
Report on Guest Lecture on the topic "Molecular Targets for Assessing Cardiotoxicity in Murine Models" on Friday, September 6, 2024

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Tue, Sep 17, 2024 at 1:22 PM

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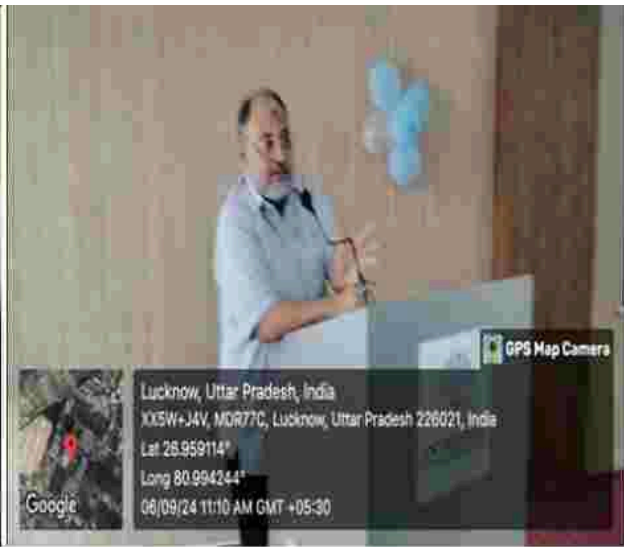
Faculty of Pharmacy, Integral University, Lucknow, organized a guest lecture on the topic "**Molecular Targets for Assessing Cardiotoxicity in Murine Models**" on Friday, September 6, 2024. The event started at 10:00AM in the Seminar Hall, Faculty of Pharmacy with the welcome address by Professor Juber Akhtar, Head of the Department. The lecture was delivered by **Professor Syed Ehteshamul Haque** from the Department of Pharmacology, School of Pharmaceutical Education and Research (SPER), Jamia Hamdard, New Delhi.

The lecture began with an overview of the pharmacological properties of cyclophosphamide and its metabolic activation within the biological system. He explained that Cyclophosphamide is metabolized into several toxic metabolites, including Acrolein, which contributes to oxidative stress in cardiac cells. This oxidative stress is a key factor in the development of cardiotoxicity, leading to mitochondrial dysfunction and cardiomyocyte damage.

The lecture was focused on Cyclophosphamide-induced cardiotoxicity in animals, detailing the biochemical and molecular pathways involved and highlighting the importance of various cardiotoxicity markers in murine models. The lecture also covered the molecular targets of cyclophosphamide, including various signalling pathways that mediate oxidative stress and inflammation. Professor Haque detailed the involvement of inflammatory cytokines, such as TNF- α and IL-6, and their contributions to cardiac damage.

Professor Haque outlined several approaches for evaluating cardiotoxicity, including biochemical estimation of inflammatory markers and oxidative stress, as well as histopathological examinations. He emphasized the importance of these methods for understanding cardiotoxicity and identifying potential interventions. He also suggested that identifying specific molecular markers could assist in detecting cardiac damage and developing cardioprotective agents. Overall, his lecture offered a thorough and engaging exploration of the biochemical pathways and molecular mechanisms underlying cyclophosphamide-induced cardiotoxicity.

The session was highly informative, offering valuable insights into cyclophosphamide-induced cardiotoxicity. The talk was attended by faculty members, M.Pharm. and Pharm.D. students, and research scholars. The lecture concluded with a question-and-answer session followed by discussion on the relevance of various parameters in assessing cardiotoxicity in murine models. Professor Tarique Mahmood Ansari conveyed his sincere appreciation to the speaker as well as to the faculty members and students for their participation.



Prof. Juber Akhtar,
Head,
Department of Pharmacy

Prof. Syed. Misbahul Hasan,
Dean,
Faculty of Pharmacy