



Inter-University Accelerator Centre, New Delhi
& Society for Radiation Research, India



OCT 30 – NOV 01, 2026 · IUAC, NEW DELHI

(Pre-conference day: October 29, 2026)

आईसीआरआर-एचएचई 2026 ICRR-HHE 2026

SCIENTIFIC PROGRAM

विकिरण अनुसंधान पर अंतर्राष्ट्रीय सम्मेलन: मानव
स्वास्थ्य और पर्यावरण पर प्रभाव

एवं

सोसाइटी फॉर रेडिएशन रिसर्च (एसआरआर) की 5वीं द्विवार्षिक बैठक

International Conference on Radiation
Research: Impact on Human Health and
Environment

&

The 5th Biennial Meeting of the Society for
Radiation Research (SRR)

VENUE

MAHARISHI KANAD AUDITORIUM

Inter-University Accelerator Centre, New Delhi

Conference Venue

Maharishi Kanad Auditorium

Inter-University Accelerator Centre

Aruna Asaf Ali Marg, New Delhi – 110067, India

PRE-CONFERENCE DAY

October 29, 2026 · Thursday

4:30–6:30 PM **REGISTRATION**

6:30–7:30 **MEET & GREET with TEA/COFFEE**

7:30–8:00 **Pre-conference Evening Lecture Session**

Chair: A. C. Pandey, Director, Inter-University Accelerator Centre, New Delhi

Talk: Radiation Safety for a Viksit Bharat: De-risking India's 100 GW Nuclear Strategy

D. K. Aswal, *National Disaster Management Authority, New Delhi and Former Director, Health, Safety and Environment Group, BARC, Mumbai*

8:10 PM **DINNER**

DAY 1

October 30, 2026 · Friday

8:00–9:00 AM REGISTRATION**9:00–9:30 MEET & GREET****9:30–10:00 Session-I: SRR AR Gopal Ayengar Oration Lecture**

Chair: Dr K. P. Mishra, Founder President, SRR, Former Head, RB&HSD, BARC and Ex-VC, NGBU, Prayagraj

SL-1: Next-generation approaches for low dose and/or low dose rate radiation effects in terms of mutation and cell survival

Y. Matsumoto, *Institute of Integrated Research, Institute of Science, Tokyo, Japan*

10:00–11:00 INAUGURATION CEREMONY**11:00–11:30 SRR Life Time Achievement Award Ceremony****11:30–12:00 GROUP PHOTO and HIGH TEA****12:00–1:10 Session-II: DNA Damage and Repair**

Chair: Vijay K Singh, Uniformed Services University of the Health Sciences, Bethesda, MD, USA & Hans Crezee, University of Amsterdam, The Netherlands

12:00–12:30 PL-1: Repair of DNA double strand breaks in higher eukaryotes: Parameters determining pathway choice
George Illiakis, *Division of Experimental Radiation Oncology, University Clinics Essen, Essen, Germany*

12:30–12:50 IL-1: Research on the Effects of Radiation on Neural Development and the Molecular Mechanisms of DNA Repair
Mikio Shimada, *Department of Molecular Biosciences, Radiation Effects Research Foundation, Japan*

12:50–1:10 IL-2: A non-canonical role of a DNA helicase protein in regulation of mitochondrial homeostasis through PINK1-PARKIN signaling in cancer in response to radiation
B. S. Patro, *Bio-Organic Division, Bhabha Atomic Research Centre, Mumbai*

1:10–2:30 LUNCH BREAK

2:30–4:40 Session-III: Radiation Countermeasures and Nuclear Medicine

Chair: M. Tomita, CRIEPI, Chiba, Japan & B. S. Satish Rao, MAHE, Manipal

2:30–3:00 PL-2: RadioDefender: An Alendronate-Peptide-Amifostine Conjugate as a Novel Radiation Countermeasure
Vijay K Singh, *Uniformed Services University of the Health Sciences, Bethesda, MD, USA*

