

IETS Preconference Symposium 2024

Communicating and Demystifying Bovine Embryo Assisted Reproductive Technologies

*Sponsored by WTA Technologies LLC
University of Illinois, Colorado State University, AETA, and
Ovitra Biotechnologies*

Part 1: Effective Communication of Bovine Embryo Assisted Reproductive Technologies

Lead by Dr. Matthew B. Wheeler and Dr. Jennifer Barfield

8:30 am – 12:00 pm (CSU SPUR Campus, Denver)

Group A: Communication for Researchers

-intended for academics, graduate/undergraduate students and administrators.
The workshop style format of this session will focus on effective strategies for presenting your research to non-specialist audiences.

Group B: Communication Between Practitioners and Clients

-intended for applied academics, ET practitioners, ET/IVF clients.
The format will include a panel discussion with cattle producers, case studies, breakout groups and practical applications.

***Lunch is included with symposium registration.**

Part 2: Demystifying Bovine Embryo Assisted Reproductive Technologies: Live demonstrations and communicating with the public

Lead by Dr. Matthew B. Wheeler and Dr. Jennifer Barfield

1:00 – 5:00 pm (National Western Stock Show, Stockyard Event Center)

All activities will be interactive including narration for the public and opportunities for audience participation.

Activity 1: Ovum Pick-Up (OPU)—Setup and Equipment

Dr. Andre Dayan

This activity will include a live demonstration of ovum pick-up on a superstimulated cow including discussion on ultrasound equipment and the probes, needles, and tubing required for the procedure. Equipment from different manufacturers and several practitioners that use the specific equipment will be on hand. Workshop participants will have the opportunity to ask the practitioners questions regarding equipment use and setup during the demonstration.

The emphasis for this activity will be all things on the cow side, with respect to the aspirator and an assistant performing anything related to donor preparation, maintenance of sterile technique and temperature control, the OPU itself, and recording relevant information and data—basically everything leading up to the point of handing over the oocyte collection vessel to the laboratory.

This will be done in real-time so the workshop participants can see the real-life situation.

***Activity 2: Conventional Non-Surgical Embryo Flushing — Setup and Equipment
Dr. Tom Rea and Dr. Brad Lindsey***

This activity will be a live demonstration of an embryo flush using a superovulated client-owned cow at the stock show. Different flushing equipment will be discussed and available for viewing along with catheters, filters, media, and tubing setups used for embryo flushing. We will have equipment from different manufacturers and several practitioners that use the specific equipment on hand in the arena area. Workshop participants will have the opportunity to ask practitioners questions regarding equipment use and setup during the demonstration. The equipment vendors will have the equipment available.

The emphasis for activity 2 will be all things on the cow side, with respect to the flusher, and an assistant performing duties related to donor preparation, maintenance of sterile technique and temperature control, the flush itself, recording relevant information and data—basically everything leading up to the point of handing over the embryo collection vessel to the laboratory.

This will be done in real-time so the workshop participants can see the real-life situation.

***Activity 3: Recovery and Evaluation of Oocyte and Embryos
Ms. Jane Pryor***

Oocytes and embryos recovered in activities 1 and 2 will be identified and evaluated on a microscope with a camera. The live images will be projected onto 3 large screens in the arena and used as the basis for discussion. Topics for discussion will include handling and transport of oocytes and embryos. Workshop participants and the public will have the opportunity to look at embryos through a microscope during the social hour following the symposium. Vendors will have equipment on hand and participants can ask practitioners questions regarding equipment use and setup.

The emphasis for activity 3 will be primarily on the setup in the laboratory, media, rinsing the collection tube and filter, searching, grading, packaging, loading incubator, recording information and data, and shipping. Also, maintenance of sterile technique and temperature control will be emphasized.

This will be done in real-time so the workshop participants can see the real-life situation.

***Activity 4: Cryopreservation, Packaging and Transfer of Embryos in the Field
Dr. Luiz Nassar and Dr. Tom Rea***

Client embryos collected during activity 2 will be frozen on site. In addition, different methods for packaging and handling embryos after production will be demonstrated and discussed. The use of field incubators, embryo freezing equipment, and various packaging systems from a variety of manufacturers will be discussed and available in the arena for viewing.

Activity 4 will emphasize scenarios that require decisions in the laboratory regarding embryo handling and when to freeze (or not) and dealing with unexpected situations. Communication between laboratory personnel, the owner of the embryos, the owner or manager of the recipients, the practitioner and potentially a courier or shipping service, will be discussed with regard to these scenarios.

Activity 6: Final Group Discussion (All participants)

Happy Hour at the Herd Sire Saloon in the National Western Stockyard Event Center will include vendor tables and embryo and oocyte viewing opportunities for participants and the public.