

# Canadian Center for Reproductive Medicine and Clinical Embryology

<b>Course title</b>	<b>Assisted Conception Training in ART</b>
<b>Duration</b>	10 days
<b>Fees</b>	CAN \$ 8500

Course objectives:

Participant trained on this course will receive one-on-one training to develop knowledge and skills in:

- In the clinical management and laboratory practices of IVF and ICSI. The syllabus covers the following areas:
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  - Supplies & Culture Medium
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    - Preparation of culture medium and dishes for IVF/ IVF-ICSI cases
    - Embryo culture
    - Extended embryo culture
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  - IVF Techniques
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    - ICSI (Intracytoplasmic sperm injection)
    - Classical IVF (In Vitro Fertilization)
    - Oocyte handling and scoring
    - Embryo handling, scoring and loading
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  - Advanced ART Techniques
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    - Assisted hatching by laser or chemical (Tyrode's) method
    - Embryo biopsy (laser and chemical)
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  - Pre-Implantation Genetic Diagnosis
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    - Blastomere biopsy:
      - Learn the setting up of the micromanipulator
      - Biopsy of mouse/hamster 8-cell stage embryos
      - Use of laser and acid Tyrode's for zona drilling
      - Blastomere and polar body aspiration and fixation techniques
    - Cell spreading
    - Fixation techniques
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  - Cryopreservation
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    - Embryo cryopreservation (mouse embryos)
    - Vitrification

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- Andrology Techniques
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- Sperm preparation for IVF/ICSI
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- Sample Course Schedule for Module 5A
- Discussion:
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- Introduction to embryology and assisted reproduction techniques
- Embryo selection
- Optimization of embryo culture conditions
- Essential instruments and disposable supplies for an IVF laboratory
- Extended culture and single embryo transfer
- Embryo evaluation, grading and assisted hatching
- Designing of new ART Laboratory:
- Setting up of an ideal laboratory is the key to success in IVF. Learn from our embryologists and scientists the key factors to be kept in mind while setting up a state-of-the-art IVF lab
- Optimization of IVF lab procedures (quality control, quality assurance, proficiency testing, accreditation and documentation)
- Sperm preparation techniques:
- Sperm processing technique is vital in an era of increasing male factor infertility. The level of reactive oxygen species and DNA damage is known to increase by iatrogenic damage during faulty sperm preparation techniques, thereby affecting ART outcomes. Learn from our experts the ideal sperm processing techniques.
- Sperm selection
- Learn the latest sperm selection techniques for ICSI sperm (discussion).
- Ovulation induction protocols
- The success of IVF mainly depends on the endocrine milieu created by the reproductive endocrinologist for super ovulation. Discuss with specialists the pros and cons of different stimulation protocols.
- Oocyte retrieval

**Educational teaching methods:**

Interactive discussion and teaching sessions  
 Hands-on laboratory training sessions  
 Live lectures and multimedia presentations

**Evaluation of trainee:**

Knowledge / Theoretical Component (30%): Multiple choice questions on lab techniques linked to each course module

Practical Skills (50%): Tested on specific lab techniques taught during the training

verbal Communication & Comprehension Skills / Integrative Component (20%): PowerPoint talk on a topic linked to a course module and viva voce

Candidates who meet the training requirements and successfully complete the course work will be awarded the Training Certificate

Each participant will receive:

Certificate of Training (issued upon successful assessment by the instructor) and Grading Report