Ranked One of America’s Top 4 Hospitals

Center for Reproductive Medicine

Hands on Training in Assisted Reproductive Technology
Learn from the Leaders

The Center for Reproductive Medicine

Cleveland Clinic’s Center for Reproductive Medicine was established in 1993 with a two-fold mission: to conduct cutting-edge research into the causes of human reproductive and sexual disorders, leading to the development of new treatments and cures and to train physicians and scientists with a commitment to advancing the understanding of human reproduction, infertility and sexual function.

Training program in assisted reproductive technology (ART)

We offer a unique opportunity to learn the latest techniques in this rapidly changing subspecialty at one of the world’s premier ART centers:

- World-class faculty
- State-of-the-art training facilities
- Personalized hands-on training
- Multiple comprehensive training modules
- High rate of satisfaction
- More than 100 alumni from more than 20 countries certified since 2003
- Certificate of Training awarded at the end of training

This course is available exclusively to scientists and physicians with specialty interest in gynecology, andrology or embryology and other health professionals such as reproductive biologists and technologists.

Our intensive, 320-hour course includes training in advanced laboratory techniques in the most sought after assisted reproductive technology:

- In vitro fertilization (IVF)
- Intracytoplasmic sperm injection (ICSI)
- Gamete cryopreservation
- Routine and advanced techniques in Andrology

Course Content

Assisted Reproduction (IVF and ICSI) - Module 5 (160 hours)

Learn basic and advanced techniques in:

**IVF**
- Preparation of media
- Oocyte handling and scoring
- Conventional IVF
- Evaluation of fertilization and pronuclear pattern grading
- Embryo selection on day 3 and day 5 for transfer
- Loading catheter for embryo transfer
- Clinical stimulation and hormone replacement protocols
- Laboratory set up

**Micromanipulation (ICSI)**
- Oocyte denudation
- Preparation of ICSI dishes
- Sperm immobilization
- Oocyte injection
- Assisted hatching (chemical and laser)

**ART**
- Assisted hatching (chemical and laser)
- Stripping of oocytes for ICSI
- Sperm immobilization

**Preamplantation genetic diagnosis**
- Cleavage and blastocyst stage biopsy
- Spreading and tubing of cells
- Fixation techniques

**Cryopreservation**
- Slow freezing of oocytes, cleavage stage embryos and blastocysts
- Vitrification
- Ovarian tissue cryopreservation

**Andrology**
- Sperm preparation for IVF/ICSI (density gradient, sperm wash, swim-up)
- Epididymal/testicular sperm preparation/demonstration
- Advanced andrology techniques
- Frozen sperm preparation for ICSI

Clinical Observation in an IVF Lab (1-2 days optional):
- Logistics of running an IVF Lab
- Observing IVF/ICSI procedures
- Oocyte retrieval
- Oocyte assessment
- Fertilization check
- Embryo assessment
- Intruterine insemination

Virtual Tour of Facilities

Learn more about our Summer Internship Program
Semenology - Module 1 (40 hours)
Gain experience in:
• Routine semen analysis WHO (5th edition)
• Sperm morphology (WHO and Kruger)
• Computer assisted semen analysis (IVOS and SCA)
• Viability and leukocyte detection
• Antisperm antibody testing
• Evaluation of sperm membrane integrity

Advanced Sperm Function Tests - Module 2 (32 hours)
Learn the latest techniques:
• Sperm DNA fragmentation test by FACS (TUNEL assay)
• MACS technique for selection of non-apoptotic spermatozoa
• ROS measurement in semen
• Acrosome reaction (spontaneous and induced) by FITC test
• TAC measurement in seminal plasma
• Identification of apoptotic markers in ejaculated spermatozoa by fluorescence microscopy (Annexin V binding)

Sperm Preparation Techniques - Module 3 (16 hours)
Develop skills in sperm preparation for ART:
• Preparation of ejaculated sperm for ART:
  – Sperm wash
  – Double density gradient technique
  – Swim-up protocol
• Retrograde specimen processing techniques
• Epididymal/testicular sperm retrieval and preparation

Cryopreservation of Male Gamete - Module 4 (8 hours)
Learn the proper procedures for freezing ejaculated human spermatozoa:
• Freezing ejaculated and testicular human spermatozoa
• Cryopreservation of epididymal and vas deferens aspirates

