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Focused on quality animal biotechnology research

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In 1987, on recommendation of the National Task Force of the Department of Biotechnology (DBT), Government of India, a national project on embryo transfer technology (ETT) was initiated at National Dairy Research Institute (NDRI) which was also supported by ICAR/USAID bilateral co-operation in its initial stages. This formed the basis of establishment of a state-of-the-art Embryo Biotechnology Centre at NDRI.

Besides the masters course in animal biotechnology, the center also offers PhD course in animal biotechnology. During the academic year 2011-12, 11 students were admitted in the MSc course through the All India Entrance Test conducted by Indian Council of Agricultural Research (ICAR), New Delhi. The center has 12 well-experienced faculty members who have undergone training in some of the most advanced laboratories in the world. Over the years, the center has developed impressive facilities for research and teaching in the areas of embryo technologies, tissue culture, genome analysis, expression genomics, and proteomics. 22 biotech-related papers have been published in the national journals since 2000 and there are 93 publications in international journals.

A new state-of-the-art laboratory facility is being constructed with more than 20,000 square feet of lab space consisting of core laboratories on various aspects of dairy production and processing related biotechnology research such as prokaryotic and eukaryotic genomics, animal tissue culture, fermentation technology, transgenic animal production and other supporting labs. The center is currently involved in conducting research on areas of high-end embryo techniques Recognizing its strength in genomics research, the center has been included in the buffalo gene mapping initiative of DBT and niche area of research on buffalo production and reproduction genomics by ICAR.

Under animal genomics research, the center is working on characterization, mapping and QTL identification for useful economic traits in buffalo and understanding the gene expression regulation of IVM and IVF event in buffalo. The ongoing research projects are being funded by ICAR and several other national and international funding agencies.