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Press Release

## JMI hosts International Symposium on 'Phage Therapy: A New Paradigm in Bacterial Infection Treatment'

The Multidisciplinary Centre for Advanced Research & Studies (MCARS) at Jamia Millia Islamia (JMI) organized a one-day international symposium on October 18, 2024 titled "Phage Therapy: A New Paradigm in Bacterial Infection Treatment." This event brought together leading experts and researchers to explore the promising potential of phage therapy in combating bacterial infections, particularly in light of rising antimicrobial resistance (AMR).

The symposium commenced with an inaugural session featuring a welcome address by Prof. Mohd Husain, Director of MCARS. He emphasized the centre's significant research achievements and its pivotal role in advancing scientific explorations. Following him, Prof. Mohd Zahid Ashraf, Dean of the Faculty of Life Sciences, highlighted Jamia Millia Islamia's esteemed status as the third-best university in the country. The officiating Vice Chancellor of the University, Prof. Mohd Shakeel, expressed confidence that "this event will foster productive dialogue, inspiring new ideas and paving the way for future collaborations in this promising area." The Registrar, M. Nasim Haider, commended the organizing team for assembling this impactful symposium, noting its potential to leave a lasting mark on the scientific community.

In the first session, Prof. Martha Clokie from the University of Leicester, UK delivered a keynote lecture. Her talk, "Antimicrobial Resistance – Is Phage Therapy the Answer?" provided an overview and advancements in phage therapy and successful applications in the UK, particularly in poultry and fisheries. Prof. Asad U. Khan from Aligarh Muslim University addressed the critical issue of multidrug-resistant (MDR) bacteria, referring to it as a "silent pandemic" and discussed the challenges faced in combating it. Prof. Urmi Bajpai from Acharya Narendra Dev College, Delhi University, presented on "Phage Therapeutics with a One Health Lens" discussing the development of phage libraries and cocktails to target antibiotic-resistant infections, showcasing the MTb phage library created by her lab.

The second session was chaired by Prof. B. K. Thelma from UDSC and featured keynote speaker Prof. Thomas Sicheritz-Pontén from the University of Copenhagen, Denmark. His lecture on "Computational Phage Therapy" explored how bioinformatics can

enhance phage discovery and therapeutic applications, emphasizing the potential for developing tailored phage cocktails.

Dr. Kriti Sikri from the Indian Council of Medical Research presented ICMR's initiatives to tackle AMR, highlighting the strategic importance of phage therapy in India. She discussed the limitations and challenges of implementing phage therapy while underscoring ICMR policies aimed at supporting this innovative approach. Dr. Ashwani Chauhan shared insights on isolating phages from natural sources, demonstrating their effectiveness against *Klebsiella pneumoniae*, a significant cause of hospital-acquired infections. Sani Sharif Usman presented findings on lytic bacteriophages isolated from wastewater for sustainable biocontrol applications.

The symposium concluded with an engaging panel discussion featuring Dr. Rohit Kumar, Dr. Rushika Saksena from Vardhman Mahavir Medical College, SJH and Dr. Mayank Gangwar from ICMR, along with other speakers. They addressed the AMR challenges faced by ICU patients and discussed their collaborative project with Dr. Joshi to establish a phage library targeting MDR strains. Prof. Clokie and Prof. Sicheritz-Pontén praised ICMR's efforts, particularly the initiative to create a phage library using isolates from MDR-infected patients, recognizing its potential to identify the most biocompatible phages for therapeutic use.

Students and faculty from JMI and beyond participated with enthusiasm and engaged with speakers during break and poster sessions. This symposium provided a valuable platform for discussing the feasibility of phage therapy in clinical settings as a complementary treatment alongside antibiotics. It highlighted the active participation of industry stakeholders in establishing high-quality phage libraries and developing standardized procedures for phage isolation and characterization. The discussions also paved the way for preclinical and clinical trials, reinforcing the urgent need for innovative strategies in the fight against antibiotic resistance.

Dr. Mohan C. Joshi, the organizing secretary, expressed gratitude to all speakers and attendees for their contributions. He acknowledged the support of the Vice Chancellor, Registrar, Dean, and Director of MCARS in making this event a success. Dr. Joshi extended special thanks to Prof. Mohd Husain for his leadership and commitment to advancing scientific discourse. He also appreciated the efforts of student organizers, including Amir Faraz, Nuha Abeer Khan, Naima Syed, Hamna Syed, Sidra, and Priyal.

Public Relations Office Jamia Millia Islamia

















