Working Draft Program of PGDIS 2020 Conference

Berlin 3-6, 2020

Session 1. New approaches for universal PGT

Plenary lecture: Advanced sequencing methodologies for PGT

1.1 Traditional approach

1.2 Updated karyomapping

1.3 One PGT

1.4 Haploseek

Session 2. Identification and transfer of embryos with abnormal copy number variation

Plenary lecture: Origins and mechanisms of aneuploidy, segmental aneuploidy and mosaicism

2.1. Mosaicism in PGT-A and related PND Experience

2.2. Sub-chromosomal Variations – Clinical and Biological Significance

2.3. Reports of outcome of Embryos with Mosaicism and Segmental Aneuploidy (PGDIS Registry Data)

Session 3: Beyond aneuploidy - other adjunct methods to assist identification of developmentally competent embryos

Plenary lecture: Prospect of PGT for epigenetic disorders

3.1. MtDNA

3.2. Metabolomics (Raman Spectroscopy)

3.3. Time-Lapse

3.4. Transcriptomics

Session 4. Workshop: PGT as part of next generation ART and genetics practice

(Preconception PGT as an alternative for countries with restriction of embryo biopsy procedures)

Session 5. Expanding PGT Indications for Common Late-onset Conditions with Genetic Predisposition

Session 6. Automation for improved IVF and PGT

Plenary Lecture: Expanded Carrier Screening in PGT-M Uptake

5.1. Automated Embryo Biopsy Procedures

5.2. Robotic introduction to NGS procedure

5.3. Progress in Application of Artificial Intelligence

Session 7. Embryo Gene Editing

Introductory lecture: CRISPR - based disease modification as a possible extension of PGT

6.1. Genome Engineering and Germline Gene Therapies - Hui Yang, PhD (Chinese Academy of Sciences, China)

6.2. Experience in disease modification – mouse embryos

6.3. Gene edited stem cells to treat immunodeficiencies

Session 8. Alternative approaches to PGT and PND

Plenary Lecture: Ethical and legal challenges for modern PGT advances

7.1 NIPGT and UL

7.2. NIPT + Isolated placental cells from cervical swabs, as a PGT Follow Up

Session 9. Late Breaking News