

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## Programme of Teaching Module 1

*"Human Reproduction: Physiology, Pathophysiology and Recent Advances"*

Submodule	Lecture-Speakers	Date-Time
Scientific & Academic Director Welcome	Welcome-Aims <i>Mara Simopoulou</i>	4/10/2023 5:00 p.m – 5:15 p.m
Opening Lecture	On the future of assisted reproduction: Lessons from the past <i>Jacques Cohen</i>	4/10/2023 5:15 p.m – 6:00 p.m
1.1	Physiology of the female reproductive system <i>Byron Asimakopoulos</i>	11/10/2023 5:00 p.m – 6:00 p.m
1.2	Female Infertility: Aetiology and management strategies <i>Ippokratis Sarris</i>	11/10/2023 6:00 p.m – 7:00 p.m
1.3	Physiology of the male reproductive system <i>Francesco Lotti</i>	18/10/2023 5:00 p.m – 6:00 p.m
1.4	Male Infertility: Aetiology and management strategies <i>Amin Herati</i>	18/10/2023 6:00 p.m – 7:00 p.m
1.5	Ovarian stimulation in the era of personalized and precision medicine <i>Theodoros Kalampokas</i>	18/10/2023 7:00 p.m – 8:00 p.m
1.6	Ovarian Insufficiency: Options and considerations from the clinician's perspective <i>Konstantinos Sfakianoudis</i>	25/10/2023 5:00 p.m – 6:00 p.m
1.7	Recurrent Miscarriage and Recurrent Implantation Failure: How far have we come? <i>Petros Drakakis</i>	25/10/2023 6:00 p.m – 7:00 p.m
1.8	Embryo and Endometrium: A complex relationship <i>Irene Souter</i>	25/10/2023 7:00 p.m – 8:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 2**

*“Organization, Management and Quality Control in the Embryology Laboratory,  
in the Andrology Laboratory and in Cryopreservation Banks”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
2.1	Organization and management on setting up an Assisted Reproduction Unit <i>Despina Tzanakaki</i>	<b>1/11/2023</b> 5:00 p.m – 6:00 p.m
2.2	Organization, management, and Standard operating procedures (SOPs) for the Embryology Laboratory <i>Giles Palmer</i>	<b>1/11/2023</b> 6:00 p.m – 7:00 p.m
2.3	Organization, management, and Standard operating procedures (SOPs) for the Andrology Laboratory <i>Evangelini Evgeni</i>	<b>8/11/2023</b> 5:00 p.m – 6:00 p.m
2.4	Organization, management, and Standard operating procedures (SOPs) for Cryopreservation Banks <i>Alexia Chatziparasidou</i>	<b>8/11/2023</b> 6:00 p.m – 7:00 p.m
2.5	Inspecting an IVF Laboratory <i>Gerry Celia</i>	<b>15/11/2023</b> 5:00 p.m – 6:00 p.m
2.6	New Technologies for High Tech Management of Quality in IVF Laboratories <i>Carol Lynn Curchoe</i>	<b>15/11/2023</b> 6:00 p.m – 7:00 p.m
2.7	Quality control and crisis management in the IVF laboratory <i>Carol Lynn Curchoe</i>	<b>15/11/2023</b> 7:00 p.m – 8:00 p.m
2.8	Data, data, data. The past, present and future of data management in IVF <i>Jaques Cohen</i>	<b>22/11/2023</b> 5:00 p.m – 6:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 3**

