EXCEMED WORKSHOP
Improving success in ART: how to define it and key strategies to get the best outcomes
Kiev, Ukraine - 21 September 2018
Improving success in ART: how to define it and key strategies to get the best outcomes

Overview
Success in assisted reproductive technology (ART) depends on carefully controlled conditions at every step of the laboratory routine. In addition, ongoing advances in technology require constant revision of good laboratory practices and the introduction of new techniques. This educational activity will improve the participants’ knowledge of the latest technologies and laboratory practice guidelines. The learning activity offers an interactive programme with specialised lectures tailored to fit the needs of physicians and embryologists working in ART, followed by lectures and case studies. Learners have the opportunity to discuss, directly with renowned scientists, pertinent topics that have been the subject of controversy and innovation. Discussions concentrate on how to facilitate optimal laboratory conditions, culture environments, selection criteria and how to select the best therapy for infertile patients.

Learning objectives
By attending this live educational workshop, participants will be able to:
- Define laboratory and clinical outcomes for defining success in ART
- Examine key factors influencing the success of ART
- Evaluate stimulation protocols and develop the most appropriate stimulation protocol for patients undergoing ART
- Discuss and debate changing approaches to ART

Target audience
This programme is designed for clinicians and biologists working in assisted reproductive medicine, who want to acquire up-to-date information for improving their current practice.

Chair
Robert Fischer
Fertility Centre Hamburg
Hamburg, Germany

CME Provider
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EXCEMED adheres to the principles of the Good CME Practice group (gCMEp).
**Venue**
This live educational workshop takes place at the:

**Hilton Hotel Kyiv**
30 Tarasa Shevchenka Blvd.
Kiev, 01030, Ukraine
www.kyiv.hilton.com

**Language**
The official language of this live educational workshop is English.

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FACULTY

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Mykola Gryshchenko  
Academician V.I. Gryshchenko Clinic for Reproductive Medicine  
Kharkov, Ukraine

Marcos Meseguer  
Valencian Infertility Institute [VI]  
Valencia, Spain

Lyubov Mykhaylyshyn  
Alternativa Clinic  
Lviv, Ukraine

Filippo Maria Ubaldi  
G.E.N.E.R.A. Centre for Reproductive Medicine  
Rome, Italy
**PROGRAMME**

Friday, 21 September 2018

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**Legend:**  
L: Lecture  
Question time  
Panel discussion
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The following faculty provided information regarding significant commercial relationships and/or discussions of investigational or non-EMEA/FDA approved (off-label) uses of drugs:

- Carlo Alviggi: Declared receipt of honoraria or consultation fees from Merck.
- Robert Fischer: Declared no potential conflict of interest.
- Mykola Gryshchenko: Declared receipt of honorarium or consultation fees from MSD, Abbot, Sona-Pharm.
- Marcos Meseguer: Declared no potential conflict of interest.
- Lyubov Mykhaylyshyn: Declared no potential conflict of interest.
- Filippo Maria Ubaldi: Declared receipt of grants from Merck (GFI) and Finox and receipt of honoraria or consultation fees from Merck, MSD, Ferring, Cook, EXEMED. Stakeholder of G.EN.E.R.A Health Care Srl and Flam Srl.

**FACULTY DISCLOSURES**

16.45  L9: Is it time for “freeze-all” strategies for all patients?
What is the best frozen embryo transfer protocol?
L. Mykhaylyshyn [Ukraine]

17.10  Question time
L. Mykhaylyshyn [Ukraine]

17.20  Panel discussion

17.55  Concluding remarks
R. Fischer [Germany]

18.00  End of the workshop
Robert Fischer is founder and Medical Director of the IVF unit at the Fertility Center Hamburg— one of Germany’s largest and leading IVF centres. In July 1998 the Fertility Center Hamburg was one of the first centres in Germany and worldwide, to introduce certified quality management according to ISO 9001. In 2002, the IVF laboratory became ISO 17025 certified. Prior to these developments, in 1983 he pioneered and was medical director of the first outpatient IVF unit in Hamburg. Author of numerous publications in national and international scientific journals and books, as well as lecturer at conferences worldwide, he is also an active member of the American Society of Reproductive Medicine, founding member of the European Society of Human Reproduction and past member of its advisory committee, as well as founding member of the German reproductive organisations, “AG Gynäkologische Endokrinologie und Fortpflanzungsmedizin” and “Berufsverband Reproduktionsmedizinischer Zentren”.

