Second Cloned Buffalo Calves "GARIMA" born at N.D.R.I., Karnal

Dr. A.K. Srivastava, Director and Vice Chancellor NDRI has informed that the world's second cloned buffalo calf through the 'Advanced Hand-guided Cloning Technique" is born at NDRI, Karnal on June 6, 2009. Earlier the Scientists of NDRI had developed this land mark technique and had produced the first cloned buffalo calf on February 6, 2009. He said that this cloned buffalo calf is different from the first one, as in this case the donor cell was used from a foetus. In world first cloned buffalo calf produced earlier through this technique at NDRI, the donor cell was taken from the ear of a newborn calf. In other words, it is very exciting to tell that, this buffalo calf is a clone of foetus that never saw the light of the day. This technique which has been developed by NDRI is an advanced modification of the "Conventional Cloning Technique". In this technique the oocytes isolated from abattoir ovaries were matured in vitro, denuded, treated with an enzyme to digest the zona and then enucleated with the help of hand held fine blade. Then somatic cell of a donor was propagated, and the enucleated ococytes and donor-nuclei were electorfused, cultured, grown in the laboratory and the resultant embryos were transferred to recipient buffaloes for the production of the calf. The team of the 'Jubiliant'scientists involved in the development of this cloning technique are Dr. S.K. Singla, Dr. R.S. Manik, Dr. M.S. Chauhan, Dr. P. Palta, Dr. Shiv Parsad, Dr. R.S. Shah and Dr. A. George.

The calf was born through caesarian operation by a team of doctors comprising Dr. R.S.Bisla and Dr. S.C. Arya both from HAU, Hisar and Dr. K.P.S. Tomar, Dr. Subhash Chand and Dr. Parveen Kumar from NDRI, Karnal. The weight of calf at the time of birth is about 43 kg.. Dr. A.K. Srivastava, Director hoped that once this new hand guided cloning technique is optimized, it could go a long way in faster multiplication of superior milch animals in India. He said that in India, we have the largest population of buffalo in the world. However, the percentage of elite animals is low and there is an urgent need to enhance the population of these elite buffaloes. The technology developed at our Institute has the potential to do so.

Dr. Mangla Rai, Director General, Indian Council of Agricultural Research and Secretary DARE, Govt. of India New Delhi congratulated the team and said that new technology of "Handguided Cloning" may lead a new era in fast production of elite germplasm of animals, to face the challenge of increasing demand of milk in view of ever growing human population. Dr. K.M. Bujarbaruah, Deputy Director General (Animal Science), ICAR also congratulated the team and emphasized that there is an acute shortage of outstanding bulls and this technology of hand guided cloning can decrease this gap and supply the bulls in the shortest possible time.