RAMA DEVI WOMEN'S UNIVERSITY
Vidya Vihar, Bhubaneswar-751022

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

1. **Event:** Seminar
2. **Title of the Event : Rosalind Franklin Seminar Series**
3. **Date & Duration:** 19th Sepetember,2025 (3:30 pm – 6 pm)
4. **Objective/Motivation of the Event:**

   Transient receptor potential (TRP) channels are a family of ion channels known for their role in plasma membrane signalling. However, recent studies highlight their critical involvement in regulating the structure and function of intracellular organelles, particularly mitochondria and lysosomes. These organelles are essential for cellular energy production, homeostasis, and waste clearance, with their dysfunction linked to numerous diseases.

   The seminar aims to bring together learned professionals, faculty members, research scholars and students to discuss and understand the emerging role of TRP channels in mitochondrial dynamics and lysosomal function. Specifically, it focuses on how TRP channels influence: regulate calcium signalling, oxidative stress, and mitochondrial bioenergetics, impacting processes like fission, fusion, and apoptosis. Disruption of these processes contributes to neurodegenerative diseases, cancer, and cardiovascular conditions.

5. **Theme of the Event:** Exploring the role of TRP channels in regulating organelle dynamics and their impact on mitochondria- and lysosome-related diseases.
6. **Funding Agency: NA**
7. **Funds Received (In Rs.): NA**
8. **Technical Session (Details)**
   i. **No. of Technical sessions conducted:** 01
9. **Title of the Technical sessions:** "TRP channels as regulators for sub-cellular organelle structure and functions: Importance in mitochondria and lysosome mediated pathophysiology"
10. **Chairperson of the technical session:** Prof. Raj Kumar Joshi (Head, Department of Biotechnology)
11. **Resource persons (Details):** Prof. Chandan Goswami, School of Biological Sciences, National Institute of Science Education and Research, Bhubaneswar

12. Participants Details (Indicate Numbers only)

i. **Scientists/Faculty/Members of industry: 7**

ii. **Ph. D. Scholars: 13**

iii. **Students : 89**

13. Outcomes of the Event:

The 12th Rosalind Franklin series titled "TRP channels as regulators for sub-cellular organelle structure and functions: Importance in mitochondria and lysosome mediated pathophysiology" was an enlightening experience which provided information about the significant role of the **TRPV sub-family** of ion channels, particularly TRPV3 and TRPV4, in cellular and organelle function. The TRPV group is notable for its thermo-sensitivity, with certain members, like TRPV1**,** being regulated by temperature and exhibiting "thermo-gated behaviour." Mutations in these channels can lead to channelopathies, a group of disorders caused by dysfunctional ion channel activity. Prof. Goswami referred to the **2021 Nobel Prize** awarded to **Prof. David Julius** for his pioneering work on TRPV1**,** the "Capsaicin Receptor," emphasizing the importance of TRPV channels in sensory functions and temperature sensitivity. Focusing on the lab's recent findings, Prof. Goswami shared research on the presence of TRPV4 in a subset of mitochondria and TRPV3 in lysosomes. The research demonstrated that TRPV4 regulates several mitochondrial processes, including morphology, fission-fusion dynamics, ER-mitochondrial contact points, metabolism, and mitochondrial temperature. Similarly, TRPV3 was shown to influence lysosomal functions, notably regulating lysosomal pH and Ca^{2+} levels. Prof. Goswami further suggested that these findings point to a critical involvement of TRPV4 in several channelopathies, including Charcot-Marie-Tooth disease and various forms of Skeletal Dysplasia. Additionally, mutations in TRPV3 were linked to Olmsted Syndrome, a rare genetic disorder, which Prof. Goswami proposed could be classified as a lysosomal disorder. At the end of the event, students were equipped with knowledge about the role of TRP channels in regulating mitochondrial and lysosomal functions, and their impact on cellular homeostasis in health and disease. The event concluded with remarks by Prof. Raj Kumar Joshi on the significance of TRP channels in mitochondrial dynamics, lysosomal function, and potential therapeutic targets for diseases associated with organelle dysfunction.

14. Recommendations (if any):

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

15. Selected Photographs : Enclosed

Prof. Raj Kumar Joshi and Prof. Chandan Goswami at the 12th Rosalind Franklin Seminar Series

Prof. Chandan Goswami delivering the lecture on "TRP channels as regulators for sub cellular organelle structure and functions: Importance in mitochondria and lysosome mediated pathophysiology"

Audience during the event

Felicitation of esteemed speaker by Prof. Raj Kumar Joshi and faculty members of the department

Group photo of esteemed speaker with faculty members, research scholars and students.

ATTENDANCE SHEET

Date : 19.09.25

Event name : ROSALIND FRANKLIN SEMINAR SERIES

Speaker : Prof. Chandan Goswami, School of Biological Sciences, NISER, Bhubaneswar.

