

Report on Guest Lecture "Cutting-Edge Perspectives on Dermal Drug Delivery and Cosmeceuticals" Organized by Department of Pharmacy

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Fri, May 30, 2025 at 9:34 AM

A report on Guest Lecture
(10th May, 2025)
Organized by:
Department of Pharmacy
Integral University, Lucknow

A guest lecture was held at the **Department of Pharmacy, Integral University**, delivered by the distinguished **Prof. Dr. Mohammed Aqil**, Department of Pharmaceutics, School of Pharmaceutical Education and Research, Jamia Hamdard. The session began with a warm welcome and an introduction given by the **Prof. Syed Misbahul Hasan, Dean , Faculty of Pharmacy, Integral University**, who highlighted Dr. Aqil's academic achievements and his invaluable contributions to the advancement of pharmaceutics, particularly in dermal drug delivery systems.

In his lecture, Prof. Dr. Aqil provided an in-depth exploration of the subject of **dermal drug delivery**, engaging the audience with his expertise and practical insights. He discussed the development and application of transdermal patches, elaborating on their design, mechanism of action, and therapeutic potential. He also delved into the growing field of nano formulations and their critical role in improving the effectiveness and precision of drug delivery through the skin. A significant portion of the talk focused on nanostructured lipid carriers (NLCs), highlighting their advantages over traditional carriers in enhancing drug stability and penetration.

Dr. Aqil also touched upon the Biopharmaceutical Classification System (BCS), explaining its relevance in the formulation of dermal products based on the solubility and permeability of drugs. He further explained the evolving landscape of cosmetics and cosmeceuticals, differentiating between the two, and stressing their importance in both the pharmaceutical and beauty industries. The concept of the Quality Target Product Profile (QTPP) was introduced as a key component in pharmaceutical development, ensuring that products meet desired quality and performance standards from the outset. Additionally, he emphasized the significance of pilot-scale technology, which bridges the gap between laboratory research and large-scale commercial production. Throughout the lecture, the importance of evaluating the benefit-to-risk ratio of dermal formulations was reiterated, underscoring the ethical responsibility of pharmaceutical professionals toward patient safety and efficacy.

A particularly memorable part of the session was when Dr. Aqil shared an inspiring anecdote about a school teacher who has been swimming across a river every day for the past 35 years to reach his school on time. This story was used to illustrate the power of dedication and discipline, and to emphasize the need for coordination between the head, heart, and hand in performing any meaningful work—a message that resonated deeply with the audience.

Following the lecture, there was a lively interactive session in which Ph.D. scholars and M.Pharm. students participated enthusiastically. Dr. Aqil responded to their questions with great patience and clarity, offering insights into future research directions and emerging trends in dermal drug delivery and pharmaceutical sciences as a whole. He also engaged with faculty members present during the session, addressing their queries and encouraging academic collaboration and innovation.

Hasan, who expressed his appreciation for Dr. Aqil's visit and for sharing his vast knowledge and experience with the academic community. The topics covered during the lecture were not only scientifically enriching but also deeply aligned with several of the United Nations Sustainable Development Goals (SDGs), particularly SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 9 (Industry, Innovation and Infrastructure), and SDG 17 (Partnerships for the Goals). These connections underscore the broader impact of such academic engagements in promoting sustainable, inclusive, and forward-thinking pharmaceutical education and research.





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