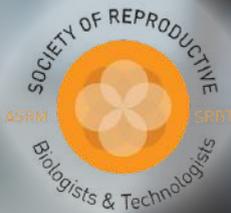


# Excel with **CELL**

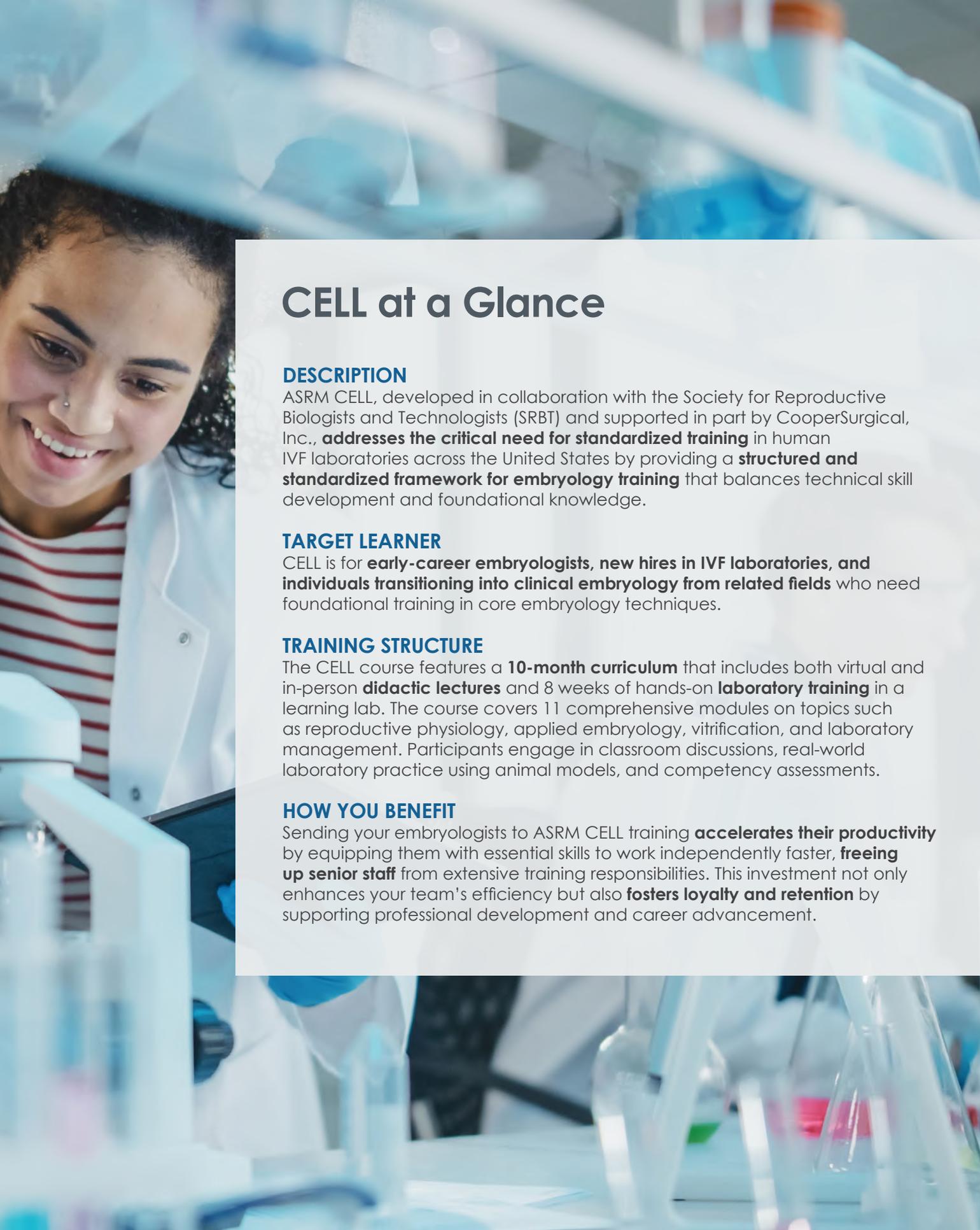
Elevate your lab's performance with skilled, self-reliant embryologists trained by the ASRM Clinical Embryology Learning Laboratory.