*“Semen Analysis, Sperm Preparation and Evaluation of Sperm Quality and Functionality”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
3.1	Standardized Semen Analysis: Lessons for novice and experts <i>Betsy Cairo</i>	29/11/2023 5:00 p.m – 6:00 p.m
3.2	Sperm morphology assessment by strict criteria <i>Betsy Cairo</i>	29/11/2023 6:00 p.m – 7:00 p.m
3.3	Semen Analysis: Ancillary tests <i>George Liperis</i>	6/12/2023 5:00 p.m – 6:00 p.m
3.4	The role of patient's history and sperm preparation techniques for diagnostic and ART purposes <i>Stamatis Papaharitou</i>	6/12/2023 6:00 p.m – 7:00 p.m
3.5	Automated analysis of sperm diagnostics and selection for therapeutics: CASA and Beyond <i>Meurig Gallagher</i>	6/12/2023 7:00 p.m – 8:00 p.m
3.6	Optimal management of ejaculate and non-ejaculate originating spermatozoa for ART purposes <i>Michael Carroll</i>	13/12/2023 5:00 p.m – 6:00 p.m
3.7	Advanced semen tests <i>Dolores Lamb</i>	13/12/2023 6:00 p.m – 7:00 p.m
3.8	Advanced semen tests <i>Dolores Lamb</i>	20/12/2023 5:00 p.m – 6:00 p.m
3.9	Contributions of the Male Gamete to the Embryo and Offspring <i>Dolores Lamb</i>	20/12/2023 6:00 p.m – 7:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



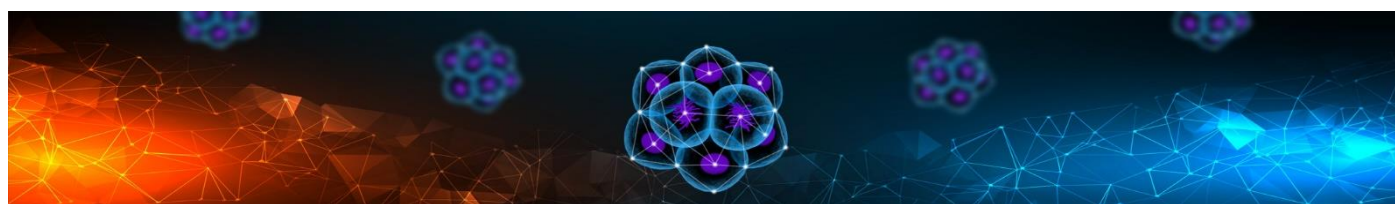
## Programme of Teaching Module 4

*“Novel Techniques and Approaches in Gamete, Embryo, Testicular and Ovarian Tissue Cryopreservation”*

Submodule	Lecture-Speakers	Date-Time
4.1	How understanding basic cryobiology can help us improve outcomes <i>Kimball O. Pomeroy</i>	<b>3/1/2024</b> 5:00 p.m – 7:00 p.m
4.2	Safety in human reproductive cell cryopreservation <i>Lodovico Parmegiani</i>	<b>10/1/2024</b> 5:00 p.m – 6:00 p.m
4.3	Cryostorage safety: validation, quality control and best practices <i>Kimball O. Pomeroy</i>	<b>10/1/2024</b> 6:00 p.m – 7:00 p.m
4.4	Factors Affecting Vitrification Success <i>Kimball O. Pomeroy</i>	<b>17/1/2024</b> 5:00 p.m – 6:00 p.m
4.5	Oocyte and embryo cryopreservation <i>Laura Rienzi</i>	<b>17/1/2024</b> 6:00 p.m – 7:00 p.m
4.6	Ovarian tissue cryopreservation: Where are we today? <i>David Albertini</i>	<b>24/1/2024</b> 5:00 p.m – 6:00 p.m
4.7	Testicular tissue cryopreservation: Where are we today? <i>Elena Kontogianni</i>	<b>24/1/2024</b> 6:00 p.m – 7:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 5**

