



Annamalainagar – 608 002

(A State University Accredited with “A⁺” Grade by NAAC)

**47th Annual Meeting & Golden Jubilee Year of
Environmental Mutagen Society of India
(EMSI-2025)**



**International Conference on
Environmental and Molecular Mutagenesis:
Genomic Integrity and Implications to Human Health
January 29-31, 2025**

**Pre-Conference Workshop on
Methods in
Environmental Mutagenesis & Carcinogenesis
January 28, 2025**

Organized by

**DEPARTMENT OF BIOCHEMISTRY & BIOTECHNOLOGY
ANNAMALAI UNIVERSITY
ANNAMALAI NAGAR- 608002
TAMILNADU, INDIA
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ABOUT THE ENVIRONMENTAL MUTAGEN SOCIETY OF INDIA (EMSI)

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 and Molecular Mutagenesis: Genomic Integrity And Implications to Human Health" as well as **"47th Annual Meeting & Golden Jubilee Year of Environmental Mutagen Society of India (EMSI)"** to be convened at Annamalai University, Chidambaram, Tamil Nadu, India from January 29-31, 2025. EMSI founded in 1975, promotes scientific education and research in mutagenesis. The Society is an affiliate of the International Association of Environmental Mutagenesis & Genomics Society (IAEMGS) 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. The Society is completing 50 years in 2025; hence, this conference will celebrate the 'Golden Jubilee' of the Society with a special emphasis on human health.

The Golden Jubilee Year of EMSI is looking forward to a grand scientific feast with deliberation by renowned experts in the field of genomics, mutagenesis and carcinogenesis, and an interactive participation by experts in the field. The target is to organize satellite symposia in different universities/institutes to discuss environmental impact on human health and modalities of its mitigation. Besides scientific forums, outreach programs would be aimed to make common people aware about their habits and habitats and its implication on human health through gene-environment interaction. The EMSI sow the seeds of awareness of environmental health, and motivate people to practice curbing the environmental burden of man-made pollution by following the concept of 'Someday is Today'. 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.

Environmental mutagenesis can influence the expression and function of drug efflux transporters including P-glycoprotein, a protein involved in drug resistance. Mutations induced by environmental factors can lead to changes in P-gp activity, causing increased efflux of drugs from cells and contributing to drug resistance in various organisms, including humans. Understanding these interactions is crucial for developing strategies to mitigate drug resistance and manage environmental health risks.

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 play 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 living organisms. 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. This international conference aims to understand and mitigate the impacts of environmental exposures on the genome to protect human health through research and development programs. Fields like molecular biology, biochemistry, genetics, genomics, proteomics, and bioinformatics in cancer research, immunology, toxicology, and epidemiology will be discussed. Topics encompass DNA damage, mutagenesis, DNA repair, genetic and epigenetic factors, and public/environmental health. Further, the deliberations include recent cutting-edge technologies in genomics, proteomics, bioinformatics machine learning, and artificial intelligence related to the fields of genetic toxicology and environmental mutagenesis to open new research areas in this field and to achieve breakthroughs in environmental mutagen research. This deliberation allows the invitees and participants from various disciplines to showcase their recent research explorations and widen the “gene and environment” horizon in this common multidisciplinary interactive platform. We invite researchers, industrialists, and policymakers who are working in the fields of biology, chemistry, medicine, and engineering about environmental mutagenesis and public health.

ABOUT THE ANNAMALAI UNIVERSITY

Annamalai University, one of the largest Universities in terms of disciplinary diversity and student enrolment, is also one of the oldest universities in South India. Sprawling over a vast and sylvan campus of 1000 acres, the University houses about 50 Departments of Study under Eight Faculties. Founded by the legendary philanthropist and farsighted visionary, Rajah Sir Annamalai Chettiar in 1929. Annamalai University is playing a key role in social, cultural, and economic uplift of the people across the rungs of society for nearly a century. Annamalainagar, the University Town, is located just to the east of Chidambaram, the Abode of the Cosmic Dancer, Lord Nataraja.

