

# ICAR CENTRE OF ADVANCED FACULTY TRAINING IN VETERINARY GYNAECOLOGY & REPRODUCTION

25<sup>th</sup> ADVANCED TRAINING COURSE

on

**Improving reproduction rate  
in ruminants by suitable  
reproductive technologies**

**September 02 - 22, 2015**



**Department of Veterinary  
Gynaecology & Obstetrics,  
College of Veterinary Science,  
Guru Angad Dev Veterinary & Animal  
Sciences University,  
Ludhiana-141004 (Punjab)**

## INVITATION

I on behalf of Faculty of Department of Veterinary Gynaecology and Obstetrics, GADVASU invite the faculty members of the State Agricultural/Veterinary Universities, Veterinary Colleges and ICAR institutes for participation in 25<sup>th</sup> Advance Training Course on '*Improving reproduction rate in ruminants by suitable reproductive technologies*'.

Dr. Parkash Singh Brar  
Director, CAFT

## ABOUT THE COURSE

Efficient reproduction is critical for an economically viable dairy system and its profitability can be increased further using reproductive technologies. The available technologies viz, semen handling for artificial insemination (AI), fixed-time AI (FTAI), superovulation and embryo transfer, *in vitro* handling of oocytes and production of embryos, genomics for marker-assisted selection, reproductive sonography (grey and color), and immunoassays (RIA/ELISA) form an integral part of modern dairy industry. Out of these, AI remains the most important technology and is expected to have a great impact on genetic upgradation. Protocols available for estrus/ovulation synchronization needs improvement due to inconsistent pregnancy rates ranging from 10-50% to a single FTAI especially in a synchronized buffalo during low-breeding season. Learning is warranted to counteract the higher rates of embryonic/fetal mortality. Compared to present achievements, much is expected from ETT in genetic improvement. Ruminant health/nutrition can be more economically and precisely managed for a greater impact on reproductive ability.

## OBJECTIVES

Keeping past experience and future in mind, the broad perspective provided by the proposed training should be undoubtedly useful for scientific and teaching community for understanding and adopting application of reproductive technologies, combating problems and hence contributing towards efficient reproductive management in ruminants.

## COURSE CONTENTS

- Genetic and environmental determinants of reproduction in buffalo
- Marker assisted selection: A new genetic tool to identify the best bulls for future
- Increasing the success rate of obstetrical procedures in delayed cases of dystocia
- Clinical & research techniques for diagnosis of subclinical endometritis in dairy animals
- Understanding follicular dynamics in ovulation synchronization protocols
- Immunohistochemical evaluation of steroid receptors in the reproductive tract
- Understanding nuclear magnetic resonance spectroscopy & its application in reproduction
- Embryo Transfer Technology in buffalo: Superovulation, embryo collection and pregnancy rate
- Demonstration of RIA/ELISA, seminal plasma proteins harvesting through SDS-PAGE, Grey/color doppler ultrasound imaging in male and female bovines, embryo flushing in buffalo, oocyte aspiration and *in vitro* maturation procedures and laboratory diagnostics for assessing reproductive pathology

## ELIGIBILITY

All teachers / scientists working in the State and Central universities / ICAR institutions having Master's degree preferably in Veterinary Gynaecology and Obstetrics/ Veterinary Physiology/ Livestock Production and Management / Veterinary Biochemistry/ Animal Breeding and Genetics/ Animal Biotechnology are eligible to participate in this program.

## DATE & DURATION

September 02 - 22, 2015 (21 days)

## LAST DATE TO APPLY

14-08-2015

## ABOUT DEPARTMENT

The training is being organized in the Department of Veterinary Gynaecology & Obstetrics (established in 1976), College of Veterinary Science, Guru Anag Dev Veterinary and Animal Sciences University, Ludhiana. It is one of the pioneer universities in the field of veterinary science established on April 21, 2006. The department faculty is involved in; a) teaching animal reproduction to undergraduate & postgraduate students, b) carrying research to enhance reproductive efficiency of animals, and c) extending research to dairy farmers. Most of the faculty members have visited foreign countries to avail training programmes or to have higher qualifications. Department has facilities of semen freezing laboratory, *In vitro* fertilization (IVF) laboratory, RIA/ ELISA, Ultrasonography, reproductive surgery and obstetrical maneuvering. Recognized as 'Centre of Advanced Studies' in 1995 and designated as 'Centre of Advanced Faculty Training' in 'Veterinary Gynaecology & Reproduction' in

2009 by Indian Council of Agricultural Research. The centre has conducted 24 courses and trained >250 teachers/scientists from State Universities/ICAR institutes. Several renowned national / international scientists have visited to train faculty.

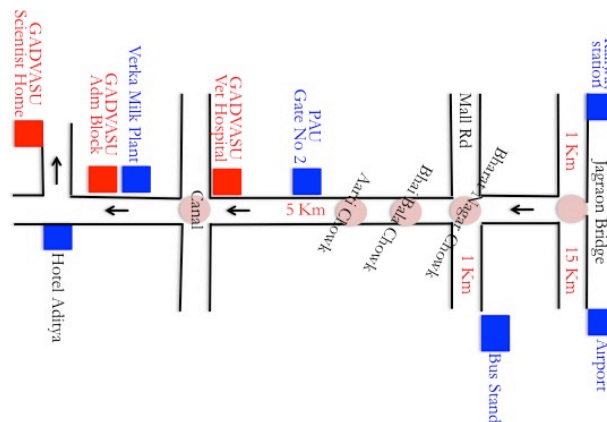
## ABOUT LUDHIANA

City is situated on the banks of Sutlej river and is known as 'Manchester of India'. It is largest city of Punjab and is considered major industrial and education hub of North India. City is known for its bicycles, hosiery and woolen industries.

## WEATHER & TRANSPORT

Climate during September will be moderately hot & humid. City is well connected by rail/ road to Delhi (320 km), Amritsar (136 km), Chandigarh (100 km) & Jammu (270 km). The distance from the Ludhiana Railway station and Bus stand to University campus is about 5 km. The University campus is about 20 km away from Ludhiana Air Port (Sahnewal). Local transport and Radio taxi (0161-4141414/3355335, dial 30 min before) can be availed to reach Scientist Home.

## HOW TO REACH GADVASU



## ACCOMMODATION

Accommodation on twin sharing basis will be made in the GADVASU Scientist Home. The participants are requested not to bring any family member with them. In case of bringing any accompanying person, participant has to bear the boarding and lodging expenses by himself/herself. CAFT will bear travel expenses of trainees by the shortest route as per their entitlement for class of travel, which however is restricted to the maximum AC II by rail excluding Rajdhani express. The candidates are advised to make their travel reservations well in advance.

## ONLINE INFORMATION

The training information is also available at <http://iasri.res.in/cbp/HomePage.aspx> and online application can also be made by registering on this web portal as candidate.

## COURSE DIRECTOR

**Dr Parkash Singh Brar**

**Professor cum Head**

0161-2400917(O), 81468-45100 (M)

[parkashbrar@gmail.com](mailto:parkashbrar@gmail.com)

## COURSE COORDINATORS

**Dr Sarvpreet Singh Ghuman**

**Professor**

81462-37600

[ghuman\\_s@yahoo.co.in](mailto:ghuman_s@yahoo.co.in)

**Dr Mrigank Honparkhe**

**Assistant Gynaecologist**

94170-19974

[honparkhem@rediffmail.com](mailto:honparkhem@rediffmail.com)