Report of the International e- Conference

held

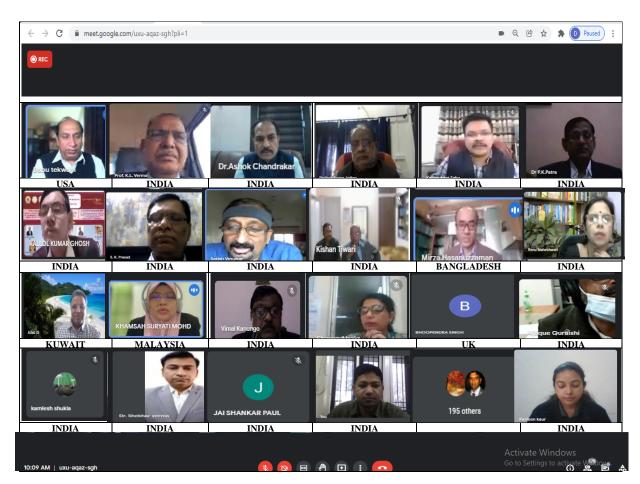
at

School of Studies in Biotechnology,

Pt. Ravishankar Shukla University, Raipur 492 010

7-8 January 2022

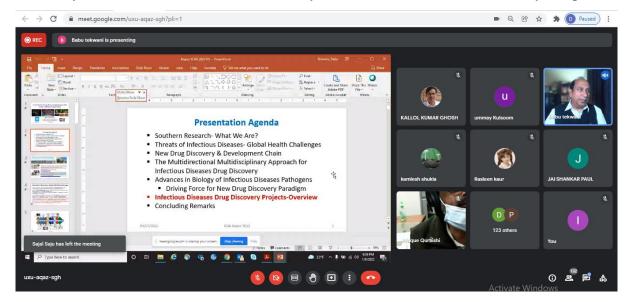
Two days international *e*-Conference *on* **Recent Advances in Biological Sciences & Opportunities in Entrepreneurship** jointly organized by School of Studies in Biotechnology, Pt Ravishankar Shukla University, Raipur, Chhattisgarh and Alumni Association of Biotechnology, SoS in Biotechnology, Pt. Ravishankar Shukla University, Raipur in academic partnership with Pt Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh Raipur during 7th - 8th, January 2022.



Glimpses of Inaugural Session

The inaugural function was presided by Prof Keshari Lal Verma, Honorable Vice-Chancellor, Pt Ravishankar Shukla University, Raipur Chattisgarh, and Prof AK Chandrakar Vice-Chancellor PDUMHSAU, Raipur. Conveners of the Conference Prof Keshav Kant Sahu and Prof SK Jadhav, School of Studies in Biotechnology, Pt Ravishankar Shukla University Raipur, and Prof PK Patra PDUMHSAU, Raipur addressed to participants and enlightened them about the conference. Dr Shri Ram Kunjam, President of the Alumni Association of Biotechnology, addressed the participant, briefed them about the Alumni Association, and welcomed all honorable guests and enthusiastic and energetic participants.

Dr. Babu L. Tekwani, Distinguished Fellow & Chair Infectious Diseases Drug Discovery Scientific Platforms, Southern Research 2000 9th Avenue South, Birmingham, USA, has delivered the keynote lecture titled "Infectious Disease Drug Discovery& Development: Threats Challenges & Opportunities" discussed various advanced techniques involved in infectious disease research and drug discovery, extraordinary insinuation with a screening of molecular target-based compounds, delivery, optimization, toxicity and ADME properties with involvements of tremendous thrust areas such as bioinformatics, genomics, and proteomics etc., the session chaired by Prof. K.K. Ghosh, SoS in Chemistry, Pt Ravishankar Shukla University, Raipur.



Glimpses of the Keynote address by Dr Babu L Tekwani, USA

In this international *e*-Conference, more than 450 young and senior scientists, academicians, and students were registered from various prestigious organizations in India and abroad.