To promote Tamil Language and Literature, Rajah Sir S. RM. Annamalai Chettiar founded Sri Minakshi College, Sri Minakshi Tamil College and Sri Minakshi Sanskrit College at Chidambaram in the early 1920s. The Annamalai University came into existence on 01.01.1929. Annamalai University is playing incredible role in the lives of the people near and far. Until 2013, the University was governed by the Annamalai University Act, 1928. In 2013, the Annamalai University Act, 2013 (Tamil Nadu Act 20 of 2013), was passed and has come into force from September 25, 2013. The University, which remained “unitary” in status until 2021 has become “affiliating” and 81 colleges are affiliated to the Annamalai University at present. Being multi-faculty institution, Annamalai University has evolved as a time-tested system of administration to ensure the ceaseless transaction of teaching-learning, boundless expansion of research and innovation, and selfless extension of service to the society. All the programmes offered in by the Directorate of Distance education (DDE)

are approved and accredited by the Distance Education Board (DEB). The on-campus programmes are duly approved/accredited by the competent bodies such as NAAC, NBA, AICTE, NCTE, ICAR, etc. In 2022, the University is accredited with 'A+' Grade by NAAC in the fourth cycle of accreditation.

The Department of Biochemistry, Annamalai University was started in 1994. In a short period, it made rapid growth in both teaching and research. The department runs a 2-year M.Sc. in biochemistry, a 2-year M.Sc. in Biotechnology, and a 5-year integrated course in M.Sc., Biotechnology. In addition to this, it offers an M. Phil and Ph.D. program. The Biochemistry (2 Years) and Biotechnology (5 Years) courses have been updated with the inclusion of all the latest topics available and in line with UGC guidelines. To date 2018 students have been awarded M.Phil. degrees and 310 awarded Ph.D. degrees. This Department is a DST-FIST and UGC-SAP-assisted Department.

EXECUTIVE COMMITTEE OF EMSI

President	:	Dr. Bani Bandana Ganguly, MGM New Bombay Hospital, Navi Mumbai & MGM Institute of Health Sciences, Navi Mumbai, India
Vice –Presidents	:	Dr. Yasir Hasan Siddique, Aligarh Muslim University Dr. Sudin Bhattacharya, Ex-Scientist/Faculty, Chittaranjan National Cancer Institute, Kolkata
Secretary	:	Dr. Devashish Rath, Bhabha Atomic Research Centre, Mumbai
Joint Secretary	:	Dr. Satwinderjeet Kaur, Guru Nanak Dev University, Amritsar
Treasurer	:	Dr. Vinay Jain, Bhabha Atomic Research Centre, Mumbai
Members	:	Dr. Prakash Hande, National University of Singapore Dr. Radha Saraswathy, VIT, Vellore Dr. K.M. Ramkumar, SRM Institute of Science and Technology, Chennai Dr. Vishnu Shankar Sinha, Kolhan University, Jharkhand Dr. Sutapa Mukherjee, Chittaranjan National Cancer Institute, Kolkata Dr. Alok Kumar Pandey, CSIR-IITR, Lucknow Dr. Ravi Ram Kristipati, CSIR-IITR, Lucknow Dr. H. P. Gurushankara, Central University of Kerala
Co-opted member	:	Dr. N. Rajendra Prasad, Annamalai University, Tamil Nadu
Permanent invitees	:	Dr. K.B. Sainis, Ex-Director, Bio-Medical Group, BARC, Mumbai Dr. Nandjee Kumar, Ex-VC, Magadh University, Bodhgaya Dr. Birajalaxami Das, Ex-Head, LLRRS, RB&HSD, BARC, Mumbai

ORGANIZING COMMITTEE

Chief Patron	:	Prof. RM. Kathiresan, Ph. D., D. Sc., Vice-Chancellor
Patron	:	Prof. R. Singaravel, Ph. D., Registrar
Vice-Patron	:	Dr. C. Rakkappan Dean, Faculty of Science
Chair Person	:	Dr. S. Manoharan Professor and Head Department of Biochemistry & Biotechnology
Conveners	:	Dr. N. Rajendra Prasad, Professor Department of Biochemistry & Biotechnology Dr. T. Manivasagam, Assistant Professor Department of Biochemistry & Biotechnology
Members	:	Dr. P. Stanely Mainzen Prince, Associate Professor Dr. E. Balamurgan, Associate Professor Dr. K. Suresh, Associate Professor Dr. B. Raja, Associate Professor Dr. S. Mirunalini, Associate Professor Dr. S. Sivabalan, Assistant Professor Dr. P. Puglendhi, Assistant Professor Dr. P. Selvaraj, Assistant Professor Dr. L. Vannila, Assistant Professor Dr. N. Vijayakumar, Assistant Professor Dr. V. Vinothkumar, Assistant Professor Dr. M. Shenbagam, Assistant Professor Dr. C. Sankarnaryanan, Assistant Professor Tmt. E. Mehala, Assistant Programmer Dr. B. Agilan, Pondicherry University Dr. T. Radhiga, ICMR-Research Associate Dr. Priya Yadav, UGC-Kothari Postdoctoral Fellow Ms. R. Indirapriyadarshini, Ph.D. Research Scholar Mr. Pradhapsingh, Ph.D. Research Scholar Mr. Charan Singh Pawar, Ph.D. Research Scholar Mr. R. Surya, Ph.D. Research Scholar Mr. B. Sugumar, Ph.D. Research Scholar Mr. Shubham Singh, Ph.D. Research Scholar Ms. P. Subashri, Ph.D. Research Scholar Mr. B. Karankumar, Ph.D. Research Scholar Ms. Susithra, Ph.D. Research Scholar Mr. Vijaya Raja Cibi, Ph.D. Research Scholar

