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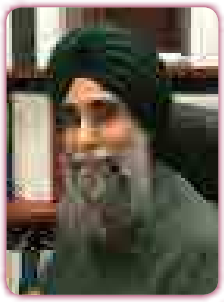

Mewa Singh

Meda Biotech LLC, USA

Hybrid-nano engineering™ for paclitaxel

Over the past decade, there is a common problem that the number of drug candidates with solubility problems has steadily increased as a result of using combinatory chemistry and high-throughput screening in drug discovery. Presently, 70% of new entities (therapies and drugs) are poorly soluble and 40% of existing immediate-release oral drugs is considered practically insoluble in water. In the pursuit to achieve optimal concentration, this often leads to dose escalation. Dose escalation is often undesirable for the following reasons: Increases toxicity, difficulty in designing formulation, manufacturing and treatment costs increase dramatically, and use of toxic carriers and solubilizing agents is increased. Paclitaxel is one of them, even after so many years the delivery system is still compromised of: 1. $4.5 Billion market for Taxol in 2013; 2. Market is growing. 3. Taxol patent has expired. 4. Nano-technology has been touted as the next new thing for several years but has not been perfected for Taxol yet, until now. 5. We are not using "me-too technology" like other Nano-medicine formulations. 6. Patents were filed in 2012 and 2013. 7. Abraxane is a very successful drug on the market currently (run rate > $1B) using nano technology, not really but micronized. Meda biotech has developed a nano formulation for this molecule. Paclitaxel is attached with curcumin which is a safe natural molecule from turmeric natural anti-inflammatory molecule. Curcumin is also known for controlling many types of cancer cells. The end formulation is nano formulation and has better cytotoxicity than abraxane. It has better stability in acidic and alkaline environment. Our double edge approach with improved solubility should be a winner.

Biography

Mewa Singh heads research and product development at Meda Biotech LLC. With over 24 years of experience in the field of biopharmaceuticals, he provides expertise in Biotechnology, product development and the pharmaceuticals business market. He has successfully launched products for diagnostics, vaccines, nutraceutical and nanomedicines. He has applied five patents and is founder of two biotech start-ups (Meda Biotech LLC and Nano Biotech (P) Ltd. He has performed at administrative and senior management positions which included Director of R&D, Chief Scientific Officer, and COO positions. He holds MS in Biochemistry, MPhil in Biochemistry, Microbiology and Immunology, and PhD in Microbiology and Immunology. Developing over 160 nanomedicines for pharmaceuticals, nutraceuticals and agrochemicals, he has been working with the strength of conviction that a new concept of Hybrid drugs is the solubility solution for insoluble drugs. His discovery of Hybrid-Nanoengineering™ could have real significant therapeutic value for patients. This belief gave birth to a process of continual discovery and innovation, allowing him to develop many innovative medicines. Since 2002, his company Meda Biotech has been working to commercialize a technology that could make the treatment of cancer, pain and inflammation, more effective and less harmful to patients.

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