



Department of Zoology  
School of Biological Sciences  
Central University of Kerala  
Tejaswini Hills, Periya,  
Kasaragod - 671 320, INDIA

46<sup>th</sup> Annual Meeting of Environmental  
Mutagen Society of India (EMSI)

International Conference on  
Environmental Mutagenesis:  
Impact on Biodiversity and  
Human Health in a Changing World

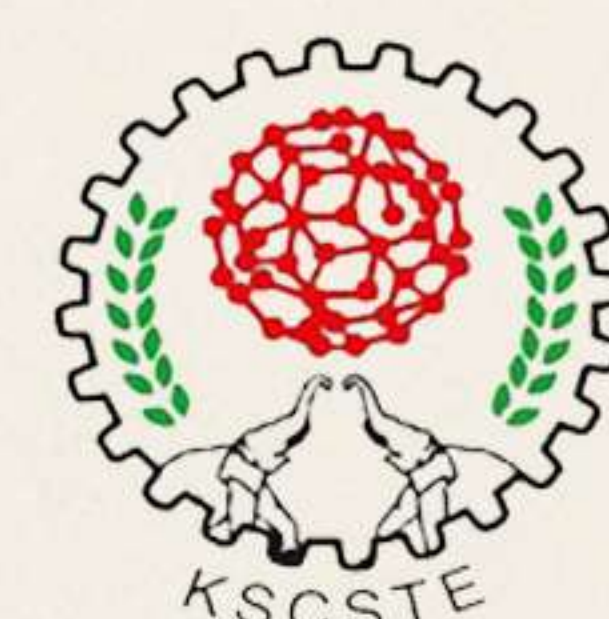


29-31 January  
2024

Pre-Conference Workshop on  
Methods in Genotoxicology

28 January  
2024

Sponsored by



It is with great pleasure we invite researchers, academicians, health professionals, and those who are all involved in Environmental and Health related facets desire to be part of the "International Conference on Environmental Mutagenesis: Impact on Biodiversity and Human Health in a Changing World" as well as "46 th Annual Meeting of Environmental Mutagen Society of India (EMSI)" to be convened at Central University of Kerala, Tejaswini Hills, Kasaragod, India from January 29-31, 2024.

Since the origin of life, all organisms have been advertently or inadvertently exposed to various environmental xenobiotics, adversely affecting the biota. The consequent damaging effects at the cellular and molecular levels caused by those factors are being counteracted by cellular defense mechanisms, especially those related to DNA. Failure to do so may lead to mutagenic, carcinogenic, and hereditary effects. In addition, the changes in the gene structure and epigenetic modifications in the germ line can invariably affect the offspring. This is where the "genes and environment" interaction plays a vital role at the population level, highlighting the importance of public genomics. A paradigm change in the existing knowledge base is happening with the advent of advanced technologies wherein, now, it is possible to sequence the entire genome and proteome of a living organism. The impact of environmental mutagenesis leads to altered biological responses affecting all forms of life particularly human health. Though global efforts to contain the harmful effects on the environment, ecosystem, and individual level have met with sporadic success, new challenges emerge continually. In this context, we invite researchers to share their findings and thoughts on this platform on the prevention of mutations, protection, and preservation of biodiversity with an emphasis on the knowledge in the field of human health. This deliberation allows the invitees and participants from various disciplines to showcase their recent research explorations and widen the scientific horizon using the common multidisciplinary interactive platform

### **Central University of Kerala ([www.cukerala.ac.in](http://www.cukerala.ac.in))**

The Central University of Kerala, Kasaragod, came into being in 2009 under the Central Universities Act 2009 (Parliament Act No. 25 of 2009). The University is founded on the noble vision of a 'Caring Wisdom.' It is guided by the lofty ideals of academic and social commitment, moral steadfastness, and intellectual and spiritual enlightenment, as reflected in the vision statement. The University opened its academic portals in October 2009 at Nayanmarmoola (Vidyanagar) in Kasaragod town. From this humble beginning, the University has grown into an institution offering twenty-seven postgraduate and twenty-two research programmes with a total enrolment of around 2500 students. The campus of the University, known as Thejaswini Hills, is located at Periya, Kasaragod, on 310 acres of land. In addition to headquarters located at Periya, the University has a Law department at Thiruvalla in Pathanamthitta, and a BA programme in International Relations is offered at Trivandrum. Prof. Jancy James was CUK's first Vice-Chancellor (2009-2014). She was followed by Prof. G. Gopakumar (2014-2020) and Prof. H. Venkateshwarlu (2020-2023). Prof. K.C. Baiju current Vice-Chancellor (i/c).

