ABOUT THE DEPARTMENT :

The Department of Life Science, National Institute of Technology, Rourkela has well established laboratories with highly sophisticated state-of-art instruments. It is currently running graduate, postgraduate, integrated postgraduate and research programs in Life Science. Various laboratories of the department are dedicated to research in the field of cancer, autophagy, phytotherapy, apoptosis, bioremediation of heavy metals poly aromatic hydrocarbons, biosurfactant based bioremediation, epigenetics, plant biotechnology, drug delivery, immunology, computational biology, biophysical chemistry and food technology. During the short span of time, the department has organized national, international seminar and workshop. The department has received financial assistance from DBT, CSIR, DST, ICAR for R&D projects.

LABORATORY FACILITIES:

Department of Life Science, NIT, Rourkela is enriched with specialized facilities like:
Gradient, qRT PCR machine
UV-Visible, fluorescence spectrophotometer
2-D- electrophoresis
Refrigerated centrifuges
Deep freezer (-86°C, -20°C)
Microplate reader, Nanodrop
Gel electrophoresis system
Western blotting system
Chemi-documentation system
Mutation Detection System (DGGE)
Fast protein Liquid Chromatograph (FPLC)
Fermenter, Fourier transform infrared spectroscopy (FTIR)
Dynamic light scattering (DLS)
Inverted Fluorescence microscope
Fluorescence activated cell sorting (FACS)
High protein Liquid Chromatograph (HPLC)
Class II Biosafety laminar flow
CO_2 incubators

DEPARTMENT OF LIFE SCIENCE

NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA, ODISHA

WORKSHOP ON TECHNOLOGIES ON MOLECULAR ANALYSIS OF CELL & CELLULAR DYNAMICS (TMCCD- 2015)

NOVEMBER 19-21, 2015

PATRON
Prof. Sunil Kumar Sarangi, FNAE
Director, NIT, Rourkela

MEMBERS OF ORGANIZING COMMITTEE

Prof. Samir K. Patra	(Chairman)
Prof. Sujit K. Bhutia	(Convener)
Prof. Monalisha Mishra	(Co-Convener)
Prof. Binod Bihari Sahoo	(Treasurer)
Prof. Bismita Nayak	(Member)
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Prof. R. Jayabalan	(Member)
Prof. Rohan Dhiman	(Member)
Prof. Vidya Devi Negi	(Member)
Prof. Md. Saleem	(Member)
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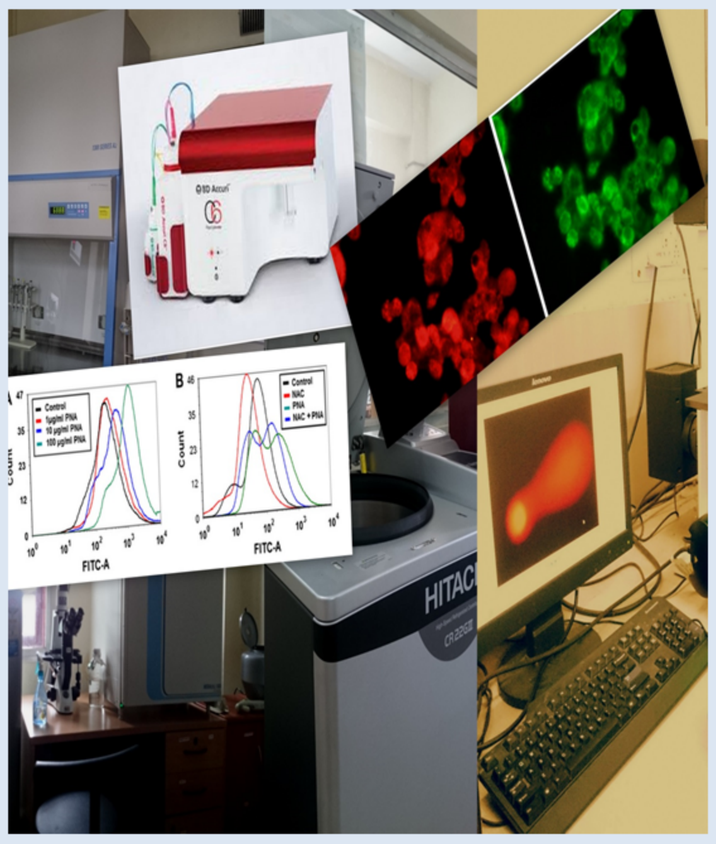
WORKSHOP ON TECHNOLOGIES ON MOLECULAR ANALYSIS OF CELL & CELLULAR DYNAMICS (TMCCD- 2015)

