

Three Months Fellowship Course in Embryology Laboratory



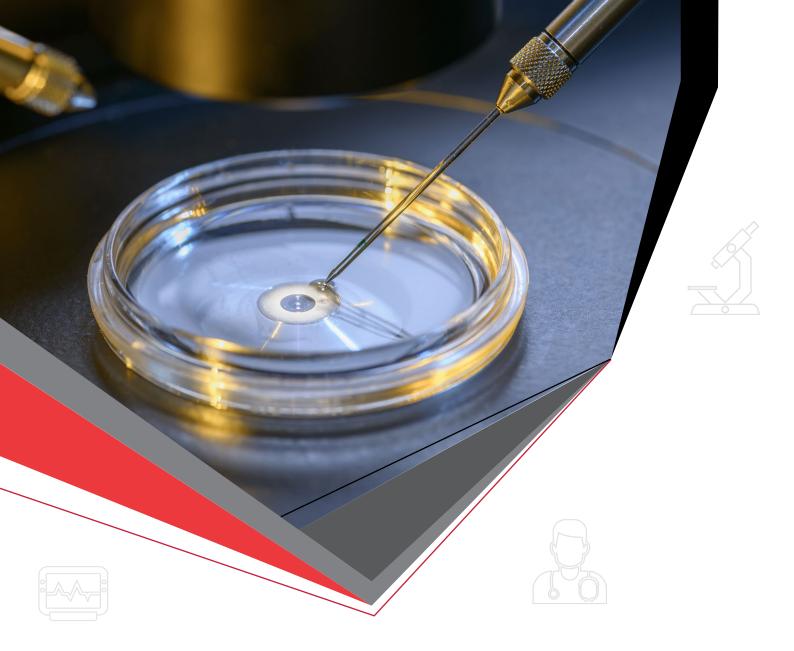
About Us

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 program is first of its kind designed for embryologist / clinicians involved in Assisted Reproductive Technology (ART) practice where you will learn the basics 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 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

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 | Oogenesis, Spermatogenesis & Embryogenesis |
| | Setting up of ART Lab |
| | 1. Clean Air System |
| | 2. Incubators |
| Setting Up an ART Lab | 3. Laminar Air Flow System |
| | 4. Microscopes |
| | 5. Micromanupulators |
| | 6. Other essential Equipments |
| | |
| | |
| | Media & Disposables |
| Introduction to IVF and | 1. Contents of Media |
| ICSI Procedures | 2. Handling of Media |
| | 3. Types of Disposables |
| | 4. Usage |
| | |
| | |
| | Preparing Lab for the ART Procedures |
| | 1. Particulate Check |
| Preparing Lab for the ART Procedures | 2. VOC level Check |
| | 3. pH Check |
| | 4. Temperature 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 Simple Wash Density Gradient Swim Up Technique Retrograde Ejaculate Sample Processing 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 | |
| | | |



| Module Name | Chapter Name | |
|---------------------------------------|---|--|
| Cryopreservation Procedures | Oocyte & Embryo vitrification & Embryo Warming | |
| Trouble Shooting in IVF Lab | • Trouble Shooting in IVF Lab | |
| Documentation according guidelines | • Documentation according guidelines | |
| Upgrading of Skills | Upgrading of skills Timelapse technology IMSI PICSI Embryo Biopsy Testicular Sperm Selection Laser Assisted Hatching Artificial activation of Oocyte | |







| Module Name | Chapter Name | |
|-----------------|--|--|
| Lab Maintenance | Quality Analysis and Quality Check Media and Disposables Handling Handling of Liquid Nitrogen LN2 Tank Maintenance Handling of Sero Positive Samples | |
| Upskilling | CASA DFI by Flow Cytrometry MACS & U Select Method | |









Certificate Sample











USA | INDIA | UAE | UK

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