Nine renowned scientists/ academicians from prestigious organizations abroad, including the USA, Malaysia, Australia, Kuwait, Thailand, Bangladesh, and India, delivered invited lectures on various current thematic issues. Through the lecture of eminent speakers, all the participants interacted with them and were enlightened about various advanced research related to genetic disease, climate changes, and infectious disease.

Through this International *e*-Conference, people from different fields of science presented their ideas and innovations Presentation which was further classified 13 thematic areas into different categories, namely: Biodiversity, and its Conservation (BC), Environment Technology (ET), Ethnomedicine (EM), Microbial Technology (MT), Alternate Source of Energy (AE), Herbal Technology (HT), Plant Science (PS), Pharmacology and Pharmaceutical (PP), Computational Biology (CB), Waste Management (WM), Bioremediation (BR), IPR and Entrepreneurship (IE), Biomedical Research (BR), and Free folds (FF). A total of **250** abstracts were received for this Conference, out of which **210** were presented in different technical sessions.

Further, thematic areas are divided into eight scientific sessions, each with three parallel sessions in individual sessions named DNA, RNA, and Protein. All the presentations were conducted in 24 technical sessions in 2 days.

Invited talks were conducted in eight technical sessions.

First Technical Session:

Prof Mirza Hasanuzzaman, Department of Agronomy, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh

Prof Mirza Hasanuzzaman talked on 'Crop Response and Adaption to Extreme Temperature under Changing Climates.' He talked about temperature stress such as heat and cold stress etc. Its devastating effects on plant growth and metabolism describe various factors directly affecting plants, such as plant morphology, physiology, and biochemistry during vegetative and reproductive development. The talk concluded with some remarks for future research to demonstrate that adaptation strategies do not become maladaptive. Also suggested, the role of appropriate monitoring and evaluation framework and indicators of climate smartness that can be easily measured becomes essential.

Second Technical Session:

Dr Khamsah Suryati Binti Mohd, Associate Professor, Bioresources and Food Industry, Universiti Sultan Zainal Abidin, Besut Campus, Terengganu Darul Iman, Malaysia Dr Khamsah Suryati Binti Mohd delivered her lecture on 'Malaysian Natural Products as Anti Uterine Fibroids Potentials'. She explained on uterine fibroids of the uterus. She described the various stage of uterus cancer, its regulatory mechanism, various health stages etc. She also discussed therapeutic management and some critical drawbacks of the modern medicine system. She found and suggested excellent herbal resources such as *Orthosiphon stamineus* Benth and *Labisia pumila* as potential anti-uterine fibroids.

Third Technical Session:

1. Dr Azad Ismail Saheb, Environment and Life Sciences Research Centre, Kuwait Institute for Scientific Research, Kuwait

Dr. Azad Ismail Saheb spoke on 'Aquaculture-As an Environment-Friendly Technology for Food and Nutritional Security in India.' He deliberated his lecture on describing a moto "Krushito Naasti Durbhiksham" and uttered on the Vedic literature and the value of fish and shellfish as foods, including Indian River systems. According to him, India ranks second in the world in fish and shellfish production both from its natural resources and cultivation practices. The captured fish/shellfish accounts for 55% of the total fish/shellfish production, and the culture sector accounts for 45%. Furthermore, he also explained the "Blue Economy," Govt of India initiated several missions and programs to enhance fish production. "Pradhan Mantri Matsya Sampada Yojana", popularly known as PMMSY, is one of those steps to encourage aquaculture, which is destined to be a significant contributor to quality protein production. Dr Azad's lecture emphasized enhancing production and productivity, infrastructure and post-harvest management, fisheries management and regulatory framework, and Atma Nirbhar Bharat.

