

SOCIETY FOR RADIATION RESEARCH (SRR)

*A Platform
for
Radiation Researchers...*

Report (2016-2017)



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About The Society

The Society for Radiation Research (SRR) is a scientific body of radiation researchers and individuals/students having interest in the area of radiation research. The SRR has been registered on December 15, 2014 in Mumbai by a group of scientists and clinicians.

Society for Radiation Research is aimed:

- (i) To promote research in the areas of radiation biology with basic and applied aspects, clinical radiation biology and oncology, radiation hormesis & low dose radiation biology, environmental radiation biology, nuclear medicine, radiation technologies, translational research, terrestrial and space radiation biology, non-ionizing radiation effects and any other relevant research areas.
- (ii) To facilitate integration and interaction of different radiation research areas.

(iii) To promote the diffusion of knowledge in these research areas through organizing meetings, conferences, workshops, awareness programs, scientific publications etc.

(iv) To promote discussion, interactions amongst scientist-public-industry and acting as liaison to communicate facts and research developments to public, government and regulatory bodies.

(v) To integrate Society with other National and International Scientific Bodies.

(vi) To encourage and promote young researchers and students to pursue research and build career in the areas of radiation and cancer research.

(vii) To promote and facilitate education of radiation sciences in National Institutes/Universities.

Governing Council (2015-2017)

FOUNDER PRESIDENT

Dr. K. P. Mishra, Ex-Head, RB&HSD, BARC, Mumbai

PRESIDENT

Dr. Nagraj Huilgol, Nanavati Hospital, Mumbai

VICE PRESIDENT

Dr. S. K. Shrivastava, TMH, Mumbai

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Dr. Jayant S. Goda, ACTREC, Navi Mumbai

Dr. P. Dongre, Mumbai University, Mumbai

Dr. R. Sarin, ACTREC, Navi Mumbai

Dr. S. Laskar, TMH, Mumbai

Dr. S. D. Sharma, BARC, Mumbai

List of SRR Activities (Feb. 2016-Dec. 2017)

	Meeting/Symposium/Seminar	Venue	Date
1.	<i>International Conference on Radiation Research and Its Impact on Human Health and Environment (ICRR-HHE 2016)</i> & 1 st biennial Meeting of Society	TSH, Bhabha Atomic Research Centre, Anushaktinagar, Mumbai	Feb. 11-13, 2016
2.	Workshop on <i>“Application of Radiation and Radio isotopes in diagnosis and therapy of Cancer”</i>	Vidyalankar Institute of technology (VIT), Mumbai	Oct.15, 2016
3.	Public lectures on Radiation <i>“Glucose Metabolism and Molecular Imaging of Cancer”</i> and <i>“Safe Nuclear Power for Human and the Environment Safety”</i>	Dept. of Zoology, SV Phule University, Pune	Dec.15 2016
4.	Public Outreach Program on <i>“Radiation and Cancer”</i> .	Annamalai University, Chidambaram, Tamilnadu	Feb. 2, 2017
5.	First <i>International School on Radiation Research (ISRR-2017)</i> , Theme: <i>Radiation Carcinogenesis: mechanisms and Experimental Models</i>	Annamalai University, Chidambaram, Tamilnadu	Feb.2-4, 2017
6.	Discussion meeting on <i>Advances in Cancer Radiotherapy and Research</i>	Chittaranjan National Cancer Institute, Kolkata	Oct. 27 2017
7.	Public Lecture on <i>“Strategies to Combat Chemo-and radio-resistance in tumor cells”</i> .	Sophia College, Mumbai	Dec.15 2017
8.	Public Lecture on <i>“Food Radiation Safety: Misconcepts and Apprehensions”</i>	Mumbai University, Kalina, Mumbai	Dec.15 2017

Society with dynamism and active encouragement for Radiation Research...

Scientifically active and expanding society...



