

**15th INTERNATIONAL PGD CONFERENCE, BOLOGNA, MAY 8-11, 2016**

**SCIENTIFIC PROGRAM**

**Sunday, 8<sup>th</sup> May, 2016**

**Pre-Congress Workshop: PGD based on Next Generation Technologies (In collaboration with *Illumina*)**

**DAY 1 – Monday, 9<sup>th</sup> May 2016**

**Session 1 - The impact of genetic diseases on mankind**

Making better babies: pros and cons

Genetic counseling before and after PGD

Medical supervision for genetic tests

Germ-line genetic modification: what is wrong with it?

Interpretation of trials and data analysis for introduction of new techniques (*Roundtable*)

**Session 2 - Novelties in PGD**

Introduction of new technologies in the lab: When and How?

Next Generation Sequencing

Potential relevance of segmental aneuploidies in PGD

Simultaneous detection of monogenic and chromosomal disorders

Karyomapping

Blastocentesis: Innovation in embryo biopsy

***SELECTED ORAL COMMUNICATIONS***

**DAY 2 – Tuesday, 10<sup>th</sup> May 2016**

**Session 3 - Clinical impact of PGD for aneuploidy**

PGD for aneuploidy: Results from a metanalysis

Selection of PGD patients according to their ovarian reserve

PGD for aneuploidy: when it's necessary?

Lifestyle and aneuploidy: is there a correlation?

New perspectives on embryo biopsy: not how, but when and why

PGD for aneuploidy: on day 3 embryos or on blastocysts? (*Debate*)

**Session 4 - PGD as a tool for a better understanding of Embryology/Reproductive Biology**

Sperm contribution to aneuploidy

Oocyte contribution to aneuploidy

Genetic and epigenetic determinants of human embryos

Optimal conditions for the best clinical outcome

Extreme IVF

Aneuploidies: Embryos' point of view vs. Uterus' point of view (*Back to Back Lectures*)

### ***SELECTED ORAL COMMUNICATIONS***

#### **DAY 3 – Wednesday 11th May 2015**

##### **Session 5 - From Non invasive PGD to NIPT**

Analysis of the cumulus cells

DNA in culture media

The impact of low fetal fraction on NIPT results

From detection of fetal DNA in maternal blood to NIPT

Reliability of aneuploidy screening by NIPT

Incidental consequences of NIPT

NIPT of fetal aneuploidies: A dream become reality

How to improve availability and affordability (*Roundtable*)

##### **Session 6 Translocations and segmental abnormalities**

Evolution of PGD for translocations

Inter-chromosomal effects

MPS for translocations

Benefits and drawbacks of PGD for translocations

##### **Session 7 Mitochondria and Beyond**

Mitochondria: the engine of the oocytes

Preferential segregation of mitochondrial DNA mutation in human oocytes

Levels of Mitochondrial DNA and embryonic implantation potential

Mitoscore: Myth or reality?

Mitochondrial replacement: from ART to stem cells

**CLOSING LECTURE:** 95% success rate in human ART

**May 13-15, 2016-Post-Congress Hand-On Workshop on PGD by Blastocyst Biopsy, Istanbul, Turkey**