INFORMATION BROCHURE



ORGANIZED BY:
Department of Life Science
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA- 769008, ODISHA
SPONSORED BY:
DBT, DST, ICMR, BRNS, DRDO

ABOUT THE WORKSHOP:

The workshop on "Technologies on Molecular Analysis of cell and cellular Dynamics (TMCCD)" The workshop is outlined in such a way that the participants will gain handful knowledge about the practices and possibilities of the various techniques for studying molecular biology in disease diagnostics. Gene expression analysis of single cells is providing new insights into disease pathogenesis, and has applications in clinical diagnosis. The workshop will comprise techniques in flow cytometry, gene expression analysis techniques.

MODULES

• Day 1: Morning Lecture Sessions
• Day 1: Afternoon Practical Sessions
Module I: Gene Identification
Experiment 1.1 Isolation of RNA from the plant by Trizol reagent. DNAse I treatment, Purification, cDNA preparation.
Experiment 1.2 PCR, RT-PCR, Ligation, T-Vector, Transformation, Primer Design
• Day 2: Morning Practical Session
Experiment 1.3 Colony Checking, Colony lysis PCR, Gel Run, BLAST-N, P, X

• Day 2: Afternoon Practical Sessions
Module II: Gene Expression Analysis
Experiment 2.1 Transfection of GFP-tagged gene in Human cell
Experiment 2.2 Expression analysis by fluorescence microscope
Experiment 2.3 Expression analysis by western blot

• Day 3: Morning Practical Session
Module III: Functional analysis of gene (Cell Death Analysis)
Experiment 3.1 Propidium Iodide staining
Experiment 3.2 Cell cycle analysis
Experiment 3.3 Annexin V
Experiment 3.4 Acridine orange staining
Experiment 3.5 DAPI staining
Experiment 3.6 Morphological study under SEM
Experiment 3.7 Behavioural study under Stereo zoom microscope

VENUE:

The workshop will be held on 19-21, November 2015 at Department of Life Science, National Institute of Technology, Rourkela, Odisha. Rourkela is one of the well-developed steel townships on Howrah-Mumbai main line (via Nagpur) of South Eastern Railway. It is well connected by railway network to the rest of India. The NIT Campus is only 8 km from Rourkela Railway station.

IMPORTANT DATES:

Dates for receiving filled up application: September 15, 2015
Intimation of selection for participants:
October 20, 2015
Selected candidates will be informed only by e-mail

ACCOMMODATION:

Accommodations will be provided to the participants in the Institute Guest Houses

REGISTRATION (per Delegate):

The registration fees include accommodation, workshop material and working lunch for all the days of the workshop. A participation certificate will be given to all the participants.

UG & PG Students:	Rs. 2,000/-
Ph.D. Students:	Rs. 3,000/-
Faculty/Industry members:	Rs. 5,000/-
Accompanying person:	Rs. 1,000/-

WHO CAN APPLY:

Research scholars, graduates, post graduate students, faculty/industry members working in the areas of Life Science can apply. Mostly early career Ph.D./research students will be preferred as the seats are limited.

HOW TO APPLY:

Interested participants may send their application in prescribed proforma along with registration fees through demand draft in favour of "**Convenor, TMCCD" payable at SBI, NIT campus Rourkela (Code: 2109)** or **NEFT transfer** can also be done at **SBI account (Account name: TMCCD, Account no: 35134384042, IFSC code: SBIN0002109)** on or before by September 15, 2015 should be reaching to:

Dr. Sujit Kumar Bhutia, Convenor-TMCCD,
Department of Life Science,
National Institute of Technology, Rourkela,
Odisha- 769008.

TECHNOLOGIES ON MOLECULAR ANALYSIS OF CELL AND CELLULAR DYNANAMICS (TMCCD-2015)

REGISTRATION FORM
(Please fill in capital letter)

Name: .....
.....

(First Name) (Middle Name) (Last name)

Organization:.....

Designation:.....

Mailing Address:
.....
.....
.....
PIN:.....

Phone: (Office):.....

(Residence)... .....**Mob:**.....

Fax.....

Sex.....

Email.....

Encl: DD No.....

Dated.....**ON**

.....**(BANK)**

Accommodation if required: YES / NO

(If yes mention the duration)

Date and time of arrival

Signature of candidate

Signature of Head/Faculty of the Department