**PGDIS HANDS-ON WORKSHOP ON PGD FOR GENETIC AND**

**CHROMOSOMAL DISORDERS BY TROPHECTODERM BIOPSY**

**May 12 Arrival and Accommodation**

**MAY 13**

**09:00 - 10:05 PGD for Single Gene and Chromosomal Disorders by Blastomere and Trophectoderm Biopsy - Theoretical Session 1**

**08:30 - 09:00** **Registration**

**09:00 - 09:05** Opening of Workshop, Semra KAHRAMAN, Memorial Hospital ART and Genetics Center, Istanbul, Turkey

**09:05 - 09:35** Practical PGD, Anver KULIEV, RGI, Chicago, USA

**09:35 -10:05** Advantages and disadvantages of trophectoderm biopsy – Caroline PIRKEVI CETINKAYA, Memorial Hospital ART and Genetics Center, Istanbul, Turkey

**10:05 -10.35** DISCUSSION & COFFEE BREAK

**10:35 -13:10** **Hands-on Applications of Biopsy Procedures under Supervision of Trainers** *Participants will be divided into 3 groups, up to 5 in each for practical sessions.*

Zona Drilling Methods

Blastomere Biopsy Techniques

Trophectoderm Biopsy Techniques

**13:10 - 14:20** LUNCH & DISCUSSION

**14:20 -18:30** Each group will apply all the demonstrated techniques

**MAY 14**

**09:00 - 10:00 PGD for Single Gene and Chromosomal Disorders by Blastomere and Trophectoderm Biopsy- Theoretical Session 2**

**09:00 - 09:20** Clinical aspects of successful PGD, Semra KAHRAMAN, Memorial Hospital ART and Genetics Center, Istanbul, Turkey

**09:20 - 09:40** PGD for Aneuploidy and Translocations - From FISH to Next Generation Technologies, Anver KULIEV, RGI, Chicago, USA

**09:40 - 10:00** Molecular Techniques in PGD: Testing for Single Gene Disorders, HLA Typing, and 24 Chromosome Aneuploidy, Don LEIGH, Sydney, Australia

**10:00 -10:30** DISCUSSION & COFFEE BREAK

**10:30 -13:30** Hands-on applications of trophectoderm biopsy by participants under supervision of trainers

**13:30 -14:30** LUNCH & DISCUSSION

**14:30 -18:30** Hands-on Applications of FISH and PCR techniques under supervision of trainers

* Preparation, Spreading and Fixation of Blastomere and Trophectoderm Cells
* In Situ Hybridization with Different Chromosome Specific Probes
* Analysis and Scoring of FISH Signals
* 1st and 2nd Round PCR for PGD of Single Gene Disorders and HLA Typing
* Testing for 24 Chromosomes by Microarray Technology

*Participants will be divided into 3 groups, up to 5 in each for practical sessions according to their interests.*

**MAY 15**

**09:00 - 13:00 Interpreting FISH, aCGH and PCR Results**

**09:00 - 12:00** -Analysis and Scoring of FISH Signals, and aCGH results, Don LEIGH, Syndey, Australia and Murat CETINKAYA, Memorial Hospital ART and Genetics Center, Istanbul, Turkey.

Analysis and Interpretation of PCR Results, Don LEIGH, Syndey, Australia and Huseyin Avni TAC, Memorial Hospital ART and Genetics Center, Istanbul, Turkey

# 12:00 -13:00 GENERAL DISCUSSION & CLOSING

**Practical Stations**

**Station 1:** Blastomere Biopsy Techniques;

* Zona hatchings by enzymatic, mechanical and laser applications

**Station 2:** Trophectoderm Biopsy Techniques;

**Station 3:** FISH Techniques;

* Preparation, spreading and fixation of Blastomere and Trophectoderm Cells
* In situ hybridization of chromosomes with different probes
* Analysis and Scoring of FISH signals

**Station 4:** array CGH Techniques;

* Extraction and Amplification of blastomere and trophectoderm cells
* Labeling Hybridization
* Scanning and analysis of aCGH results

**Station 5:** PCR Techniques;

* Lysis of blastomere and trophectoderm cells
* First and second round PCR for PGD of single gene disorders and HLA matching Mutation Analysis and Restriction Enzyme Digestion
* Analysis and interpretation of PCR results

*• These applications will be done simultaneously in 4 stations and each participant will attend to each station and perform all demonstrated techniques*