
Fwd: Report of two days International Conference entitled "Novel Paradigms in Pharmaceutical Sciences: An Approach for Healthier World" on 9 to 10 March, 2024

Imran Ahmad Siddiqui <imransid@iul.ac.in>
Draft

8 August 2024 at 14:31

A brief report of two days International Conference entitled "Novel Paradigms in Pharmaceutical Sciences: An Approach for Healthier World" on 9 to 10 March, 2024.

The Faculty of Pharmacy Integral University, Lucknow, organized a two-day international conference entitled "Novel Paradigms in Pharmaceutical Sciences: An Approach for a Healthier World" on March 9–10, 2024. A total of 440 delegates registered for the event that brought together distinguished experts, academics, and research scholars from around the world to explore the advancements in pharmaceutical sciences and their important role in shaping a better future for health. The conference commenced with the *inaugural session*, graced by the presence of the Chief Patron, Prof. Syed Waseem Akhtar, Hon'ble Founder and Chancellor, Integral University, and Patron, Prof. Javed Musarrat, Hon'ble Vice Chancellor, Integral University, on the dais alongside distinguished dignitaries including the Chief Guest, Dr. Montukumar M. Patel, Guests of Honour, Dr. Deependra Singh, Chairman, ERC, PCI, New Delhi, Dr. Milind J. Umekar, President APTI, the plenary speaker, Prof. Piotr Walczak, University of Maryland, USA, and the Convenor of the conference, Prof. Syed Misbahul Hasan, Dean, Faculty of Pharmacy, Integral University, Lucknow. Dignitaries shared their views on the theme of the conference.

Prof. Syed Misbahul Hasan, Dean of the Faculty of Pharmacy, set the stage for the conference's proceedings. He welcomed all the dignitaries on and off the dais and extended his gratitude to all the participants of the international conference. His insightful discourse highlighted the current trends, emphasizing the importance of embracing advancements to drive progress in pharmaceutical research and development. As the conference commenced under his guidance, Prof. Hasan's visionary leadership paved the way for an enriching exchange of ideas and knowledge among participants who joined the conference from across the globe, laying a solid foundation for the exploration of cutting-edge techniques and advancements in pharmaceutical sciences.

To emphasize and brief the guests on the department, a film of the Faculty of Pharmacy was aired to the audience to highlight the infrastructure, strength, and research capabilities of the department.

Addressing the gathering, Prof. Mohd. Haris Siddiqui, Registrar of Integral University Lucknow, encouraged attendees to actively participate in such enriching academic endeavors, underscoring the university's commitment to fostering learning and innovation. He also eloquently briefed the audience on the timeline of the university, which has organically grown over a very short span of time into a

magnificent university and, with the avowed motto of inspiring excellence, is marching towards a research-intensive university while imparting world-class outcome-based education.

Prof. Syed Waseem Akhtar, the esteemed founder and Chancellor of Integral University, graced the ceremony with his inspiring presence, offering words of wisdom that resonated deeply with all in attendance. His insightful comments not only set the tone for the event but also ignited a collective desire for progress and advancement among the audience.

The Chief Guest of this International Conference, Dr. Montukumar M. Patel, in his capacity as President of the Pharmacy Council of India and Chief Guest, emphasized the urgent need to further develop the clinical role of pharmacists in the profession and opined that while it is great for the country to be the pharmacy of the world, it would be in the fitness of things that our graduates are considered pharmacists of the world. He further highlighted Uttar Pradesh's potential to emerge as a hub for the pharmaceutical industry. He stressed that the theme of the conference is quite appropriate for the present world scenario and hoped that the deliberations during the conference would promote the approach for a healthier world.

Prof. Milind J. Umekar, esteemed President of the Association of Pharmacy Teachers of India (APTI), assumed the podium and emphasized the role of the field of pharmaceutical sciences in global health and well-being. His address includes the importance of interdisciplinary collaborations across the diverse field for the advancement of drug discovery. Prof. Umekar advocated about the ethics and integrity to be followed by pharmacy professionals so that everyone has access to good healthcare. Prof. Umekar also highlighted the need for awareness about the reporting of adverse drug reactions. Lastly, Prof. Umekar talked about the role of APTI for the upliftment of the pharmacy profession and invited the delegates and institutions including Integral University for APTI membership.