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 International Conference on Environmental and Molecular Mutagenesis: Genomic Integrity and Implications to Human Health is a platform for discussing the different mutagens and their impact on human health. This conference is an interdisciplinary conference where recent physical, chemical, and biological methods developed to understand the advanced techniques in environmental mutagenesis and toxicology and their impact on human health will be discussed.

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, carcinogenesis and toxicology

The major research area to be covered in the conference:

- ❖ Gene-environment interactions and their impact on human health.
- ❖ Mechanisms of resistance to environmental carcinogens and drugs.
- ❖ Epigenetic changes, genotoxic effects, and population genomics.
- ❖ Nanotoxicology: genotoxicity risks related to novel man-made nanomaterials.
- ❖ Molecular effects of environmental pollutants, chemical mutagens and pesticides.
- ❖ DNA damages, repair mechanisms in the genome instability and mutagenesis.
- ❖ Environmental carcinogenesis, cancer epidemiology, and exposure biomarkers.
- ❖ Oxidative stress, cellular signaling pathways and environmental toxicity.
- ❖ Occupational exposure, respiratory disorders, inflammation and immunosuppression
- ❖ Environmental pollutants on plant and animal health and ecotoxicology.
- ❖ Non-ionizing and ionizing radiation mediated genotoxicity, biomarkers, and radioprotection.
- ❖ Natural medicinal compounds, dietary phytochemicals and synthetic molecules for chemoprevention. Nutrigenomics in the prevention of environmental carcinogenesis.
- ❖ Synthetic small molecule inhibitors in the mitigation of environmental mutagenesis.
- ❖ Sequencing technologies, proteomics, and transcriptomics studies to assess environmental mutagenesis and cancer risk.
- ❖ Predictive algorithms, machine learning, and AI tools in the diagnosis of mutagenesis and carcinogenesis.

- ❖ New developments in genotoxicity testing of chemical agents. Technologies for assessing the hazards and risks associated with genotoxic substances.
- ❖ Guidelines, Policies and international programs on chemical safety and mutagenicity testing.

The conference will provide opportunities for the delegates to exchange their novel ideas and experiences with international experts. Thus, the conference will surely be a platform for the discussion and presentation of new advances in the area where discussion will carry on the Environmental mutagens and their role in genetic instability and their impact on Human Health. The organizing committee is confident that participants will benefit from the high-value scientific program. The conference's scientific program includes:

- ❖ Plenary lectures by eminent speakers from India and abroad
- ❖ Invited talks from senior faculty from various institutes
- ❖ Oral/Poster presentations by young researchers

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. The acceptance of the abstract for oral/poster presentation will also be intimated to the participants by email.

GUIDELINES FOR THE ABSTRACT SUBMISSION:

The abstract must be written in the English language. A structured abstract is required and it should be organized into the following four required sections: Background, Methods, Results, and Conclusion. The abstract must contain the title of the paper, name, complete mailing address, phone, fax, and email of the first author and name, affiliation, city, and state of additional authors. The abstract should be submitted as a Microsoft Word Doc file. Font: Times New Roman; Size: 12. The abstract must be a maximum of 300 words. Using abbreviations should be avoided, and the references should not be cited in the abstract. Abstracts must be submitted directly to the conference email id: **emsi.au2025@gmail.com**

AWARDS

Mutation Research, Elsevier is consented to offer the best presentation awards. The abstract for the award competition may have multiple authors, but only the presenting author will be allowed for the competition. For Candidates will be given 7 minutes for their presentation followed by 3 minutes of discussion. Posters will be fit onto the poster boards with poster orientation size 3ft × 4ft (length × height). Please do not increase the size or change the orientation of the poster. The awards are decided at the end of the conference and each winner will receive prizes with certificates of appreciation during the valedictory ceremony. **Students who intend to compete in the oral/poster presentation award category shall become members of the EMSI society. The membership form may be downloaded from <https://ems-india.org/> website.**

TRAVEL AWARDS

Travel awards will be given to selected candidates based on the merit and scientific content of their presentations.

