

Faculty Development Programme
on
Basic Tools of Molecular Biology
May 22 - 27, 2023



Organized by
Human Resource Development Centre (HRDC)
In Association with
PG Department of Biotechnology
Berhampur University

Venue: Central Instrumentation Centre (CIC), Berhampur University



About Berhampur University

Berhampur University (BU) is a public-funded state university established on 2nd January 1967. The campus is known as Bhanja Bihar, named after the celebrated poet of Odisha Kabi Samrat Upendra Bhanja. Spreading over lush-green campus of about 250 acres, the University is 12 kilometers and 5 kilometers away from Berhampur City and Gopalpur-On-Sea, respectively. There are 25 Post-Graduate departments on the University campus, that offer specialized subjects and Ph.D./D.Sc. Programs. The University has 173 affiliated colleges with various subjects and disciplines such as Arts, Science, Commerce, Law, Education, Medicine, Pharmacology, Homoeopathy, Ayurveda, Nursing, Military Science, Library Science and Fine Arts. The University is a permanent member of the Inter University Board of India and Sri Lanka as well as that of the Association of Commonwealth University of London.

Mission

Berhampur University seeks to take long strides in harnessing the outcome of teaching and research in various fields by way of ensuring inclusive growth, and to prove itself to be a Center of Excellence in higher education.

It further envisions taking up the social responsibility towards the total uplift of the society at large by providing quality education in consonance with the motto of the University, i.e., "*Tamaso Ma Jyotirgamaya*" which means "Lead me from darkness unto light".

Vision

- Promote inclusive growth to cater to the educational need of all sections of the society while striving for excellence.
- Achieve innovation in teaching, learning and research to realize goals of higher education.
- Empower students with relevant knowledge, competence and creativity to face the challenges of life.
- Create a modern teaching-learning ambience to impart quality education.
- Generate awareness of human rights, values systems, culture, heritage, scientific temper and environment.
- Preserve and promote the cultural heritage of the region through research and documentation.
- Inculcate ethical values and academic rigour amongst the students enabling them to contribute to the holistic development of society.

About the HRDC, Berhampur University

For improving the quality of higher education, different Commissions, such as Radhakrishnan Commission (1948), Kothari Commission (1966) and National Education policies on higher education had recommended for the establishment of Academic Staff College (Presently known as Human Resource Development Centre) for the sustained development of academic staffs across the time along with changing policy vis-à-vis knowledge exploration. Keeping this into account, the Higher Education Department, Govt. of Odisha established the Human Resource Development Centre (HRDC) at Berhampur University during 2018, and the Consequently, the HRDC started as facilitator for academic up-gradation and R &D skill enrichment of the Faculty members and the Research manpower.

The Vision of HRDC-BU proposes to:

- Ensure quality improvement of teachers in teaching-learning methodology by incorporation ICT tools.
- Strive for achieving the status of Nodal Centre for training of both academic and non-academic staff of colleges/universities.
- Organize hands on Faculty Development Programme to translate the skill among the students.
- Organize Refresher Courses, Orientation Programme, Summer/Winter School, Short term Faculty Development Programme.
- Conduct Training Programme/ Workshop for research scholars on research methodology.

About the Post-Graduate Department of Biotechnology

The P.G. Department of Biotechnology was established in the year 2022 with an intake of 30 PG students per annum. The Department is supported by Department of Biotechnology (DBT), Govt. of India through its HRD grant. The Department offers MSc Biotechnology in which the 10 students are admitted through the all India GAT-B entrance examination, and 20 students through the Common P.G. Entrance Test (CPET) conducted by the Department of Higher Education, Govt. of Odisha. The Department also offers a Ph.D. program in Biotechnology. The Department boasts of seven regular faculty members having diverse research interests such as Infectious Disease Biology, Cancer Biology, Immunogenetics, Bioprocess Engineering, Bacterial Genetics, Plant Breeding and Tissue Culture, Functional Genomics, Biodiversity Conservation etc. The Department hosts a Centre of Excellence on “Bioprospecting of Ethno-pharmaceutical of Southern Odisha” by OHEPEE, Govt. of Odisha sponsored through World Bank funding scheme (IDP-OHEPEE). This Centre currently carries out intensive research activities on medicinal plants in Southern Odisha and their potential in delivering various bio-active compounds for therapeutics usage. Further, the faculty members are also supported by extramural R & D grants from various funding agencies such as DBT, DST-SERB, DST (O) etc.

About the Programme

Molecular Biology is at the forefront of the Biological Sciences in dealing with the molecular complexities of life's processes. With the advancement of molecular genetics in the early part of twentieth century, tools and techniques were developed to isolate genetic material from various organisms and carry out their detailed analysis. Development of polymerase chain reaction (PCR) and nucleotide sequencing methods have contributed enormously to this direction. Furthermore, the emergence of various high throughput DNA sequencing strategies and gene editing methods in the last two decades have revolutionized the field of molecular biology significantly enhancing our capabilities. Keeping the knowledge evolution in biological science and its translation to students, the faculty members need to be acquainted with the basic tools of Molecular Biology. Thus, the proposed Faculty Development Programme is proposed with the objective to train the faculty participants in the basic techniques of Molecular Biology. The range of experiments the participants will be trained in are from the purification of genomic DNA from bacteria/ plant sources to amplification and purification of gene of interest, cloning and expression of the gene.