### **Department of Zoology**

The Department of Zoology was established in 2010 at Riverside Transit Campus, Padannakkad. The department offers M.Sc. and Ph.D. in Zoology with a strong curriculum designed to provide the experience, skills, and exposure in areas that range from basic conceptual frameworks to the most advanced areas of biological sciences. Deep engagement in research by faculty in entomology, aquatic pathobiology, herpetology, toxicology, immunology, physiology, molecular biology, and endocrinology is a core strength of the department. Convergence of the expertise and research strengths of the faculty ensures that the academic programme provides the students and researchers with profound insights and adequate skills, besides inculcating a culture of innovation and inclusive development. For more information visit ([https://schools.cukerala.ac.in/Dept/Dept\\_Zoology](https://schools.cukerala.ac.in/Dept/Dept_Zoology)).

### **The Environmental Mutagen Society of India (EMSI)**

EMSI founded in 1975, promotes scientific education and research in mutagenesis. The Society is an affiliate of the International Association of Environmental Mutagen Society (IAEMS) and the Asian Environmental Mutagen Society (AEMS). Every year, the EMSI conference provides a scientific forum for exchanging ideas and information on mutagenesis at the experimental and clinical levels with an emphasis on human health and environmental safety.

## Executive committee of EMSI

President	: <b>Dr. KB Sainis</b> , BARC, India.
Vice-Presidents	: <b>Prof. Nandjee Kumar</b> , Magadh University, India. <b>Dr. Radha Saraswathy</b> , VIT, India.
Secretary	: <b>Dr. Birajalaxmi Das</b> , BARC, India
Joint Secretary	: <b>Dr. Bani B. Ganguly</b> , Genetics Center, India
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Members	: <b>Dr. Sudin Bhattacharya</b> , CNCI, India <b>Dr. Satwinderjeet Kaur</b> (Amritsar) <b>Dr. Bhavani Shankar</b> , BARC, Mumbai <b>Dr. Prakash Hande</b> (Singapore) <b>Dr. Shouvic Mandal</b> (Kolkata) <b>Dr. Yasir Hassan Siddique</b> , AMU, India <b>Dr. DK Chowdhury</b> (Lucknow) <b>Dr. Vinay Jain</b> (Mumbai)
Co-opted member	: <b>Dr. Ravi Chandran</b>
Permanent invitees	: <b>Dr. P S Chauhan</b> , Former Scientist, BARC, Mumbai. <b>Dr. R K Bhattacharya</b> (Mumbai)

## Scientific Advisory Board

- Prof. Wilner Martínez-López**, Instituto de Investigaciones Biológicas Clemente Estable (IIBCE), Uruguay.
- Prof. M. Prakash Hande**, National University of Singapore, Singapore.
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- Padma Shri. Prof. R.C. Sobti**, Former President Indian Science Congress and former Vice Chancellor of Panjab University and Central University of Lucknow.
- Prof. Iddya Karunasagar**, Senior Director (International Relations), Nitte University, Mangalore; Senior International Food Safety Consultant, Rtd Senior Fisheries Officer, FAO of UN.
- Prof. S. Ravichandra Reddy**, Bangalore University, Bengaluru.
- Prof. G.M. Nair, President**, Kerala Academy of Sciences, Trivandrum.
- Prof. P.R. Sudhakaran**, Asutosh Mookerjee Fellow, University of Kerala, Trivandrum.
- Prof. Oommen.V.Oommen**, Former Chairman, Kerala State Biodiversity Board, University of Kerala, Trivandrum.
- Prof. Taru Sharma**, Director, NIAB, Hyderabad, Telangana.
- Dr. P S Chauhan**, Former Scientist, BARC, Mumbai.
- Prof. Alok Dhawan**, Director, Centre of Bio Medical Research, Lucknow, UP.
- Prof. K.S. Rangappa**, Former President Indian Science Congress and former Vice-Chancellor, University of Mysore and Karnataka State Open University, Mysuru.
- Prof. Narinder K Mehra**, Vice President, Indian National Science Academy, National Chair and Former Dean, All India Institute of Medical Sciences, New Delhi.
- Prof. V. Vasudev**, University of Mysore, Mysuru.
- Prof. N.B. Ramachandra**, University of Mysore, Mysuru.
- Prof. S.V. Krishnamurthy**, Kuvempu University, Shivamogga, Karnataka.
- Prof. M. Nasser**, Pro-Vice-Chancellor, University of Calicut, Kerala.
- Dr. Subeer S. Majumdar**, Director General, Gujarat Biotechnology University, Gujarat.
- Dr. Sagar Sengupta**, Director, National Institute of Biomedical Genomics, West Bengal.
- Dr. Jayarama S Kadandale**, Director, Centre for Human Genetics, Bengaluru.
- Dr. B.S. Satish Rao**, Director, Manipal School of Life Sciences, MAHE, Manipal.
- Dr. K.S. Sreepada**, Senior Professor in Zoology, Karnataka, Mangalore University, Konaje.