REGISTRATION DETAILS

Interested Researchers shall register and submit abstracts online.

Registration Fee	Indian Nationals (INR)		Other Country (USD)	
	Conference	Workshop	Conference	Workshop
EMSI Life Member	2500	1500	250	150
Non-EMSI Member (Faculty/Scientist)	3500	2000	350	150
Doctoral Scholars / Postdoctoral students	2500	1000	200	100
Undergraduate/Postgraduate students	1500	500	100	50
Industrial Delegates	4500	2500	300	200

Registration fee includes food, conference abstract and kit. The registration fee does not include guest house/hostel accommodation.

MODE OF PAYMENT:

The registration fee shall be paid through Demand Draft (DD)/electronic transfer. The DD should be drawn in favour of the “**The Registrar, Annamalai University**” payable at Annamalai Nagar/Chidambaram, Tamil Nadu.

Account name	:	The Registrar, Annamalai University
Account number	:	621201159623
Bank	:	ICICI Bank, Annamalai Nagar
IFSC code	:	ICIC0006212

ACCOMMODATION:

Upon prior requests, accommodation will be arranged in the University guest house/hostels.

Please visit the Annamalai University Guest House webpage link for more information.
<https://annamalaiuniversity.ac.in/guesthouse.php>

Type of Room	Rent Per Day*
A/C Suite	Rs. 2,500/-
A/C with T.V	Rs. 1,500/-
A/C	Rs. 1,200/-
Non A/C	Rs. 600/-

*Sharing basis available

HOW TO REACH THE CONFERENCE VENUE:

Nearest Airports: Tiruchirappalli (156 km), Chennai (208 km)

Nearest Railway station: Chidambaram (1.5 km)

Nearest Bus Terminals: Chidambaram (1.5 km), Pondicherry (64 km)

Outstation participants have to make their transportation arrangements. Annamalai University is located in Annamalai Nagar, Chidambaram, Tamil Nadu. Here are a few ways to reach there: **By Train:** Trains are available from Chennai Egmore to Chidambaram. The journey takes approximately 3 hours and 58 minutes. Tickets cost between Rs. 167 to Rs. 9,700 (\$2 and \$111). **By Bus:** Tamil Nadu State Transport Corporation operates SETC buses from Chennai Puratchi Thalaivar Dr. M.G.R. Bus Terminus and Kilampakkam bus terminus to Chidambaram [INSTC](#). The bus journey takes about 5 - 6 hours with ticket prices ranging from Rs. 250 to Rs. 1160 (\$3 to \$14). **By Taxi or Car:** Driving from Chennai to Annamalai University covers a distance of approximately 149.1 miles (about 239 kilometers) and takes around 3 hours and 25 minutes. The estimated cost is Rs. 5,000 to Rs. 6,650 (\$60 to \$80) by taxi.

WEATHER: The weather condition in Chidambaram during January is slightly warm (22 °C-32 °C).

TOURIST ATTRACTIONS: Chidambaram is all about relishing nature's beauty and soaking up the spiritual ambiance. A beautiful temple town in the Cuddalore District of Tamil Nadu, Chidambaram is famous for housing the marvelous and spectacular Lord Nataraja Temple. It has been ruled by several dynasties over time namely Cholas, Pandyas, Vijayanagar rulers, Marathas, and the British. Due to cultural influences, it boasts of a rich heritage and traditions. Apart from its authentic history, the town is a slice of paradise for nature lovers and bird watchers. Pichavaram backwaters are one of the many highlights of this region. Pondicherry is another tourist attraction which is a quiet little town on the southern coast. The town has quaint colonial heritage buildings, a spiritual scene, and beautiful beaches.



