

**PGDIS HANDS-ON WORKSHOP ON PGT FOR GENETIC AND
CHROMOSOMAL DISORDERS BY TROPHECTODERM BIOPSY
Istanbul Memorial Hospital ART and Genetics Center**

April 11-13, 2019

April 10 Arrival & Accommodation

APRIL 11

09:00-10:05 PGT 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 PGT, Anver KULIEV, RGI, Chicago, USA

09:35 -10:05 Advantages and disadvantages of trophoctoderm biopsy – Caroline Selma 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

APRIL 12

09:00 - 10:30 PGD for Single Gene and Chromosomal Disorders by Blastomere and Trophectoderm Biopsy- Theoretical Session 2

09:00 - 09:30 Clinical aspects of successful PGT, Semra KAHRAMAN, Memorial Hospital ART and Genetics Center, Istanbul, Turkey

09:30 -10:00 PGT for Aneuploidy (PGT-A) and Structural Rearrangements (PGT-SR)- From FISH to Next Generation Technologies, Anver KULIEV, RGI, Chicago, USA

10:00 - 10:30 Molecular Techniques and Next Generation Technologies in PGT: Testing for Monogenic Disorders (PGT-M), HLA Typing (PGT-HLA), and 24 Chromosome Aneuploidy (PGT-A) by Next Generation Sequencing (NGS) and Prospect for Universal PGT, Don LEIGH, Sydney, Australia

10:30 -11:00 **DISCUSSION & COFFEE BREAK**

11:00 -13:30 Hands-on applications of trophoctoderm biopsy by participants under supervision of trainers

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

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

- 1st and 2nd Round PCR for PGT-M and PGT- HLA

- Testing for 24 Chromosomes by Microarray Technology and NGS

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

April 13

09:00 -13:00 Interpreting NGS, aCGH and PCR Results

09:00 - 12:00 Analysis and Interpreting NGS, and arrayCGH results, Murat CETINKAYA, Memorial Hospital ART and Genetics Center, Istanbul, Turkey

Analysis and Interpretation of NGS and PCR Results, Don LEIGH, Sydney, Australia

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: array CGH and NGS Techniques;

Extraction and Amplification of blastomere and trophectoderm cells

Labeling Hybridization

Scanning and analysis of aCGH and NGS results

Station 4: PCR Techniques;

Lysis of blastomere and trophectoderm cells

First and second round PCR for PGT-M and PGT-HLA, 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