



Press release / 14 April 2005

Birth of PIERAZ-CRYOZOOTECH-STALLION, the clone of a castrated horse champion

LTR-CIZ and CRYOZOOTECH are proud to announce the birth of PIERAZ-CRYOZOOTECH-STALLION, the first horse clone produced for the genetic purpose of making a breeding animal out of a sterile animal. It is also the second horse clone born on earth.

The first horse cloned for genetic preservation purpose is a castrated endurance champion. This new approach opens the possibility of preserving the genetic heritage of many exceptional horses whose genes are presently lost because of the castration.

Pieraz, the first horse cloned to overcome castration.

Pieraz, an Arab horse, was world champion of endurance races in 1994 (at Den Haag, Holland) and in 1996 (at Fort Riley, USA) and is now retired in the stables of its owner, trainer and rider Valerie Kanavy. As most endurance horses, Pieraz was gelded and couldn't be used for breeding. His single clone will not go to competition, but, as a stallion, will be able to transmit his genes to his progeny: a novel approach of genetic improvement based on high performance horses proposed by CRYOZOOTECH.

Improving the cloning technique and developing its first genetic application

The foal was born on the 25-02-05, weighted 42 kg and is in very good health like PROMETEA the first cloned foal born in 2003, now two years old. Repeatability of the technique is now proven as both births were obtained in the Italian laboratory LTR-CIZ lead by Prof. Cesare Galli, famous for many years in the area of advanced animal reproduction and cloning. He produced in 1999 the first bull clone from blood cells. Between the two horse clone births, the technique was improved by better oocyte maturation and more efficient embryo culture in vitro.

The cells for the cloning work were provided by CRYOZOOTECH, the company founded in 2001 by Eric Palmer with the help of GENOPOLE, the genetic bio-park of Evry, with the objective of preserving exceptional horse genes. Eric Palmer is a well known horse physiologist who introduced ultrasonography in animal husbandry in 1980 and who produced in 1990 the first foal born through in-vitro fertilisation.

In 2002, Valerie Kanavy, the owner of PIERAZ immediately liked the innovative idea that in spite of having been castrated, her champion could transmit his qualities to the future generations of endurance horses. No horse clone was born yet when she allowed Eric Palmer to perform a biopsy in order to culture a cell line and to store it in liquid nitrogen. The genetic bank now contains the cells of 30 different horses, all of them being exceptional in their specific category: not only champion in endurance, show jumping, dressage, eventing, but also endangered breeds of horses and donkeys; a nice demonstration that cloning can help to preserve biodiversity.

A winning team serving the success of exceptional horses

In 2002 CRYOZOOTECH and LTR-CIZ signed a research collaboration agreement that has resulted today in this first success. The cells were supplied to LTR-CIZ that performed the cloning procedure and the embryo transfer that lead to the clone birth. Cloning is still an inefficient procedure that needs a lot of work, but it is gradually improving thanks to professor Galli's research.

The cooperation between LTR-CIZ and CRYOZOOTECH continues for the production of the clone of a second champion in endurance, and, simultaneously, CRYOZOOTECH starts to produce clones of show jumpers.

PIERAZ-CRYOZOOTECH-STALLION will be presented to the Press at Laboratorio di Tecnologie della Riproduzione, Consorzio per l'Incremento Zootecnico srl located in Cremona, 26100, via Porcellasco 7/F on April 14th at 11 AM.

Contact

For Italy:

LTR-CIZ contacts

Phone +39 0372 437242

Fax +39 0372 436133

Email: cesare@galli2.191.it

For France:

CRYOZOOTECH contacts

Phone +33134844313

Fax +33134844788

Email contact@cryozootech.com

Contacts for photos available at the press conference