2. Prof Anita Yadav Professor, Dept of Biotechnology, Kurukshetra University, India

Prof Anita Yadav discussed 'CRISPR: Gene Editing and Beyond'. The speaker spoke on CRISPR technology and its application and features. She elaborated on her presentation to deal with genome editing tools customized as per specific needs. Multiple genes can be targeted using this technology. There is no need for separate enzymes. Tens of thousands of tailor-made gRNA have been created to lead them into their targets. Also, the speaker emphasized that CRISPR allows scientists to create cell and animal models to accelerate research into diseases such as mental illness, cancer, etc. This is also being developed as a rapid diagnostic tool for future research.

Fourth Technical Session:

Dr Bhupendra Kaushik, Senior Manager, Research and Development, London, UK

Dr Bhupendra Kaushik spoke on the topic 'Bio Analytical Tools for Research'. The speaker articulated recombinant-based drug development and monoclonal antibody technology. He mentioned further advancements; over 250 biologic molecules were approved for therapeutic use, with sales reaching more than \$100 billion in the global market. According to the speaker, analytical needs also depend on the actual application; for example, high throughput is a prerequisite during clone selection, and increased sensitivity is important during product release. Fifth Technical Session:

Dr Sudarshan Singh, Postdoctoral Research Associate, Walailak University Thailand

Dr Sudarshan Singh delivered a lecture on 'Eucalyptus camaldulensis (River Red Gum): A natural reservoir of bioactive compounds with potential anti-cancer, antibacterial, and antioxidant efficacy with cytocompatible properties'. The speaker spoke on various methodologies for extract preparation and its validation. In the presentation, he enlightened the bioactive property of Eucalyptus camaldulensis and the various biological importance of phyto extracts preparation. According to the speaker, successful research has been done on antimicrobial tests against pathogenic microbes, anticancer effectiveness, antioxidants, etc. Thus, his research has proven that the Eucalyptus camaldulensis leaf is an excellent alternative biological resource for the treatment of cancer, a bacterial disease, and a great resource for antioxidants.

Sixth Technical Session:

Dr Jagat R Kanwar, Professor and Head Biochemistry, All India Institute of Medical Sciences (AIIMS), Bhopal, India & Deakin University, Australia

Dr Jagat R Kanwar delivered a lecture titled 'Nano-nutraceuticals for real-time imaging and on-chip microfluidic device to capture "cancer stem cell": Promises of precision nanomedicine'. The speaker emphasized that capturing and characterizing circulating tumor cells (CTCs) and circulating cancer stem cells (CSCs) holds immense potential in cancer management in aiding and confirming the early cancer diagnosis for effective treatment planning. He also deliberated on the design of two microfluidic devices using polydimethylsiloxane (PDMS) to efficiently capture cancer cells and cancer stem cells using surface modification with anti-EpCAM antibodies. These devices also enabled on-chip characterization of captured cells for expression analysis of multiple stem cell markers (survivin, CD44, and CD133) on a single device.

Seventh Technical Session:

Dr Smita Sahu, Professor & Director, Amity IPR Cell, Registered Indian Patent Attorney, Amity University Uttar Pradesh, Noida, India

Dr Smita Sahu delivered a lecture titled 'Research Innovation, Patents and Commercialization'.

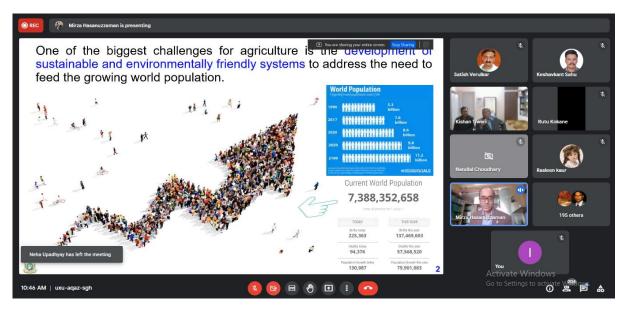
The agenda of the session shared strategies for augmentation of Research & Innovation activities, new perspectives/methods in building capabilities among the concerned stakeholders that are sustainable and encourage innovations across sectors, identification of IP generation, IP monetization, IP portfolio management, enforcement, and the exchange of best practices in the field of IP, etc. Speaker discussed current scenario IP and commercialized their intangible creations and the significance of productive collaboration between Academia-Industry-R & D Organizations to achieve a progressive IP landscape.