Membership Type	Number (as on Dec. 2017)
Full	34
Associate	17
Honorary	9
Student	14

A list of members available on www.srrindia.org

A Brief Report on International Conference on Radiation Research: Impact on Human Health and Environment (ICRR-HHE 2016) and 1st Biennial Meeting of SRR held at Bhabha Atomic Research Centre (BARC), Anushakti Nagar, Mumbai during Feb. 11-13, 2016.

International Conference on Radiation Research: Impact on Human Health and Environment (ICRR-HHE 2016) and First Biennial Meeting of SRR was organized at Multi-Purpose Hall, Bhabha Atomic Research Centre (BARC), Anushakti Nagar, Mumbai during February 11-13, 2016 under the aegis of Society for Radiation Research (SRR). This meeting was attended by about 300 students, faculty members, scientists and clinicians from different colleges, institutes and hospitals in India and abroad. There were three plenary talks and 31 invited talks in addition to **AR Gopal Ayengar Memorial Oration Lecture**. In addition, there were three SRR Young Scientist Award Presentations, ten oral presentations and 180 poster presentations.



The Inaugural Session of the Conference was started with welcome address by **Dr S. Chattopadhyaya**, Associate Director, Biosciences Group followed by Presidential Address by **Dr. Nagraj Huilgol**, President, SRR, Nanavati Hospital, Mumbai. **Dr A. K. Singh**, Director, Institute of Nuclear Medicine and Allied Sciences (INMAS), DRDO, Delhi delivered Guest of Honor Lecture. **Dr S. Banerjee**, Chancellor, Homi Bhabha National Institute, Mumbai delivered the inaugural address of the Conference.



After that **Dr. K. P Mishra**, Founder President, SRR, Ex-VC, NGBU, Allahabad, Ex-Head, RB&HSD, BARC chaired the **AR Gopal Ayengar Memorial Oration Lecture Session**. AR Gopal Ayengar Memorial Oration Lecture was delivered by **Prof. M. J. Atkinson**, Director, Institute of Radiobiology, Germany. Prof. Atkinson discussed about epigenetic based paradigm changes in radiobiology.

Several eminent people delivered talks on various theme topics during the conference. The various theme topics were, Radiation Oncology and Radiotherapy: Biology to Clinics, Radiopharmaceuticals and hyperthermia in cancer radiotherapy, Radiation Signalling: DNA damage and repair, Low dose radiobiology and dosimetry, Radiation Protection and Radiation Countermeasures Approaches, Environmental radiobiology and Heavy metal radio-nuclide toxicity and decorporation.



**A Brief Report on Workshop on
“Application of Radiation and Radioisotopes in Diagnosis and Therapy of
Cancer” held on Oct. 15, 2016
at Vidyalkar Institute of technology (VIT), Mumbai.**

Biomedical Engineering Department of VIT in association with Society of Radiation Research organized a workshop on “*Application of Radiation and Radio isotopes in diagnosis and therapy of Cancer*” held on October 15, 2016 at Vidyalkar Institute of Technology (VIT), Mumbai.

Around 55 participants including Doctors Scientists, Faculty, Research students and Graduate students had attended the workshop. The inauguration started with a brief account of VIT’s activities and the importance of such workshops for the growth of students by Dr. Sudhakar Gaonkar, CEO ,VIT. A brief overview about department of Biomedical Engineering and its activities were given by Dr. Sangeeta Joshi.



The technical session started with a talk by **Dr. Amit Kumar**, Scientific Officer, RB&HSD, BARC, Mumbai on “**Radiation Effects on Biological Systems: Mechanism and Modifications**” followed by **Dr. S. K. Shrivastava**, Professor & Head, Radiation Oncology, Tata Memorial Hospital on “**Brachytherapy of Cancer: Excitements and Challenges**”. The third session was on” **Radiopharmaceuticals: An overview**” by **Dr. Grace Samuel**, Ex Head of the Radiopharmaceuticals Evaluation Section BARC. The fourth session was by **Dr. Nagaraj Huilgol**, President of the Society, a world renowned Radiation Oncologist and Chief Radiation Oncologist at Nanavati Hospital on “**External Beam Radiotherapy of Cancer**”. The last session of the workshop was by **Dr. Savita Kulkarni**, Head, Tuberculosis Immunology & Immunoassay Development Section RMC Parel, Mumbai on “**Radioimmunoassay based Diagnostic Techniques**”. The session came to a conclusion with feedbacks from the participants. A written feed back was taken from all the participants. This was followed by vote of thanks by **Dr. B.N. Pandey** of Society and **Prof. Geetha Narayanan**, Convener from VIT.