## Organising Committee

- Chief-Patron** : **Prof. K.C. Baiju,**  
Hon'ble Vice-Chancellor(i/c), Central University of Kerala, Kasaragod.
- Patron** : **Prof. K. Arunkumar,** Dean, School of Biological Sciences, CU-Kerala
- Chairman** : **Prof. K.V. Rajendran,** Department of Zoology, CU-Kerala
- Convener** : **Dr. Indrashis Bhattacharya,** Head, Department of Zoology, CU-Kerala
- Organizing Secretary** : **Dr. H.P. Gurushankara,** Department of Zoology, CU-Kerala
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  - Dr. P.A. Sinu**
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- } Department of  
Zoology, CU-Kerala
- Prof. Dennis Thomas T.**
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- } Department of  
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  - Dr. Thejaswini Venkatesh**
  - Dr. S. Lokeswara Bala Krishna**
  - Dr. Ashok Kumar Madikonda**
- } Department of Biochemistry and  
Molecular Biology, CU-Kerala

## Confirmed Speakers



**Prof. R.C. Sobti,**  
Panjab University, India



**Prof. Narinder K. Mehra,**  
All India Institute of Medical  
Sciences, New Delhi.



**Prof. Iddya Karunasagar,**  
Nitte University, India



**Prof. Siegfried Knasmüller,**  
Medical University of Vienna,  
Austria



**Prof. Hansruedi Glatt,**  
German Institute of Human  
Nutrition, Germany



**Dr. João Paulo Teixeira,**  
University of Porto, Portugal



**Dr. Goran Gajski,**  
Institute for Medical Research  
and Occupational Health,  
Croatia



**Prof. Klaus Holzmann,**  
Graz University of  
Technology, Austria



**Prof. Wilner Martínez-López,**  
Clemente Estable Biological  
Research Institute, URUGUAY



**Prof. Manoor Prakash Hande,**  
Yong Loo Lin School of  
Medicine, NUS, Singapore



**Prof. N.B. Ramachandra,**  
University of Mysore, India



**Dr. Joana Madureira,**  
University of Porto, Portugal



**Prof. Guruprasad Kalthur,**  
Manipal University, India



**Prof. Jayarama S. Kadandale,**  
Center For Human Genetics INDIA,



**Prof. Nandjee Kumar,**  
Magadh University, India



**Prof. CKK Nair,**  
Amrita Institute of Medical  
Sciences, India



**Dr. Bani Bandana Ganguly,**  
MGM Center for Genetic  
Research & Diagnosis, India



**Prof. Roberta Bulla,**  
University of Trieste, Italy



**Prof. K.B. Sainis,**  
BARC, President, EMSI



**Prof. Michael Fenech,**  
University of South Australia



**Prof. Alok Dhawan,**  
Director, CBMR, Lucknow, UP.



**Prof. G. Umapathy**  
LaCONES, CCMB, Hyderabad



**Prof. Awadesh Jha**  
University of Plymouth UK



**Prof. Stefano Bonassi,**  
San Raffaele University, Italy



**Dr. Siby Sebastian,**  
Duke University Health  
System, USA



**Dr. V. Thirunavukkarasu**  
Bharathiar University, India



**Dr. Noemi Sandra Tirado**  
Universidad Mayor de San Andrés  
Bolivia



**Prof. Ranjitsinh Devkar**  
M S University, Baroda,  
India



**Dr. George Wultsch**  
KNAPP-AG, Austria



**Prof. Asamanja Chattoraj**  
Kazi Nazrul University, West Bengal,  
India



**Dr. B.S. Satish Rao,**  
Manipal School of Life  
Sciences, India



**Dr. A.K. Murugan,**  
King Faisal Specialist Hospital  
& Research Centre, Riyadh



**Dr. Puthen Veetil Jithesh,**  
Hamad Bin Khalifa University,  
Qatar



**Prof. Radha Saraswathy,**  
Vellore Institute of Technology  
(VIT), India



**Dr. Ravi Ram Kristipati,**  
CSIR-Indian Institute of  
Toxicology Research, India



**Prof. Sudin Bhattacharya,**  
Chittaranjan National Cancer  
Institute, India



**Prof. Helga Stopper,**  
University of Wuerzburg,  
Germany



**Prof. Upendra Nongthomba,**  
Indian Institute of Science,  
Bangalore, India



**Prof. Santosh R Kanade**  
University of Hyderabad



**Dr. Shamprasad Varija Raghu,**  
Yenepoya University, India