## Empower Your IVF Lab for Long-Term Success

Imagine a stronger, more efficient IVF lab where your embryologists are confident, independent, and equipped with the skills to excel. The ASRM Clinical Embryology Learning Laboratory (CELL) makes this vision a reality. Through its 10-month program of expert-led lectures and hands-on laboratory training, CELL reduces the training burden on your senior staff, accelerates skill acquisition, and builds loyalty among your team. By investing in CELL training for your junior embryologists, you're not just improving employee expertise—you're fostering a more productive, cohesive, and future-focused laboratory.



# CELL at a Glance

## DESCRIPTION

ASRM CELL, developed in collaboration with the Society for Reproductive Biologists and Technologists (SRBT) and supported in part by CooperSurgical, Inc., **addresses the critical need for standardized training** in human IVF laboratories across the United States by providing a **structured and standardized framework for embryology training** that balances technical skill development and foundational knowledge.

## TARGET LEARNER

CELL is for **early-career embryologists, new hires in IVF laboratories, and individuals transitioning into clinical embryology from related fields** who need foundational training in core embryology techniques.

## TRAINING STRUCTURE

The CELL course features a **10-month curriculum** that includes both virtual and in-person **didactic lectures** and 8 weeks of hands-on **laboratory training** in a learning lab. The course covers 11 comprehensive modules on topics such as reproductive physiology, applied embryology, vitrification, and laboratory management. Participants engage in classroom discussions, real-world laboratory practice using animal models, and competency assessments.

## HOW YOU BENEFIT

Sending your embryologists to ASRM CELL training **accelerates their productivity** by equipping them with essential skills to work independently faster, **freeing up senior staff** from extensive training responsibilities. This investment not only enhances your team's efficiency but also **fosters loyalty and retention** by supporting professional development and career advancement.

# CELL Training Timeline

## 2027

### JANUARY 2027

#### January 12

Orientation Virtual

*Virtual*

#### January 19 and January 26

*Virtual didactic, two (2) weeks*

Module 1: Introduction to Male Reproductive Physiology and Endocrinology Virtual Didactic

- Male Reproductive Anatomy and Physiology
- Hormonal Control of Male Reproduction
- The Male Factor in Reproductive Success
- Infertility Diagnosis in Men

### FEBRUARY/ MARCH 2027

#### February 1 - February 12

*Two (2) weeks on-site didactic in the classroom and hands-on laboratory*

Module 2: General Organization of the ART Laboratory

On-Site Didactic

Module 3: Practical Applications of Male Reproductive Biology in Assisted Reproductive Technology (ART)

On-Site Didactic

- Microscopy skills
- Understanding ART Lab Equipment
- Mastering Sterile Techniques: Macro- and Micro-Handling of Gametes
- pH and Buffer Systems: Making Culture Dishes
- Chain of Custody
- Semen Collection: Semen Analysis
- Preparing Sperm for ART: Sperm Morphology
- Sperm Cryopreservation
- Troubleshooting Sperm Prep: Optimizing Sperm Motility
- Advanced Microscopy Techniques

#### February 16 - March 9

*Virtual didactic, four (4) weeks*

Module 4: Female Reproductive Physiology and Endocrinology Virtual Didactic

- Female Reproductive Anatomy and Physiology: Foundations of Fertility
- Regulation of Reproduction: The Hypothalamic-Pituitary-Gonadal Axis and Its Disruptors
- Sex Determination and Gonadal Differentiation: Mechanisms of Sexual Development
- Developmental Disorders of Sex: Understanding Variations in Sexual Differentiation
- Primordial Germ Cells, Oogenesis, and Folliculogenesis: The Origins of Female Gametes
- Ovarian Biology and Follicular Development: Processes and Pathways
- Fertilization, Oocyte Activation, and Early Embryonic Development
- From Fertilization to Implantation: Critical Stages in Early Pregnancy

## MARCH/APRIL 2027

### March 16

*Virtual didactic, one (1) week*

#### Module 5: Patient Preparation and Culture Conditions in Human IVF Virtual Didactic

- Stimulation Protocols in Assisted Reproductive Technology: Strategies and Advances
- Advances in Stimulation Protocols: Tailoring Approaches for Improved Outcomes

### March 22 - April 2

*Two (2) weeks on-site didactic in the classroom and hands-on laboratory*

On-Site Didactic

### April 6 - April 20

*Virtual didactic, three (3) weeks*

#### Module 5: Patient Preparation and Culture Conditions in Human IVF Virtual Didactic

- Evolution of Culture Media: A Historical Perspective on Composition and Development
- Quality Control in Embryo Culture Media: Ensuring Optimal Conditions for Success
- Understanding Culture Media: Key Components and Their Roles in Embryo Development
- Culture Media Optimization: Balancing pH, Osmolarity, and Nutrient Composition
- Environmental Factors in Embryo Culture: Temperature, Gas Concentration, Air Quality, and Light Exposure
- From Laboratory to Life: The Role of Culture Media in ART Success Rates

