



RAYAT-BAHRA UNIVERSITY

M.Sc.

IN CLINICAL EMBRYOLOGY & REPRODUCTIVE GENETICS





EMBRYOLOGY AS A CAREER

With the increase in the incidence of infertility around the globe, there is a huge dearth of embryologists thus making it one of the highly sought after career option for science and medical graduates.

Due to the high percentage of people who are experiencing infertility issues, it is expected that embryology is a field that is going to continue to see career growth in the future.

The skills involved in embryology are complex, delicate, and require adequate hands-on practice. The know-how of an expert embryologist is crucial for the success of IVF treatments and the proficiency of an embryologist contributes a great deal for the success of infertility treatment.



Thus the “**M.Sc. In Clinical Embryology & Reproductive Genetics**” by **Rayat-Bahra University** is designed keeping in mind the subject specific academic needs and industry requirements, with the help of subject experts.

This is a **2 Years duration program** primarily designed for candidates interested in senior-level positions at Assisted Reproductive Technology (ART) clinics.

At the end of the course, the students will be equipped to work competently in human IVF with essential theoretical and practical knowledge in Human Embryology.

To make this course more holistic, stress is also given to the existing guidelines, regulations and protocols that enable the candidates to perform embryology procedure ethically as well as accurately.



INCLUDES

IN THIS COURSE :

- ONLINE DELIVERY OF LEARNING CONTENT
- DEMONSTRATION & HANDS-ON PRACTICAL TRAINING
- CLASSROOM LEARNING
- DISSERTATION / PROJECT
- INTERNSHIP



DURATION

24 mnths / 2 Yrs

THIS IS A 2 YEARS DURATION PROGRAM

HIGHLIGHTS

OF THIS COURSE :

- PLENTY OF MICE OOCYTES AND INJECTION PIPETTES WILL BE PROVIDED TO ENSURE THAT CANDIDATES BECOME PROFICIENT WITH THE MICROINJECTION TECHNIQUE
- EXPOSE TO THE MAJORLY USED MICROMANIPULATOR SYSTEM - NARISHIGE
- WELL EQUIPPED LAB EXCLUSIVELY FOR HANDS-ON PRACTICE
- EXPERIENCED FACULTY

KEY LEARNING OUTCOMES

FROM THIS COURSE :

- SEMEN ANALYSIS & SEMEN PREPARATION FOR ART PROCEDURES
- CRYOPRESERVATION & VITRIFICATION
- IVF (IN-VITRO FERTILIZATION)
- ICSI (INTRA-CYTOPLASMIC SPERM INJECTION)



COURSE CURRICULUM

Duration: 4 semesters

1

- Cell Biology, Biochemistry & Biophysical Techniques
- Human Reproductive Biology
- Andrology Laboratory Techniques - 1
- Andrology laboratory Techniques -2

2

- Genetics & Reproductive Endocrinology
- Assisted Reproduction
- In - Vitro Fertilization Techniques
- Cryobiology and Techniques

3

- Human Gametes and Embryo Culture System
- Quality Control and Risk Management in ART
- Micromanipulation in ART
- Writing and Presentation Skill

4

- Internship
- Project work

SEMEN ANALYSIS & SEMEN PREPARATION FOR ART PROCEDURES

Semen Analysis is useful in both clinical and research settings, for investigating male fertility status as well as monitoring spermatogenesis during and following male fertility regulation.

All aspects of semen collection and analysis must be done by properly standardized procedures if the results are to provide valid, useful information.

The tests described in this course are accepted procedures that constitute the essential steps in semen evaluation.

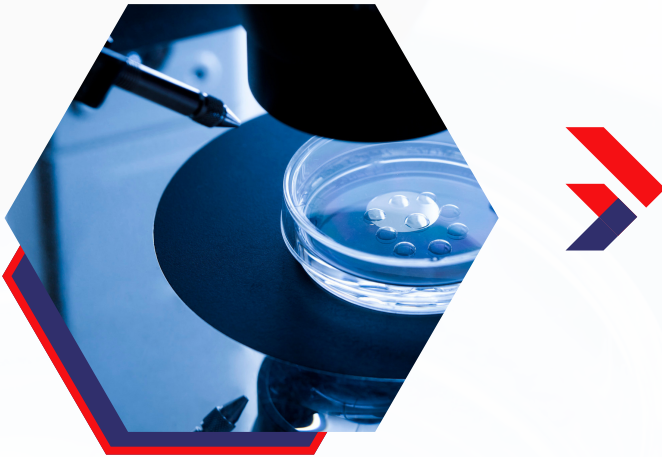
Semen preparation - the separation of human spermatozoa from seminal plasma to yield a final preparation containing a high percentage of morphologically normal and motile cells, free from debris, non-germ cells and dead spermatozoa, is important for clinical practice. The methods and principles of sperm preparation are taught in this course.



CRYOPRESERVATION & VITRIFICATION

Both sperm and embryo cryopreservation have become routine procedures in human assisted reproduction and oocyte cryopreservation is being introduced into clinical practice and is getting more and more widely used.

This course provides cryopreservation and vitrification methods and techniques that indicate better survival rates.



IVF (IN-VITRO FERTILIZATION)

IVF involves screening of gametes, fertilization and transfer of resultant embryos into the uterus or freezing for future use.

This course provides through knowledge of the processes involved which is crucial for an embryologist.

ICSI (INTRA-CYTOPLASMIC SPERM INJECTION)

ICSI is technically demanding and there is substantial potential for damage to the egg due to poor micro-injection technique, which can cause it to degenerate.

Despite the intricate technical demands of ICSI, it is nevertheless still just a technique. Indeed, it is now considered routine, and fully trained clinical embryologists are usually expected to have attained this skill.

This course provides a clear guide to the essentials of the ICSI technique along with suggestions as to how best to troubleshoot the most commonly encountered problems and aims at imparting the best practices of ICSI to achieve high fertilization rates.

The equipment needed by an IVF laboratory to ensure good ICSI procedure and the technical aspects of the ICSI procedure are discussed and demonstrated.

Plenty of mouse oocytes and injection pipettes will be provided for hands-on practice.

ELIGIBILITY

FOR THIS COURSE :

Graduates in Biological Sciences / Life Sciences / Veterinary Sciences / Pharmacy / Nursing / Medical Sciences / Dental Sciences (B.Sc. / B.Tech / B.E. / B.V.Sc / MBBS / BAMS / BHMS / BDS / B.Pharma)



FEES

FOR THIS COURSE :

Rs. 5,90,000 /-

ADMISSION

PROCESS :

APPLY ONLINE

(The link to apply online is <https://www.momsoonacademy.com/registerpdf.php>)

MAIL SCANNED COPIES OF CERTIFICATES FOR VERIFICATION TO
to info@momsoonacademy.com

(once verified, you will receive an invitation to proceed further)

PAY 50% OF THE COURSE FEE AND SHARE THE TRANSACTION DETAILS

(you will receive an admission confirmation letter)