Sl. No.	Name	Signature
01.	Bandana Kumari	Bandana
02	Bijayalaxmi Mallik	Bijayalaxmi
03.	Anamika Mohanty	Anamika.
04	Juthika Dandapat	Jutika.
05	Mousumi Nahak	Mousumi
06	Laxmipriya Sahoo	Laxmipriya
07	Shishtee Barik	Shishtee
08	Gaudamini Pradhan	Gaudamini
09	Doli Bagh	Doli Bagh
10	Bidusmita Ghadei	Bidusmita Ghadei
11	Sai priyadarshani	Sai priyadarshini
12	Sonali sahoo	Sonali Sahoo
13	Sarmeen Zia	Sarmeen
14	Tanisha Rout	Tanisha Rout.
15	Jignyasarani Bagh	Jignyasa.
16.	Anushobhini A. Pradhan	Anushobhini
17.	Shreeja Bilung	Shreeja.
18.	Eepeel Hembram	Eepeel Hembram
19.	Bishnupriya Kabasi	Bishnupriya Kabasi
20.	Subhrajyoti Nayak	Subhrajyoti Nayak
21	Chumki Bhoi	Chumki Bhoi
22	Sarmistha Das	Sarmistha Das
23	Soumya shree Dash	Soumya shree Dash
24	Sania Maharana	Sania Maharana.
25	Tunali Jasmine	Tunali Jasmine
26	Sradha Suman Sapathy	Sradha suman Sathpathy
27	Swayam Prabha Sarangi	Swayam Prabha Sarangi
28	Shubhashweta Ojha	Shubha
29	P. Agnisnatta Devahooti	Agnisnatta ...
30	Sampurna Jamal	Sampurna Jamal
31	Kshirodra Nayak	Kshirodra
32	Jahnavi Das	Jahnavi Das
33	Sudipta Rout	Sudipta Rout
34	Suryami Balabehera	Suryami Balabehera
35	Dibyashree Priyadarshini	Dibyashree priyadarshini
36	Subhashree Jena	Subhashree Jena
37	Akankshya P. Rout	
38	Manya Maurya	Manya
39	Charli Pandey	Charli
40	Bishnupriya Champati	Bishnupriya Champati

Sl. No.	Name	Signature
41.	Swarna Manjari Mishra	S. Mishra.
42.	Soumya Swajita Sahoo	Soumya.
43.	Subhrakali Jena	
44.	Subhashree Sanal	
45	Shubhamshree Sanshlishta	
46	Tamarapalli Sravya Sruti	
47	Richa Sharma	
48	Suchitra Malakud	Suchitra Malakud
49	Southi Smitha Jena	Southi Smitha Jena
50	Ishreeta Priyadarshini	Ishreeta Priyadarshini
51	Abhanisha Dash	Abhanisha Dash
52	Shraddha Sahoo	Shraddha Sahoo.
53	Karisma Lenka	Karisma Lenka
54	Ananya Barik	Ananya Barik
55	Jessica John	Jessica
56	Ommsmita Mishra	Ommsmita Mishra
57	Priyanka Miredha	Priyanka Miredha.
58	Omkita Nayak	Omkita Nayak.
59	Lorence Rashi Jena	
60	Dibyasmita Nayak	Dibyasmita Nayak
61	Madhusmita Pradhan	M. Pradhan
62	Shreyasi Panda	
63	Jyoti Priyadarsini Beura	J. P Beura
64	Anisha Malik	A Malik
65	Monisha Neti	M.D
66	Krushna priya Sahu	Krushnapriya Sahu
67	Simpal Saleetaine Sahoo	Simpal Saleetaine Sahoo
68	Divyanshi	Divyanshi
69.	Mugdha Sahoo	Mugdha Sahoo.
70	Monika Sahoo	Monika Sahoo
71	Rajalaxmi Sahu	Rajalaxmi Sahu
72	Lopamudra Sahoo	Lopamudra Sahoo
73	Priti Dora	Priti Dora
74	Laxmipriya Kala	Laxmipriya Kala
75	Ronali Nayak	Ronali Nayak
76	Susmita Das	Susmita Das
77	Monalisa Hembram	Monalisa Hembram
78	Padmini Sahoo	Padmini Sahoo
79	Lopita Mohapatra	Lopita Mohapatra
80	Baably Swayamsidha	Baably Swayamsidha
81	Shreyashree Samant	Shreyashree Samant
82	Baisakhi Behera	Baisakhi Behera
83	Adyasha Dash	Adyasha Dash
84	Chetna Patra	Chetna Patra.
85	Baishakhi Ray	Baishakhi Ray.
86	Shailaja Lenka	Lenka
87	Nirjhara Das	N. Das
88	Priyasi Purvi Jena	Purvi

Sl. No.	Name	Signature
89	Suchismita Pal	S. Pal
90	Rajashree Panda	R. Panda
91	Bhagyashree Panda	Bhagyashree Panda
92	Payal Beura	Payal
93	Sulagna Dash Mohapatra	Sulagna
94	Sumitra Sahoo	Sumitra
95	Alisha Nayak	Alisha
96	Arpita Rout	Arpita
97	Liya Rani Sethy	Liya
98	Bikram Bandita Sethi	B. Bandita
99	Dr. Ashok Kumar Nayak	Ashok
100	Dr. S. K. Rout	
101	Dr. Tathagata Bhatra	
102.	Dr. Manoranjan Mohanty	
103.	Prof. Raj Kumar Joshi	
104	Prof. Sujata Mohanty	
105	Swatee Saberi Upadhyay	
106	Alaka Mohanty	
107	Sonali Nayak	
108	Prachita Das	
109	Dibyasha Das	Dibyasha