Carlo Alviggi obtained his MD degree (1994) with a specialty in Obstetrics and Gynaecology (1998), and a PhD in 2001 at the Faculty of Medicine, University of Naples “Federico II”, Italy. In 1998 he was a visiting fellow in the IVF Unit of Imperial College of London-Hammersmith Campus, where he also collaborated with the Department of Immunology (Imperial College of London). Thereafter, he collaborated with the Laboratory of Immunology at the Italian National Research Council (Naples) and the Laboratory of Autoimmunity and Tolerance at University of California (Los Angeles). This collaborative network resulted in various publications, some of which concern new hypotheses on the pathogenesis of pelvic endometriosis. Over recent years, he has been working as associate professor in Reproductive Medicine at the Fertility Unit, University of Naples “Federico II” (Department of Neuroscience, Reproductive Science and Odontostomatology). Dr Alviggi has published extensively and has been invited to lecture at over 100 international meetings dealing with reproductive medicine and gynaecological endocrinology. He has also served as an ad hoc reviewer for international journals in these fields. He has participated in several national and international (phase II-III) multicentric, prospective, randomised, trials. Dr Alviggi’s current research interests are the role of LH in folliculogenesis, the use of LH-containing drugs in patients undergoing ovarian controlled stimulation for IVF, the pathogenesis of pelvic endometriosis, oncoterility, reproductive endocrinology and the genetics of human reproduction.
Marcos Meseguer received his Biological Sciences Degree from the University of Valencia in Spain. He performed a predoctoral fellowship in St Mary’s Hospital, Manchester University, United Kingdom. He received his PhD degree in Obstetrics and Gynaecology and European Doctor degree in 2002 from the University of Valencia, Spain. He also has a Masters degree in Research Methods; Design and Statistics from Universidad Autónoma de Barcelona, Spain. Dr Meseguer is Scientific Supervisor and Senior Embriologist at the IVF unit of IVIRMA Valencia. He was Co-director of the Andrology Laboratory at the Instituto Valenciano de Infertilidad (IVI).

Dr Meseguer has received the prize paper of the American Society of Reproductive Medicine, and has three times been recipient of the Lalor Foundation International Award from the American Society of Andrology. He has also won the research award from the Spanish Society of Fertility on three occasions, and on four occasions won the research award from the Spanish Society of Embryology. He received the Robert Edwards prize paper award from RBM on line and has been the ASRM star award winner.

The primary areas of his research are embryology and male infertility. As Principal Investigator, his work has been funded through 16 projects sponsored by the Spanish Government, including five EUREKA projects [high-quality technological projects] supported by the European Community. He has one international patent.

Dr Meseguer has published over 145 scientific articles, with 5400 citations and a h-index of 43, including the most cited paper in Human Reproduction during 2013. In addition, he has published 50 reviews or book chapters, edited the first time-lapse book and given over 500 presentations at national and international congresses. He has been the Director of 13 Doctoral Theses, all qualified with “Cum Laude”, and is currently directing 6 PhD candidates.

He is also Statistics Advisor at Equipo IVI and Associate Professor of the Masters in Biotechnology from Valencia University.

Mykola Gryshchenko was born in Kharkiv, Ukraine. He graduated from Kharkiv State Medical University in 2000. In 2003 he obtained his MD degree in Obstetrics and Gynecology. In 2011 a PhD degree was granted to him at Kharkiv State Medical University, specialty - "Obstetrics and Gynecology." In 2004, he was awarded the Associate Professor title. Mykola Gryshchenko is currently the Director of the "Academician V.I. Gryshchenko Clinic for Reproductive Medicine". He is a well-known expert in the management of infertility treatment. Together with his team (specialists of the Gryshchenko Clinic), he has been solving infertility problems and has been helping patients to become happy parents of healthy children. Mykola Gryshchenko also specializes in the field of Reproductive Endoscopy. He has an active teaching career, sharing his knowledge and experience with medical students. Mykola Gryshchenko has published 3 textbooks, 3 monographs, 16 training manuals and guidelines, 95 articles in the domestic and foreign specialist publications. Since 2012 Prof. Gryshchenko has been a member of the Ukrainian Association of Reproductive Medicine; since 2016 he has been a Vice President of the Presidium of this organisation. Since 2014 he has been a member of the European Society of Human Reproduction and Embryology (ESHRE) working group that monitors the results of infertility treatment by IVF method. Current research interests of Prof. Mykola Gryshchenko include Reproductive Endocrinology, Preimplantation Genetic Diagnosis, Reproductive Endoscopy, Endometrial Receptivity.

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Valencian Infertility Institute (IVI)
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Filippo Maria Ubaldi is Medical Doctor, Clinical Director, at the G.EN.E.R.A. Centres for Reproductive Medicine in Rome, Marostica, Umbertide and Naples, Italy. With academic degrees in Obstetrics and Gynaecology, and a Masters degree in Andrology and Reproductive Medicine, he is also intensely dedicated to educational, editorial and practitioner activities. Co-author of 8 books on Reproductive Medicine and of 118 peer reviewed publications, his h-index is 38. Filippo Ubaldi was Editor of the Treaty on Reproductive Medicine "Medicina della Riproduzione Umana" published in Italy in 2010. Invited to speak at over 300 National and International congresses on the topic of Reproductive Medicine, he has been Scientific Coordinator of more than 30 congresses and courses. Member of the ESHRE Executive Committee, 2005-2009, he was Chairman of the 26th ESHRE Annual Meeting held in Rome in June 2010. In 2014 he received the Italian National Scientific License as full Professor in Obstetrics and Gynaecology. During 2014 and 2015 Filippo Ubaldi was a member of the technical advisory board established by the Ministry of Health on heterologous fertilization.

