

**Human Advanced Course with SCA system** (3 days)

**DAY 1:**

9-13.30h

- Microptic presentation
- Biological overview of fertilization and critical points of the process
- Basic semen analysis according to WHO Guidelines
  - Macroscopic evaluation
  - Microscopic evaluation
  - Timing for analyses
- Presentation of the CASA system: SCA Evolution/SCA SCOPE
- The role of SCA system in the semen assessment
- Minimum requirements for working with SCA system (devices, versions, and complementary modules)
- Presentation of each module and specific kits

13.30-15h

- **LUNCH**

15-17h

- Macroscopic information: Introduction to the Sample Manager
- Before analysing: Check microscope settings and system calibration

**DAY 2:**

9-13.30h

Hands on session:

- Sample collection and liquefaction
- Macroscopic examination
  - Colour
  - Viscosity
  - pH
  - Aggregation/Agglutination

- Microscopic examination (sample preparation and analysis with the SCA)
  - Sperm motility
    - Sperm Functional tests (I): Cervical mucus penetration and hyperactivation
  - Sperm vitality
  - Sperm numbers and Round Cells (concentration)
  - Principles of Leukocyte test
  - Morphology analysis (I):
    - Simple sperm washing
    - How to perform a good smear

13.30-15h

- **LUNCH**

15-17h

- Morphology analysis (II):
  - Staining process with Morphology slides/Diff-Quik/ SpermStain/ SpermBlue
  - Automatic sperm analysis with the SCA system
- Principles of functional tests (II):
  - DNA fragmentation (brief explanation of the different techniques for assessing fragmentation (pros and cons), presentation of the Gold-Cyto DNA kit and new CanSept kit)
  - Acrosome reaction (Explanation of FluoAcro principles)

### **DAY 3:**

9-13.30h

- Internal Quality Controls with the SCA system
- My SCA External Quality Control
- Starting from 0:
  - Analysis of samples prepared during day 2

13.30-15h

- **LUNCH**

15-17h

- Questions and doubts