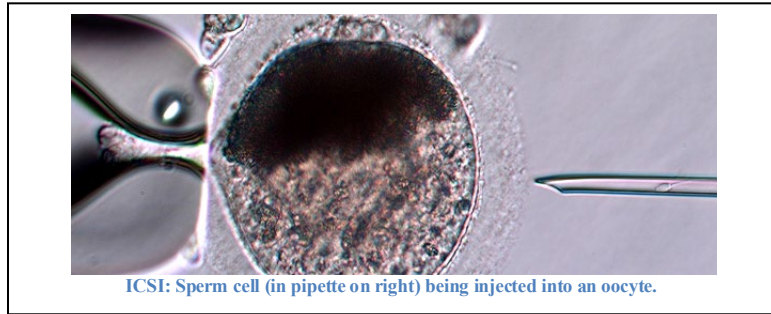


2022

## Oocyte Recovery and ICSI

Equine Medical Services is one of the world's leading producers of in vitro produced embryos. While standard IVF techniques are ineffective with horses, ICSI (Intracytoplasmic Sperm Injection), where an individual sperm cell is microscopically injected into each egg, can be quite successful. This technique is useful for mares that cannot make embryos on their own or for situations where supplies of semen are limited. For this procedure an

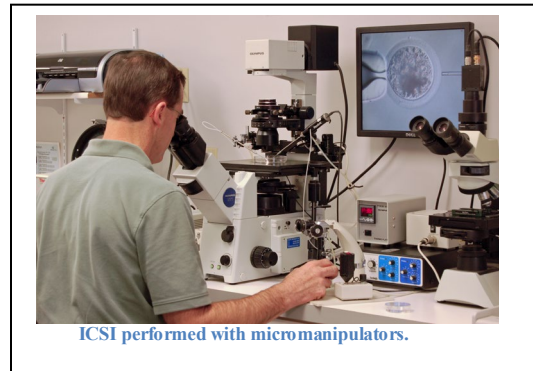
oocyte (egg) is collected from the donor mare's follicle prior to ovulation and cultured until it is mature. Oocytes can also be aspirated from the small subordinate follicles that may also be present on the ovaries. The oocytes are fertilized in the laboratory by ICSI. The oocyte is then cultured and allowed to divide to become an embryo; each cellular division cycle takes about 24 hours. Once the embryo becomes a blastocyst (7-9 days), it is transferred to the uterus of a recipient mare. Since only a single sperm cell is selected and injected, ICSI can utilize very small quantities of frozen semen.



ICSI: Sperm cell (in pipette on right) being injected into an oocyte.

### ICSI Program

The ICSI Program is set up in a similar manner to the Embryo Transfer Program. There is an initial entry fee into the program of \$1,850. This is to pay for normal breeding management of the donor mare and maintain and monitor suitable recipient mares, and is a one-time fee for the year, regardless of the number of pregnancies achieved. Each oocyte collection session is \$500. The fee for oocyte maturation and ICSI is \$450. Once a recipient mare reaches 30 days of gestation with a viable pregnancy there is a lease fee of \$4,300.



ICSI performed with micromanipulators.

### Transported Oocyte/ICSI Program

Two programs are available for transported oocytes, allowing a referring veterinarian to collect oocytes and ship them to Equine Medical Services. The Transported Oocyte for ICSI program provides for EMS shipping embryos back to the referring veterinarian or another center for transfer. This program has no initial entry fee, oocyte maturation is \$200, ICSI is \$450, and there is a \$1,000 fee for each blastocyst produced. The Transported Oocyte for ICSI and Embryo Transfer program provides for transfer of embryos into EMS recipient mares. There is a \$1,100 initial nomination fee, the oocyte maturation and ICSI fees are \$200 and \$450 respectively, and there is no blastocyst fee. Once a recipient mare reaches 30 days of gestation with a viable pregnancy there is a lease fee of \$4,300.

### What to Expect



ICSI Blastocysts 7 days after fertilization

One should expect recovery of an oocyte from a dominant follicle on approximately 75% of the attempts. Immature oocytes can often be collected from smaller follicles at the same time. Oocytes (eggs) fertilized through ICSI will divide and grow approximately 70-80% of the time, of those 20-30% will grow in culture to the blastocyst stage for non-surgical transfer. Oocyte quality and vigor decline with the donor mare's age so that older donors tend to have lower success rates than young mares. Oocyte numbers can be another limiting factor; some mares have many small follicles each cycle facilitating the recovery of multiple oocytes, while other mares have only 1 or 2 follicles present each cycle. The average donor mare will require 3 cycles to establish a pregnancy, but that is just an average; some mares establish multiple pregnancies on their first cycle while other mares with decreased oocyte viability or difficult stallion semen can prove to be more challenging.