**Prof. Subha Bhasu,**  
University Malaya, Malaysia



**Prof. Satheesh C Raghavan,**  
Indian Institute of Science,  
Bangalore, India



**Dr. L. Divya,**  
University of Calicut, India



**Sri. Kollegala Sharma,**  
CSIR-Central Food  
Technological Research  
Institute, India



**Dr. Indranil,**  
Central University of Tamil  
Nadu, India



**Dr. Anurag Sharma,**  
Nitte University, India



**Dr. Gaurav Sharma,**  
PGIMER, India



**Prof. Rajendra Prasad,**  
Annamalai University, India



**Dr Swaminathan Sethu,**  
Narayana Netralaya  
Foundation, India



**Prof. Chandni C. Mondal**  
Central University of Rajasthan  
India



**Prof. Medha R,**  
JIPMER, India



**Prof. M. Rasool,**  
Vellore Institute of Technology  
(VIT), India



**Prof. M.S. Mustak**  
Mangalore University  
India



**Prof Michael Kundi,**  
Medical University of Vienna,  
Austria

## Scope and objectives

The conference is an amalgamation of researchers from diverse areas, including biology, chemistry, pharmacy, medicine, and those engaged in public health and biodiversity conservation. This conference includes keynote, plenary, invited lectures, oral and poster presentations, and socialization. The meeting will bring the world's most eminent and enthusiastic researchers on the same page to discuss and explore the latest developments on the conference theme.

**The conference is intended to meet the following objectives:**

- Knowledge sharing and networking among researchers working in the fields of environment and genetics
- Facilitating collaborations among different institutions/universities within India and overseas
- To train the younger generation on advanced techniques in environmental mutagenesis and toxicology

## Major tracks of the conference

- Monitoring and detection of environmental mutagens
- Environmental mutagenesis and diseases
- Ecotoxicology and genotoxicology
- DNA damage, free radicals, antioxidants, and repair
- Molecular mutagenesis and carcinogenesis
- Industrial and environmental pollutants and their remediation
- Food-borne mutagens and safety
- Alternatives to and refinement of the use of animals for mutagenesis studies
- Molecular signatures for exposure and/or effect of environmental chemicals
- High-throughput approaches in mutagenesis and carcinogenesis
- Bioprospecting/bio-discovery and risk assessment
- Biodiversity and Conservation
- Environmental regulatory/policies/legislation
- Environmental epigenetics
- Gene-environment interaction
- Pharmacogenomics/Public health/genetic susceptibility
- Toxicogenomics and proteomics
- Endocrine Disrupting Chemicals (EDCs), Human reproductive Health & Wildlife

**Submission of Abstracts:** Abstracts are invited for the oral and poster presentation categories. The category in which the contributions are made has to be indicated in the registration form. Acceptance of the submissions for presentation will be communicated to the authors.

## Guidelines for the Abstract Submission

The abstract must be written in English.

Title: Font Times New Roman, 14, Bold.

Authors: Font Times New Roman, 12, Bold. The name of the presenting author should be underlined.

Text: The abstract (Times New Roman, Font 12, regular) should be concise and have an accurate summary, a maximum of 250 words. Using abbreviations should be avoided, and the references should not be cited in the abstract. The abstract must state the purpose of the study, details of the participants, measurements, methods, main findings, and conclusion. Key words: 5-6. Highlights: 4 bullet points (each <100 characters).

Abstracts should be submitted online (<https://forms.gle/Ga3FWk518cYVbsDs5>) in Microsoft Word format. The last date for the submission of the abstract is 15 December 2023.

