

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, epigenetics, plant biotechnology, drug delivery, immunology, computational biology and biophysical chemistry. 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
Gel-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
CO₂ incubators



DEPARTMENT OF LIFE SCIENCE

NATIONAL INSTITUTE OF TECHNOLOGY,
ROURKELA, ODISHA

WORKSHOP ON TECHNIQUES TO UNDERSTAND AUTOPHAGIC PROCESSES IN MAMMALIAN SYSTEMS (TUAPMS-2020)



26TH FEBRUARY – 1ST MARCH, 2020

PATRON

Prof. Animesh Biswas,
Director, NIT, Rourkela

MEMBERS OF ORGANIZING COMMITTEE

Prof. Bibekanand Mallick	Chairman
Prof. Rohan Dhiman/Sujit K. Bhutia	Convener
Prof. Binod Bihari Sahu	Co-Convener
Prof. Vidya Devi Negi	Treasurer
Prof. Samir K. Patra	Member
Prof. Surajit Das	Member
Prof. Monalisha Mishra	Member
Prof. Bismita Nayak	Member
Prof. Suman Jha	Member
Prof. Bijesh Ku Biswal	Member
Prof. Santosh Kumar	Member
Prof. S. Muthuswamy	Member

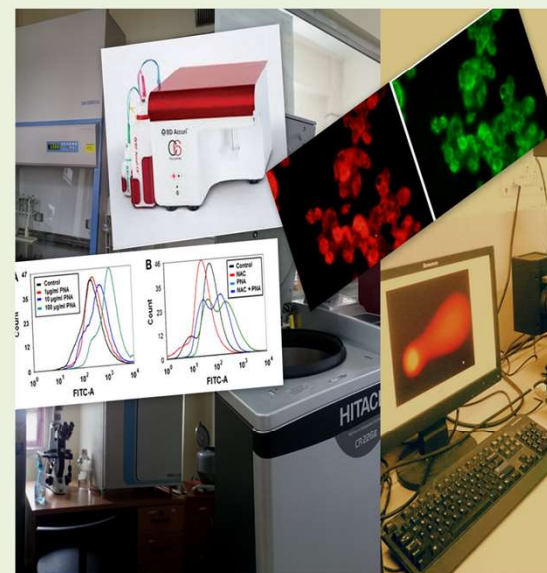
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FOR GENERAL ENQUIRY REGARDING THE WORKSHOP

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WORKSHOP ON TECHNIQUES TO UNDERSTAND AUTOPHAGIC PROCESSES IN MAMMALIAN SYSTEMS (TUAPMS-2020)

INFORMATION BROCHURE



ORGANIZED BY:
Department of Life Science
NATIONAL INSTITUTE OF
TECHNOLOGY
ROURKELA- 769008, ODISHA



ABOUT THE WORKSHOP:

Autophagy is an evolutionary conserved multistep process involved in the massive degradation of both long-lived cellular contents and dysfunctional organelles by forming double-membrane structure called autophagosome that eventually fuses with lysosomes for degradation to mitigate cellular toxicity and maintain cellular homeostasis for normal body functioning. This field came to prominence after Prof. Ohsumi got noble prize in 2016 and led to widespread enthusiasm amongst researchers to explore this area further for its relevance in different pathophysiological conditions. This workshop will be helpful for the participants to learn various techniques like western blotting, confocal microscopy, quantitative real-time PCR and transmission electron microscopy and its application to study autophagic process. The lectures comprising of the eminent researchers and academicians in this field will be helpful for the participants for their further research work. The workshop will create awareness among the participants about the various aspects of cellular dynamics and motivate them to work in the disease biology for the betterment of the society.

MODULES

Day-1

Registration and inauguration
Invited lectures I and II

Module I: Introduction to Mammalian Cell Culture and cell seeding for autophagic study

Day-2

Invited lecture III

Module II: Autophagy induction and analysis through western blotting
Invited lecture IV

Module III: Transfection of GFP-LC3 to study LC3 puncta

Day-3

Invited lecture V

Module IV: Detection of autophagic proteins through chemiluminescence and its analysis
Invited lecture VI

Module V: Confocal microscopic analysis of LC3 puncta

Day-4

Invited lecture VII

Module VI: Assessment of autophagic flux and lysosomal activity
Invited lecture VIII

Module VII: Functional Analysis of autophagic genes through quantitative real-time PCR

Day-5

Invited lectures IX and X

Module VIII: Transmission electron microscopy to study autophagy

Valedictory function

VENUE:

The workshop will be held on 26th February 2020 – 1st March 2020 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:
February 15, 2020

Intimation of selection for participants:

February 16, 2020

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 fee of Rs. 5000/- include accommodation, workshop material and working lunch for all the days of the workshop. A participation certificate will be given to all the participants.

WHO CAN APPLY:

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

HOW TO APPLY:

Interested participants can download the registration form and may send along with the proof of online transfer of the registration fee (Account No. 36734418111, IFSC Code: SBIN0002109)/ demand draft in favour of **CONFERENCE, NIT ROURKELA** payable at SBI, NIT campus, Rourkela (Code: 2109) on or before 30th January, 2020.

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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