**A Brief Report on Public Lecture on
“Glucose Metabolism and Molecular Imaging of Cancer”
and “Safe Nuclear Power for Human and the Environment Safety”
held on 15th Dec. 2016
at Savitribai Phule Pune University, Pune**

Society of Radiation Research organized public lectures at Museum Hall, Department of Zoology, Savitribai Phule Research University, Pune on December 15, 2016 on its second anniversary. The first talk was delivered by **Dr.B.A. Krishna**, Director, Nuclear Medicine & PET Scan Dept., Lilavati Hospital, Mumbai on the topic “**Glucose Metabolism and Molecular Imaging of Cancer**”.

The second talk was delivered by **Dr H. S. Kushwaha**, Ex-Director, HS&EG, BARC, Mumbai on “**Safe Nuclear Power for Human and the Environment Safety**”. The talk was attended by many students and faculty of Savitribai Phule Pune University, Pune



A Brief Report on BRNS Funded Public Outreach Program Organized by Society for Radiation Research (SRR) on Feb 2, 2017 at Annamalai University, Chidambaram, Tamil Nadu.

A public outreach programme was organized by Society of Radiation Research on Feb 2, 2017 funded by BRNS on the topic “ Radiation and cancer”. Dr. V. Rangarajan of Tata Memorial Hospital, Mumbai delivered a talk on “Radiation and Cancer” on this occasion..



The outreach programme organized was given wide coverage in different English and Regional Newspapers before and after the event.

**A Brief Report on 1st International School on Radiation Research (ISRR-2017),
Department of Biotechnology and Biochemistry, Annamalai University,
Chidambaram, Tamil Nadu**

The Department of Biochemistry and Biotechnology, Annamalai University organized **First International School on Radiation Research (ISRR 2017)** themed on **Radiation Carcinogenesis** during Feb 2-4, 2017 under the aegis of Society for Radiation Research (SRR). The objective of the School was to educate and train the young researchers in the field of theoretical and practical aspects of radiation carcinogenesis. The renowned faculties from India and abroad delivered expert lectures and conducted practical sessions. There were about forty participants from various Universities and Institutes from India and abroad. Limited numbers of students/young researchers were selected based on their research interest and ongoing research activities.

The School was inaugurated on Feb. 2 by the honorable vice chancellor of Annamalai University, **Prof. Dr. S. Maninan**, who addressed gathering and highlighted the need for organizing such schools for the benefit of young researchers. Prof. Dr. S. Manian, Vice Chancellor, Annamalai University releasing Special Issue of the Journal of Radiation and Cancer Research on “Radiation Carcinogenesis and Cancer Prevention” jointly edited by Prof. George Iliakis, Dr. B.N. Pandey and Dr. N. Rajendra Prasad.



Prof. K. P. Mishra the founder President of SRR was the guest of honor during the inaugural function. During the Inaugural Session, Prof. George Ilikias, Director, Institute of Medical Radiobiology, Essen, Germany delivered the keynote lecture on DNA damage and repair with implications in cancer radiotherapy. Prof. Dindial Ramotar, University of Montreal, Canada delivered a talk on the drug uptake transporters and their potential application in cancer therapy.

Prof. Sathish C. Raghavan, Indian Institute of Science, Bangaluru, **Dr. Indranil Chattopadhyaya**, Thiruvavur University, **Dr. G. B. Maru**, ACTREC, Mumbai, **Dr. Nirmal R. Madhavan**, Annamalai University, **Dr. P. Venkatachalam**, SRM University, Chennai, **Dr. B. N. Pandey**, BARC, Mumbai, **Dr. N. Rajendra Prasad**, Annamalai University and **Dr. K. Suresh**, Annamalai University delivered their talk in their field of specialization.