Eight Technical Session:

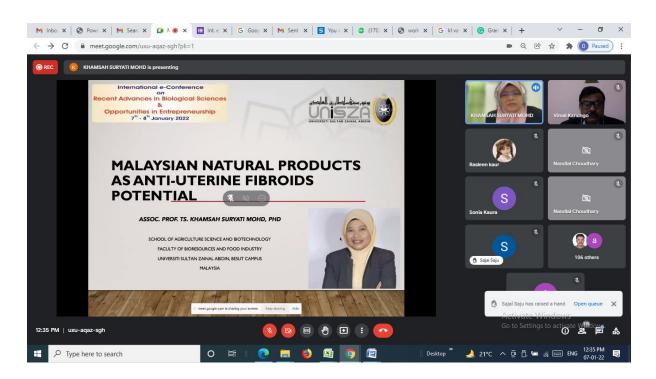
Dr A M Deshmukh, President, Microbiologists society, India, Osmanabad (M.S.) India

Dr A M Deshmukh gave a lecture on 'Microbial Solubilization of Metals from Electronic Waste (E-waste).' He explained the implication and believed that biotechnology is one of the most promising technologies in metallurgical processing. Bioleaching is used for the solubilization of metals from ores. Bioleaching is useful for treating ores with low concentrations of metals; it is also cheap and straightforward to operate. Speaker focused on particular research on formulating microbial consortium for the solubilization of metals from waste PCB and evaluating its efficacy. For this purpose, a microbial consortium from bauxite and pyrite ore samples was obtained using a simple 'top-down approach. Essentially, printed circuit boards (PCB) were obtained and used as representative samples of e-waste.

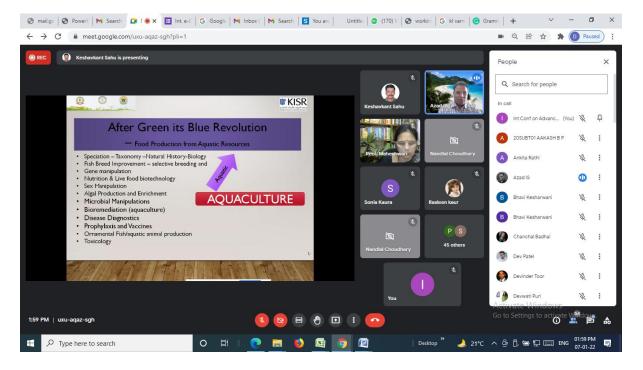
Glimpses of the Invited Lecture



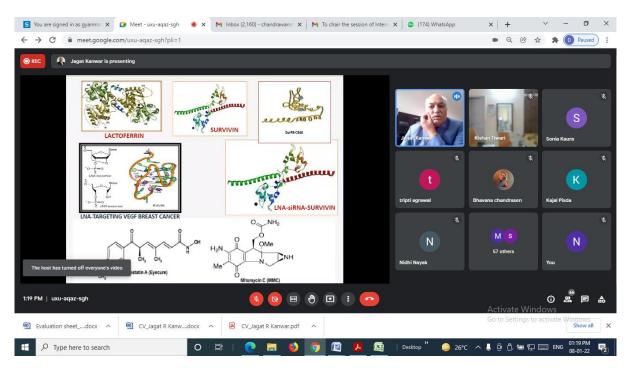
Prof Mirza Hasanuzzaman shared a presentation with the audience



