



Venue

University of Bari - Department of Biosciences, Biotechnologies and Biopharmaceutics

• 26-28 September 2022

Labo-biotech, via Giuseppe Fanelli n. 204, Bari

• 29-30 September 2022

University Pole of Valenzano, Provincial road to Casamassima, km 3 - Valenzano (Bari)

More information

<http://www.uniba.it/didattica/corsi-universitari-di-formazione-finalizzata/summer-winter-school/summer-school/2017-2018/start-game>

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Dr. Daniele Ferri
(Momò FertiLife, Bisceglie)

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Prof. Sandor Cseh
(University of Budapest)

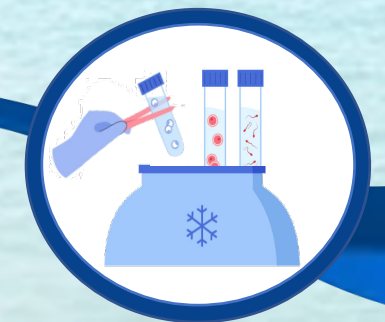
Dr. Bence Somoskoi
(University of Budapest)



Bari, 26-30 September 2022



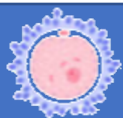
Summer Training on Assisted Reproductive Technologies with Germ cells of Animal ModEls – 2 CRYO



Scientific Program

Monday, 26 Sept (Labo-Biotech)

THE OOCYTE



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

08:30 - 09:00 **Opening remarks**

09:00 - 13:00 **LECTURES**

09:00 **BAJ Roelen** Oocyte growth and maturation

10:30 **ME Dell'Aquila** The IVM technology

11:30 **NA Martino** Oocyte quality assessment

12:30 **A Mastrorocco** 3D oocyte maturation systems

14:00 - 18:00 **LAB TRAINING**

Tutor: NA Martino, BAJ Roelen, A Mastrorocco, ME Dell'Aquila

The ART lab; Oocyte collection and selection; IVM (static and perfusion systems)

Tuesday, 27 Sep (Labo-Biotech)

THE SPERM CELL



09:00 - 13:00 **LECTURES**

09:00 **ME Dell'Aquila** Spermatogenesis and sperm capacitation

10:30 **NA Martino** Sperm quality assessment

11:30 **D Ferri** Male Fertility Assessment in human ARTs

12:00 **P Cirigliano** SCA Evolution sperm quality system

14:00-18:00 **LAB TRAINING**

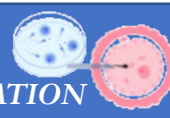
Tutor: NA Martino, BAJ Roelen, A Mastrorocco, ME Dell'Aquila

Sperm preparation procedures (swim-up and density gradient centrifugation); Basic methods for sperm quality evaluation (concentration, viability, motility); Demonstration activity by the company (MICROPTIC)

Scientific Program

Wednesday, 28 Sep (Labo-Biotech)

ASSISTED IN VITRO FERTILIZATION



09:00 - 13:00 **LECTURES**

09:00 **BAJ Roelen** Physiology of fertilization in mammals

10:00 **BAJ Roelen** Assisted microfertilization techniques: evolution and clinical applications

11:00 **BAJ Roelen** Genetic modifications

11:30 **ME Dell'Aquila** Assisted fertilization (IVF, ICSI)

12:00 **S Mrenoshki** Microbiome role in female reproduction

12.30 **D Baldini** Medically assisted procreation techniques in humans: from the diagnostic setting to the therapeutic cycle

14:00 - 18:00 **LAB TRAINING**

14:00 **YS Cho** Human and large animal IVF labs - Differences and similarities

14:45 **YS Cho, NA Martino, BAJ Roelen, A Mastrorocco, ME Dell'Aquila**

Oocyte and sperm preparation for IVF and ICSI; Conventional IVF and ICSI procedures.

Thursday 29 Sep, (Valenzano Campus)

THE EMBRYO



09:00 - 13:00 **LECTURES**

9:00 **BAJ Roelen** Preimplantation embryo development

10:00 **ME Dell'Aquila** The IVEC technology

10:30 **NA Martino** Embryo quality assessment

11:00 **S Cseh** Basic principles of cryopreservation and cryoprotectants

12:00 **B Somoskoi** Basic principles of vitrification

Scientific Program

14:00 - 18:00 **LAB TRAINING**

Tutor: NA Martino, BAJ Roelen, A Mastrorocco, ME Dell'Aquila

Set up of the laboratory for cryopreservation of gametes and embryos; Slow freezing and rapid thawing techniques of oocytes and embryos; Polscope-, Piezo- and Laser-assisted ICSI; Setting-up of in vitro embryo culture; Assessment of embryo morphology and morphokinetics

Friday, 30 Sep (Valenzano Campus)

CRYOPRESERVATION OF GAMETES AND EMBRYOS



09:00 - 13:00 **LECTURES**

09:00 **S Cseh** Slow freezing techniques of oocytes and embryos

10:00 **B Somoskoi** Vitrification of oocytes and embryos

11:00 **BAJ Roelen** Embryo models using stem cells

11:30 **ME Dell'Aquila** Preimplantation Genetic Testing

12:30 **L Temerario** Cryopreservation for biodiversity conservation

14:00 - 17:30 **LAB TRAINING**

Tutor: S Cseh, B Somoskoi, NA Martino, A Mastrorocco, ME Dell'Aquila

Vitrification procedures of oocytes and embryos; Post-thawing and post-vitrification evaluations; Chromatin staining of oocytes, zygotes and embryos and analysis; Assessment of embryo bioenergetic/oxidative status

17:30-18:30 Final test