On Feb 03, 2017, the School also organized an evening lecture on 'low dose radiation and cancer risk' by **Prof. K. P. Mishra**, former Head Radiation Biology and Health Sciences Division, BARC, Mumbai. **Dr. Nagraj Huilgol**, President, SRR from Nanavati Hospital, Mumbai spoke about faulty LNT model and emphasized the need for revision of existing guidelines for radiation protection. He emphasized the need for more outreach programs to remove the needless fear against radiation.



Practical sessions were carried out on gamma H2AX foci for DSBs analysis by **Dr. P. Venkatachalam**, SRU, Chennai; ROS, MMP, apoptosis and comet assay by **Dr. N. Rajendra Prasad**, Annamalai University; FISH techniques by **Dr. Sathees C Raghavan**, IISc, Bangalore and Histopathological observations by Dr. Madhavan R. Nirmal, Annamalai University.

A Brief Report on Discussion meeting on advances in cancer radiotherapy and research held on October 27, 2017 at Chittaranjan National Cancer Institute, Kolkata, West Bengal, India

The Society of Radiation Research (SRR) organized a half day seminar on "**Advances in Cancer Radiotherapy and Research**" at the Chittaranjan National Cancer Institute, Kolkata, on October 27, 2017, under the Public Outreach Program. An audience close to 60 attended the meeting and actively participated in the discussions following deliberations by the 4 speakers.

Dr Tapan Maji, Director, CNCR addressed the gathering. **Dr Rita Mukhopadhyaya** during her introductory speech explained about SRR, its formation, mandates, Governing Council members, journal publication and a road map of public outreach activities undertaken in the short span of 3 years since the inception of SRR.



The scientific deliberations began with invited speaker **Prof. (Dr.) Alope Ghosh Dastidar**, IPGMER, Kolkata, who spoke on 'Radium to Radiosurgery: An Evolution of Radio Oncology'. **Dr Palas De** of CNCRI spoke on "Genome based modelling for adjusting radiation dose (GARD)- A new dimension towards personalised Radiotherapy". **Prof. (Dr.) Chandan Dasgupta**, RG Kar Medical College & Hospital, Kolkata spoke on 'Overview of Radiotherapy in our Current Practice'. Final talk was delivered by **Dr Panda**, CNCRI, Kolkata. He spoke on 'Chemotolerant Cancer Cell'. The meeting ended with vote of thanks delivered by Dr Dilip Ray, CNCRI, Kolkata.

**A Brief Report on Public Lecture on
“Strategies to combat radio- and chemo-resistance in tumor cells” held on
December 15, 2017
at Sophia College for Women, Bhulabhai Desai Road, Mumbai**

On account of 3rd anniversary celebration, Society of Radiation Research (SRR) organized a public lecture on “**Strategies to combat radio- and chemo-resistance in tumor cells**” at **Sophia College for Women, Mumbai** on December 15, 2017, under the Public Outreach Program. Dr Rita Mukhopadhyaya, Treasurer, SRR attended the meeting on behalf of SRR Governing Council. The Public lecture was held at the Convention Centre, Sophia College for Women. **Dr Sorab Dalal** from Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), TMC, Navi Mumbai delivered the lecture. An audience close to 150 students from other departments of the College as well as from neighboring colleges and the Mumbai University as well attended the meeting and actively participated in the discussions following deliberations by the speaker.

Dr. Rita Mukhopadhyaya during her introductory speech explained about SRR, its formation, mandates, Governing Council members, journal publication and a road map of public outreach activities undertaken in the short span of 3 years since the inception of SRR. **Dr. Sorab Dalal** spoke on ‘Strategies to combat radio- and chemo-resistance in tumor cells’. The expert spoke on how well these tumour cells are little ‘evolutionary machines’ and once established how they can become eager invaders. He dwelled on the mechanisms by which the cancer cells lose its adhesion and then get ready to undergo metastasis. Dr Rita Mukhopadhyaya presented a memento and the society journal to Dr. Yasmin Khan, Vice principal of Sophia College.