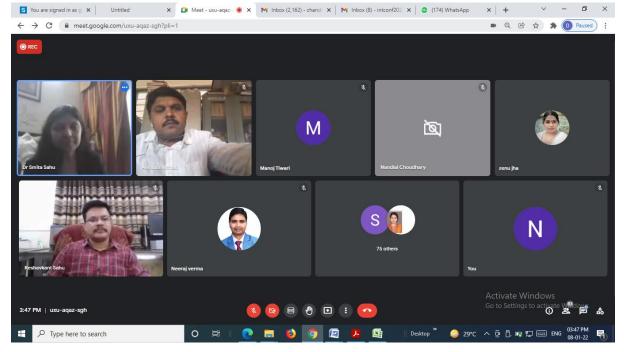
Dr Khamsah Suryati Binti Mohd shared a presentation with participants



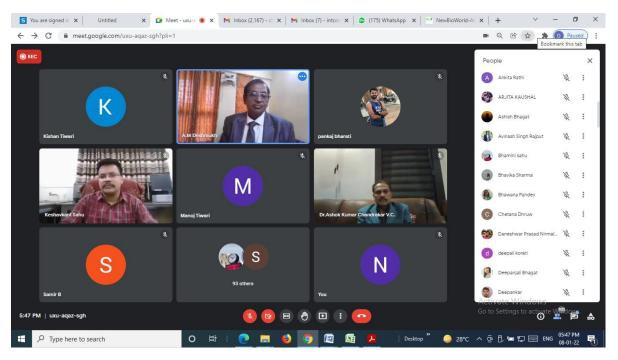
Dr Azad Ismail Saheb discussed,



Dr Jagat R Kanwar shared new findings in research with participants

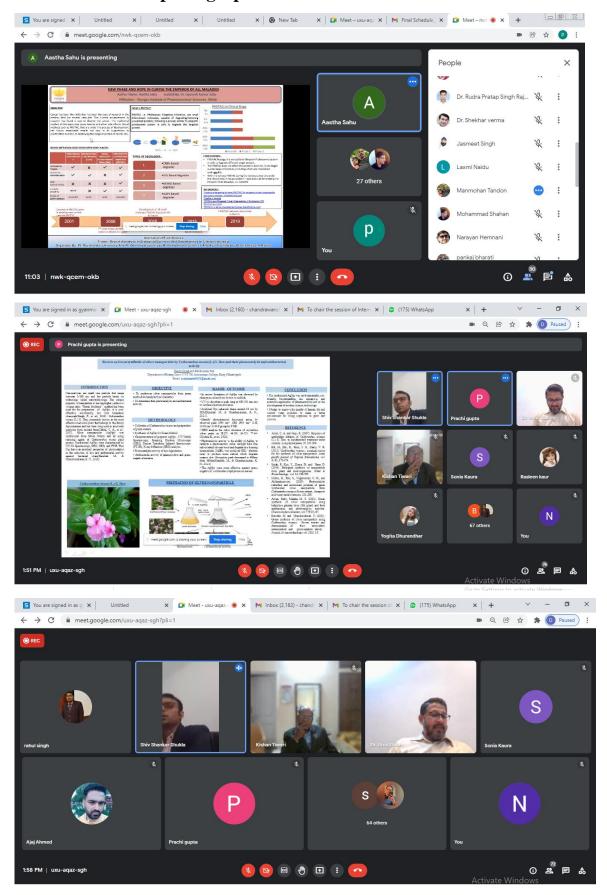


Dr Smita Sahu interacted with the audience



Dr A M Deshmukh interacted with the audience

Some photographs of the Oral Presentation session

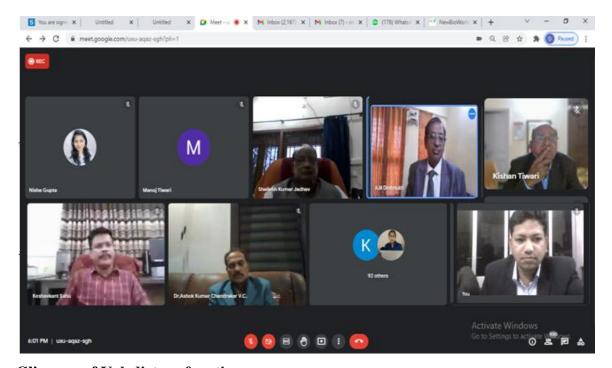




Speakers from all over the world presented their work and made this event a grand success. Participating young scientists got chances to interact with these distinguished scientists and motivate themselves for future research. It proved to be a knowledge-dwelling session, which was not only limited to borders, but speakers from all over the world came forward and shared their research and experience. This Conference was financially empowered by Pt. Ravishankar Shukla University, Raipur and Microbiologists Society, India.

The organizing committee is thankful to Dr A M Deshmukh, President, Microbiologists Society, India, for the sponsor of the best presentation awards. Also, gratitude and thank to the Head, SoS in Computer Science, Pt Ravishankar Shukla University Raipur, for providing technical support. In the Valedictory function, Prof KL Verma, Vice-chancellor Pt Ravishankar Shukla University, Prof AK Chandrakar Vice-chancellor, Pt Deendayal Upadhyay Memorial Health Sciences & AYUSH University, Raipur, congratulate the organizing committee for the successful completion of this international e-conference. In the concluding session, a feedback session has conducted. Many enthused participants have shared experiences and valuable feedback; the organizing committee will incorporate excellent suggestions in upcoming