



Report on Invited Talk



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Valedictory Function of Competition on Innovative Ideas

The School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur, organized an invited talk on 27 September 2025, featuring two distinguished speakers:

- **Dr. Arindam Bit**, Associate Professor, Department of Biomedical Engineering, NIT Raipur, who spoke on “Enhanced Cryopreservation of MSCs in Microfluidic Bioreactor by Regulated Shear Flow,” and
- **Prof. Ujjawala Nitin Gaikwad**, Professor, Department of Microbiology, AIIMS Raipur, who delivered a lecture on “Antimicrobial Resistance Crisis: Novel Approaches to Address It.”

The event also included the Valedictory Function of the “Competition on Innovative Ideas.” The program was sponsored by the Chhattisgarh Council of Science and Technology, Raipur, and was attended by faculty members, M.Sc. students and Research Scholars from the School of Biotechnology and allied disciplines.

The event began with a warm welcome to the guests. The saplings were presented to the invited speakers — Dr. Arindam Bit and Prof. Ujjawala Nitin Gaikwad by Prof. Afaque Quraishi, Head of the Department, School of Studies in Biotechnology.

Technical session I

The first talk was delivered by Dr. Arindam Bit, who gave an insightful presentation on the limitations of conventional cryopreservation techniques for Mesenchymal Stem Cells (MSCs), including, loss of differentiation potential, and cellular damage due to ice crystal formation. He introduced an innovative approach using microfluidic bioreactors with regulated shear flow to create a controlled environment that minimizes cellular stress during cryopreservation. Highlighting the significance of MSCs in regenerative medicine, tissue engineering, and

advanced therapeutics, he shared experimental data and research outcomes demonstrating how microfluidic systems enhance the efficiency of stem cell banking. The session concluded with an engaging interaction between the speaker and the audience, where students and faculty members inquired about the design, scalability, and clinical implications of the bioreactor system.

Technical session II

The second invited talk was delivered by Prof. Ujjawala Nitin Gaikwad, who addressed the growing global threat of antimicrobial resistance (AMR). She outlined key contributing factors, such as the overuse and misuse of antibiotics in humans and animals, inadequate diagnostic infrastructure, easy availability of over-the-counter antibiotics, and environmental dissemination of resistant strains. She discussed the substantial economic and clinical burden AMR imposes on healthcare systems and emphasized the urgent need for alternative therapeutic strategies. She introduced emerging approaches, including phage therapy, bacteriophage-derived enzymes, antimicrobial peptides, host-directed therapies, and microbiome modulation, as promising solutions to supplement or replace traditional antibiotics. The lecture concluded with a vibrant discussion session, where participants explored the feasibility of applying these solutions in local healthcare contexts.

Valedictory Function and Prize Distribution

Following the technical sessions, the Valedictory Function of the “Competition on Innovative Ideas” was held. The Chief Guest, Prof. Amber Vyas, Registrar, Pt. Ravishankar Shukla University, was welcomed with a sapling by Prof. Afaqur Quraishi. In his valedictory address, Prof. Vyas encouraged students to pursue research with passion and highlighted the importance of interdisciplinary collaboration in transforming innovative ideas into practical applications. A Prize Distribution Ceremony was conducted to acknowledge and reward outstanding participants of the competition. Students were recognized for their innovative ideas and presentations. The program concluded with a Vote of Thanks, delivered by Prof. Keshav Kant Sahu, who expressed heartfelt gratitude to the esteemed speakers, guests, faculty members, students, and the Chhattisgarh Council of Science and Technology for their support and contribution to making the event a grand success.

Glimpses of the Event







Invited Talk



Organised by

School of Studies in Biotechnology

Pt. Ravishankar Shukla University, Raipur

Sponsored by

Chhattisgarh Council of Science and Technology Raipur



Speakers



Dr. Ujjwala Nitin Gaikwad

Professor
Department of Microbiology,
AIIMS, Raipur

On

**Antimicrobial Resistance Crisis:
A Novel Approaches to Address It**

Dr. Arindam Bit

Associate Professor
Department of Biomedical
Engineering, NIT, Raipur

On

**Enhanced Cryopreservation of
MSCs in Microfluidic Bioreactor by
Regulated Shear Flow**

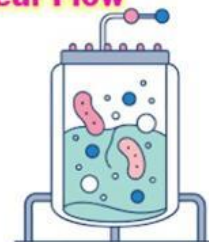


27th September 2025



02:00-05:00 pm

Along with



Valedictory Function of Competition on Innovative Ideas

In the presence of

Dr. A. K. Tripathi

Chhattisgarh Council of Science and Technology Raipur



Venue: Seminar Hall, SoS in Biotechnology, PRSU

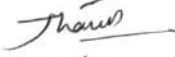
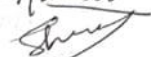
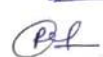
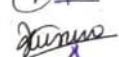
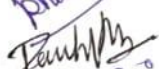
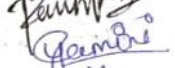
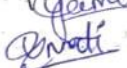
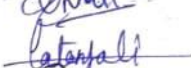
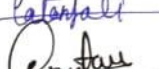
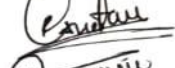
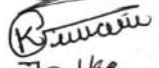
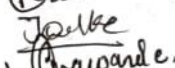
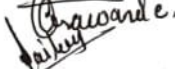
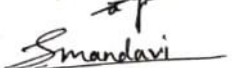
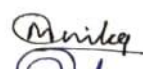
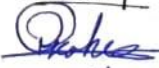
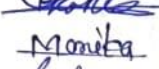
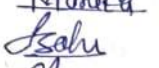
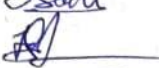
School of Studies in Biotechnology, PERSU Raipur