3:00–3:20 IL-3: New Dimensions & Developments in Radionuclide Theranostics
Sandip Basu, *Radiation Medicine Centre, Bhabha Atomic Research Centre, TMC Annexe, Mumbai, India*

3:20–3:40 IL-4: Displacing Keap1, Activating Nrf2: A Molecular and Cellular Case for Ferulic Acid as a Radioprotector
Tamizh Selvan G, *NITTE, KSHEMA, Central Research Laboratory, Mangalore, India*

3:40–4:00 IL-5: The Gut Microbiome as a Modifiable Determinant of Normal Tissue Radiation Response
Kamlesh D. Mumbrekar, *Manipal School of Life Sciences, MAHE, Manipal, India*

4:00–4:10 Technical Presentation by M/s KUBTEC and M/s LabIndia Technologies, Mumbai

4:10–4:30 TEA/COFFEE BREAK

4:30–6:30 Session-IV: Tumor Radiobiology for Radiotherapy

Chair: Rita Mukhopadhyaya, Ex-BARC, Mumbai, India & Y. Matsumoto, Institute of Integrated Research, Institute of Science, Tokyo, Japan

4:30–4:50 IL-6: Hypoxia-the Hidden Driver of Cancer Genome Instability
H. Harada, *Laboratory of Cancer Cell Biology, Graduate School of Biostudies, Kyoto University, Japan*

-
- 4:50–5:10** **IL-7:** Molecular Signatures in Pancreatic Cancer and Glioblastoma: Identifying Therapeutically Relevant Vulnerabilities
Sophie Dobiasch, *Department of Radiation Oncology, Technical University of Munich, Munich, Germany*
-
- 5:10–5:30** **IL-8:** Reconciling genomic stability and PARP inhibitor sensitivity: MRPS23 regulates RAD51C stability and DNA damage response signaling in breast cancer
Gopal Gopisetty, *Basavatarakam Indo-American Cancer Hospital & Research Institute, Hyderabad*
-
- 5:30–5:50** **IL-9:** Redefining Cancer Radiotherapy: Tyrosine Kinase Inhibitors as Precision Radiosensitizers
Amit Kumar, *Radiation and Cancer Biology Section, RB&HSD, Bhabha Atomic Research Centre, Mumbai*
-

6:00–7:00 **Session-V: SRR Young Scientist and SRR Best Thesis Presentation (06, 7+3 min each)**
Chair: P. Venkatachalam, SRI, Chennai, India & Kamlesh D. Mumbrekar, MAHE, Manipal, India

7:30 **DINNER**

DAY 2

October 31, 2026 · Saturday

8:00–9:00 AM REGISTRATION**9:00–9:30****Session-VI: SRR Dr B. B. Singh Memorial Lecture****Chair:** Dr Shyam Shrivastava, Former President, SRR, and Ex-TMH, Mumbai**SL-2:** Hypoxia, Hyperthermia and Repurposing of CZP: A Tale Of Quixotic Journey**Nagraj G. Huilgol**, *Former President, SRR; Nanavati Max Super Speciality Hospital, Mumbai, India***9:30–11:00****Session-VII: Radiation Risk, Translational Radiobiology and Oncology****Chair:** Nagraj G. Huilgol, Nanavati Max Super Speciality Hospital, Mumbai, India & J. K. Singh, SS Institute of Medical Science, Patna**9:30–10:00****PL-3:** UNSCEAR at 70: Independent Scientific Assessment of Ionizing Radiation Exposures, Effects and Risks**Sarah Baatout**, *UNSCEAR, Vienna International Centre, Vienna, Austria***10:00–10:20****IL-10:** Rationale and Clinical application of concurrent Hyperthermia and Radiotherapy: exploiting synergistic effects**Hans Crezee**, *Amsterdam University Medical Center, University of Amsterdam, The Netherlands***10:20–10:40****IL-11:** Multi-Layered Epigenetic Control of Ferroptosis Resistance Drives Acquired Radioresistance in Lung Adenocarcinoma**Santosh K. Sandur**, *Radiation Biology & Health Sciences Division, BARC, Mumbai, India***10:40–11:00****IL-12:** Why Does Early Menarche Increase Susceptibility to Radiogenic Breast and Endometrial Cancer? The Role of Obesity, Sex Hormones and Radiation Exposure**Prabodha K Meher**, *The Wenner-Gren Institute, Stockholm University, Sweden*

