

ABOUT THE INSTITUTE

The National Institute of Technology, Rourkela is one of the premier national level institutions for technical education in the country and is funded by Government of India. NIT Rourkela is a prestigious institute which provides quality education in a diverse and multi-cultural environment. The main objective of the institute is to produce quality Engineers & Scientists in Graduate and Post Graduate level in various branches of Engineering and Science.

ABOUT THE DEPARTMENT

The Department of Biotechnology and Medical Engineering is a new venture which has been introduced from the academic year (2007-2008) under the support of Ministry of Human Resource Development with its main aim of producing qualified and dynamic engineers in the fast growing field of Biotechnology and Medical Engineering. The department has started with a full capacity with B. Tech, M. Tech and PhD students.



Tissue engineering is the major research area of this department. The current research work includes Development of 3D scaffold, Isolation & Differentiation of Mesenchymal Stem Cells, Development of Cell-scaffold constructs for Bone, Cartilage, Musculoskeletal Tissue Regeneration and Cryopreservation of Cells & Cell-Scaffold Constructs.

ABOUT THE WORKSHOP

To educate and provide hands on training experience to the participants on the immunocharacterization and flow cytometry based sorting of stem cells with expert guidance from faculties of our department and from Becton Dickinson, Biosciences,USA

GOALS OF THE WORKSHOP

In recent years potential application of stem cell in regenerative medicine and tissue engineering has been realised .Therefore characterization of stem cell is an important parameter in selection and isolation of colonies of stem cells. Thus this workshop will make participant to learn the techniques of Immunocharacterizaion and sorting of stem cell for its potential application in advance research.

CONTENTS OF THE WORKSHOP

1. Immunocharacteristics of stem cells - Lecture
2. Fundamentals of Flow cytometry and cell sorting (FACS) - Lecture
3. Immunocharacterization of cells by Fluorescence microscopy (Laboratory)
 - a. Fluorescence staining for nucleus, cell organelles, live and dead
 - b. Cell processing, Characterisation, image analysis and data interpretation
4. Flow cytometry & Stem Cell Sorting (Laboratory)
 - a. Sample preparation and data acquisition/analysis for stem cell characterization
 - b. Stem cell sorting and purity check by FACS

WORKSHOP

on
**Immunocharacterization
and
Flow cytometry based cell
sorting**

(IFCS-2013)

22nd – 23rd March 2013

Prof. Krishna Pramanik
Convener
Prof. Mukesh K. Gupta
Co-Convener



Sponsored by

**Department of Biotechnology,
Ministry of Science and Technology,
Government of India**

**Department of Biotechnology & Medical Engg.
National Institute of Technology**

Rourkela-769 008, Odisha

<http://www.nitrkl.ac.in>

PATRONS

Prof. Sunil Kumar Sarangi (Director, NIT Rourkela)

ORGANIZING COMMITTEE

Prof. Krishna Pramanik, Convener (NIT Rourkela)

Prof. Mukesh K. Gupta, Co-Convener (NIT Rourkela)

Prof. Amit Biswas (NIT Rourkela)

Prof. Bismita Nayak (NIT Rourkela)

Prof. Subhankar Paul (NIT Rourkela)

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Prof. Indranil Banarjee (NIT Rourkela)

Dr. R.K Patra (IGH,Rourkela)

Prof. Sirsendu Sekhar Ray (NIT Rourkela)

Mr. Akalabya Bissoyi (Research Scholar)

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REGISTRATION & FEE PARTICULARS

Applications in the prescribed format and the registration fee as per given below in the form of a DD, drawn in favour of “**IFCS-2013**, NIT, Rourkela” payable at SBI, NIT Branch, Rourkela 8 (Code 2109) must reach the Convener on or before 18th March 2013.

Personnel from Industry & R&D Organizations	Rs.5,000/-
Faculties from Educational Institutions	Rs.4,000/-
Research Scholars and Students	Rs.3000/-

*Registration fee includes food (Breakfast, lunch & dinner) during the workshop days and accommodation on sharing basis in the institute guest house will be provided to the participants

PARTICIPANTS

P.G & PhD students, Research Scholars, Faculty, Scientists from research organization and Industry.

WORKSHOP

on
**Immunocharacterization
and
Flow cytometry based cell sorting
(IFCS-2013)**
22nd – 23rd March 2013

REGISTRATION FORM

Name of the participant:

Designation:
(Student/Research Scholar/Faculty/Industry)

Institute:

Address for correspondence:

***DD No.:** -----

Bank-----Date-----

Email:

Mobile:

Signature of Sponsoring Authority (With Seal)

Copies of this form can be made, if necessary. Please send the filled in form to the Convener on or before **-18 March 2013-----**. The details of the workshop & the form can also be downloaded from our website **<http://www.nitrkl.ac.in>**.