OUR RESULTS

PGT-A Seq method
JUNO VS OTHER LABS



EMBRYOS CHARACTERISED EUPLOID
P VALUE <0.001 all versus JUNO

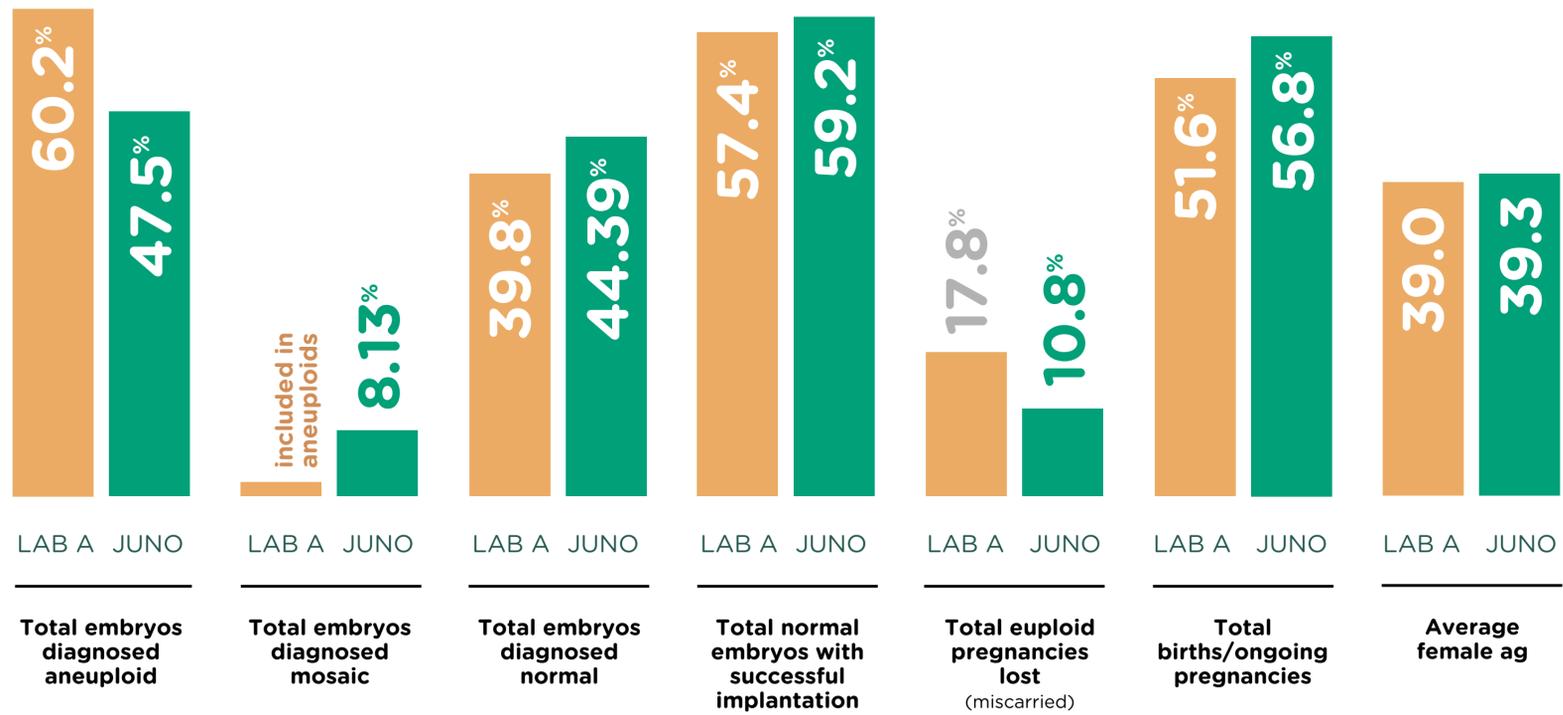


LIVE BIRTH RATE/OPR
P VALUE 0.060 other combined versus JUNO

Independent study conducted by Bardos et al (ASRM, 2021), comparing four PGT-A providers (one of which was Juno).
The study, involving oocyte donation cycles, confirms that Juno classifies 10-20% more embryos euploid in young patients.
Birth rates appear higher for Juno cycles (6-10%), although the study was not powered to look at that outcome.

OUR RESULTS

PGT-A Seq method JUNO VS OTHER LABS



Total number of transfers

LAB A

1,333

JUNO

1,374

Total normal embryos transferred (including mosaics with JUNO)

LAB A

1,361

JUNO

1,389

LAB A (1st Jan 1, 2019 - 30th June, 2019).

JUNO (1st July, 2021 - 31st December, 2021).

In summary:

1. Results based on large numbers of embryos and cycles (7,583 embryos analysed by previous provider, 8,400 embryos tested by Juno)
2. **More embryos are classified euploid (normal) by Juno** (44.4% versus 39.8%, i.e. +5% increase, $p < 0.0001$)
3. **Ongoing pregnancy/live birth rate after switching to Juno was 5.2% higher** (2,300 procedures)
4. **Clinical miscarriages were reduced by more than one-third** ($p < 0.0001$).



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