IETS Preconference Symposium 2024
January 8, 2024

Communicating and Demystifying Bovine Embryo Assisted Reproductive Technologies
Focus on the Practitioner, the Client and the Public

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

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

Group A: Communication for Scientists
-intended for academics, graduate/undergraduate students and administrators. The format will include case studies, breakout groups and practical applications.

Group B: Communication Between Scientists, Practitioners, Clients and the Public
-intended for applied academics, ET practitioners, ET/IVF Clients and the general public. The format will include case studies, breakout groups and practical applications, including discussions with practitioners.

12:00-1:00 pm Lunch—On your own

Part 2: Demystifying Bovine Embryo Assisted Reproductive Technologies
Lead by Dr. Matthew B. Wheeler and Dr. Jennifer Barfield
1:00pm- 5:00pm (National Western Stock Show)

All activities will be interactive with audience participation.

Activity 1: Ovum Pick-Up (OPU)—Setup and Equipment (Dr. Andre Dayan)

This activity will be a live-streamed covering the different ultrasound equipment available along with the probes, needles, and tubing setups used for OPU. We will have equipment from different manufacturers and several practitioners that use the specific equipment. The workshop participants will have the opportunity to ask the practitioners questions regarding equipment use and setup at the workshop at the National Western Stock Show. The equipment vendors will have the equipment available. We will have superovulated cattle for this portion of the workshop.

The emphasis for Part 1 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, recording relevant information and data—

basically everything leading up to the point of handing over the oocyte collection vessel to the searching 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. Brad R. Lindsey)

This activity will be a live-streamed covering the different flushing equipment available along with the 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. The workshop participants will have the opportunity to ask the practitioners questions regarding equipment use and setup at the workshop at the National Western Stock Show. The equipment vendors will have the equipment available. We will have superovulated cattle for this portion of the workshop.

The emphasis for Part 2 will be all things on the cow side, with respect to the flusher and an assistant performing anything 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 oocyte collection vessel to the searching laboratory.

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

Activity 3: Recovery and Transport of the Oocyte/Embryos to the Laboratory (Ms. Jane Pryor) (*will be simultaneous with the oocyte and embryo collections).*

We will have equipment from different manufacturers and several practitioners that use the specific equipment. The equipment and setup will be demonstrated at the at the National Western Stock Show. The workshop participants will have the opportunity to use the equipment and ask the practitioners questions regarding equipment use and setup at the workshop room in Denver. The equipment vendors will have the equipment available.
The emphasis for Part 2 will be primarily on the setup in the laboratory to prepare the various media (recovery, rinsing, washing, maturation), 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.

Break – 15-30 minutes

Activity 4: Decisions for Packaging and Distribution of Embryos to the Practitioner and Client

The different methods to handle embryos after production will be demonstrated and discussed. The use of field incubators, embryo freezing, and various packaging systems will be covered. We will have equipment from different manufactures and several practitioners that

use the specific equipment. The equipment and setup will be demonstrated at the National Western Stock Show. The workshop participants will have the opportunity to use the equipment and ask the practitioners questions regarding equipment use and setup at the workshop room in Denver. The equipment vendors will have the equipment available.

Part 4 will emphasize the various scenarios that require decisions in the laboratory to determine when to pull out the embryos to freeze or transfer due to the variety of logistical concerns such as physical distance from the laboratory to recipient, and the number of available recipients. Obviously, this brings into account an emphasis on communications between the laboratory personnel, the owner of the embryos, the owner or manager of the recipients, potentially a courier or shipping service, and the practitioner who will transfer the embryos.

Activity 5: Transfer of Embryos in the Field (Dr. Luiz Nassar)

The different methods to package IVEP embryos after production for shipment to the field practitioner will be demonstrated and discussed. The use of field incubators, transport incubators, and various embryo delivery systems will be covered. We will have equipment from different manufacturers and several practitioners that use the specific equipment. The equipment and setup will be demonstrated at the National Western Stock Show. The workshop participants will have the opportunity to use and ask the practitioners questions regarding equipment use and setup at the workshop room in Denver. The equipment vendors will have the equipment available.

Part 5 will emphasize the handling of the embryos once received from the laboratory, all the way through to the transfers, thus, potentially, unloading embryos out of tubes and into straws. Thus, this part should probably also include discussions of temperature control, organization and coordination of unloading tubes, and so on, to ensure optimal throughput and recording information and data.

Activity 6: Final Group Discussion (All participants)