*“Insemination Methods and Personalized Medicine”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
5.1	Insemination methods an Overview of IUI, IVF, ICSI and specialized equipment <i>Jackson Kirkman-Brown</i>	<b>31/1/2024</b> 5:00 p.m – 6:00 p.m
5.2	Micromanipulation in the era of Individualized Medicine: how to select the best sperm for ICSI <i>Lodovico Parmegiani</i>	<b>31/1/2024</b> 6:00 p.m – 7:00 p.m
5.3	Intracytoplasmic Sperm Injection (ICSI): Technique and technical aspects <i>Mina Alikani</i>	<b>7/2/2024</b> 5:00 p.m – 6:00 p.m
5.4	Evaluation of insemination outcomes <i>Nikica Zaninovic</i>	<b>7/2/2024</b> 6:00 p.m – 7:00 p.m
5.5	ICSI for All? <i>Mina Alikani</i>	<b>14/2/2024</b> 5:00 p.m – 6:00 p.m
5.6	Artificial activation of spermatozoa and oocytes: From basic research to clinical practice <i>Karl Swann</i>	<b>14/2/2024</b> 6:00 p.m – 7:00 p.m
5.7	Understanding the oocyte and decoding its competence <i>Federica Franciosi</i>	<b>21/2/2024</b> 5:00 p.m – 6:00 p.m
5.8	How to select the best insemination method: Evidence Based Clinical Practice <i>Gemma Arroyo</i>	<b>21/2/2024</b> 6:00 p.m – 7:00 p.m

### Written exams on Modules 1-5

(The examination platform will open on March 1<sup>st</sup>, 2024, at 5:00 p.m and will close on March 6<sup>th</sup>, 2023, at 5:00 p.m)

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 6**

*“Understanding the Embryo and Culture Systems:  
Mapping of state-of-the-art Equipment and Protocols”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
6.1	Physiology and development of the preimplantation embryo <i>Mara Simopoulou</i>	<b>28/2/2024</b> 5:00 p.m – 6:00 p.m
6.2	The pyramid of successful implantation <i>Laura Rienzi</i>	<b>28/2/2024</b> 6:00 p.m – 7:00 p.m
6.3	Metabolism of the preimplantation embryo <i>Roger Sturmey</i>	<b>6/3/2024</b> 5:00 p.m – 6:00 p.m
6.4	Culture media in IVF <i>Dean Morbeck</i>	<b>6/3/2024</b> 6:00 p.m – 7:00 p.m
6.5	Embryo culture incubators <i>Jason E. Swain</i>	<b>13/3/2024</b> 5:00 p.m – 6:00 p.m
6.6	Time-lapse imaging technology in the IVF laboratory <i>Marcos Meseguer</i>	<b>13/3/2024</b> 6:00 p.m – 7:00 p.m
6.7	The epigenetics of blastocyst culture <i>Alan Handyside</i>	<b>20/3/2024</b> 5:00 p.m – 6:00 p.m
6.8	Embryo Culture: Past, Present and Future <i>David Gardner</i>	<b>27/3/2024</b> 8:00 a.m – 9:00 a.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 7**

*“Basic Knowledge and Recent Advances on Embryo Quality and Evaluation:  
From Embryo Morphology to Artificial Intelligence”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
7.1	Embryo selection <i>David Gardner</i>	<b>27/3/2024</b> 9:00 a.m – 10:00 a.m
7.2	The making of the blastocyst <i>Giovanni Coticchio</i>	<b>3/4/2024</b> 5:00 p.m – 6:00 p.m
7.3	Novel approaches in oocyte and preimplantation embryo evaluation and automation in MAR <i>Alejandro Chavez-Badiola</i>	<b>3/4/2024</b> 6:00 p.m – 7:00 p.m
7.4	Embryo identification <i>Irene Dimitriadis</i>	<b>10/4/2024</b> 5:00 p.m – 6:00 p.m
7.5	Morphokinetic evaluation of the preimplantation embryo: What is there to gain? <i>Eros Nikitos</i>	<b>10/4/2024</b> 6:00 p.m – 7:00 p.m
7.6	Artificial intelligence in the IVF laboratory <i>Charles Bormann</i>	<b>17/4/2024</b> 5:00 p.m – 7:00 p.m
7.7	Non-invasive selection of embryo viability: The value of the embryo’s metabolic blueprint <i>Denny Sakkas</i>	<b>24/4/2024</b> 5:00 p.m – 6:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 8**