Thillai Nataraja Temple, Chidambaram (2 km)



Pichavaram Mangrove forest (13 km)



Gangaikonda Cholapuram Temple (43 km)



Promenade Beach, Pondicherry (65 km)



Auroville, Pondicherry (76 km)



Brihadeeswarar Temple (124 km)



Ranganathaswamy temple, Trichy (145 km)



Shore Temple, Mahabalipuram (160 km)



Yercaud (201 km)



Kodaikanal (346 km)



Ooty (391 km)

For More Information:

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Convener, EMSI - 2025
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Email: emsi.au2025@gmail.com; Phone: +91 9842305384



ANNAMALAI UNIVERSITY

Annamalainagar – 608 002, Tamil Nadu, India

REGISTRATION FORM

INTERNATIONAL CONFERENCE ON ENVIRONMENTAL AND MOLECULAR MUTAGENESIS: GENOMIC INTEGRITY AND IMPLICATIONS TO HUMAN HEALTH

January 29-31, 2025

Name (in Block Letters) :
Designation :
Organization :
Address of Communication :
Phone :
E-mail :
Presentation mode : Oral/Poster
Participant as Delegate/Author/Co-Author :

Details of Demand Draft (Drawn in favor of “**The Registrar, Annamalai University**” payable at Annamalai Nagar.

For Online payment mode **The Registrar, Annamalai University, Account number 621201159623, ICICI Bank, Annamalai Nagar, IFSC: ICIC0006212**

Bank Details

Name :
Branch :
Date :
DD No. :

The registration form, hard copy of the abstract with Demand Draft should be posted to the Convener, EMSI-2025

Participants are requested to fill out the Google form by using the link:

<https://forms.gle/ZBTdFGdSbkQyHQDk6>



ANNAMALAI UNIVERSITY

Annamalainagar – 608 002, Tamil Nadu, India

REGISTRATION FORM

**PRE-CONFERENCE WORKSHOP ON
METHODS IN
ENVIRONMENTAL MUTAGENESIS & CARCINOGENESIS
JANUARY 28, 2025**

Annamalai University, Tamil Nadu, India

January 28, 2025

Name (in Block Letters) :

Designation :

Organization :

Address of Communication :

Phone :

E-mail :

Details of Demand Draft (Drawn in favor of **“The Registrar, Annamalai University” payable at Annamalai Nagar.**

For Online payment mode **The Registrar, Annamalai University, Account number 621201159623, ICICI Bank, Annamalai Nagar, IFSC: ICIC0006212**

Bank Details

Name :

Branch :

Date :

DD No. :

The registration form, hard copy of the abstract with Demand Draft should be posted to the Convener, EMSI-2025:

Participants are requested to fill out the Google form by using the link:

<https://forms.gle/VvmWYZWfETdWXrP26>

Template of the Abstract

Title of abstract (Times New Roman 14pt, Bold, Center)

A.B. Author¹ and C.D. Author² (13 pt, Times New Roman, bold, center, presenting author's name underlined)

¹*Replace this text with author's affiliations (use complete addresses) 11Pt, Italics, Times New Roman, center*

²*If more than one affiliation is needed, they should be indicated by superscript letters, ^{1,2,3}, etc. as shown above. **Presenting author's name should be underlined***

**E-mail: provide the presenting author's email ID*

Abstract body should appear here (12 pt, Times New Roman, both sides justified, line spacing should be multiple at 1.15). The abstract body should have to be a maximum of 300 words. No figures and references. Do not submit the PDF/image format of an abstract. The abstract should be structured as:

Introduction:

Materials and Methods:

Results:

Conclusions:

Important note:

Abstracts should be prepared according to prescribed guidelines. The submitted abstract will be accepted after internal review.

Oral presentations would be selected from the abstracts submitted under the oral/poster category by a Committee and the same would be intimated via email. The abstracts not selected for oral presentation would be converted for poster presentation. Acceptance of these abstracts will be sent for oral/poster presentation.

Students who intend to compete in the oral/poster presentation award category shall become members of the EMSI society. The membership form may be downloaded from <https://ems-india.org/> website.

Conference Venue: Tech Park, 4th Floor Conference Hall



Administrative Building, Annamalai University



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JANUARY 28, 2025**

Exhibit Opportunities

Particulars	Amount (Rs.)
Scientific Session Sponsorship	1,00,000
Exhibition space at the conference venue for four days	1,00,000
Full-page advertisement: Company's name and logo in the abstract volume book/proceedings and at the conference venue (Back outer cover)	1,00,000
Full-page advertisement: Company's name and logo in the abstract volume book/proceedings and at the conference venue (Back inner cover/ Front inner cover)	60,000
Half-page advertisement: Company's name and logo in the abstract volume book/proceedings and at the conference venue	30,000
Company advertisement brochures , etc. to be inserted into the conference bags and provided to every registrant.	30,000

Contact details:

**Dr. N. Rajendra Prasad, Convener-EMSI 2025,
Department of Biochemistry and Biotechnology, Annamalai University,
Annamalainagar - 608 002, Tamil Nadu, India
Email: emsi2025.au@gmail.com;
Phone: +91-9842305384**