Nutraceuticals as Pharmaceuticals - A New Therapeutic Approach: Delivery and Dosage Technologies

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Abstract (300-word limit)

Pharmaceutical science is driven by constant innovations in discovery and development of new drugs, as well as in design, development, clinical evaluation, and manufacturing of new dosage forms and administration routes. Also, pharmaceutical industry follows a strict compliance to stringent regulations and quality systems in manufacturing and marketing of prescription drugs.

Approaching nutraceuticals through this pharmaceutical path, thus means application of robust pharmaceutical science at all the stages of the product life cycle, such as use of innovative approaches in product design and development, evaluation of the safety and efficacy through clinical research, and application of the stringent manufacturing standards, before the product can see the light of the market and win the confidence of the consumers.

Applying the design and development concept of the pharmaceutical drugs, Novel Drug Delivery Systems or NDDS, are the innovative technologies, which have great scope of application to the nutraceutical products. When applied to the oral preparations, NDDS aim at making the product more palatable, enhancing the convenience of administration, and improving the efficacy through faster and higher absorption and enhanced therapeutic effect.

However, application of the complex NDDS to the nutraceutical supplements and ingredients is far more challenging as compared to the pharmaceutical drugs. This is because, unlike the pharmaceutical drugs, determination of the pharmacokinetic parameters such as absorption and bioavailability for herbal or nutraceutical ingredients is a difficult task, due to difficulties in the isolation and determination of multiple herbal actives present in a single herb, or isolation and estimation of the natural ingredient consumed through the supplement from that which is present naturally in the body or enters the body via food.

Despite these difficulties and limitations, the successful application of NDDS technologies to the nutraceuticals has resulted in development of few niche products, which are proving beneficial to the patients and consumers.



Biography (150 word limit)

Dr Shefali Thanawala has her basic expertise in Ayurveda, and has vast experience in the pharmaceutical industry, with which she is associated since last 18 years. Currently she is associated with Inventia Healthcare Pvt Ltd., India in the capacity of DGM-Medical Affairs. She has rich proficiency in translating the wisdom of Ayurveda and natural products in today's context, and she is responsible for design and conceptualization of nutraceutical and natural products by identification of the therapeutic actives in these herbs, as well as evaluation of the developed products through clinical research activities. She has been invited as speaker in several conferences to share her views on the successful connect between the pharmaceutical industry with Ayurveda and nutraceuticals. She has authored several articles on these topics which are regularly published in pharmaceutical industry magazines.

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