11:00–11:30 TEA/COFFEE BREAK

11:30–1:00 **Session-VIII: Particle Therapy and Molecular Radiobiology**
Chair: B. S. Patro, Bhabha Atomic Research Centre, Mumbai & Maria Rosa Beccia, Université Côte d'Azur, CNRS, Institut de Chimie de Nice, France

11:30–11:50 **IL-13:** Radiobiological modelling for cancer particle therapy
Francesca Ballarini, *University of Pavia, Physics Department, Pavia, Italy*

11:50–12:10 **IL-14:** Clinical Implementation and Medical Physics Aspects of Accelerator-Based BNCT at Shonan Kamakura General Hospital
Ryosuke Shirata, *Shonan Kamakura General Hospital, Okamoto, Kamakura, Japan*

12:10–12:30 **IL-15:** Optimizing Adaptive PULSAR Radiation Therapy
Ashish Ranjan, *University of Texas Southwestern Medical Centre, Dallas, TX, USA*

12:30–12:50 **IL-16:** Disruption of DNA Damage Response Signaling Converging on HR Impairs Ionizing Radiation induced G2 Chromosome Break Repair
Aashish Soni, *Division of Radiation Biology, University Hospital Bonn, Bonn, Germany*

12:50–1:10 **IL-17:** The paradigm shifts in radiotherapy fractionation: Clinical practice perspective
Teerthraj Verma, *Department of Radiation Oncology, King George's Medical University, Lucknow, India*

1:10–2:00 **LUNCH BREAK**

2:00–3:00 **Session-IX: Poster Presentation Session**

3:00–4:45 **Session-X: Young Investigator Presentation (7 presentations, 12+3 min each)**
Chair: Aashish Soni, University Hospital Bonn, Bonn, Germany & Ryosuke Shirata, Dept. of Radiation Oncology, SKGH, Kamakura, Japan

Chandan Kumar: Development of novel DNA aptamers for targeting cancer associated biomarkers

Murali MS Balla: Transcriptomic Profiling of Radioresistant A549 Cells Identifies a Stemness Gene Signature Predictive of Radiotherapy Response in Lung Adenocarcinoma

N. P. I. Das: Longitudinal Evaluation of Developmental Stage-Specific Responses to Low-Dose Ionizing Radiation in *Drosophila melanogaster*: Implications for the LNT Model

Neena G. Shetake: Gold and Iron oxide Nanoparticles for Precision Thermal Medicine and Improvement of Cancer Chemo-Radiotherapy

Vindhyavasini P. Pandey: An analytical study to conform the adoption of Adaptive Radiotherapy protocol using dosimetric reference level

Vipul K. Pandey: Radiation-Induced Immune Reprogramming: Dendritic Cell Maturation and Myeloid Plasticity in Antitumor Immunity

Vividha Dubey: Artificial Intelligence in Oncology: From Image Analysis to Personalized Cancer Care

4:45–5:00

TEA/COFFEE BREAK

5:00–6:30

Session-XI: Oral Presentation Session-I (OP-1 to OP-9, 7+3 min each)

Chair: Sophie Dobiasch, Dept. of Radiation Oncology, TUM, Munich, Germany & Prabodha K Meher, The Wenner-Gren Institute, Stockholm University, Sweden

6:30–7:30

SRR GBM

7:30

DINNER

DAY 3

November 1, 2026 · Sunday

9:00–11:00

Session-XII: Low Dose Research and Radioecology

Chair: R. Bilimagga, Healthcare Global Enterprises Limited, Bangalore, India & Santosh K Sandur, RB&HSD, Bhabha Atomic Research Centre, Mumbai, India