conferences. Prof SK Jadhav announced the name of the participants who got the best paper presentation awards in different categories. Namely, the under the various theme participants were awarded best paper presentation from across India including Dr Jasmeet Singh, Dau Shri Vasudev Chandrakar Kamdhenu University, Durg (CG); Ms Garima Tahiliani, St Vincent Palloti College, Raipur (CG); Ms. Graima Madhariya, Digvijay College, Rajnandgaon (CG); Ms. Preeti S Parihar, SoS in

Biotechnology, Pt RSU, Raipur (CG); Ms Mahima Sinha, Durg Science College, Durg (CG); Ms. Paramita Das, Krupanidhi College of Pharmacy, Bangluru; Ms Afreen Anjum, SoS in Biotechnology, Pt RSU, Raipur (CG); Ms Rajni Yadav, Kalinga University, Raipur (CG); Dr Vivek S Jedhe, Department of Biochemistry, Arts and Science College Pulgaon (Wardha) (MH); Ms Anjali Nayak, Krupanidhi College of Pharmacy, Bangluru; Ms Ankita Rathi, SoS in Biotechnology, Pt RSU, Raipur (CG); Dr Tripti Jain, Dau Shri Vasudev Chandrakar Kamdhenu University, Durg (CG); Ms Priya Katiyar, SoS in Biotechnology, Pt RSU, Raipur (CG); Mr Anuj Rohatgi, Department of Biotechnology, NIT Raipur (CG); Mr Mumtaz Ahmed, Chaudhary Charan Singh University, Meerut (UP) and Dr Yogesh Vaishnav, Shri Shankaracharya Technical College, Bhilai.

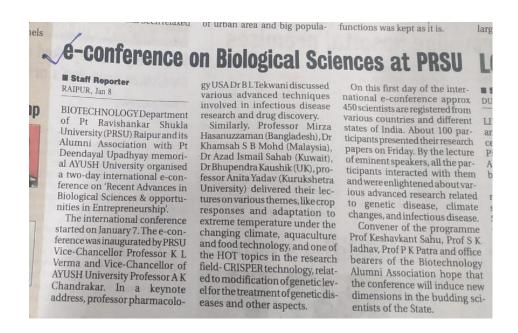


Glimpses of Valedictory function

Dr Nagendra Kumar Chandrawanshi summarized the two-day activity of this International *e*-conference. Finally, Dr Shekhar Verma, Organizing Secretary, extended the vote of thanks to all the eminent speakers, chairpersons, and participants. During the conference total of 500 candidates registered, including China, Israel, and other countries, in which 400 participated and more than 200 presented their research papers. The Conference consisted of 14 different research themes.

