The STAR trial: A randomized controlled trial (RCT) comparing pregnancy rates following VeriSeq™ PGS versus standard morphology for elective single embryo transfer (eSET)

What is PGT-A?

Preimplantation genetic testing for aneuploidy (PGT-A), is a test for chromosome copy number that can be used during in vitro fertilization (IVF) to help determine the chromosomal status of an embryo from a biopsy of one or more cells. The results of PGS aid in the selection of an embryo likely to have a normal number of chromosomes (euploid) for transfer and help avoid those with abnormal copy number (aneuploid) that may result in IVF failure or miscarriage.1

What is VeriSeq PGS?

VeriSeq PGS is the Illumina next-generation sequencing (NGS) solution for PGS. VeriSeq PGS provides comprehensive testing for copy number on all 24 chromosomes from the embryo biopsy.

What is the Single Embryo TrAnsfeR of Euploid Embryo (STAR) Trial?2,3

• The STAR Trial was an RCT designed to evaluate the effectiveness of VeriSeq PGS to optimize selection of embryos for eSET.

• The primary study outcome was ongoing pregnancy rate (OPR) at 20 weeks gestation in the PGT-A arm versus standard morphological selection alone in the control arm.

• Key differentiators of this trial
  – Global (4 countries)
  – Multicenter (34 clinical sites and 9 genetic laboratories)
  – One of the largest RCTs undertaken to date in the field of assisted reproduction with over 650 subjects randomized

Inclusion criteria

- Female aged 25–40 years
- ≤ 2 prior failed IVF cycles
- Not a known carrier of a single gene disorder nor a chromosome abnormality

Exclusion criteria

- Severe oligospermia and/or surgical requirement for microsurgical sperm retrieval
- Diminished ovarian reserve
- Undergoing preimplantation genetic screening/diagnosis outside of this study

PGT-A is a screening test; it is not diagnostic. Aneuploidy screening and diagnostic testing should be offered to all pregnant women following PGT-A