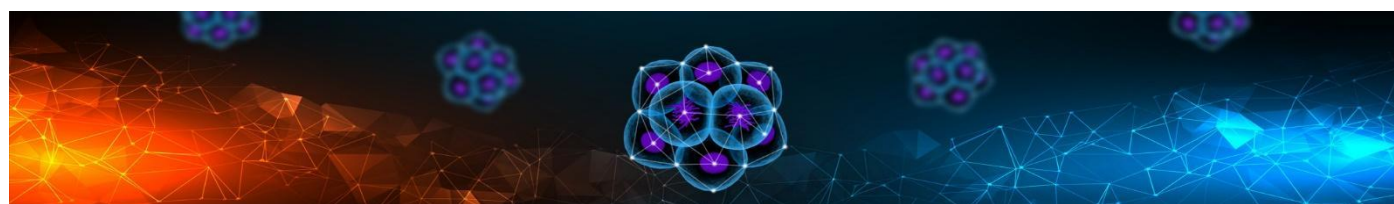
*“Preimplantation Genetic Testing: From Embryo Biopsy and Genetic and Molecular Diagnosis to Novel Approaches and Considerations”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
<b>8.1</b>	Genetic profile, analysis of the preimplantation embryo and novel approaches <i>Dagan Wells</i>	<b>8/5/2024</b> 5:00 p.m – 6:00 p.m
<b>8.2</b>	Biopsy methods, novel techniques and PGT optimal practice according to guidelines <i>Georgia Kokkali</i>	<b>15/5/2024</b> 5:00 p.m – 6:00 p.m
<b>8.3</b>	Preimplantation Genetic Testing for Structural Rearrangements (PGT-SR) <i>Darren Griffin</i>	<b>15/5/2024</b> 6:00 p.m – 7:00 p.m
<b>8.4</b>	Preimplantation Genetic Testing for Monogenic Disorders (PGT-M) <i>Joanne Traeger-Synodinos</i>	<b>22/5/2024</b> 5:00 p.m – 6:00 p.m
<b>8.5</b>	Preimplantation genetic testing for aneuploidy (PGT-A): Benefits, risks, and its true place in MAR <i>Eric Forman</i>	<b>22/5/2024</b> 6:00 p.m – 7:00 p.m
<b>8.6</b>	Embryo ploidy status and implantation: A conundrum <i>Danilo Cimadomo</i>	<b>29/5/2024</b> 5:00 p.m – 6:00 p.m
<b>8.7</b>	Physiology of the preimplantation embryo post biopsy and vitrification <i>Aikaterini Chatzimeletiou</i>	<b>29/5/2024</b> 6:00 p.m – 7:00 p.m
<b>8.8</b>	Biological and clinical importance of mosaicism of the preimplantation embryo <i>Ioannis Georgiou</i>	<b>29/5/2024</b> 7:00 p.m – 8:00 p.m



# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 9**

*“Novel Concepts and Experimental Approaches in Assisted Reproduction”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
9.1	Novel promising concepts in clinical embryology research <i>Ioannis Sfontouris</i>	<b>5/6/2024</b> 5:00 p.m – 6:00 p.m
9.2	Novel approaches in fertility preservation <i>Nikolaos Vlachos</i>	<b>5/6/2024</b> 6:00 p.m – 7:00 p.m
9.3	Novel experimental approaches in addressing ovarian insufficiency <i>Sonia Herraiz</i>	<b>12/6/2024</b> 5:00 p.m – 6:00 p.m
9.4	Novel experimental approaches: Mitochondrial Replacement Therapy <i>Nuno Costa-Borges</i>	<b>12/6/2024</b> 6:00 p.m – 7:00 p.m
9.5	Digital transformation of the IVF unit <i>Achilleas Papatheodorou</i>	<b>19/6/2024</b> 5:00 p.m – 6:00 p.m
9.6	The future of IVF <i>Joyce Harper</i>	<b>19/6/2024</b> 6:00 p.m – 7:00 p.m
9.7	Concerns and considerations in IVF practices <i>David Albertini</i>	<b>26/6/2024</b> 5:00 p.m – 7:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## **Programme of Teaching Module 10**