Event coverage in Daily News Papers







शुक्रवार का हुइ। कार्यक्रम में बतौर अतिथि रिविष के कुलपित के, एल. वर्मा और आयुष विवि के कुलपित ए, के. चंद्राकर शामिल हुए। बाबू एल. टेकवानी प्रमुख वैज्ञानिक नेशनल सेंटर फॉर नैचुरल रिसर्च अमरीका



ने संक्रामक बीमारियों से संबंधित दवाइयों के खोज में आने वाली बाग्लादश, खामस सूयात ।बन्ता मोहम्मद, मलशिया, आजाद इस्माइल कुवैत, अनीता यादव कुरुक्षेत्र विश्वविद्यालय और भूपेन्द्र कौशिक इंग्लैंड ने अपना व्याख्यान दिया।

॥। प्रोफेसर मिर्जा हसन्नुज्जमान ने तवायु परिवर्तन के कारण जलवायु परिवर्तन के कारण फसलों में होने वाले प्रभाव एवं उनके निदान के बारे में बताया। इसके अलावा प्रभावी विषय कीस्पर तकनीक के बारे में बताया।

जिसमें प्रतिभागियों ने विभिन्न विषयों पर शोधपत्र प्रस्तुत किए। संचालन जैवप्राद्योगिकी के विभागाध्यक्ष अध्ययनशाला प्रोफसर केशवकांत, प्रोफसर एस के. जाधव एवं प्रोफसर पो. के. पात्रा डीन, चंदूलाल चंद्राकर मेमोरियल हॉस्पिटल भिलाई एवं एलुमिनी एसोसिएशन ऑफ बायोटेक्नोलाजी के अध्यक्ष, सचिव एवं सदस्यों ने

Intl e-conference concludes at PRSU

■ Staff Reporter RAIPUR, Jan 9

THE two-daylong international e-conference on 'Recent Advances in Biological Sciences Opportunities Entrepreneurship' concluded on Saturday in Pt Ravishankar Shukla University (PRSU) Raipur.

This event was jointly organized by the university's Biotechnology Department, its Alumni Association with Pt Deendayal Upadhyay Memorial Health Sciences & AYUSH University, Raipur.

On the conference's last day, Dr Harsh Bais from Delware Biotech USA, Dr Sudarshan Singh from Thailand, Dr J R Kanwar from Deakin University Australia, Dr Smita Sahu from Amity University Noida and Dr A M Deshmukh from Microbiologists Society of India delivered the lectures on cancer stem cell technique for the treatment of cancer, microbial solubilisation of metals from e-waste, research & innovation, patents and commercialisation.

The event provided an opportunity to participating young scientists to interact with distinguished scientists and motivated them for future research.

In valedictory function, PRSU vice chancellor professor KL Verma, vice chancellor of Pt

Deendayal Upadhyay Memorial Health Sciences & AYUSH Universitý, Raipiif fittifessor AK Chandrakar, PRSU registrar Dr Girishkant Pandey, registrar of Pt Deendayal Upadhyay Memorial Health Sciences & AYUSH University Dr Paicel Hishikar and others Rajesh Hishikar and others were present.

Meanwhile, the professor S K ladhay announced the names of the participants who got the best paper presentation awards in different categories.

Namely, the under the various theme participants were awarded best paper presentation from across India including Anuj Rohati, Department of Biotechnology, National Institute of Technology, Raipur (CG); VS Jadhe from Department of Biochemistry, Science & Arts College, Wardha (Maharashtra); Paramita Das from Krupanidhi College of Pharmacy, Banglore and Mumtaj Ahmed, Pharmacy, Choudhary Charan Singh University, Meerut (UP). A total of 500 candidates,

including participants from China, Israel and other countries, registered for the conference. Of registered candidates, 400 participated in the event and over 200 participants presented their research papers. The conference consisted of 14 different

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