

**DBT-MSUB-ILSPARE Sponsored “NENOCONSTRUCTS” Workshop**  
**M S University, Vadodara (26 to 30 March 2012)**

**Report**

**INAUGURAL FUNCTION**

**Prof. Yogesh Sing** (Honourable Vice Chancellor, M S University, Vadodara) was remain president and **Prof. Prahlad Ghosh** (Department of Biochemistry, University of Delhi) delivered the keynote address. Prof. A N Mishra, Prof. K K Sawant and Prof. M R Yadav of M S University, Vadodara remain present in entire function.



**Lectures by Eminent Resource Person**

**Prof. Prahlad Ghosh** delivered his lecture on “Engineering the structure of liposomes for polypeptide toxin and delivery for treatment of infectious and cancerous diseases”. He focus on the toxicity and failure of anti cancer moiety in conventional drug delivery system and how such drawbacks can eliminated using incorporation of various anticancer drug in liposome. He is also the founder of the first liposomal product – FUNGISOM introduced in INDIAN market by Lifecare Ltd.

**DR. Ajay Khopade** ( Sr. General Manager- R & D, Formulation Development Dept., Sun Pharmaceutical Advanced Research Centre, Vadodara) delivered his speech on “ Bioactive Nanoconstructs: Self assembly through functional complementarity Nanotecton”. He introduced the newer drug delivery based on Nanotecton- A registered technology of Sun Pharma., Vadodara. He focused on self incorporation of drug molecule with suitable surfactants and polymers.

**Prof. R S R Murthy** (I. S. F. College of Pharmacy, Moga) delivered his talk on “Pegylated Nanoconstructs”. He shares his view on Pegylation technology for designing nanoparticles and liposome having improved stability.

**Prof. K K Sing** (C. U. Shah College of Pharmacy, S. N. D. T., Mumbai) delivered her lecture on “Lipid Nanoparticle on topical delivery”. She discussed about liposome and its usefulness in topical drug delivery system for various skin diseases with improved efficiency.

**DR. Amulya Panda** (Scientist VII, National Institute of Immunology, Delhi) delivered lecture on “Application of nanotechnology in Vaccine efficacy”. His speech was directed towards improvement and stability of vaccine using nanotechnology.



### **A Practical training on Design and Development of Nanoparticles and liposome**

After having lunch, Ms Rakhi, Mr. Mohan, Mr. Abhinesh and Mr. Nirav (Ph. D Scholar) gave demonstration on characterization of liposome and Nanoparticles. (particle Size, Zeta Potential, Percent Entrapment Efficiency). All participants were made familiar with liposomal technology. The discussion between participants and demonstrators was from introduction to design of liposome and Nanoparticle. Batches of liposomal product and nanoparticles were prepared and evaluated using sophisticated instruments like Malvern Zetasizer, Probe sonicator and High speed centrifuge were also. The practical training given to us was very informative in the field of lipo-nano drug delivery system. After completion of demonstration same batches are prepared and evaluated by all participants which was very useful to enhance the knowledge and Making good hand over instruments as well as in designing liposomes and nanoparticles.

### **Industrial Visit**

A visit was arranged at **Sun Pharma Advanced Research Centre, Vadodara**. During visit sophisticated instruments like NMR, TEM, SEM, Different Coater, Zetasizer and many others are demonstrated with their respective use. The head of each department also delivered a brief introduction about their recent research work.

### **Conclusion**

The workshop was very informative on present theme of Nenoconstructs. All resource persons delivered very informative talk on newer technologies on theme. The recourse person from budding Pharma industries differentiated the academic research and industrial output. The practical training given is very helpful to guide P. G. Students and also to make more knowledgeable by interacting with them on such techniques.

### **DR. Mukesh R Patel**

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