## APRIL/MAY 2027

### April 27 - May 18

*Virtual didactic, four (4) weeks*

#### Module 6: Applied Embryology Basics Virtual Didactic

- Oocyte Retrieval: Techniques, Challenges, and Optimization for Successful IVF Outcomes
- IVF Insemination Strategies: Conventional IVF vs. ICSI – Indications and Methodologies
- Fertilization Assessment: Identifying Successful Fertilization and Early Developmental Markers
- Grading Cleavage-Stage Embryos: Morphological Criteria and Clinical Significance
- Blastocyst Development: Key Milestones, Culture Techniques, and Grading Systems
- Embryo Transfer: Timing, Techniques, and Improving Implantation Rates
- Optimizing Cleavage-Stage and Blastocyst Selection: Balancing Morphology and Genetic Testing
- IVF Workflow: From Oocyte Retrieval to Embryo Transfer—An Integrated Approach

#### MIDTERM ASSESSMENT

### May 25, 2026

*Virtual didactic, one (1) week*

#### Module 7: Reproductive Genetics and Testing Virtual Didactic

- Mendelian Genetics in Reproductive Medicine: Principles, Patterns, and Clinical Applications
- DNA and Chromosome Structure: Mechanisms of Gene Expression in Early Embryonic Development
- Pre-implantation Genetic Testing: Methods, Indications, and Ethical Considerations

# CELL Training Timeline

## 2027

### JUNE/JULY 2027

#### June 1 - June 11

Two (2) weeks on-site didactic in the classroom and hands-on laboratory

On-Site Didactic

#### June 15 - June 22

Virtual didactic, two (2) weeks

Module 8: Micromanipulation of Gametes and Embryos in ART

Virtual Didactic

- ICSI: Techniques, Success Factors, and Advances in Intracytoplasmic Sperm Injection
- Assisted Hatching: Indications, Methods, and Impact on Implantation Rates
- Biopsy Techniques: Best Practices for Pre-implantation Genetic Testing (PGT)
- Specimen Preparation for PGT: Optimizing Embryo Handling and Genetic Analysis

#### June 29 - July 6

Virtual didactic, two(2) weeks

Module 9: Cryobiology & Cryopreserved Tissue Banking in ART

Virtual Didactic

- Principles of Cryobiology: Foundations of Gamete and Embryo Preservation
- Advances in Embryo and Oocyte Cryopreservation: Techniques and Outcomes
- Cryobanking in Reproductive Medicine: Validation, Quality Control, and Best Practices
- Preserving Fertility: Ovarian and Testicular Tissue Cryopreservation Strategies

#### July 13 - July 27

Virtual didactic, three (3) weeks

Module 10: Laboratory Management

Virtual Didactic

- Integrating the IVF Laboratory: The Role of the Laboratory Within the IVF Clinic
- Ensuring Excellence: Quality and Risk Management in the IVF Laboratory
- Prepared for the Unexpected: Laboratory Safety, Troubleshooting, and Emergency Planning
- Regulatory Compliance in IVF: Accreditation, Inspection, and FDA Requirements
- Ethical, Legal, and Religious Dimensions of Infertility Treatment and Third-Party Reproduction
- Bridging Science and Ethics: Research Oversight and Institutional Review Boards in ART

### AUGUST 2027

#### August 3 - August 10

Virtual didactic, one (1) week

Module 11: The Future of ART

Virtual Didactic

- Emerging Technologies and Ethical Challenges in Human Assisted Reproductive Technologies
- Professional Growth in Clinical Embryology: Advancing Careers in a Rapidly Evolving Field

KNOWLEDGE CHECK PREP

#### August 17

Virtual

Knowledge Check

Virtual

A 2-hour Multiple Choice Online Knowledge Check (70 Questions)

#### August 23 - September 3

Two (2) weeks on-site didactic in the classroom and hands-on laboratory: Practical Applications of Modules 8, 9, and 10

On-Site Didactic

# Center of Excellence



## About the Training Center

For the CELL cohort, ASRM is grateful for the opportunity to utilize CooperSurgical's embryology training center in Livingston, NJ, for the hands-on laboratory training sessions. CooperSurgical has generously donated the facility and supplies as in-kind support for this new endeavor.