*“Research Methodology and Evidence Based Medicine”*

<b>Submodule</b>	<b>Lecture-Speakers</b>	<b>Date-Time</b>
<b>10.1</b>	The evolution of research in female reproduction: Milestones and future goals <i>George Mastorakos</i>	<b>3/7/2024</b> 5:00 p.m – 6:00 p.m
<b>10.2</b>	Type of studies in research <i>Theodoros Sergentanis</i>	<b>3/7/2024</b> 6:00 p.m – 7:00 p.m
<b>10.3</b>	Research and statistics <i>Kimball Pomeroy</i>	<b>10/7/2024</b> 5:00 p.m – 6:00 p.m
<b>10.4</b>	Basic statistical principles for the practicing physicians and embryologists <i>Theodoros Sergentanis</i>	<b>10/7/2024</b> 6:00 p.m – 7:00 p.m
<b>10.5</b>	The value of systematic reviews and meta-analyses in ART <i>Efstratios Kolibianakis</i>	<b>17/7/2024</b> 5:00 p.m – 6:00 p.m
<b>10.6</b>	Evidence Based Medicine <i>Charalampos Siristatidis</i>	<b>17/7/2024</b> 6:00 p.m – 7:00 p.m
<b>10.7</b>	Evidence-base in embryology-it is not that simple <i>Jacques Cohen</i>	<b>24/7/2024</b> 5:00 p.m – 6:00 p.m
<b>10.8</b>	IVF add-ons: Proper research methodology and execution <i>Mara Simopoulou</i>	<b>24/7/2024</b> 6:00 p.m – 7:00 p.m

# Advanced Course in Clinical Embryology

Academic Year 2023-2024



## Programme of Teaching Module 11

*Critical Analysis Skills Assessment*

*Round Tables "Problem Based Learning Sessions"*

Critical Analysis Skills Assessment		August 2024
Round Tables	Topics-Speakers	Date-Time
Round Table I "The Dos and Don'ts of How to Run a Successful IVF Laboratory"	<u>Moderators:</u> <i>Yannis Panagiotidis, Isabella Spyropoulou, Frosso Kessopoulou, Margarita Chronopoulou, Theoni Pastroma</i>	4/9/2024 5:00 p.m – 8:00 p.m
	Working on Key Performance Indicators (KPIs) <i>Polyxeni Kyrou</i>	4/9/2024 5:00 p.m – 5:20 p.m
	Failed IVF fertilization <i>Dimitris Mantas</i>	4/9/2024 5:20 p.m – 5:40 p.m
	Abnormal fertilization <i>Steve Davies</i>	4/9/2024 5:40 p.m – 6:00 p.m
	How to do Embryo Biopsy <i>Evi Timotheou</i>	4/9/2024 6:00 p.m – 6:20 p.m
	What does the genetic analysis for PGT-A entail <i>Dimitra Christopikou</i>	4/9/2024 6:20 p.m – 6:40 p.m
	Communication with clinicians, embryologists, coordinators and patients <i>Maria Filippa</i>	4/9/2024 6:40 p.m – 7:00 p.m
	10 secrets of running an efficient IVF Lab <i>Keshav Malhotra</i>	4/9/2024 7:00 p.m – 7:20 p.m
	<i>Discussion with experts</i>	4/9/2024 7:20 p.m – 7:40 p.m