27/09/2025

'Invited Talk'

sponsored by
Chhattisgarh Council of Science & Technology, Raipur

SNb.	Name	Class	Department	Signature
1.	Anti Singh	Ph.d scholar	Biotechnology	<u>Anti</u>
2.	Pragati Trivedi	Ph.D. Scholar	Biotechnology	<u>Pragati</u>
3.	KHEMRAJ SAHU	Scholar	Biotechnology	<u>Khemraj</u>
4.	Krushboo Lilaria	PhD scholar	Biotechnology	<u>Krushboo</u>
5.	Chetana Dhruv	PhD scholar	—	<u>Chetana</u>
6.	Ankita Rathi	—	—	<u>Ankita</u>
7.	Raja Ali	project fellow	Biotechnology	<u>Raja</u>
8.	Sakshi Sinha	Project fellow	—	<u>Sakshi</u>
9.	Paulomi Bera	PhD Scholar	Biotechnology	<u>Paulomi</u>
10.	Nidhi Yadu	PhD scholar	Biotechnology	<u>Nidhi</u>
11.	Pankaj Sahu	Project fellow	Biotechnology	<u>Pankaj</u>
12.	Pooja Khute	Msc 1 st sem	Biotechnology	<u>Pooja</u>
13.	Diksha Verma	Msc I Sem	Biotechnology	<u>Diksha</u>
14.	Aushika Faridi	Msc I sem	Biotechnology	<u>Aushika</u>
15.	Shruti Diwan	Msc I sem	Biotechnology	<u>Shruti</u>
16.	Aliya Farheen	Msc I sem	Biotechnology	<u>Aliya</u>
17.	Z. Venkat	Msc I Sem	Biotechnology	<u>Z. Venkat</u>
18.	Shrawan Kumar	Msc I sem	Biotechnology	<u>Shrawan</u>
19.	Neeraj Kumar Thakur	Msc I sem	Biotechnology	<u>Neeraj</u>
20.	Nishant Kumar Kerketta	Msc I	Biotechnology	<u>Nishant</u>
21.	Bhavesh Tandon	Msc I sem	Biotechnology	<u>Bhavesh</u>
22.	Dhruvi Maitray	Msc I sem	Biotechnology	<u>Dhruvi</u>
23.	Sujata Ekka	Msc I sem	Biotechnology	<u>Sujata</u>
24.	Honey Agarwal	M-sc I sem	Biotechnology	<u>Honey</u>
25.	Riya Choudhary	M-sc I sem	Biotechnology	<u>Riya</u>
26.	Anushka Tiwari	Msc I st sem	Biotechnology	<u>Anushka</u>
27.	Arusha Yadu	M.Sc. sem I	Biotechnology	<u>Arusha</u>
28.	Ankita Dey Ray	M.S.C sem I	Biotechnology	<u>Ankita</u>
29.	Madhuri Sahu	M.S.C sem I	Biotechnology	<u>Madhuri</u>

S.No.	Name	Class	Department	Signature
30.	Nidhi Sharma	MSc I sem	SOS BT	
31.	Tharuni Douse	MSc I st Sem	SOS BT	
32.	Aditi Thengdi	MSC 1 st sem	SOS BT	
33.	Shravya Bhandari	MSC 1 st sem	SOS BT	
34.	Devika Sonkar	MSC 1 st sem	SOS BT	
35.	Reetika Thakur	MSc I sem	SOS BT	
36.	Kusum Nishad	MSc. I sem	SOS BT	
37.	Khushi Srivastava	MSc. II sem	SOS BT	
38.	Pankaj Kumar Khandu	MSc II sem	SOS BT	
39.	Yamini Porgade	MSc III sem	SOS BT	
40.	Urmati Dewangan	MSc III Sem	SOS BT	
41.	Patanjali Singh	MSc III Sem	SOS BT	
42.	Pankaj Piyush Nelan	MSc III Sem	SOS BT	
43.	Kusitika Tiwari	MSc III sem	SOS BT	
44.	Tikendra K. Wankar	MSc - III rd Sem	SOS BT	
45.	Kiran Grawande	MSc 3 rd Sem	BT	
46.	Neha Paikra	MSc 3 rd Sem	BT	
47.	Sneha Singh Thakur	MSc 3 rd Sem	BT	
48.	Mokshraj Singh	MSc III Sem	BT	
49.	Sagrika Sen	-II-	-I-	
50.	Swishti Mandari	MSc III sem	BT	
51.	Barkha Kasariya	MSc III	BT	
52.	Monika Verma	MSc III	BT	
53.	Rajkumar Sahu	MSc III	SOS electronics & photonics	
54.	Monika Pradhan	M.Sc. III	-II-	
55.	Lakshwar Kumar	M.Sc. III	-II-	
56.	Dr. Jai Shanker Paul	Faculty	SOS Biotech	
57.	Dr. Shubha Tiwari		SOS Biotech	
58.	Dr. Nagendra K. Chandrani	-	-	