**A Brief Report on public lecture on
“ Food Radiation Safety: Misconceptions and Apprehension” held on
December 15, 2017
at University of Mumbai , Mumbai**

Society of Radiation Research (SRR) organized a public lecture on “ **Food Radiation Safety: Misconceptions and Apprehension**” at **Department of Biophysics, University of Mumbai** on December 15, 2017, under the Public Outreach Program.

The lecture was attended by more than 175 students including faculties from various university departments, Colleges – Sommaya College, Vidyavihar; Guru Nanak College, Sion; UM DAE centre for excellence in basic sciences, BL Nayar Medical College, Pharmacy College, Sathe College, Vile Parle and Patker college, Goregaon etc.

The program started with formal welcome to guests followed by introductory remark by **Prof. Prabhakar Dongre**, Head, Department of Biophysics and **Prof. K. P. Mishra**, Founder, SRR and former VC, NGB University, Allahabad, who had chaired the program.

Dr. Amit Kumar, Scientific Officer, RB&HSD, BARC delivered lecture on the scientific career in the field of radiation research. Dr. K. P. Mishra before introducing Dr. S. Gautam, talked about the importance of SRR in the national and international scenario of radiation research. After Dr. K. P.Mishra’s introduction, **Dr. S. Gautam**, Scientific Officer, Food Technology Division, BARC gave the talk on “**Food Radiation Safety: Misconceptions and Apprehension**”. Dr. Gautam spoke about the role of radiation in health sector and food preservation. Dr. Gautam presented the experimental data on preservation of irradiated food, varieties of food that can be preserved for longer duration and can be safely used for eating. He stressed that irradiated food never causes adverse effect and also does not reduce the nutrition value. He also informed the audience about food irradiation plants functioning across the country and India being an exporter of irradiated food. Vote of thanks was presented by Mr. Vinod Jaiswal, Research scholar, Dept of Biophysics.

Upcoming SRR Events

	Meeting/Symposium/Seminar	Venue	Date
1.	Pre-Conference Workshop on “Basics of Radiation Biology”	University of Hyderabad, Hyderabad	Feb. 1, 2018
2.	International Conference on Radiation Research and Its Impact on Human Health and Environment (ICRR-HHE 2018) & second biennial meeting of SRR	University of Hyderabad, Hyderabad	Feb. 1-4, 2018
3.	Second International School on Radiation Research (ISRR-2019) , Theme: Radiation Induced DNA damage and Repair	*Indian Institute of Science, Bangalore	Feb., 2019 (tentative)
4.	Public Lectures		Dec.15, 2018 Dec 15, 2019
5.	5th Asian Congress of Radiation Research (ACRR-2021) and third Biennial Meeting of SRR	Bhabha Atomic Research Centre, Mumbai	Feb 2021 (tentative)

SRR’s publication Journal of Radiation and Cancer Research (JRCCR)

Journal of Radiation and Cancer Research (formerly known as Indian Journal of Radiation Research, ISSN: 0973-0168) is the Official publication of Society for Radiation Research. JRCCR is a peer reviewed journal with quarterly publication. The journal follows a double blind review process, wherein the reviewers and authors are unaware of each other’s identity. The journal does not charge for submission, processing or publication. For online submission: www.journalrcr.org

Scope of the Journal

JRCCR aims to publish original research articles, reviews, technical notes/reports, commentary, opinion related to basic and translational radiation biology (including ionizing and non-ionizing radiation); low dose radiation biology and epidemiology; radiation oncology; environmental and space radiation biology; radiopharmaceuticals and nuclear medicine; radiation technologies application for human health and environment; basic cancer biology and therapeutic modalities; physical and chemical aspects of radiation effects to biological systems.

To know more about the SRR, please visit: www.srrindia.org