<b>Round Table II</b> <i>"Outliers: handling unusual events in the IVF laboratory"</i>	<b><u>Moderator:</u> Gerry Celia</b>	<b>11/9/2024</b> <b>5:00 p.m – 7:15 p.m</b>
	Andrology-The challenge of handling different specimens <b>Liesl Nel-Themaat</b>	<b>11/9/2024</b> <b>5:00 p.m – 5:20 p.m</b>
	Handling unusual patients-Things to watch out <b>Bryan Kloos</b>	<b>11/9/2024</b> <b>5:20 p.m – 5:40 p.m</b>
	Oocyte freezing and thawing: What to watch out For <b>Wayne Caswell</b>	<b>11/9/2024</b> <b>5:40 p.m – 6:00 p.m</b>
	Culture conditions-blastocyst problems: What do we need to know <b>Arthur Chang</b>	<b>11/9/2024</b> <b>6:00 p.m – 6:20 p.m</b>
	Micromanipulation-Tips and tricks on Biopsy for challenging cases <b>Debbie Venier</b>	<b>11/9/2024</b> <b>6:20 p.m – 6:40 p.m</b>
	PGT-A: The perspective and responsibility of the geneticist <b>Gary Harton</b>	<b>11/9/2024</b> <b>6:40 p.m – 7:00 p.m</b>
	<b>Discussion with experts</b>	<b>11/9/2024</b> <b>7:00 p.m – 7:15 p.m</b>
<b>Round Table III</b> <i>"The JARG's Round Table: Insights in publishing in Reproductive Medicine"</i>	<b><u>Moderator:</u> David Albertini</b>	<b>18/9/2024</b> <b>5:00 p.m – 7:00 p.m</b>
	The Editor's perspective: A view from the top 2 decades of change and where we are going <b>David Albertini</b>	<b>18/9/2024</b> <b>5:00 p.m – 5:25 p.m</b>
	What are the characteristics of a publishable manuscript <b>Pierre Comizzoli</b>	<b>18/9/2024</b> <b>5:25 p.m – 5:50 p.m</b>
	From the trenches: Managing the process of reviewing <b>Arthur Chang</b>	<b>18/9/2024</b> <b>5:50 p.m – 6:15 p.m</b>
	From data analysis to clinical relevance <b>Alex Quass</b>	<b>18/9/2024</b> <b>6:15 p.m – 6:40 p.m</b>
	<b>Discussion with experts</b>	<b>18/9/2024</b> <b>6:40 p.m – 7:00 p.m</b>

<b>Round Table IV</b> <b>“Training</b> <b>Management and</b> <b>Development in</b> <b>Clinical</b> <b>Embryology”</b>	<b>Moderator: <i>Giles Palmer</i></b>	<b>25/9/2024</b> <b>5:00 p.m – 7:10 p.m</b>
	<b>Training and Management</b> <b><i>Giles Palmer</i></b>	<b>25/9/2024</b> <b>5:00 p.m – 5:30 p.m</b>
	<b>Staff Recruitment /Worldwide Embryologists Status</b> <b><i>Joe Conaghan</i></b>	<b>25/9/2024</b> <b>5:30 p.m – 5:50 p.m</b>
	<b>Responsibilities/Occupational Demands</b> <b><i>Kathryn Go</i></b>	<b>25/9/2024</b> <b>5:50 p.m – 6:10 p.m</b>
	<b>Conflict resolution</b> <b><i>Andrew Thompson</i></b>	<b>25/9/2024</b> <b>6:10 p.m – 6:30 p.m</b>
	<b>Continuing professional development and how to</b> <b>navigate your career as a clinical Embryologist</b> <b><i>Julia Holland</i></b>	<b>25/9/2024</b> <b>6:30 p.m – 6:50 p.m</b>
	<b><i>Discussion with experts</i></b>	<b>25/9/2024</b> <b>6:50 p.m – 7:10 p.m</b>
<b>Written exams on Modules 5-11</b> <b>(The examination platform will open on September 27<sup>th</sup>, 2024, at 5:00 p.m and will close on</b> <b>October 2<sup>nd</sup>, 2024, at 5:00 p.m)</b>		