Dr. Deependra Singh, esteemed Chairman of the Education Regulation Committee at the Pharmacy Council of India (PCI), commanded the attention of the audience as he articulated a compelling vision for the future of pharmacy practice in the country. With a deep understanding of the evolving healthcare landscape, Dr. Singh underscored the critical importance of harnessing the expertise of clinical pharmacists within hospital settings. Dr. Singh elucidated the myriad challenges faced by healthcare systems, ranging from medication errors to suboptimal patient outcomes. He emphasized that the integration of clinical pharmacists into multidisciplinary healthcare teams could serve as a potent solution to these pressing issues. Drawing from international best practices and evidence-based research, Dr. Singh highlighted the pivotal role played by clinical pharmacists in optimizing medication therapy, mitigating drug-related problems, and improving patient safety and satisfaction.

Prof. Javed Musarrat, the esteemed Vice Chancellor of Integral University, took center stage, captivating the audience with his profound insights into the intricate realm of drug design and safety. In his address, Prof. Musarrat underscored the paramount importance of meticulous drug design processes in ensuring therapeutic efficacy and patient safety. Drawing upon cutting-edge research and technological innovations, he elucidated the intricate interplay between drug molecules and biological targets, highlighting the pivotal role played by rational drug design approaches in optimizing pharmacokinetic and pharmacodynamic properties. He emphasized the transformative potential of nano-carrier drug delivery systems in revolutionizing medication administration and enhancing therapeutic outcomes. By leveraging the unique properties of nanomaterials, such as enhanced bioavailability and targeted drug delivery, these innovative

platforms hold the promise of overcoming the traditional limitations associated with conventional drug delivery methods.

Prof. Piotr Walczak, a distinguished guest from the prestigious University of Maryland, Baltimore, USA, congratulated the higher management, especially the Chancellor and Founder of the majestic university, and praised the wonderful research infrastructure established. He also commended the organizing team for having brought together experts from diverse fields to delve into the important theme of the conference. Dr. Walczak, an internationally recognized expert in the field of multi-modality imaging in the realm of brain drug delivery. Dr. Piotr also touched on the culture and heritage of Lucknow city.

Following the warm and welcoming remarks that marked the commencement of the international conference, a momentous occasion unfolded as the dignitaries present graced the stage for the release of the conference souvenir.

Dignitaries on the dais were presented with mementoes of the Conference and Integral University, Lucknow, in recognition of their services for the cause of healthcare and society. At the closing of the inaugural session Prof. Juber Akhtar, Head of the Department, proposed a vote of thanks. With sincerity and warmth, Prof. Akhtar extended his heartfelt appreciation to all those who were present to make the event a success. He expressed profound gratitude to the dignitaries and participants whose presence had lent prestige and gravitas to the occasion. In addition, he expressed deep appreciation to the sponsors, whose generous support had made the conference possible. The Inaugural Session concluded on the National Anthem.

 

Prof. Piotr Walczak research work was dedicated towards development of innovative tools that enhance drug delivery to the brain. Approximately, 98% of small molecules are unable to reach therapeutic levels in the parenchyma of the brain. Only 0.1% molecules can cross the blood brain barrier to impart its pharmacological activity. He deliberated about how his research focused on evolving precise and reproducible techniques such as focal intra-arterial administration, ensuring a high concentration of drugs in the cerebral vascular system, transient opening of the blood brain barrier and non-invasive imaging of drug biodistribution using Catheter Placement through X-Ray technique, Targeting Precision BBB opening through MRI technique, Imaging Drug Accumulation through PET and Imaging at Subcellular Resolution through optical techniques. Dr. Piotr Walczak summed up his talk with “targeted image-guided delivery of biotechnological drugs is a new frontier in neurology and neurooncology”.