Lyubov Mykhaylyshyn graduated from Lviv State Medical University, Ukraine, in 2001. In 2003 she obtained her MD degree in Obstetrics and Gynaecology and passed a postgraduate course in Reproductive Medicine and Ultrasonographic Diagnostics. In 2013 she successfully defended a dissertation on Repeated IVF Failures and achieved the degree of PhD level in the specialty “Obstetrics and Gynaecology.” Having practiced as an IVF specialist for 15 years, Lyubov Mykhaylyshyn is currently the chief of the IVF Department at the “Clinic of Human Reproduction Alternativa”, Lviv. From 2011 to 2017 she was a delegate from Ukraine on the ESHRE Committee of National Representatives. In 2012 Dr Mykhaylyshyn was awarded the medal “Professional Glory of Ukraine” for highly efficient work and professionalism. She is the author of 16 publications and has 2 patents for invention. Since 2014 she has worked on the Scientific Committee of the Ukrainian Association of Human Reproduction and Embryology. Dr Mykhaylyshyn’s current special interests are Reproductive Endocrinology, Implantation and Early Pregnancy.

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Learning objectives:
• Define ovarian hyperstimulation, multiple births, live birth rates
• Discuss cumulative live birth as an outcome measure [nb: this will be discussed in detail in the subsequent presentation]
• Introduce the concept of time to pregnancy as an outcome

What is success in ART?
F.M. Ubaldi (Italy)

Learning objectives:
• Describe the relationship between number of oocytes and pre-procedural IVF outcome
• Address the relationship between number of oocytes and clinical IVF outcome
• Describe how to calculate, and achieve, the optimal number of oocytes (using the most appropriate stimulation protocols), to achieve best outcomes in women

The importance of oocyte numbers for cumulative pregnancy rate
M. Gryshchenko (Ukraine)
Learning objectives:
• Define the biomarkers available for clinical use in COS protocols, including hormonal, functional and genetic biomarkers
• Explain how to personalize COS protocols
  - In particular describe how antral follicle count (AFC) and anti-Mullerian hormone (AMH) are the most sensitive and accurate markers of ovarian reserve, are ideal when planning personalized COS protocols

What kind and dose of gonadothropins to use and what is the role of LH in COS?
C. Alviggi (Italy)

Learning objectives:
• Describe the practical application of time-lapse technology
• Introduce new and optimum concepts in embryo cryopreservation strategies
  - Compare and contrast vitrification and older "slower" methods of freezing
  - Explain the advantages of vitrification

How to define subgroups for COS?
F.M. Ubaldi (Italy)
Learning objectives:
• Define the concept of ovarian response groups
  - Describe the features of each group
• Define the suboptimal response groups
• Present and discuss the POSEIDON criteria
• Describe the purpose of the www.poseidongroup website and explain why participants should find it valuable

What is the POSEIDON concept?
C. Alviggi (Italy)

Learning objectives:
• Describe the practical application of time-lapse technology
• Introduce new and optimum concepts in embryo cryopreservation strategies
  - Compare and contrast vitrification and older “slower” methods of freezing
  - Explain the advantages of vitrification

How can we use recent technology in IVF cycles to improve ART?
(Time lapse; Freeze; Vitrification)
M. Meseguer (Spain)
Learning objectives:
• Elaborate on the indications in which PGT-a may be considered
• Define the patient selection criteria for pre-implantation testing (PGT-a and subsequent PGT-a)
• Introduce the technologies for genetic testing [aCGH, aSNP; qPCR; NGS]
• Describe and discuss the following:
  - The potential role of polar bodies in PGT-a
  - Current evidence and future research needs regarding blastocyst vs. cleavage biopsy
  - The influence of mosaicism on the accuracy of PGT-a

M. Meseguer (Spain)

The role of pre-implantation testing for aneuploidy to improve selection (polar body; mosaic problems)

Learning objectives:
• Distinguish between the different luteal phase techniques available in ART, using evidence from the literature and clinical/practical considerations
• Explain how to tailor luteal phase support in ART strategies

R. Fischer (Germany)

Updates on luteal phase supplementation
Is it time for “freeze-all” strategies for all patients? What is the best frozen embryo transfer protocol?

L. Mykhaylyshyn (Ukraine)

Learning objectives:
• Explain why the freeze-all strategy is being proposed
• Identify the advantages, disadvantages, considerations and potential challenges of adopting a freeze-all strategy
• Present the latest evidence relating to frozen embryo transfer protocols
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