

Short Term Hands-on Training Course on

Cell Line:

Development, Maintenance and Applications

August 20-29, 2019

About Lucknow

Lucknow, the capital city of Uttar Pradesh, is situated on the bank of river Gomti. It is believed that Sri Ramchandra, the hero of Ramayana, ordered his devoted younger brother Lakshman to establish a town at the present site of 'Lakshmantila' and, therefore, the original name of Lucknow 'Lakshmanpuri', slowly became 'Lakhnau' and was then named 'Lucknow' by the British.

Lucknow's rise to growth and fame begins with its elevation to a capital city under the Nawabs of Awadh. Therefore, it is also popularly known as the 'City of Nawabs'. The architectural contributions of the Awadh rulers include numerous mosques and palaces. Of the monuments standing today, the Bada Imambara, the Chhota Imambara, and the Roomi Darwaza are notable examples. Today, Lucknow is a vibrant city with a perfect blend of the ancient with the modern, as many glitzy shopping arcades co-exist with the old monuments. It has emerged as a "Science City", as numerous national laboratories, premier medical colleges, universities along with engineering and management institutes exist here.

The climate during August will be pleasant and slightly humid with rains and temperature of about 30–35°C. The campus of NBFGR is located at around 6 km from Lucknow (Charbagh) main railway station and 9-10 km from Ch. Charan Singh International Airport, Amausi, Lucknow. Both are well connected with Auto/ Taxi services.

Dr. Kuldeep K Lal, Director
ICAR-National Bureau of Fish Genetic Resources
Canal Ring Road, P.O. - Dilkusha,

Lucknow- 226 002(U.P.), India Phone: +91-522-2442440, 2442441, 2441735;

Email: director@nbfgres.in; director.nbfgres@icar.gov.in



ICAR-National Bureau of Fish Genetic Resources
Canal Ring Road, P.O. Dilkusha, Lucknow-226002, Uttar Pradesh



Dear Colleagues

Cell line is important biological resource and have potential applications in several fields of biological sciences. Cell lines from different tissues of animals have been developed and are being used for virology, gene expression studies, cytogenetics *etc.* as *in vitro* models. The development, characterization and maintenance of a cell line requires specialized skill which comes with proper training and practical experience. National Repository of Fish Cell lines (NRFC), the largest repository of fish cell lines in the world, is maintaining 60 cell lines at ICAR-NBFGR, Lucknow, UP.

There is paucity of trained manpower in the field of cell culture in the country. One of the objectives of NRFC is to organize training programmes on cell culture to develop trained manpower in the area, particularly fish cell lines. Therefore, a Short-Term Hands-on Training Course on "Cell Line: Development, Maintenance and Applications" has been scheduled to be conducted at ICAR-NBFGR, Lucknow.

About NBFGR

The ICAR- National Bureau of Fish Genetic Resources (NBFGR), Lucknow, established in 1983, has been recognised as a centre of excellence in conserving aquatic bioresources of India. The mandate of the Institute includes collection, classification and cataloguing of fish genetic resources of the country, maintenance and preservation of fish genetic material for conservation of endangered fish species and evaluation and valuation of indigenous and exotic fish species. Since last three decades, the ICAR-NBFGR has been promoting works on database development, genotyping, registration of aquatic germplasm, gene banking and evaluation of threatened and exotic fish species. The Bureau has been identified as a nodal institute for development and maintenance of fish cell lines under NRFC. The Bureau also has modern and state-of-art facilities for genotyping, DNA barcoding, NGS, genomic and proteomic research, gene banking, tissue and cell culture repository and high performance computing.

Course Objectives

To develop trained manpower in the area of cell culture, particularly development of cell line, its maintenance and applications.

Course Contents

- Establishing cell culture laboratory
- Introduction to cell culture techniques
- Cell line development and characterization
- Cell line maintenance and storage
- Cell line applications

Class Room Discussion

- Cell culture laboratory & basics
- Do's & don'ts in cell culture laboratory
- Development & characterization of fish cell line
- Trouble shooting
- Application of cell lines in toxicology & gene expression

Hands-on practice

- Preparation of laboratory for cell culture
- Setting up primary cell culture
- Harvesting and sub-culturing of cells
- Characterization & authentication of cell line
- Cryopreservation of cells
- Cell counting and viability testing
- Cytotoxicity assays using NR/AlamarBlue

For more details, please contact Course Directors

Dr. Ravindra Kumar, PS & Head, MBB Division;
8565965728 (Mob)

and

Dr. Basdeo Kushwaha, PS, MBB Division;
9450912730 (Mob)

Principal Organizer and Coordinator

Dr. Murali S, Scientist, MBB Division
8604615830 (mob);
email: nrfcnbfgr@gmail.com

Dates to Remember:

Last date for submission of Application: **13th August, 2019**

Candidate's selection and communication: **14th August, 2019**

Eligibility: Faculty members holding permanent or temporary positions/research scholars working on cell culture / fisheries/ zoology / biotechnology/ life sciences etc.

Intake capacity: 10 participants

Registration Fee: The training has been planned on payment basis as no support has been obtained from any source. The training registration fee will be Rs. 7000/- which include training course kit and working lunch/tea. The boarding and lodging will be provided on payment basis in the institute guest house. The participants or sponsoring organization will have to bear expenses for travel, boarding, lodging and local transportation.

Application: Interested and eligible persons can apply on the attached prescribed format (Registration Form). The Duly filled application form should be sent to:

The Course Directors,
Training Course on "Cell Line: Development, Maintenance and Applications"
ICAR- National Bureau of Fish Genetic Resources, Canal Ring Road, PO– Dilkusha,
Lucknow- 226 002, Uttar Pradesh.

Selected candidates will be informed through e-mail.

Registration Form

Short Term Hands-on Training Course on

"Cell Line: Development, Maintenance and Applications"

ICAR- National Bureau of Fish Genetic Resources, Lucknow-226002, U.P., India

August 20-29, 2019

Name (Dr. /Mr./ Ms.): _____

Designation: _____ Date of Birth: _____

Educational Qualification: _____

Professional Experience: _____

Present area of work: _____

Mailing Address: _____

E-mail: _____ Fax: _____ Phone:(O) _____ (M) _____

Payment details: Payment should be made through DD in favour of ICAR UNIT, NBFGR payable at Lucknow or through NEFT/RTGS to A/C Name: ICAR Unit, NBFGR, Lucknow, Name of Bank: Punjab National Bank, Branch: Aashiana, Branch Code: 414000, A/C No. 414000VS00000013, A/C type: Current, IFSC Code: PUNB0414000

Amount..... (In Words).....D.D/Transaction No.....

Date..... Bank.....

Any other information:

Place:

Date:

(Signature of candidate)

Forwarding from Head of Institution/ Competent Authority:

Candidature of Dr./ Mr./Ms....., working as,
is forwarded for inclusion in the training programme.

(Signature and seal of the Competent Authority)

Name:

Designation: