



# RAMA DEVI WOMEN'S UNIVERSITY

Vidya Vihar, Bhubaneswar-751022

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## SEMINARS/CONFERENCES/WORKSHOPS/WEBINARS CONDUCTED BY DEPARTMENT OF BIOTECHNOLOGY

1. **Event:** Seminar

2. **Title of the Event:** Rosalind Franklin Seminar Series

3. **Date & Duration:** 16<sup>th</sup> December, 2024 (2:30 pm – 4 pm)

4. **Objective/Motivation of the Event:**

DNA is subjected to many endogenous and exogenous damages that impair DNA replication and proper chromosome segregation. DNA double-strand breaks (DSBs) are one of the most dangerous lesions and must be repaired to preserve chromosomal integrity. Organisms are equipped with several different, but related, repair mechanisms involving homologous recombination, including single-strand annealing, gene conversion, and break-induced replication. DNA breaks and repair are central to the functioning of cells, and their manipulation plays a significant role in cancer therapy. Cancer cells often exhibit a high rate of genetic mutations, many of which arise due to faulty DNA repair mechanisms or DNA damage. The ability of cells to repair DNA breaks is crucial in maintaining genome stability, but it also presents both a challenge and an opportunity for cancer therapy.

The seminar aims to bring together learned professionals, faculty members, research scholars and students to discuss and understand the mechanism and regulation of DNA double-strand break repair, generation of chromosomal translocation and its role in oncogenesis, and evaluation of novel small molecule inhibitors in cancer treatment. The need of the hour is understanding the role of DNA repair inhibitors in cancer. The efficacy of cancer chemotherapy and radiotherapy relies on generation of DNA damage. Since intrinsic DNA repair pathways enable cancer cells to survive by repairing these damaged lesions, inactivation of DNA repair coupled with chemotherapy and radiotherapy has a potential to enhance the effect of these therapies.

5. **Theme of the Event:** Understanding basic mechanisms of DNA repair and the therapeutic options using DNA repair inhibitors in cancer therapy.

6. **Funds Received (In Rs.):**

7. **Technical Session (Details)**

i. **No. of Technical sessions conducted:** 01

ii. **Title of the Technical sessions:** “DNA Breaks and Repair: implications in Cancer Therapy”

8. **Chairperson of the technical session:** Prof. Raj Kumar Joshi (Head, Department of Biotechnology)

9. **Resource persons (Details):**

**Dr. Sathees C Ragavan**, Professor, Department of Biochemistry, Indian Institute of Science, Bangalore

## 10. Participants Details (Indicate Numbers only)

- i. Scientists/Faculty/Members of industry: 8
- ii. Ph. D. Scholars: 15
- iii. Students: 77

## 11. Outcomes of the Event:

The 10<sup>th</sup> Rosalind Franklin series titled “DNA Breaks and Repair: Implications in Cancer Therapy” was an enlightening experience which provided information about role of G-quadruplex DNA : HOX11, one of the non-B DNA structures in the generation of chromosomal translocations in T-cell acute lymphoblastic leukaemia. Dr. Raghavan discussed his findings about the role of Recombination activating gene (RAG) as a structure-specific nuclease leading to genomic instability and cancer. The seminar highlighted homologous recombination mediated DSB repair is important for maintaining continuity of mitochondrial genome when DNA breaks are induced. The role of a small molecule inhibitor, (SCR7) in cancer therapeutics was discussed. SCR7 can abrogate nonhomologous DNA end joining, both in vitro and ex vivo in a Ligase IV dependent manner and can also be used in CRISPR Cas9 mediated precise genome editing. The characterisation findings of a novel BCL2 inhibitor, Disarib was also highlighted. At the end of the event, students were equipped with knowledge about role of DNA structure and characterization of factors responsible for generation of chromosomal translocations in various types of cancer. The event ended with concluding remarks by Prof. Raj Kumar Joshi on DNA damage response signalling pathways and targets for radiotherapy in cancer.

## 12. Recommendations (if any):

The organizing committee was very pleased with the overall execution of the event in a smooth and successful manner.

## 13. Selected Photographs : Enclosed



Dr. Sathees C Raghavan delivering the lecture on “DNA Breaks and Repair: implications in Cancer Therapy



Audience during the event



Felicitation of esteemed speaker Dr. Sathees C Ragavan by Prof. Raj Kumar Joshi, Prof. Sasmita Mohanty and Dr. Sanjay Kumar Raul.



## ATTENDANCE SHEET

Event name : ROSALIND FRANKLIN SEMINAR SERIES

Date : 16.12.24

Speaker : Sathees C Raghavan, Indian Institute of Science

Sl. No.	Name	Signature
1.	Shubhashweta Ojha (UG 3rd Year)	Shubhashweta
2.	Chandrika Sardar (UG 3rd Year)	chandrika
3.	Swayam Prabha Sarangi (UG 3 <sup>rd</sup> Year)	Swayam
4.	Anchal Jena. (UG 3rd year)	Anchal Jena.
5.	Alha Mahato (UG 3 <sup>rd</sup> year)	Alha
6.	Denika Das (UG 3rd year)	Denika
7.	Rechel Tupno (UG 3 <sup>rd</sup> year)	Rechel
8.	Sushree Sunayana Mishra (UG 3rd yr)	Sushree
9.	SAI SUKANYA MOHADATRA (UG 3 <sup>rd</sup> yr)	Sai
10.	Bideeshi Pradhan, (UG 3rd Yr)	Bideeshi
11.	Prangya Paramita Sahoo (UG 3rd Yr)	Prangya
12.	Shree Lisa Singh (UG 3rd yr)	Shree Lisa
13.	Prayanshi Pradhan (UG 3rd yr)	Prayanshi
14.	Amisha Ghadai (UG 3 <sup>rd</sup> yr)	Amisha Ghadai
15.	Jignyasarani Bagh (UG 2nd Yr)	Jignyasarani Bagh
16.	Anamika Mohanty (UG 2nd Yr)	Anamika Mohanty
17.	Anushobhini A. Pradhan (UG 2 <sup>nd</sup> Yr)	Anushobhini Anusha Pradhan.
18.	Baaby Swayamsidha (PG 1st Yr)	Baaby
19.	Padmini Sahoo (PG 1st Yr)	Padmini Sahoo
20.	Lopita Mohapatra	Lopita Mohapatra
21.	Silpi Raychowdhury (UG 2 <sup>nd</sup> Year)	Silpi Raychowdhury
22.	Souti Snigdha Sahoo (UG 2nd year)	Souti Snigdha Sahoo
23.	Sushree Debika Chahataray (UG 2nd Year)	Sushree Debika Chahataray
24.	Mousumi Patra (PG 2 <sup>nd</sup> yr)	Mousumi
25.	Kadambinee Das (PG 2 <sup>nd</sup> year)	Kadambinee Das.
26.	Deepimayee Barik (PG 2nd year)	D. Barik
27.	Shriya Bhagat (PG-2nd year)	Shriya Bhagat.
28.	Chumki Bhoi (UG 1st year)	Chumki Bhoi
29.	Vandana Sharma (UG 1st Year)	Vandana Sharma
30.	Saumya Subhadarshini (UG 1 <sup>st</sup> Year)	Saumya Subhadarshini
31.	Adya Apurva Parida (UG 1 <sup>st</sup> year)	Adya
32.	Prachee Purnamasi (UG 1 <sup>st</sup> year)	Prachee Purnamasi
33.	Nimiti Malakar (UG 1 <sup>st</sup> year)	Nimiti Malakar
34.	Jahnavi Majhi (UG 1 <sup>st</sup> Year)	Jahnavi Majhi
35.	Sania Tudu (UG 1st Year)	Sania Tudu

# ATTENDANCE SHEET

Sl. No.	Name	Signature
36.	Soumya shree Dash. (UG 1 <sup>st</sup> year)	Soumya shree Dash.
37.	shradha suman satapatny (UG 1 <sup>st</sup> year)	shradha suman satapatny
38.	Tunali Jasmine	Tunali Jasmine
39.	Shreyashree Samant (PG 1 <sup>st</sup> yr)	Shreyashree Samant
40.	Adyasha Dash (Ph 1 <sup>st</sup> year)	Adyasha Dash
41.	Shruti Swain	Shruti Swain
42.	Sambodana Patro (PG 1 <sup>st</sup> year)	Sambodana Patro
43.	Baishakhi Sahoo (PG 2 <sup>nd</sup> year)	Baishakhi Sahoo
44.	Erigtha B.P. Das (PG 2 <sup>nd</sup> year)	Erigtha B.P. Das
45.	Soumya Subhadarsini Tripathy (Ph 2 <sup>nd</sup> yr)	Soumya S. Tripathy
46.	Nikita Jainwal (PG 2 <sup>nd</sup> year)	Nikita Jainwal
47.	Priyanka Priyadarshani Soren (Ph 2 <sup>nd</sup> yr)	Priyanka - P. Soren.
48.	Purpanjali Nath (PG 2 <sup>nd</sup> year)	Purpanjali Nath
49.	Subhashree Mallik (PG 2 <sup>nd</sup> year)	Subhashree Mallik
50.	Jumeina Gethy (PG 2 <sup>nd</sup> Year)	Jumeina Gethy
51.	Aditi Pandey (UG 1 <sup>st</sup> year)	Aditi Pandey
52.	Arpita Roul (UG 1 <sup>st</sup> year)	Arpita Roul
53.	Subhasmita Behera (PG 2 <sup>nd</sup> yr)	Subhasmita Behera
54.	Diptimayee Nayak (PG 2 <sup>nd</sup> yr)	Dipti Nayak
55.	Rasmita Das (PG 2 <sup>nd</sup> yr)	Rasmita Das
56.	Samita Panda (PG 2 <sup>nd</sup> yr)	Samita Panda
57.	Smaraani Subhadarsini (Ph 2 <sup>nd</sup> yr)	Smaraani Subhadarsini
58.	Tanmaya Priyadarshini (PG 2 <sup>nd</sup> yr)	Tanmaya Priyadarshini
59.	Ronali Nayak (PG 1 <sup>st</sup> year)	Ronali Nayak
60.	Bharati Nayak (PG 1 <sup>st</sup> year)	Bharati Nayak
61.	Monalisa Hembrom (PG 1 <sup>st</sup> year)	Monalisa Hembrom
62.	Soumyashree Sahoo (PG 1 <sup>st</sup> year)	Soumyashree Sahoo
63.	Shibani Barada (PG 1 <sup>st</sup> year)	Shibani Barada
64.	Deepali Hansdah (PG 1 <sup>st</sup> year)	Deepali Hansdah
65.	Sreeraj Munda (PG 1 <sup>st</sup> year)	Sreeraj Munda
66.	Laxmiptiya Kala (PG 1 <sup>st</sup> year)	Laxmiptiya Kala
67.	Baisakhi Behera (PG 1 <sup>st</sup> year)	Baisakhi Behera
68.	Ayisha Anjum (PG 1 <sup>st</sup> year)	Ayisha Anjum
69.	Rishda Anif (Research Scholar)	Rishda Anif
70.	Alisha Nayak (PhD scholar)	Alisha Nayak
71.	Priyadarshini Padhi (PhD scholar)	Priyadarshini Padhi
72.	Pratiksha Nanda (Ph.D. Scholar)	Pratiksha Nanda
73.	Preetjyotana Das (PG 1 <sup>st</sup> year)	Preetjyotana Das
74.	Chetna Patra (PG 1 <sup>st</sup> year)	Chetna Patra
75.	Shailaja Lenka (PG 1 <sup>st</sup> year)	Shailaja Lenka



## ATTENDANCE SHEET

Sl. No.	Name	Signature
76	Archita Das (UG 1st year)	Archita Das
77	Kajal Srikant Praadhan (UG 1st year)	Kajal Praadhan
78	Spita Nayak (UG 1st year)	Spita Nayak
79	Tista Mallick (Ph.D. scholar)	Tista Mallick
80	Nitu Sahoo (Ph.D. scholar)	N. Sahoo
81	Prachi Das (Ph.D. scholar)	P. Das
82	Alaua Mohanty (Ph.D. scholar)	Alaua
83	Tamarapalli Sravya Swati (Ph.D. scholar)	Sravya Swati
84	Shubhanshu Sahoo (Ph.D. scholar)	Shubhanshu
85	Susmita Kumeri	Susmita
86	Richa Sharma	Richa
87	Sailaja Priyadarshini	Sailaja
88	Sudeshna Deif	Sudeshna
89	Shibani Jena	S Jena
90	Pyari Payal Beura	Beura
91	Jayashree Sahoo	Jyash.
92	Subhashree Samal	Samal
93	Dr. Sarayu Raul	Saru
94	Prof. S Mohanty	Mohanty
95	Prof. Raj Kumar Joshi	Raj
96	Dr. Bibhramani Bhoir	Bhoir
97	Snigdha Mohanty	Mohanty
98	Monalisa Mohanty	Mohanty
99	Swatee Saberi Upadhyay	Swatee
100	Dr. Ashak Kumar Nayak	Ashak