Vitrification - Module 6 (8 hours)
Gain experience in the fundamentals of vitrification:
• Vitrification set up for routine use in an embryology laboratory
• Hands on training in vitrification of oocytes and embryos
• Use of different carriers

Quality Management of IVF and Andrology Laboratories - Module 7 (16 hours)
Understand how to implement a total quality management program in your laboratory:
• Quality control and assurance
• Laboratory regulation, licensing, accreditation
• The latest quality management tools

Preparing for Accreditation - Module 8 (16 hours)
Learn how to prepare your laboratory or tissue bank for accreditation by the College of American Pathologists (CAP) Reproductive Laboratory Inspection Program or the American Association of Tissue Banks (AATB) inspection:
• Preparation for each step of the process, pre-inspection through follow-up
• Inspection techniques, quality management, FDA compliance

Marisabel Hernandez, BSc
Venezuela, 2011
“The most effective part for me was the hands on training. The equipment was in perfect condition, the lectures are in tune with the practices and the staff is very helpful. I think I improved exponentially and was able to watch this progress.”

Bianca Kreuscher, MS
Brazil, 2011
“The course was extremely important, because I learned new things that I can use soon. The best of all was having the opportunity to relate to important people and make new contacts. It was more that I expected.”

Kelly Porter, HTL
New Jersey, 2010
“Overall this was a great course with tremendous amounts of material. It was helpful to gain exposure to real patients in the clinical laboratory.”

Carolina Sellito, PhD
Italy, 2010
“I would recommend the ART Training at the Cleveland Clinic to anyone who is looking to receive world class, hands on training in ART. The knowledge and friendships that I have brought back to Italy will be of immense significance to me for many years to come.”

Christopher Danga, BS
Nigeria, 2009
“Hands on training… given opportunity to participate in cell biopsy and fixation, advanced sperm function test… everything was NEW!”

Lina Garcia, MTCP
Puerto Rico, 2008
“The experience was great. Everybody was very professional and willing to help me at all moments. I felt very happy about choosing this program and I will come back if I decide to expand.”

Andrea Mustata, MD
Romania, 2007
“Hands-on-training techniques were very well organized, very dedicated trainers, patient and helpful. Excellent ART training.”

Pratima Sekhar, M.D.
India, 2006
“It was a great experience being in such a huge IVF lab with the best of the infrastructure and technical personnel.”

Troy Anhalt, BS
Wisconsin, USA, 2005
“I enjoyed my time here. The staff was wonderful and I am exited to take this information back to my lab.”

Mary Roberts, MBBS, MD, DGO
United Arab Emirates, 2004
“To sum up I could only say ‘mission accomplished’… Every point of my training was carefully planned and well balanced…”

Read Additional Evaluations
Learn More
For complete information, application instructions and course fees, visit
www.clevelandclinic.org/reproductiveresearchcenter/arttraining.html
Virtual tour of the Center for Reproductive Medicine

Accreditation
Accredited for 320 AMA PRA Category 1 Credits™
Participants claiming CME credit from this activity may submit the credit hours to the American Osteopathic Association Council on Continuing Medical Education for Category 2 credit.

About Cleveland Clinic
Located in Cleveland, Ohio, Cleveland Clinic is a nonprofit, multispecialty academic medical center that integrates clinical and hospital care with research and education. Founded in 1921 by four renowned physicians with a vision of providing outstanding patient care based upon the principles of cooperation, compassion and innovation, it is the second largest group practice in the world with 2,000 physicians and scientists practicing and researching in more than 120 medical specialties and more than 1,300 beds.

In addition to the main hospital located near Cleveland’s historic University Circle, the Cleveland Clinic operates nine regional hospitals, a children’s hospital, and 17 family health centers in Ohio, as well as hospitals in Florida, Las Vegas, Canada, and Dubai, employing more than 43,000 individuals and providing global world class medical care. Last year alone 3.7 million patients from over 80 countries and all 50 states received their care at the Cleveland Clinic.

The main hospital campus, located near downtown Cleveland, occupies 180 acres and 50 buildings. It includes a hospital, an outpatient clinic, a children's hospital, cancer institute, eye institute, research institute, a medical school and supporting labs and facilities. To learn more, visit www.clevelandclinic.org.