Provisional 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 of embryos with abnormal copy number variation in PGT-A

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. Debate: Further Evidence on Clinical Benefit of PGT-A

Session 5. 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 6. CRISPR - based disease modification as a possible extension of PGT

6.1. Genome Engineering and Germline Gene Therapies

6.2. Experience in disease modification (mouse model)

6.3. Gene edited stem cells in treatment of congenital immunodeficiency

Session 7: 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