

## NDRI scales new peak in stem cell cloning

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In yet another example of its growing clout in stem cell research for dairy technology, the researchers at the National Dairy Research Institute (NDRI) have successfully made possible the birth of a female calf from already cloned buffalo. NDRI has named the newborn female calf "Mahima". The Karnal based institute came in lime light earlier on August 22, 2010 for production of world's first buffalo cloned calf 'Garima'.

In the world, it is the first calf born from cloned buffaloes, produced through hand guided cloning technique. Mahima, weighing 32 kg, was born on January 25, 2013 at 1.51 PM by normal parturition. The newborn "Mahima" is keeping very good health and have started suckling of milk within 30 minutes of birth.

This institute is continuing this frontier technique for producing more cloned animals. Born as a major achievement of the National Agricultural Innovation Project (NAIP) funded sub-project #4137, entitled, "Characterisation and Differentiation of Embryonic and Spermatogonial Stem Cells in Cattle and Buffaloes" attained early sexual maturity at 19 months of age compared to her contemporaries (around 28 months) and was inseminated with frozen-thawed semen of a progeny tested bull of NDRI No. 1875 on March 27, 2012, which resulted in conception.

The consortium investigators team is maintaining four embryonic stem cell lines of buffalo already developed and characterized by them for the long term; and is further engaged in developing spermatogonial stem cell line with NAIP support. This research has bearing on conservation of the species as well as its reproduction in eventualities.