Dr. Rakesh Dixit, VP, Research & Development, and Global Head, Biologics Safety Assessment, MedImmune (A member of AstraZeneca Group), recently sat down to speak about his upcoming keynote presentation, “Advancement in Antibody Drug Conjugates: A Step Closer to Creating Magic Bullets against Deadly Cancers,” taking place at the Engineering Next-Generation Antibody-Drug Conjugates conference on 31 October - 1 November 2016 as part of the 8th Annual PEGS Europe event in Lisbon, Portugal.

Dr. Dixit conducted extensive graduate and post-graduate training in Toxicology–Biochemistry with both Indian and US Institutions and is board certified in Toxicology from the American Board of Toxicology, Inc. since 1992. In December 1992, Rakesh joined the Department of Safety Assessment, Merck and Co., Inc, where he served in various management positions. During his ~14 years with Merck, Rakesh contributed to the successful filings of many blockbuster drugs. For about a year, Rakesh was associated with Johnson and Johnson PRD as Senior Director of Toxicology. In Aug 2006, Rakesh joined MedImmune, Inc. (an AstraZeneca Biologics company) to lead Global Biologics Safety Assessment, Experimental Pathology, and Laboratory Animal Medicine. In his current position, Rakesh is responsible for providing guidance on research and development of biological products, which comprises nonclinical toxicology/safety support for all AstraZeneca-MedImmune biologics products, including monoclonal antibodies and vaccines. Rakesh has published more than 60 papers in renowned international journals and has given over 100 invited lectures/presentations/workshops in national and international meetings.

**SPEAKER Q&A**

**Q:** What are the “5 rights” of ADCs?

The 5 Rs of ADCs: The right target, the right antibody, the right linker, the right warhead and the right patients

**Q:** How is it possible to improve and maximize the therapeutic effectiveness of ADCs?

The therapeutic effectiveness of ADCs can be greatly enhanced by increasing the targeted delivery of the cytotoxic warhead to targeted tumors and decreasing both on and off-target toxicities that will improve therapeutic effectiveness of the ADCs at tolerated doses.

**Q:** What are recent developments in PBD-based ADCs?

- New highly potent DNA damaging cytotoxic warheads such as PBDs
- Better linkers with site-specific conjugation that improves the serum stability and provides desirable pharmacokinetics
- Target selection and antibody optimization

**Q:** How is personalized medicine affecting clinical ADC development?

- Given the poor tolerability and toxicities of potent ADCS, it is imperative that only the right patients receive the ADCs
- Patient selection based on the expression of the target on right tumors is one critical component of the personalized medicine
- Early biomarkers and surrogate endpoints of efficacy and safety are critical in clinical development of ADCs

**Q:** What are you most looking forward to at the PEGS Europe event?

- The most recent development in ADCs, including targets, linkers and warheads
- Immunotherapy advancement
- Early biomarkers and surrogate endpoints of efficacy and safety are critical in clinical development of ADCs