2022  
Transported Oocyte Contract for ICSI

This Contract made on \_\_\_\_\_, 20\_\_\_\_, by and between **Equine Medical Services, Inc.**, a Missouri Corporation, hereinafter called “**EMS**”, and \_\_\_\_\_, hereinafter called “**Owner**”, both of whom are hereinafter called the “**Parties**”.

**Recitals:**

**EMS** is in the business of embryo production from oocytes via ICSI (intracytoplasmic sperm injection). **Owner** desires to enter a contract with **EMS** for such services.

**Therefore, the Parties agree as follows:**

1. During the calendar year 2022, **Owner** will attempt to have an oocyte(s) recovered from its mare, the “**Donor Mare**”, named \_\_\_\_\_, and shipped to **EMS**. **EMS** shall mature the oocytes, evaluate them, and if apparently healthy, fertilize it (them) via ICSI in an attempt to produce embryos.

2. **Owner** agrees to pay **EMS** \$200 for oocyte culture and maturation per cycle, \$450 per ICSI session for sperm injection into mature oocytes, and \$1,000 for each blastocyst produced.

3. **EMS** will ship blastocysts for \$100 plus shipping expense to **Owner**’s veterinarian or embryo transfer facility for embryo transfer. **EMS** will also ship oocyte transport media to **Owner**’s veterinarian as needed for \$30 plus shipping expense.

4. **Owner** shall indemnify and hold **EMS** harmless with respect to said losses and risks.

5. All notices required by this Contract shall be given as follows: if to **EMS**, then, Equine Medical Services, Inc., 5851 Deer Park Road, Columbia, MO 65201-9751; if to **Owner**, then the address shown at **Owner**’s signature.

6. **Owner** understands and agrees that **EMS** is not responsible for the expense of transporting semen, oocytes, embryos or containers, and that **Owner** will pay these expenses. Further, **Owner** understands and agrees that **EMS** is not responsible for registration or blood-typing of the resultant foal.

7. **Owner** understands and agrees that many factors impact upon successful embryo production, transport, and/or establishment of pregnancy, and that although **EMS** shall use its best efforts to perform the services required by this Contract, **EMS** does not guarantee success of the procedures. If ICSI does not result in embryo production or pregnancy, **Owner**’s damages shall be limited to **EMS**’s continuing obligation to complete the same subject to the following limitations (all at the **Owner**’s sole expense and risk):

If by December 1, 2022, **Owner** is unable to recover an oocyte from the **Donor Mare**, a blastocyst is not produced, or a pregnancy fails to result from transfer of an embryo into a **Recipient Mare**, **EMS** or **Owner** shall have the right to declare this Contract terminated. In such an event, **Owner** shall pay to **EMS** all sums due under this Contract. Thereafter the Parties shall have no further obligations to one another.

8. **Owner** agrees to place a valid credit card on file with **EMS** for payment of the fees in this contract.

9. **EMS** reserves the right to refuse or suspend service when the **Owner**’s account is past due.

10. For all purposes, this Contract shall be deemed to be negotiated, made and signed in Boone County, Missouri and the laws of Missouri shall control. At **EMS**’s election, any litigation regarding the Contract shall



2022  
ICSI and Embryo Transfer Contract  
for Transported Oocytes

This Contract made on \_\_\_\_\_, 20\_\_\_\_, by and between **Equine Medical Services, Inc.**, a Missouri Corporation, hereinafter called “**EMS**”, and \_\_\_\_\_, hereinafter called “**Owner**”, both of whom are hereinafter called the “**Parties**”.

