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## SCHOOL OF PHARMACY

FACULTY OF MEDICINE THE CHINESE UNIVERSITY OF HONG KONG

# PHARMACY SEMINAR

### "Investigations On Sustained Release Eudragit® RLPO Matrices Prepared By Direct Compression" Presented by Dr. Lipika Chatterjee, Ph.D.

Department of Pharmaceutical Technology, School of Pharmacy, International Medical University, Kuala Lumpur, Malaysia



2 Aug, 2017G01, Lo Kwee-Seong Integrated(Wednesday)Biomedical Sciences Building,11:00am - 12:00nnArea 39, CUHK

#### Abstract

Drug delivery systems that provide drug release for an extended period of time are termed sustained release systems. Sustained drug release from tablets can be achieved by either coating the tablet with a polymer or entrapping the drug in a polymer matrix network. Since the same polymers are used as film and matrix formers the coalescence mechanisms (fusion of polymer particles) in both cases are considered to be similar. However, matrix tablets being a heterogeneous mix of drug, polymer and other excipients are more complex than the homogenous films. The purpose of the research was to understand the coalescence mechanism in matrix formation and identification of the variables influencing coalescence. It was found that stresses locked in tablets made from excipients with different mechanical properties (brittle/plastic) do not drive coalescence in matrix formation. Particle size of the plastic excipient, polymer concentration and thermal treatment are important variables for matrix formation.

#### **Research Interests:**

- Formulation Development: Sustained release pharmaceutical formulations for oral, topical and parenteral drug delivery.
- Health Professional Education: Educational delivery tools, Experiential Learning, Education evaluation and assessment.

### **Biosketch**

Dr Lipika Chatterjee obtained her Bachelor of Pharmacy and Masters in Business Administration with a specialization in Marketing from University of Pune, India and a Post Graduate Certificate and PhD degree from University of Otago, New Zealand. After graduating with her PhD in 2010, she joined the research and development team of Bayer New Zealand (Animal Health Division) and was based at the University of Otago for three years. She was involved in projects developing, manufacturing, and characterizing injectable formulations for the treatment of bovine mastitis.

Dr Chatterjee has been involved in pharmacy academia as a Lecturer at the Department of Pharmaceutical Technology, School of Pharmacy at International Medical University (IMU), Kuala Lumpur for the past three years. She obtained the Fundamentals of Teaching and Learning License and e learning License at International Medical University (IMU), Kuala Lumpur. She has recently obtained a Certificate in Coaching and Communications from the London College of Clinical Hypnosis in Malaysia to enhance her ability to work with students. In a non-academic role, she has led community service projects undertaken by the school of pharmacy and was also the advisor for the Eco friend's students club. Dr Chatterjee is very passionate about working with students and believes that students can benefit immensely from the knowledge and skills that she has developed working in academia and the industry over the years.