The CooperSurgical Center of Excellence is a hands-on fertility laboratory training facility in Livingston, NJ, that aims to make world-class embryology and laboratory training accessible to all. The Center of Excellence hosts practical training and workshops across the country to help embryologists and IVF laboratory staff learn new skills, improve techniques, and optimize performance. The CooperSurgical Center of Excellence trains CELL students on best laboratory practices on state-of-the-art equipment from highly skilled education professionals with extensive experience in ART clinical procedures.



# CELL FAQ

## **HOW IS CELL DIFFERENT THAN OTHER EMBRYOLOGY SCHOOLS?**

CELL will provide graduate-level, in-depth education combined with hands-on practice to transform young embryologists into contributing team members who understand the “whys” and “hows” of ART in the IVF laboratory. The CELL course runs concurrently with work in the home laboratory, allowing for potential immediate application and, most importantly, retention of skills learned.

## **HOW ARE TRAINEES SELECTED?**

Preference will be given to applicants from SART member clinics who can demonstrate full support for the trainee’s participation, including covering tuition, travel/lodging, and time away from the lab. Applicants must hold a bachelor’s degree and be currently working or seeking work in an IVF or related laboratory. While employment at a SART member clinic is preferred, other qualified applicants will be considered.

## **HOW DOES SOMEONE ENROLL IN CELL TRAINING?**

SART member clinics wishing to enroll an embryologist in the 2027 CELL cohort should contact Jeffrey Hayes at [jhayes@asrm.org](mailto:jhayes@asrm.org) for additional information and an application.

## **WHAT IS THE CELL TRAINING DURATION?**

The duration of the 2027 CELL training is 10 months.

## **WHAT ARE THE COSTS ASSOCIATED WITH THE PROGRAM?**

Tuition for 2027 is \$18,500, due in full by January 12, 2027. Tuition does not include travel and lodging expenses. Transportation to the training center and meals on-site will be provided.

## **HOW MANY TRAINEES WILL BE ACCEPTED?**

8-10 trainees will be accepted in the CELL cohort.

## **WHAT DO PARTICIPANTS GET FOR PARTICIPATING IN CELL?**

Upon completing all requirements and passing the evaluation, participants receive an ASRM Certificate of Completion in Clinical Embryology. In addition, participants get 8 weeks of specific hands-on guided lab sessions led by experts from SRBT and across the field. Participants will also receive free access to the ASRM EDGE tool for one year, plus one year of free ASRM and SRBT membership.



### **HOW LONG WILL TRAINEES BE AWAY FROM WORK?**

The CELL course will include 8 weeks of on-site hands-on training. See the CELL Training Timeline for in-person dates.

### **WHAT ARE THE CELL COMPLETION REQUIREMENTS?**

For both didactic and hands-on activities, trainees must pass competency assessments as well as a midterm and final exam.

### **WHAT CORE COMPETENCIES DO TRAINEES GAIN FROM THE CELL COURSE?**

Upon completion, trainees will be able to:

- Identify and use sterile tissue culture techniques
- Identify and prepare IVF supplies and media for assisted reproductive technologies (ART) using various methods
- Use microscopy to identify, handle, evaluate, and manipulate gametes and embryos during ART procedures.
- Demonstrate proficiency with handling and manipulation of eggs and embryos during ART procedures
- Demonstrate proficiency with the following ART procedures:
  - evaluation and preparation of semen samples for ART
  - oocyte retrieval and culture
  - standard insemination of oocytes
  - intracytoplasmic sperm injection (ICSI)
  - embryo culture
  - embryo biopsy and sample preparation skills
  - cryopreservation and thaw of gametes, embryos, and reproductive tissue
- Identify quality control procedures and troubleshooting in the ART laboratory

### **WHO DO I CONTACT FOR ADDITIONAL INFORMATION?**

For more information about CELL, contact Jeffrey Hayes at (205) 978-5980 or [jhayes@asm.org](mailto:jhayes@asm.org).

# Important Dates

**APRIL 1, 2026 - OCTOBER 31, 2026**

Application window for 2027 CELL cohort

## **JANUARY 12, 2027**

- Tuition due date for 2027
- Course Orientation begins

## **JANUARY 19, 2027**

Course launch date

For more information  
about CELL,  
contact  
Jeffrey Hayes at  
(205) 978-5980 or  
[jhayes@asrm.org](mailto:jhayes@asrm.org).