Dr. Shahid Karim explores the complexities of pharmacokinetics and how it can lead to more precise vancomycin dosage regimens. He presented a case study report and statistical data analysis of Haematological Malignancies cases in Saudi Arabia. Haematological Malignancies (HM) refer to a group of neoplastic conditions of lymphoid and haematopoietic tissues, which result in leukaemia's, lymphomas and myelomas. Patients diagnosed with HM frequently present with neutropenia symptoms, which are attributed to chemotherapy use. The aim of his study was to maximize bactericidal activity of vancomycin, a narrow therapeutic index drug and to avoid toxicity. If a definite normal vancomycin dose is administered in multiple myeloma patients that will reduce the nephrotoxicity.

Dr. S. Uday Kumar focusing primarily on enhancing the quality of therapies and patient outcomes. He emphasized the essential commercial aspect of science highlighting funding as a crucial component in the gamut. In his insightful talk Dr. Kumar provided valuable advice to propel India forward shedding light on

the intricate process of drug delivery. He also stressed on the importance of regulatory considerations as a challenge to commercialize new therapies. The challenges faced by indigenous drug discovery efforts, often failing to secure approval in countries like England, were also addressed.

Dr. Vivek Gupta works in varied research areas including rare disease therapeutics and hereditary disorders. Dr. Gupta emphasized on the value of re-purposing. He showed concern stating that *'most of the nanoparticles don't get translated even if they have potential'*. He explained in depth cystic fibrosis from symptoms to mechanism and all the way to nano-particular treatment. However, Dr. Gupta highlighted the challenges associated with making nanoparticles in the laboratory to scalability and also stated hot melt extrusion as a solution to this challenge. He employed visuals in his presentation to enhance understanding the concepts.

Dr. Aliasger K. Salem, Associate Vice President for Research-University of Iowa, The Johns Hopkins University School of Medicine, Iowa City, Iowa, USA. Delivered his talk on Biodegradable particles for vaccine delivery. He has also shown how such particles-based carrier systems offer versatility because they can simultaneously co-deliver adjuvants with the antigens to enhance APC activation and maturation. CpG motif from plasmid DNA was inserted and acts as a strong adjuvant antigen when co-delivered by gene on multicomponents nanorods those results in potent antigen-specific immune responses against the target antigen. So these antigen-coated biodegradable particles act as a versatile vaccine delivery system and also effective at co-delivering antigen and adjuvants.

Dr. Saurabh Arora, Managing Director, Auriga Research delivered his talk on SNEC30-Herbal nano medicine from concept to commercialization. Snec30 represents a convergence of traditional herbal medicine which is extracted from the turmeric and loaded into a soft gelatine capsule by using self-nano emulsifying nanotechnology. This Snec30 nanomedicine shown promises innovative solutions for various medical challenges as well as overcome the limitations like solubility, stability and enhancing their bioavailability and therapeutic efficacy. This lecture highlighted how this transformative product embodies the synergy between ancient wisdom and modern science, offering a glimpse into the future of healthcare as well as offers a holistic approach to healing, addressing health concerns with precision and efficiency.

Dr. Gaurav Kaithwas started the lecture with a brief overview of the basics of cancer focusing upon the etiology and the pathogenesis of cancer, the current treatment options available with their challenges. He concluded that if the challenges of the development and delivery of siRNA can be confronted, the RNAi technology can be used to target genes involved with hereditary diseases, cancer, viral diseases, diabetes, etc. for therapeutic interventions.

A total of 30 oral papers and 60 poster papers were shortlisted for oral presentation and a few of them were selected for award.

 SS-3-OP and PP.jpg

The conference culminated with the valedictory session and was graced by the presence of the Director, Council of Science and Technology, Uttar Pradesh. Certificates and awards were given to the winners among the delegates.

 Valedictory.jpg

Prof. (Dr.) Juber Akhtar,
Head,

Department of Pharmacy.

Prof. (Dr.) Syed. Misbahul Hasan,
Dean,
Faculty of Pharmacy.

--

Mr. Imran A. Siddiqui,
Faculty of Pharmacy,
Integral University,
Lucknow.