

APPLICATION FORM FOR PARTICIPATION IN TRAINING COURSE

Hands-on Training on Recombinant Protein Production and Protein Purification Techniques

(Sponsored by the Government of India's SCSP [Scheduled
Caste Sub Plan] Scheme)

Organized at
ICAR-National Dairy Research Institute
Karnal-132001 (Haryana) INDIA

October 10 - 19, 2022

1. Full Name (in block letters) :
2. Designation :
3. Present address :
4. Address to which reply should be sent :
(in block letters)
(Give e-mail id, Phone/ mobile,
Fax number)
5. Permanent address :
6. Date of Birth :
7. Sex: Male/Female :
8. Previous trainings, if any :
9. Mention if you have participated in any
training course during the previous
years under SCSP scheme
10. Academic record :

Sr. No.	Examination passed	Subject main/ subsidiary	Year of passing	Class ranks distinctions etc.	University or Institution	Other Information
1.	Bachelor degree					
2.	Master degree					
3.	Doctoral degree					
4.	Other certificates, Diploma, Degree, if any					

Signature of the applicant

Date

Place

11. Recommendation by forwarding authority:

.....

Signature

Designation

Date Address

Note: It is mandatory for applicant to submit a soft copy of SC community certificate issued by state/central government and an Aadhaar card with the filled application form for consideration. Submit the soft of application to Dr. R. K. Paul (rajani.paul@icar.gov.in; drrajani1980@gmail.com) before 30th Sept., 2022. The confirmation of participation should be sent before 5th Oct., 2022.



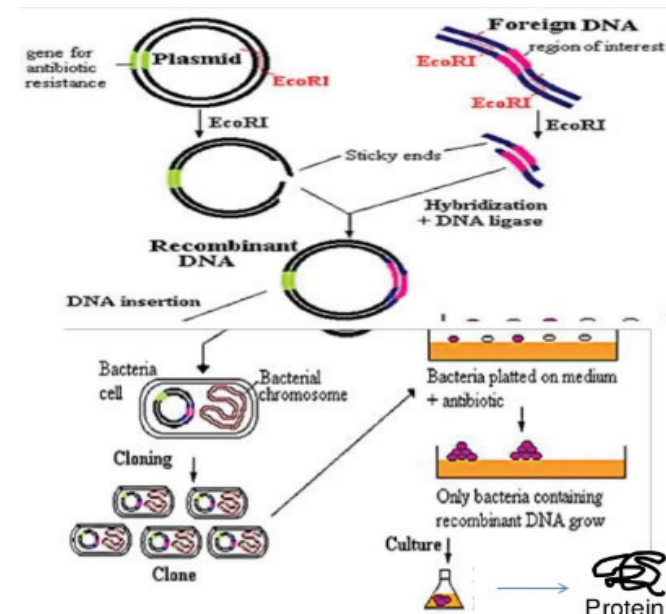
National Training Programme

on

Hands-on Training on Recombinant Protein Production and Protein Purification Techniques

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(Scheduled Caste Sub Plan) Scheme)

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Organized by

Animal Biochemistry Division

ICAR- National Dairy Research Institute

Karnal, Haryana (INDIA)-132001

www.ndri.res.in

About ICAR-NDRI

ICAR-National Dairy Research Institute (Deemed University) is a premier research organization that provides Research and Development support to the dairy development programmes of the country. Over the years, it has gained prominence as the front-ranking research and academic organization on global basis. This year the institute is celebrating its 100 years of excellence in research and academic achievements.

About Animal Biochemistry Division

The Division of Animal Biochemistry came into existence in 1984 following the merger of the Discipline of Animal Biochemistry of Dairy Chemistry Division and the Division of Human Nutrition and Dietetics. In the past, the division has made significant achievements in the research on validation of health-benefits of dairy ghee and probiotic dahi in controlling coronary heart diseases, G.I. tract and mammary cancers and improvement of immune system; bioavailability of vitamins and minerals from dairy products; characterization and sequencing of milk lysozyme and detection of sub-clinical mastitis; estimation of conjugated linoleic acid levels in milk products; anti-aging attributes of an Ayurvedic preparation; immobilization of galactosidase and its application in production of low-lactose milk; elucidation of biochemical changes in sperm maturation, acrosome reaction and semen freezing; gene expression and hormonal regulation of IGF and its receptor, IGFs, PAPP-A, TNF- α and aromatase during buffalo estrous cycle; SSCP analysis of CYP19 gene in anestrous buffaloes; elucidation of signal transduction pathways (PI3K and MAPK) in cattle granulosa cells during in vitro steroidogenesis and apoptosis; research on hybridomas, immunosuppressor proteins, and growth hormone receptor. The present research of the division is directed towards the development of probiotic foods, dairy nutraceuticals and their mechanism of action; ameliorative effects of probiotics on heavy metals-mediated infertility; development of estrus detection methods for buffalo by usage of salivary fern pattern and micro RNA; therapeutic potential of milk exosomes, identification of markers of post-partum anestrous in buffalo; osteoanabolic effect and therapeutic potential of milk-derived bioactive peptides in metabolic diseases; characterization of sperm-quiescent proteins and signal transduction mechanism in sperm functions etc. The division has bagged Rafi Ahmed Kidwai Memorial Award (03), Jawahar Lal Nehru Award (02), Dr. P. G. Nair Award, Young Scientist Awards, IUIS/FIMSA Travel Bursary Award, Best publication award and several paper presentation awards. In addition, the division has filed more than 10 patents and developed several technologies including a computer-based estrus detection app (Mahishee Mitra) for buffalo.

