



mhpro⁺
THE MEDICS ONLINE ACADEMY

Six Months Masters Course in

Embryology Laboratory



About Us

MHPro is a Continuing Medical Education (CME) platform to upskill healthcare professionals with evidence-based knowledge delivered online with immersive learning experience. The MHPro curriculum aims to prepare clinicians to master Basic Sciences, which then empowers them to deal with patients and their problems in a hospital or outpatient milieu. During the program, new clinical skills and considerable medical knowledge, and domain-specific core competencies will be stressed as clinicians acquire both diagnostic and therapeutic skills



MHPro is committed to a competency based curriculum. Learners will be graded and receive pertinent feedback

Welcome to MHPro





Course Introduction

This first of its kind elaborate program for embryologist and clinicians involved in Assisted Reproductive Technology (ART) practice where you will learn the basics, advances and research development of procedures and protocols practiced in an IVF laboratory. The module delivered by experts includes lessons on setting up a new lab, acquiring equipment, quality control management, troubleshooting and performance analysis etc. The specialty of this carefully constructed master's course is giving a embryological outlook from a clinicians perspective for a better understanding between embryologist and clinicians for a successful ART outcomes. The module involves ample number of video sessions for the audience to familiarize with laboratory routines. The program is designed by internationally acclaimed experts in the field of ART and state of the art lectures and webinars delivered by world renowned faculties across the globe





Learning Objectives :

- To learn about the cell biology and development of gametes and embryos
- Understand the fundamentals and principles of procedures involved in IVF
- Learn how to set up an IVF laboratory
- To impart theoretical and practical knowledge of the skills and techniques used in the micromanipulation of gametes
- Learn about various clinical aspects of assisted reproduction techniques
- Understanding the workup for male infertility, including the importance of the physical examination
- Semen analysis and its role in clinical diagnosis and decision making
- Restate the limitations of the primary semen analysis and importance of advanced semen analysis and its importance in embryology lab



Learning outcomes :

- Theoretical and technical knowledge of the clinical embryology
- Clinical methodologies in IVF (In vitro Fertilization) and advanced developments
- Operational and Quality Management skills in an IVF laboratory
- Troubleshooting and crisis management





Program Director



Dr. S S Vasan

Uro-Andrologist & Medical
Director, Ankur Healthcare,
Bengaluru, India
President SASSM



Course Directors



Ms. Jayalakshmi Shoraff

Senior Embryologist,
Ankur Healthcare,
Bengaluru, India



Who should take up this course?



Lab technicians in the field of Andrology and Embryology, PG Students in the field of Urology, General Surgery, Gynecology and Reproductive medicine





Curriculum

Module Name	Chapter Name
Cell Biology of Embryology	• Anatomy of the male reproductive system • Anatomy of the female reproductive system • Oogenesis, Spermatogenesis & Embryogenesis
Setting Up an ART Lab	• Setting up of ART Lab 1. Clean Air System 2. Incubators 3. Laminar Air Flow System 4. Microscopes 5. Micromanipulators 6. Other essential Equipments
Introduction to IVF and ICSI Procedures	• Media & Disposables 1. Contents of Media 2. Handling of Media 3. Types of Disposables 4. Usage
Preparing Lab for the ART Procedures	• Preparing Lab for the ART Procedures 1. Particulate Check 2. VOC level Check 3. pH Check 4. Temperature Check 5. CO2 Check





Curriculum



Module Name	Chapter Name
Preparing Lab for the ART Procedures	6. Daily Check List 7. Monthly Check List 8. Annual check List
Sperm Preparation Techniques for IVF and ICSI Procedures	• Sperm Preparation Techniques and Practical Implications 1. Simple Wash 2. Density Gradient 3. Swim Up Technique 4. Retrograde Ejaculate Sample Processing 5. Testicular & Epididymal Sperm Processing Techniques
ART Procedures and Preparation	• Ovum Pick Up • Conventional IVF • Denudation • Dish & Media Preparation • ICSI & Oocyte Morphology • Fertilization Check and Embryo Grading • Embryo Transfer
Cryopreservation Procedures	• Oocyte & Embryo vitrification & Embryo Warming





Curriculum

Module Name	Chapter Name
Trouble Shooting in IVF Lab	• Trouble Shooting in IVF Lab
Documentation according guidelines	• Documentation according guidelines
Upgrading of Skills	• Upgrading of skills 1. Timelapse technology 2. IMSI 3. PICSi 4. Embryo Biopsy 5. Testicular Sperm Selection 6. Laser Assisted Hatching 7. Artificial activation of Oocyte
Lab Maintenance	• Quality Analysis and Quality Check 1. Media and Disposables Handling 2. Handling of Liquid Nitrogen 3. LN2 Tank Maintenance 4. Handling of Sero Positive Samples





Curriculum



Module Name	Chapter Name
Upskilling	• CASA • DFI by Flow Cytrometry • MACS & U Select Method
Semen Analysis and practical utility	• Semen Analysis: Practical aspects • Interpretation Of Abnormal Semen Analysis • WHO 5th & 6th Manual - Differences and Clinical Implications
Advanced Sperm Function Tests and Techniques	• Male factor in recurrent pregnancy loss
Infertility management In Special Situations	• Treatment of HIV positive males and conception • Management of Anejaculation & Erection and Ejaculatory Dysfunction Relevant to Fertility
Optimising Male Infertility Practice	• Overview of IUI vs IVF vs ICSI and guidelines for clinical practice
Azoospermia Evaluation and Management	• Sperm retrieval techniques: Critical answers for decision making



Certificate Sample



USA | INDIA | UAE | UK

☎ : +1 (973) 606-6043 | ✉ : sales@masterhealthpro.com

MasterHealthPro Inc, 960 Holmdel Road, Bldg II, Holmdel, NJ 07733 | www.masterhealthpro.com