**Best Platform/Poster Presentation Awards:** Researchers of age below 35 years are eligible to participate in the oral presentation competition. There is no age limit for poster presentations. The abstract may have multiple authors, but only the presenting author will be allowed for the competition. Only selected abstracts will be allowed for oral/poster presentations. Candidates will be given 7 minutes for their presentation, followed by 3 minutes of discussion/queries. Posters will be fit into poster boards with portrait orientation size 3 ft (length) X 3.5ft (height). Please do not increase the size or change the orientation of the poster. presentations will be awarded certificates & prizes.

**Best Published Paper Award:** The award will recognize outstanding contributions to Environmental Mutagenesis. The application form and the guidelines can be downloaded from the conference website (<https://www.cukerala.ac.in/EMS/Downloads.html>). The last date for receiving the application form is 25 December 2023.

**How to Register :** Interested Researchers shall register and submit abstracts online

(<https://forms.gle/y44fGPcdMnnQJGEEA>) on or before 15 December 2023.

STRICTLY NO SPOT REGISTRATION IS ALLOWED.

Registration fee	Indian Nationals (INR)		Other Country (USD)	
	Conference	Workshop	Conference	Workshop
EMSI Life Member	3000	2000	200	100
Non-EMSI Member (Faculty/Scientist/Post Doc)	4000	3000	250	150
Doctoral Researcher	2000	1000	200	50
Students	1000	500	100	50
Industrial experts	5000	3000	300	200

(Registration fee includes the Registration kit, entry to scientific sessions, lunch at the conference dates, and two dinners)

**Mode of Payment :** The registration fee shall be paid through Demand Draft (DD)/electronic transfer to the below-mentioned Bank account. The DD should be drawn in favour of the "Conference on Environmental Mutagenesis," payable at Canara Bank, Periya, Kasaragod.

**Account Number :** 110137492683

**Account Name :** Conference on Environmental Mutagenesis

**Bank :** Canara Bank, Central University of Kerala,  
Periya, Kasaragod-671 320

**IFSC Code :** CNRB0006794

**MICR Code :** 671015054

**Swift Code :** CNRBINBBFD



**Accommodation:** Accommodation for the delegates will be arranged in the luxury and budget hotels in Kanhangad and Kasaragod, Kerala, on request to the conference secretariat. Delegates can pay their accommodation fee during check-in or check-out time.

**Weather:** During January, the weather is warm (21 °C-33 °C) in Kasaragod.

**How to reach the conference venue:**

**Nearest Airports:** Mangalore (IXE) (80 km), Kannur (CNN) (80 km), Kozhikode (CCJ) (210 km), Kochi (COK) (360 km), Bangalore (BLR) (475 km), Trivandrum (TRV) (574 km).

**Nearest Bus Terminals:** Periya (1 km), Kanhangad (12 km), Kasaragod (20 km).

**Nearest Railway Stations:** Kanhangad (KZE) (12 km), Kasaragod (KGQ) (22 km).

**Tourist Attraction:** Kasaragod is the northernmost district of Kerala which is famous for its linguistic culture and is also known as "Sapthabhasha Sangamabhoomi," as seven major languages are spoken here. It is also home to some exquisite folk arts and rituals of Kerala. The 300-year-old Bekal Fort (15km) is one of the main attractions of Kasaragod. Other important places to visit are Ranipuram Peak (60 km), Valiyaparamba backwaters and houseboat (30 km), sacred forests (40 km), sandy beach (10 km), Swami Nithyananda Ashram (14 km), Ananda Ashram (10 km), Parassinikkadavu Snake Park (65 km), Ananthapura Lake Temple (30 km), Madhur Temple (30 km), Malik Deenar Mosque (35 km), Malla Durgaparameshwari temple (25km).

**Important Dates to Remember:**

Registration starting : 14 September, 2023

Last date for abstract submission : 15 December, 2023

Acknowledgment of acceptance : 25 December, 2023

Pre-conference workshop : 28 January, 2024

Conference : 29-31 January, 2024



**All Are Invited to Kasaragod,  
"Sapthabhasha Sangamabhoomi"  
for EMSI Meeting.**

**For registration/abstract submission visit:** <https://www.cukerala.ac.in/EMS/Home.html>

**For More Information Contact:** **Dr. H.P. Gurushankara,**  
**Organizing Secretary, Dept. of Zoology,**  
**Central University of Kerala,**  
**Tejaswini Hills, Periya, Kasaragod – 671 320, INDIA**  
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