

Introduction:

The ICAR- National Research Centre (NRC) on Pig is committed to bring in excellence in all the frontier areas of research on pig production, health and product development and productivity enhancement to increase socio-economic status of the pig rearers of the country through the medium of pig rearing. The ICAR-NRC on pig stands up to play pivotal role in addressing the national goals, policy development and international commitments of the country to improve nutritional security, productivity, profitability, human resource development, animal welfare and promote sustainable and environment friendly piggery subsector. Use of molecular techniques in animal health and production with respect to swine in particular is relatively limited in our country. The piggery sector of the country is in vulnerable condition due to increasing threats from emerging and re-emerging infectious diseases which may get entry at any point to the country from neighbouring countries because of its porous borders with these countries. There is shortage of trained manpower in this area which affects the teaching as well as research activities. Hence a winter school on ***“Advances in molecular techniques in animal health and production with particular reference to pigs”*** is envisaged to update the practical knowledge on molecular techniques.

About the training:

The current training course is designed specifically for the participants interested to have an exposure to the concepts and applications of molecular techniques in swine health and production along with the hands on training on some of such techniques. Special emphasis in the course would be paid towards direct use of molecular techniques relevant to disease diagnosis as well as genetic screening for improvement.

Brief course content:

Basics of PCR and hands on training on it, DNA/RNA isolation using different methods, checking quality and quantity of DNA for different applications, synthesis of cDNA, primer designing and application of bioinformatics tools, Sequence analysis, laboratory techniques such as different types of PCR, real-time PCR, PAGE, RFLP, RAPD, ELISA etc. with hands on training on it, various methods of biological sample collection and processing for PCR-based screening, PCR based diagnosis of emerging bacterial pathogens of pigs, use of RT-PCR and qPCR for detection of important viral pathogens of pigs with hands on training, principle of designing primers for multiplex PCR (mPCR), exposure on LAMP-based techniques, Screening of breeding pigs for detection of chromosomal abnormalities, Lymphocyte culture and Karyotyping. Application of Microarray and nano-technology for disease diagnosis, application of tools like MLST, SLST and SNP for typing of bacterial pathogens. Though the winter school would be mostly laboratory techniques based, some theory lectures would also be delivered on different topics of swine health and production.

Traveling, boarding and lodging:

50% non-sponsored participants from public funded institutions will be paid for the to and fro travel from the place of duty to ICAR-NRC on Pig Rani and back by the shortest route restricted to AC-II-tier train fare or bus on production of tickets. Participants will be provided accommodation in the NRC on Pig. However, the participants have to pay for their foods on actual basis which will be available in the institute guest house. The candidates are requested not to bring any accompanying person due to shortage of guest rooms.

Eligibility:

This winter school is meant for college teachers / trainers / researchers having teaching / research / training experience in SAUs / ICAR institutes / Traditional Universities in the field of Veterinary Science/Animal Science/ Life Sciences/ in any related discipline. The total number of participants shall be limited to a maximum of 20 only.

Certificate:

A certificate will be awarded to the participants on the successful completion of the course.

How to apply:

Application for participation in the winter school may be made in prescribed format (attached) and forwarded by the competent authority. Applicant may send an advance copy (soft or hard copy) if they anticipate any delay in forwarding through proper channel. Closing date for the receipt of the applications is **25th October, 2017**. Selected candidates will be intimated by **2nd November, 2017**.

Applications may be sent to:

Dr Swaraj Rajkhowa,

Course Director and Principal Scientist
ICAR-National Research Centre on Pig, Rani,
Guwahati – 781 131, Assam, India,
E -Mail: swaraj.rajkhowa@gmail.com
Tele/Fax: 0361-2847195,
Mobile: 9435732488

Note: The Brochure and format for application is also available on <http://www.nrcp.in>

For further information contact:

Director

ICAR-National Research Centre on Pig, Rani
Guwahati – 781 131, Assam, India
E Mail: nrconpig@rediffmail.com
Tele/Fax: 0361-2847195

Course Director: Dr. S. Rajkhowa

Co-Course Director: Dr. D. K. Sarma

**APPLICATION FORM
FORMAT FOR APPLYING FOR
PARTICIPATION IN WINTER SCHOOL
ON**

“Advances in molecular techniques in animal health and production with particular reference to pigs” to be organized from 24th November to 14th December 2017

**Affix self attested
passport size
photograph**

1. Full Name:
2. Designation:
3. Present employer and address:
4. Full Address for Correspondence (In Block letter):
5. Telegraphic Address & E Mail:
6. Date of Birth and age:
7. Gender:
8. Professional experience in years:
9. Number of research publications:
10. Discipline and area of Specialization:
11. Educational qualification starting from graduation onwards:
12. Please mention, if you have participated in any Summer/Winter school/short course during last three years:
- Date:
- Place:
- (Signature of candidate)
13. Recommendation of the forwarding authority:
- Date:
- (Signature of Head of the institute with Seal)

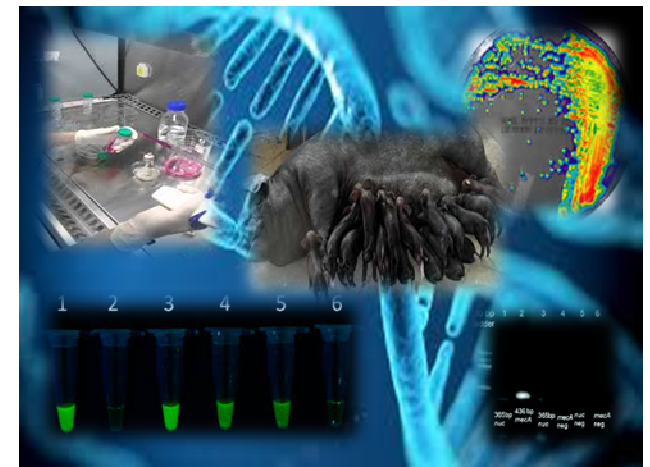
About the institute:

The ICAR- National Research Centre (NRC) on Pig, a constituent R & D institute under the auspices of Indian Council of Agricultural Research, is one of its kinds in India mainly committed to improvement of swine health and production in the country. It has a mandate to undertake basic and applied research for enhancing pig production, act as a repository of information on pig production and capacity building. The institute is located at Rani, Guwahati which is about 10km away from Guwahati International airport and 35 km from the Guwahati railway station. The climate of Guwahati is pleasant during November- December with temperature ranging from 20-30°C.



DBT sponsored winter school
On
*Advances in Molecular techniques
in Animal Health and
Production with particular
reference to Pigs*

**(From 24th November to 14th
December 2017)**



Organized by



**ICAR- NATIONAL RESEARCH CENTRE ON PIG
RANI, GUWAHATI, ASSAM-781 131**

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