



LAB GENOMICS

PREDICTIVE

PREVENTATIVE

PERSONALIZED

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**Revolutionizing healthcare with novel single cell
genetics, Pre-implantation Genetic Screens (PGS)
detect chromosomal abnormalities in embryonic DNA.**



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Improve IVF success rates by optimizing embryo selection

Lab Genomics offers next-generation sequencing (NGS) assays to deliver fast, accurate information that can guide choices and transform lives.

***In vitro* fertilization (IVF) remains inefficient with low success rates.**

- **An abnormal number of chromosomes, or aneuploidy, inhibits implantation and increases the rate of miscarriage.**
- **The rate of aneuploidy increases considerably in embryos with higher maternal age.**

Pre-implantation genetic screens (PGS) enable the selection of embryos with a normal number of chromosomes, increasing the efficiency of IVF for all couples, including those with:

- **Multiple miscarriages in the past**
- **Previous pregnancies with chromosomal abnormalities**
- **Two or more unsuccessful IVF cycles**
- **Balanced structural chromosomal rearrangements in parental DNA**



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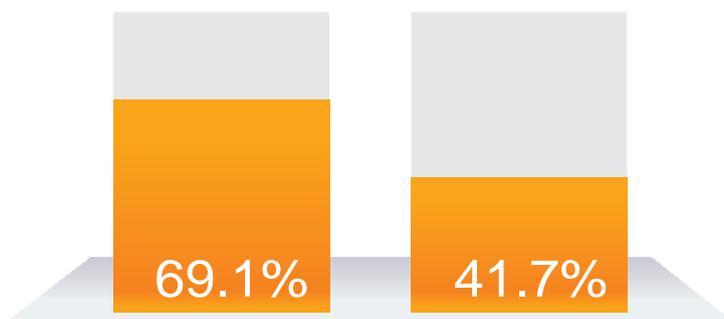
The advantages of PGS

- **Greater implantation rates and improved IVF clinical outcomes (higher chance of birth with normal chromosomal structure)**
- **Mitigates several reproductive challenges associated with maternal age**
- **Allows for single embryo transfers**

Lab Genomics, LLC offers sequencing technologies for all your PGS needs. The NGS-based PGS and accurately screen all 24 chromosomes for optimal selection of normal embryos.

With PGS

Without PGS



Significantly higher rate of pregnancy are observed with PGS. Pregnancy rates are plotted for embryos analyzed using (left) PGS and morphology screening (using a microscope) and (right) with morphology screening alone.



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Embryo Biopsy

Lab Genomics provides embryo biopsy services to IVF clinics. These services include our trained staff coming to the IVF clinic and performing embryo biopsies or training embryologist to conduct biopsies themselves.





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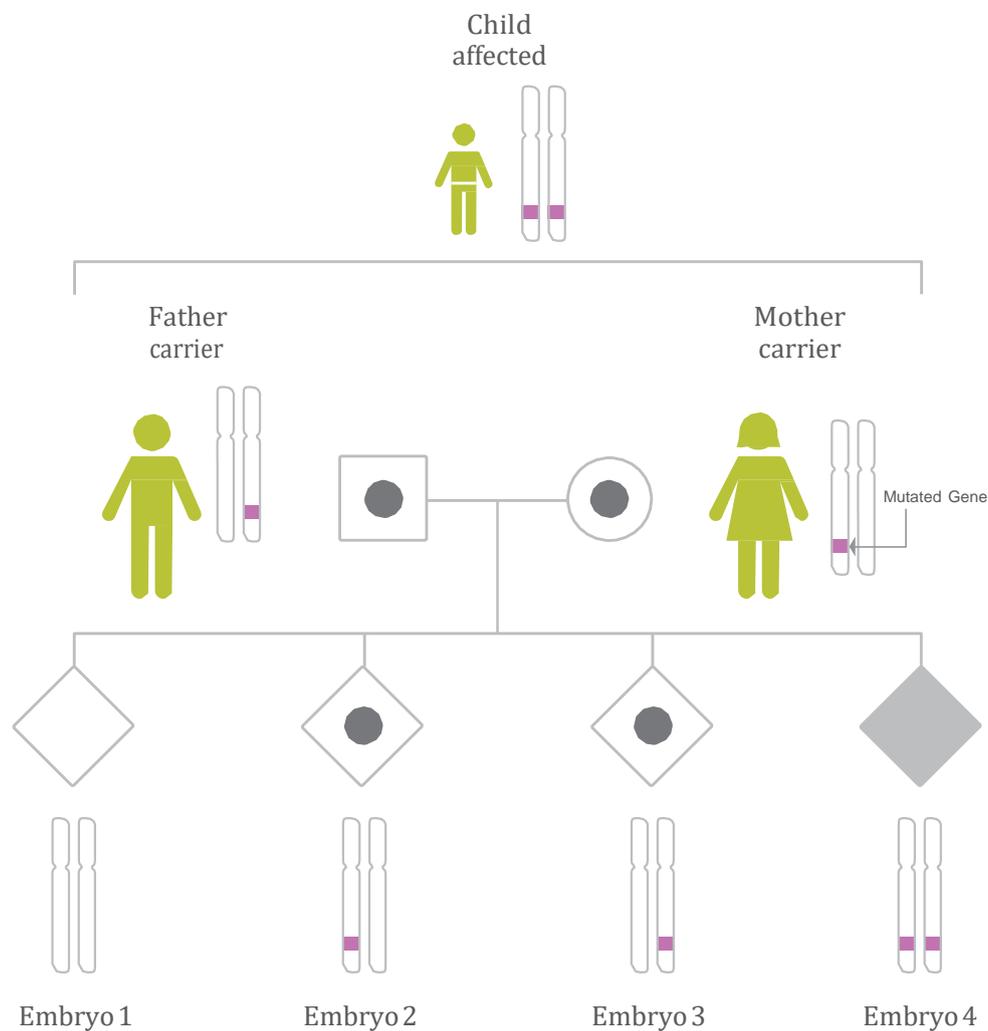
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Karyomapping can be performed on a wide range of recessive or dominant single-gene disorders.

Identifying the Inheritance Status of an Embryo



In this illustration, the parents of child with a recessive single-gene disorder are assessing the possibility of passing on the single-gene disorder to another child. Using karyomapping, the status of the embryo (affected, carrier, or unaffected) can be established.



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