Sperm preparation in collaboration with Microptic

THREE DAY AGENDA



embryotools



Sperm care

Aims and Goals of the Course:

To understand how to setup and manage a successful andrology lab and learn key tips on how to deal with all kinds of sperm samples. To improve the knowledge and understanding about the latest techniques to select the best sperm.

In collaboration with Microptic (<u>www.micropticsl.com</u>) the course will offer the possibility to go through all the latest discoveries and innovations in the field of sperm analysis in Microptic facilities.

In our facilities it will be possible to learn and have intensive hands on sessions in sperm preparation using different types of sperm samples with an assigned member of our team.

Scientific Program:

Theoretical Sessions (30-45 min duration):

- "Sperm features and fertilization process" by Núria Medarde, PhD
- "Sperm care" by Embryotools team

Hands-On Sessions by Microptic:

- Macroscopic and microscopic sperm analysis.
- Microscopic sperm assessment: Motility, Concentration, Morphology and Vitality analysis, DNA fragmentation.
- Manual versus automatic (Microptic) sperm evaluation.
- Sperm functional tests: Mucus penetration, Hyperactivation, Acrosome reaction.

Hands-On Sessions by Embryotools:

- Sperm preparation techniques: Gradients, swim-up.
- Dilution of sperm preparation samples for IU, IVF and ICSI techniques.
- How to cryopreserve sperm.

Team of embryologists providing the training

Embryotools Team (Gloria Calderón, PhD; Nuno Costa-Borges, PhD; Enric Mestres, PhD; Mònica Acacio, MSc, and Carolina Castelló, BSc) Microptic Team (Núria Medarde, PhD)

Microptic Team (Núria Medarde, PhD)

Certificate of attendance will be awarded to participants completing the workshop

Date: Three days (from 09:00h to 16:30h with a breakfast pause and 30 min lunch)

Locations:

Embryotools' Laboratories Avenida Doctor Marañón, 8 Parc Científic de Barcelona 08028 Barcelona, SPAIN

MICROPTIC S.L.

Av. Josep Tarradellas, 8, 1º 6ª 08029 Barcelona, Spain



1st Day

Macroscopic and microscopic sperm analysis and evaluation at Microptic facilities

10:00 - 10:30	Welcome to Microptic. Meeting of all the team. by Núria Medarde, PhD
10:30 - 11:30	Theoretical session: "Sperm features and fertilization process" by Núria Medarde, PhD
11:30 - 14:00	 Hands-on session: Hands-on macroscopic and microscopic sperm analysis. Manual versus automatic sperm evaluation. Sperm count and motility assessment. Functional tests I: Mucus penetration and Hyperactivation. Vitality analysis. Sperm stains and morphology assessment (I).
	Lunch roundtable. Discussion and Troubleshooting
15:00 - 18:00	 Hands-on session: Sperm stains and morphology assessment (II). Functional tests II: Acrosome reaction assay and DNA fragmentation test.



2nd **Day** Sperm preparation techniques for ART at Embryotools facilities

09:00 - 09:30	Welcome to Embryotools. Meeting of all the team and participants.
09:30 - 10:30	Theoretical session: "Sperm care" by Embryotools team
10:30 - 14:00	 Visit laboratories installation with explanation of all equipment. Introduction to the equipment. Hands-on session: Evaluation of sperm fresh samples. Sperm preparation using gradients and Swim-up. Dilution of the processed samples for IUI, conventional IVF and ICSI.
	Lunch
14:30 - 16:30	 Hands-on session: Lab routine and practical aspects that affect QC&QA. How to handle culture media: Aliquoting, storage, setting up of dishes, HSA, temperature, osmolality and pH.



Sperm Cryopreservation at Embryotools facilities

09:00 - 09:30 *Q&A on all aspects covered on the previous days.*

10:30 - 14:00 Hands-on session:

- Analysis of fresh samples for cryopreservation.
- Cryopreservation of sperm samples.
- Sperm vitrification.

Lunch

14:30 - 16:30

Hands-on session:

- Thawing of sperm samples.
- *Reinforcement of any of the aspects developed during the course.*

Farewell and photo finish!