During the FDP, hands on training will be provided on-

- Purification of genomic DNA from plant/ bacterial sources
- Agarose Gel Electrophoresis
- Restriction digestion and Mapping
- Primer Designing and Polymerase Chain Reaction (PCR)
- Gene Cloning (Competent Cell Preparation and Transformation, Blue/ White Screening and Confirmation of recombinant clone)
- SDS-PAGE and Western Blotting
- Southern Hybridization
- Basic Bioinformatics Tools for Molecular Biology

Details of the Hands-on-Training Program on Basic Tools of Molecular Biology

Title of the FDP:	Basic Tools of Molecular Biology
Duration of the Programme:	22-05-2023 to 27-05-2023 (One Week)
Timing of Sessions:	Two sessions per day: 10.30 AM to 12.00 noon (Lecture Session) and 1.00 PM to 5.30 PM (Lab session)
Eligibility:	Faculty members involved in teaching UG and PG courses in Botany, Zoology, Life Science, Microbiology and Biotechnology in various colleges are eligible to apply. The number of participants is restricted to 25.
Mode of the FDP:	Physical Mode (Offline)
Venue of the Programme:	Central Instrumentation Centre (CIC), Berhampur University
Last Date for Registration:	18-05-2023
Registration Fee:	Rs. 2000.00 (To be paid online or NEFT or DD). The amount should be paid in favour of 'Director, HRDC BU' (A/c No. 6371101000698; IFSC Code. CNRB0006371)
Boarding and Lodging:	Outstation candidates can be given free accommodation. All the participants will be provided working lunch and snack/tea during the FDP only. No TA and DA will be provided for participation
Registration Link:	https://forms.gle/V8JC5t7o1i8iEsNq6

Certification:

Certificates will be issued subject to the participants qualifying the following conditions:

- a) Minimum 75% attendance.
- b) Minimum 50% marks in the exam conducted on last day of the programme.

Advisory Committee of HRDC

Prof. Geetanjali Dash, Vice-Chancellor, Berhampur University
Prof. S. K. Baral, Chairman, PG Council, Berhampur University
Shri Sachidananda Nayak, OAS(S), Registrar, Berhampur University
Prof. Sukant Ku. Tripathy, Director, R &D Cell, Berhampur University
Prof. Sudhakar Patra, Director, IQAC Cell, Berhampur University
Prof. Shruti Dash, HoD, Dept. of English, Berhampur University

Organizing Committee of HRDC

Prof. Jogeswar Panigrahi, Director, HRDC-BU
Dr. B. Anjan Kumar Prusty, Joint Director, HRDC-BU
Dr. Dasarathi Bhuyan, Member
Dr. Sadananda Nayak, Member
Dr. Tapan Kumar Barik, Member
Dr. Biswajit Prasad Chhatoi, Member
Dr. Laxmidhar Rout, Member
Dr. Aditya Kumar Panda, Member
Dr. Raj Kishore Kampa, Member
Dr. Neha Pandey, Member
Dr. B. Venkateswar Rao, Member
Dr. Padmalochan Hembram, Member

FDP Programme Convener

Prof. Jogeswar Panigrahi, Head, PG Department of Biotechnology

FDP Programme Coordinator

Dr. Saswat Sourav Mohapatra, Assistant Professor, Department of Biotechnology

FDP Programme Organizing Team

Dr. Sushil K. Pathak, Assoc. Prof., Dept. of Biotechnology
Dr. Manoj K. Panda, Assoc. Prof., Dept. of Biotechnology
Dr. Sunil K. Behera, Asst. Prof., Dept. of Biotechnology
Dr. Aditya K. Panda, Asst. Prof., Dept. of Biotechnology
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Contact Details:

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REGISTRATION FORM

Faculty Development Programme

on

Basic Tools of Molecular Biology

May 22 - 27, 2023

1. Name in full: Dr./Mr./Mrs./Ms.
 2. Designation:
 3. Organization/Institution:
 4. Address:
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Phone:, Mobile:, Fax:
e-mail:
 5. Details of Registration fee: Amount. Rs. 2000.00 (Rupees Two Thousand) only
Details of DD/ NEFT/ Online payment.....
(Proof of Payment need to be enclosed)
- Place: Signature of the Candidate
Date:

Forwarded by Supervisor/Guide/Head of the Department/Principal

I hereby forwarding the application of Dr./Mr./Ms.
to enrol in the FDP on “Basic Tools on Molecular Biology”, during 22-27 May 2023,
organized by HRDC-BU in association with PG Dept. of Biotechnology.

(Signature of Competent Authority with Seal)

All the participants will have to make their own travel arrangements, and accommodation shall be provided in HRDC, BU upon request. NO TA & DA will be paid for participation in FDP. Seat will allotted on First come First Serve basis.