



**icmr**  
INDIAN COUNCIL OF  
MEDICAL RESEARCH

**NIREH**  
NATIONAL INSTITUTE FOR RESEARCH  
IN ENVIRONMENTAL HEALTH

## **ICMR - National Institute for Research in Environmental Health Bhopal Bypass Road, Bhauri, Bhopal - 462 030 (MP), India**

### **Summer Internship Programme in Environmental Epigenetics (15<sup>th</sup> to 30<sup>th</sup> June 2023)**

The Summer Internship Programme in Environmental Epigenetics is a fully residential two weeks long hands-on training course offered by ICMR-NIREH, Bhopal. Participants of this programme will experience the excitement of working in a unique academic ambience apt for cutting-edge scientific discourse. During this programme greater emphasis will be laid on the fundamental wet-lab tools and techniques relevant to environmental epigenetics.

**Course Content:** Basic and advanced techniques pertaining to the field of environmental epigenetics shall be covered.

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|---|--|
| 1) Isolation of DNA, RNA & Proteins   | 10) Methylation-Specific PCR   |
| 2) PCR and Reverse Transcriptase PCR  | 11) Histone Methylation Arrays   |
| 3) Agarose Gel Electrophoresis  | 12) MicroRNA Characterization  |
| 4) Real Time PCR  | 13) lncRNA Isolation & Identification  |
| 5) Multiplex RT-RT PCR  | 14) RNA Methylation Analysis   |
| 6) SDS-PAGE & Western Blot Analysis   | 15) mtDNA Methylation Analysis   |
| 7) Double Sandwich ELISA  | 16) Multi-photon Image Analysis  |
| 8) Isolation & Characterization of Mitochondrial (mt) DNA and mtDNA Mutation Analysis | 17) Immune-Subset Enumeration  |
| 9) Mitochondrial ISR Analysis   | 18) Isolation and Characterization of Circulating Epigenomic Signatures and Point-of-Care Detection Assays |

**Eligibility:** Students pursuing graduate (B.Tech.) and post-graduate courses (M.Sc/M.Tech.) in biological sciences are encouraged to apply.

**Seats:** Only **25** students will be admitted in this course.

**Application Procedure:** Applications on prescribed format (specifying e-mail id and mobile contact number) along with self-attested copies of mark-sheets and degree certificates must reach through e-mail to the "**Course Coordinator, ICMR - National Institute for Research in Environmental Health (NIREH), Bypass Road, Bhauri, Bhopal - 462 030 (MP), India**" on or before **31<sup>st</sup> May, 2023**.

**Selection:** Procedure of screening and selection will be based upon academic credentials only. The list of selected candidates will be posted at institute's website on **2<sup>nd</sup> June, 2023**.

**Fees:** Registration fee for this fully residential course is **Rs. 15000/=** only.

**FOR APPLICATION, PLEASE USE THE PRESCRIBED FORMAT AND SEND THROUGH E-MAIL ONLY**

**Application Form**  
**Summer Internship Programme in Environmental Epigenetics**  
**(15<sup>th</sup> to 30<sup>th</sup> June 2023)**

Name:

Age:

Sex:

Academic Qualifications (attach copies of mark sheets/certificates):

Paste your recent  
coloured  
self-attested  
photograph here

| S. No. | Name of Exam.                | Board/College/Univ. | Year | Division | % / CGPA obtained |
|--------|------------------------------|---------------------|------|----------|-------------------|
| 01     | HSC (Xth)                    |                     |      |          |                   |
| 02     | HSSC (10+2)                  |                     |      |          |                   |
| 03     | B Sc/B Tech/<br>B Pharm (UG) |                     |      |          |                   |
| 04     | M Sc/M Tech/<br>M Pharm (PG) |                     |      |          |                   |

Address for Correspondence:

E-mail id:

Mobile No.:

(Signature of the Applicant with Date)

***Please send your application only through E-MAIL to:***

**COURSE COORDINATOR - SIPEE 2023**  
**Division of Environmental Biotechnology, Genetics & Molecular Biology**  
**ICMR-National Institute for Research in Environmental Health (NIREH)**  
**Bypass Road, Bhauri, Bhopal - 462 030 (MP), India**

**[academics.nireh@gmail.com](mailto:academics.nireh@gmail.com)**

**Application Deadline: 31<sup>st</sup> May 2023**