9:00–9:20

IL-18: Comparative analysis of telomere responses to gamma rays and carbon ion irradiation identifies distinct telomere maintenance mechanisms and therapeutic targets

Utpal Ghosh, *Department of Biochemistry & Biophysics, University of Kalyani, Kalyani, India*

9:20–9:40

IL-19: Chromosome aberrations in human peripheral blood lymphocytes exposed X-rays and mixed ratio of neutrons: need for biological dosimetry

V. Perumal, *Sri Ramachandra Institute of Higher Education & Research, Chennai, India*

9:40–10:00

IL-20: Emerging concepts of alpha particle radiobiology in relevance to improvement of cancer therapy

B. N. Pandey, *Radiation Biology & Health Sciences Division, BARC, Mumbai, India*

10:00–10:20

IL-21: Evaluation of differences in radiosensitivity of normal human fibroblasts under low dose-rate irradiation conditions

Masanori Tomita, *Central Research Institute of Electric Power Industry; Chiba, Japan*

10:20–10:40

IL-22: Environmental Monitoring of Radiocarbon: Challenges & Innovations

Vandana Pulhani, *EMAD, Bhabha Atomic Research Centre, Mumbai, India*

10:40–11:00

IL-23: Beyond radioactivity: how chemical speciation shapes the fate of radionuclides in living systems

Maria Rosa Beccia, *Université Côte d'Azur, CNRS, Institut de Chimie de Nice, France*

11:00–11:30

TEA/COFFEE BREAK

11:30–12:00**Keynote Lecture**

Chair: A. C. Pandey, Director, Inter-University Accelerator Centre, New Delhi

Keynote: Ionizing Radiation: A Boon for Food Security and Healthcare

P. A. Hassan, *Director, Bio-Science Group, BARC, Mumbai*

12:00–12:20

IL-24: Radiobiology research at the Singapore Nuclear Research and Safety Institute

Christelle Chua, *Singapore Nuclear Research and Safety Institute, National University of Singapore, Singapore*

12:20–12:30

Technical Presentation by M/s General Datum Product Design Private Limited

12:30–2:10**Session-XIII: Oral Presentation Session-II (OP-10 to OP-21, 7+3 min each)**

Chair: Vandana Pulhani, EMAD, Bhabha Atomic Research Centre, Mumbai, India & Hiroshi Harada, Kyoto University, Japan

2:10–3:00**LUNCH BREAK**

3:00–4:00**Session-XIV: Medical Physics and Radiotherapy**

Chair: Utpal Ghosh, University of Kalyani, India & Mikio Shimada, Radiation Effects Research Foundation, Japan

3:00–3:20

IL-25: Skin-Rind Optimization for Reducing Acute Radiation Dermatitis in Whole Breast IMRT: A Prospective Clinical and Dosimetric study

Shaql Qamar Wani, *Sher-I-Kashmir Institute of Medical Sciences, Srinagar, J&K, India*

3:20–3:40

IL-26: Preclinical evaluation of Tumor Treating Fields with Personalized Ultra-fractionated Stereotactic Adaptive Radiotherapy (PULSAR) and an immune check point inhibitor

Debabrata Saha, *University of Texas Southwestern Medical Centre, Dallas, TX, USA*

3:40–4:00

IL-27: Relevance of EQD2 in Various Gynaecological Brachytherapy Regimes and Analysis of Tumor Control Probability

Anoop K. Srivastava, *Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India*

4:00**TEA/COFFEE BREAK****4:30****AWARD CEREMONY and VALEDICTORY FUNCTION**



ICRR-HHE 2026

Inter-University Accelerator Centre, New Delhi
Society for Radiation Research (SRR), India

SUPPORTED BY



न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Nuclear Power Corporation of India Limited



अनुसंधान नेशनल रिसर्च फाउंडेशन
ANUSANDHAN NATIONAL
RESEARCH FOUNDATION



Government of India

AERB

Atomic Energy Regulatory Board