**Recitals:**

**EMS** is in the business of embryo production and transfer from oocytes via ICSI (intracytoplasmic sperm injection).

**Owner** desires to enter a contract with EMS for such services.

**Therefore, the Parties agree as follows:**

1. During the calendar year 2022, Owner will attempt to have an oocyte(s) recovered from its mare, the “Donor Mare”, named \_\_\_\_\_, and shipped to EMS. EMS shall mature the oocytes, evaluate them, and if apparently healthy, fertilize it (them) via ICSI in an attempt to produce embryos.
2. Upon the signing of this Contract, Owner shall pay to EMS a \$1,100 non-refundable (under any circumstances) annual enrollment fee. Said fee shall be considered payment for **only** the following services: Recipient Mare preparation, embryo evaluation, processing, and transfer, ultrasound pregnancy detection and Recipient Mare maintenance until 30 days gestation. The nomination fee is not transferable to another “Donor Mare” and will be good from February 1, through December 1, 2022 regardless of the number or lack of embryos produced. The nomination fee for this “Donor Mare” is not transferable to another owner. Owner is responsible for, and agrees to pay for veterinary expenses of the recipient mare after 30 days of gestation.
3. Owner agrees to pay EMS \$200 for oocyte culture and maturation per cycle and \$450 per ICSI session for sperm injection into mature oocytes. EMS will also ship oocyte transport media to Owner’s veterinarian as needed for \$30 plus shipping expense.
4. Upon each Recipient Mare reaching 30 days of gestation with a viable pregnancy, Owner shall pay to EMS \$4,300. EMS shall start charging boarding fees for the Recipient Mare after she reaches 30 days of gestation, at the rate of \$16 per day. The Owner may, and is encouraged to, transport the Recipient Mare any time after she reaches 30 days of gestation. Without prior arrangement, board for recipient mares after 60 days of gestation will be charged at the rate of \$17 per day and after 90 days of gestation board will be \$20 per day.
5. Owner shall return each Recipient Mare to EMS in good health within 6 months following foaling. If Owner is unable to so-return the Recipient Mare due to the death of the mare, Owner agrees to pay EMS \$1,500 (\$2,750 if the Recipient Mare is a draft or draft cross mare), and to supply EMS with a letter from the examining veterinarian stating findings at the time of the death of the Recipient Mare. If Owner fails to return the Recipient Mare for any other reason Owner agrees to pay EMS \$3,650 (\$4,900 if the Recipient Mare is a draft or draft cross mare).
6. It is expected that each Recipient Mare will deliver a live foal (defined for this purpose as able to stand and nurse within 24 hours after birth). If a Recipient Mare loses the pregnancy after 30 days of gestation, the Owner will receive \$2,000 credit towards future embryo transfer services. The recipient mare must be returned and a letter from the examining veterinarian stating findings at the time of loss must be

presented for the credit to be issued. No credit will be issued if the loss is due to an inherited genetic defect such as, but not limited to, lethal white syndrome.

7. EMS recommends to Owner that Owner insure the Recipient Mare(s) and the embryo(s) against all losses and risks of any kind, nature and description. Owner shall indemnify and hold EMS harmless with respect to said losses and risks.

8. All notices required by this Contract shall be given as follows: if to EMS, then, Equine Medical Services, Inc., 5851 Deer Park Road, Columbia, MO 65201-9751; if to Owner, then the address shown at Owner's signature.

9. Owner understands and agrees that EMS is not responsible for the expense of transporting oocytes, semen, or containers. Further, Owner understands and agrees that EMS is not responsible for registration or blood-typing of the resultant foal.

10. Owner understands and agrees that many factors impact upon successful embryo production and/or implantation and that although EMS shall use its best efforts to perform the services required by this Contract, EMS does not guarantee success of the procedures. If a transfer does not result in a pregnancy, Owner's damages shall be limited to EMS's continuing obligation to complete the same subject to the following limitations (all at the Owner's sole expense and risk):

If by December 1, 2022, Owner is unable to recover an oocyte from the Donor Mare or a pregnancy fails to result from ICSI and transfer of an embryo into a Recipient Mare, EMS or Owner shall have the right to declare this Contract terminated. In such an event, Owner shall pay to EMS all sums due under this Contract. Thereafter the Parties shall have no further obligations to one another.

11. Owner agrees to contact EMS prior to oocyte collection. Owner also agrees to advise EMS on the proposed method and time of delivery of the oocyte(s). Owner agrees to contact EMS on the day of oocyte recovery and advise EMS of the results regardless of the success or failure of oocyte recovery.

12. It is specifically understood and agreed between the Parties that if an embryo leaves the program whether shipped to another facility, shipped as a frozen embryo, or transferred to the Owner's recipient mare, Owner will pay to EMS \$1,000 per embryo.

13. It is understood by the Parties that if the owner desires that an embryo be frozen, Owner will pay EMS \$250 for that service as well as a monthly storage fee. It is further understood that when the embryo is transferred to a Recipient mare in the future Owner will pay the Recipient Lease fee currently in force at EMS for that year.

14. Owner agrees to place a valid credit card on file with EMS for payment of the fees in this contract.

15. EMS reserves the right to refuse or suspend service when the Owner's account is past due.

16. It is specifically understood and agreed between the Parties that prior to the transporting of the Recipient Mare(s) from EMS, all charges for services rendered in this Contract shall be paid in full. Further, by filing this Contract along with a detailed itemization of the unpaid charges owed to EMS by Owner, EMS shall have a possessory lien on the Recipient Mare(s) and the fetus.

17. With regard to the transportation of the Recipient Mare(s), all risk of loss shall be borne by Owner and all transportation expenses shall be paid by Owner. Three business days notice must be provided to EMS by Owner prior to discharge of the Recipient Mare(s) to allow for processing of mares and paperwork. All Recipient Mare(s) shall be picked up and delivered during regular business hours. Owner agrees to pay