Course Contents (theory and on-bench practical)

- » PCR Primer designing for cloning into expression vector
- » Isolation of total RNA and cDNA synthesis
- » PCR amplification of target gene and sequence analysis
- » Restriction endonuclease (RE) digestion of cloning vector and PCR amplicon and purification
- » Preparation of competent E. coli BL21(DE3) cells
- » Ligation of target DNA with plasmid and transformation
- » Culture of transformed colonies, plasmid isolation and RE digestion analysis
- » Optimization of protein expression by use of variable temperature and IPTG levels
- » Assessment of protein expression by SDS-PAGE analysis
- » Purification of recombinant protein by Ni-NTA affinity chromatography
- » Confirmation of the protein by Western blot analysis
- » Protein purification by adsorption and size exclusion chromatography
- » Purification of protein by ion-exchange chromatography
- » Purification of protein by HPLC
- » 2D electrophoresis of proteins and mass spectrometric identification

Eligibility

Applications are invited from the researchers belonging to Scheduled Caste (SC) community, including students and research staff (RAs and SRFs) of ICAR/SAUs and CAUs and other Universities/institutes. The basic qualification of the candidates must be M.Sc (Life Sciences)/M.V.Sc or equivalent.

How to Apply

Interested candidate should submit his/her application through email to the Course Director (rajani.paul@icar.gov.in; drrajani1980@gmail.com). The application needs to be approved by the competent authority of his/her organization (mentor/HOD/Dean/Director/Vice-chancellor). There is no need to submit the hardcopy of the application.

Registration Fee: There is no registration fee

Certificate

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

Financial Assistance

The participants will be paid T.A. for to and fro journey by rail/ bus/ public transport by the shortest route as per entitlement restricted up to 2nd AC in train (on production of documentary evidence).

Boarding and Lodging

Accommodation will be provided free of cost at the Institute's accommodation facilities on sharing basis. (Please do not bring

your family members along with you. It will not be possible to arrange for their accommodation at Karnal during the period).

How to Reach

NDRI, Karnal is well connected by rail and roadways. Several trains run between New Delhi railway station and Karnal. Besides you can also travel in a bus from ISBT bus stand, New Delhi.

Weather during the period

The weather in October remains relatively hot in Karnal. The average low and high temperature is 20 and 33 degree celsius.

Nearby places of tourist attraction

Karna lake, Karan Taal park in Karnal; Brahma Sarovar, Kurukshetra Panorama & Science Centre, Srikrishna Museum in Kurukshetra etc.

Organizing Committee

Chief Patron: Dr Dheer Singh, Director & Vice Chancellor, ICAR-NDRI, Karnal

Patron: Dr. Gautam Kaul, Head, Animal Biochemistry Division, ICAR-NDRI, Karnal

Course Director: Dr. Rajani Kr. Paul, Sr. Scientist, Animal Biochemistry Division, ICAR-NDRI, Karnal

Course Coordinators

Dr. Suneel Kr. Onteru, Pr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. Sudarshan Kumar, Sr. Scientist, ABTC, ICAR-NDRI, Karnal

Faculties

Dr. Dheer Singh, Director & Vice Chancellor, ICAR-NDRI, Karnal
Dr. G. Kaul, Head, ABC, ICAR-NDRI, Karnal
Dr. Rajiv Kapila, Pr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. Suman Kapila, Pr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. S. K. Onteru, Pr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. R. K. Paul, Sr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. Sunita Meena, Sr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. Sadeesh E.M., Sr. Scientist, ABC, ICAR-NDRI, Karnal
Dr. Sudarshan Kumar, Sr. Scientist, ABTC, ICAR-NDRI, Karnal
Dr. Ravi Kant, CTO, ABC, ICAR-NDRI, Karnal

All correspondence should be addressed to

Dr. Rajani Kr. Paul

Scientist & Course Director
Animal Biochemistry Division,

ICAR- National Dairy Research Institute
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E-mail: rajani.paul@icar.gov.in; drrajani1980@gmail.com